Reshoring decision-making and implementation: A behavioural perspective

Abstract

Over the last decade, reshoring has increasingly attracted the attention of practitioners, policymakers and scholars. While a significant number of articles have analysed drivers, locations and activities involved in reshoring decisions, the decision-making and implementation processes (i.e., “how to reshore”) still lack empirical analyses. In addition, the few existing frameworks do not include the behavioural aspects characterizing human decision-making, that have proved to be relevant in the case of offshoring and reshoring decisions.

Through a multiple case study approach, this paper seeks to address this gap by shedding light on the phases of the two aforementioned processes, the information collected, the stakeholders involved, and the criticalities faced. Based on the empirical analyses and the use of the behavioural perspective, we develop four original propositions that might guide both future research and management practice in this field. In addition, the results from the cases provide a reference for companies willing to implement a reshoring decision and in search for past experiences on which to build on.

Keywords: Backshoring; Reshoring; Operations Management; Supply Chain Management; Bounded-rationality; Process
1. Introduction

Starting from the ‘80s, firms tended to concentrate high value-added activities (such as research and development, marketing and post-sales services) in developed countries, and to move low value-added activities, such as labour intensive manufacturing processes, to developing countries (Gereffi and Fernandez-Stark, 2016). This phenomenon is known in Economics and International Business literature as “Smiling Curve”, a concept first introduced in 1996 by the founder and president of Acer, who observed that the share of value added was shifting from the production stages to the pre- and post-production ones (Shih, 1996). The direct consequence of this trend is the movement of the lowest value-added stages towards developing countries, thus creating the so called global value chains (Baldwin et al., 2014). At the firm level, this phenomenon gives rise to the offshoring trend, i.e., companies moving their (not core) activities to foreign countries, seeking for higher efficiency, specific resources, new markets and/or strategic assets (Dunning, 1988). However, the growing awareness of the hidden costs of offshoring (e.g., longer lead times, transportation costs, intellectual property losses, and cultural differences) and of the benefits generated by the control of the production stages (e.g., industrial commons) have recently led many companies to re-think their international value chains in terms of location and sometimes to reshore their production activities (i.e., bring them back home).

The reshoring phenomenon has gained increasing attention in the last decade. After the global recession, governments have started to idealize reshoring as the panacea for unemployment issues. Press and consultancy companies followed this wave, by developing reports and studies on scale and potentialities of the phenomenon (Booth, 2013; PricewaterhouseCoopers, 2012; Sirkin et al., 2013). Academic literature has not pulled back from the opportunity to explore the new trend from different perspectives, contributing to increase the research interest on the topic (Barbieri et al., 2018; Di Mauro et al., 2018). After the first explorative articles, aimed at gaining an overview of the phenomenon and understanding whether it could be classified as a new global trend (Ellram et al., 2013; Kinkel, 2012), an urgent call to better define and characterize the phenomenon was launched by Gray et al. (2013). In fact, multiple terms have been used after the first article was published in 2009 (Kinkel and Maloca, 2009). However, “reshoring” has been acknowledged as the most common label both among academics and practitioners (Barbieri et al., 2018; Wiesmann et al., 2017a), and will therefore be used in this article. Despite the differences in terminology, some elements are shared across the recent literature on the reshoring definition (Fratocchi et al., 2014; Gray et al., 2013; Wiesmann et al., 2017a): i) it is a location decision; ii) it can involve a change in the ownership; iii) it is the reverse of the
offshoring decision, so it involves only previously offshored activities.

Moreover, this paper follows the assumption made by Fratocchi et al. (2014) that reshoring does not necessarily involve the complete closure of the company’s offshore activities, which could be reconverted to the production of different products or simply reduced in volume.

Generally, the literature has focused on motivations (drivers), locations (e.g., low costs or developed countries), activities (e.g., labour or capital intensive) and governance modes (Fratocchi et al., 2014; Wan et al., In Press). The reshoring decision-making and implementation processes are instead under researched (Wiesmann et al., 2017; Barbieri et al., 2018), and often included into the future research avenues suggested by scholars (Bals et al., 2016; Barbieri et al., 2018; Ketokivi et al., 2017; Stentoft et al., 2016; Wiesmann et al., 2017a). Barbieri et al. (2018) ranked these topics as one of the main priorities for reshoring research. In fact, little knowledge has been gained in previous research about how firms decide to reshore and how they implement this decision (the “how” question identified by Barbieri et al., 2018). Moreover, studying the two processes together can help in understanding which information is collected before and after the decision and to assess whether companies actually wait to take the decision until when they have complete and accurate information (Hartman et al., 2017).

Consequently, the primary goal of our paper is to shed light on how companies take reshoring decisions and implement them, by highlighting the main phases, the information collected, the actors/stakeholders involved, and the main criticalities faced in each phase. Accordingly, the first research question addressed in this research is the following:

**RQ1: How are the reshoring decision-making and implementation processes structured?**

Moreover, the existing frameworks usually assume a rational and sequential approach to reshoring decisions and do not include the behavioural aspects characterizing human decision-making that have proved to be relevant, not only in the context of the Operations Management (Bendoly et al., 2006; Gino and Pisano, 2008; Mantel et al., 2006), but also in the specific case of reshoring (Gray et al., 2017). In particular, considering behavioural aspects in the case of reshoring is helpful in explaining even reshoring decision that might seem illogical when interpreted with the classical theories used to frame manufacturing relocation decisions (Gray et al., 2017; Gylling et al., 2015; Di Mauro et al., 2018). Hence, in this paper we put attention to the behavioural aspects that might drive the reshoring decision and the related process, and our second research question is the following:

**RQ2: How behavioural aspects affect the reshoring decision-making process?**

In order to answer to the aforementioned research questions, we rely on a multiple-case study, that allowed us to derive insights from four cases in the textile-clothing-leather-footwear
(TCLF) industry. Particularly, the empirical results shed light on the critical points to which researchers, managers and policy makers should pay attention when considering reshoring decision-making and implementation.

The remainder of this paper is structured as follows. First, we present the background and research framework. Second, we explain and justify the adopted methodology. Then, we present and discuss the main results. Finally, conclusions, limitations and future research avenues close the paper.

2. Background and research framework

In our view, two streams of Operations Management (OM) literature are relevant for our research. The first one is focused on reshoring and provide evidence on drivers and motivations of the phenomenon as well as on decision-making and implementation processes (despite literature on these two last topics is scant). The second one is instead focused on behavioural decision-making and sheds light on how the decision-making works in a context characterized by bounded rationality and not fully available information.

In this section we summarize the two above mentioned streams of studies and we develop our conceptual framework.

2.1 Reshoring

The most recent systematic literature reviews on reshoring (Barbieri et al. 2018; Wiesmann et al., 2017) acknowledged that a significant part of the literature have so far focused on the drivers or motivations of reshoring. Initially, the researches contributed to outline a “dual view” of reshoring (Barbieri et al., 2018), by interpreting it either as a correction of a managerial mistake (Grandinetti and Tabacco, 2015; Gray et al., 2013; Kinkel and Maloca, 2009) or as a strategic decision to face exogenous or endogenous changes (Fratocchi et al., 2015; Gylling et al., 2015; Martínez-Mora and Merino, 2014). More recent studies proposed instead a wider set of reshoring motivations/drivers and classified them. To this regard, Barbieri et al. (2018) recognized that the literature has followed two main approaches to classify drivers: the first is aimed at grouping motivations in homogeneous categories (e.g., Stentoft et al., 2016, Zhai et al., 2016; Wiesmann et al., 2017), the second is instead orientated to the use of theory-driven classification criteria grounded on Dunning’s eclectic paradigm or on Transaction Cost Economics and Organizational Buying Behaviour (e.g., Ancarani et al., 2015; Bals et al., 2016; Fratocchi et al., 2016; Foerstl et al., 2016).
Barbieri et al. (2018) proposed instead a classification that tries to take into account all the previously described approaches. They first separated drivers between strategic decisions and managerial mistakes; then they further divided strategic decision drivers into internal and external environment; and finally proposed a homogeneity-wise classification to reach the lowest level of classification. All the above mentioned studies contribute to demonstrate the heterogeneity of factors driving the reshoring decisions (Di Mauro et al., 2018) and therefore, the intrinsic complexity that decision-makers have to face (Gray et al., 2017).

The identification of the drivers represents the first step towards a better understanding of the reshoring decision-making. In fact, these factors should be taken into account by companies during the decision-making process and monitored during the implementation. After having gained a widespread understanding of the drivers (the “Why” question according to Barbieri et al., 2018), the literature is therefore progressively evolving towards understanding “How” these drivers are considered, i.e. “How” companies decide and implement the decision.

Fratocchi et al. (2014) made a first attempt to conceptualize the manufacturing internationalization as a multi-step process, which considers the dynamic continuum between offshoring and reshoring. Particularly, in the first step a firm may decide to internationalize part of its activities in a foreign country either in its home region (nearshoring) or outside (offshoring). In the second step, the company may decide to modify its decision by moving the previously internationalized activities either in a different country outside its home region (further offshoring), in a different country in its home region (nearshoring) or to bring it back to the home country (reshoring). These decisions can be revised/modified several times, thus indicating a dynamic nature of the internationalization strategy (Fratocchi et al., 2014).

More recently, Joubioux and Vanpoucke (2016) developed, and empirically refined through a multiple-case study in the aeronautical industry, a conceptual framework to guide location decision-making. This framework encompasses the initial offshoring decision, the reconsideration of this decision and the “new” decision. While the initial offshoring decision is analysed in detail within the framework (by considering the firm’s strategy, the analysis of risk, opportunity and constraints, and the entry mode), the reconsideration and “new” decision – i.e., reshoring in our case – is viewed as a change in the decision factors without any further in-depth analysis.

Bals et al. (2016) proposed instead a reshoring decision-making and implementation process framework, with the main objective to frame future research avenues. The framework – drawn by the authors from previous literature on outsourcing and offshoring without an empirical validation – encompasses a linear process consisting of eight phases, as reported in Table 1.
Reasonably, what separates the decision-making from the implementation is the decision. To the best of our knowledge, this article is the only one taking into account both decision-making and implementation, thus suggesting their very strong interplay.

Table 1 – Phases of the decision-making and implementation processes (Bals et al., 2016)

<table>
<thead>
<tr>
<th>Decision-making</th>
<th>Implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Determine the current boundary of the firm</td>
<td>6. Disintegration at former source/location</td>
</tr>
<tr>
<td>2. Capability and performance analysis of current state</td>
<td>7. Relocation to new source/location</td>
</tr>
<tr>
<td>3. Information gathering on alternatives (including own capabilities)</td>
<td>8. Reintegration to connect with other value creation activities</td>
</tr>
<tr>
<td>4. Data analysis and solution development</td>
<td></td>
</tr>
<tr>
<td>5. Shoring sourcing decision</td>
<td></td>
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</tbody>
</table>

Finally, Gray et al. (2017) developed a model of offshoring-reshoring decisions based on empirical evidences from several SMEs. While the previous mentioned frameworks theorized the presence of a decision-making (and in some cases of an implementation) process made of well-defined phases, Gray et al. (2017) conveyed a sense of intrinsic complexity in the decision-making process; in fact, they develop a system dynamics model that allow the simulation of complex and dynamic behaviour, capturing also loops in the process and time delays. The authors suggested that the complete analysis of all costs and benefits of offshoring versus reshoring would not help companies in their decision-making processes, since it would just slow down the process (given the uncertainty characterizing the location decisions and the difficulty in developing accurate forecasts). They rather strived for the “ecological rationality” concept (Gigerenzer, 2008) and advise using tools whose analysis level would consider the complexity and uncertainty of the decisions.

2.2 Behavioural decision-making in OM

Many traditional theoretical models in the OM field are based on the assumption that decisions are made in a rational way, i.e., assume a rational decision-making process (Gino and Pisano, 2008). A rational decision-making is characterized by the analysis of comprehensive information, the development of alternative actions and the selection of the one that optimizes a specific utility model (Eisenhardt and Zbaracki, 1992; Mantel et al., 2006; March and Simon, 1958). This kind of process implies an active decision-making, which is “intentional and
conscious, involving a much greater degree of information search and analysis” (Dutton, 1993, p. 342).

After Simon’s (1955) pioneering work, scholars have started to realize that managerial decision-making does not always follow the rational model rules (Busenits and Barney, 1997). In fact, decisions are made by humans, who are “bounded” in their ability to acquire and process information (Mantel et al., 2006) and prone to achieve satisfaction of constraints rather than objectives optimization (Gigerenzer and Brighton, 2009). As a consequence, decision-makers tend to be biased and use simplified heuristics when dealing with complex problems (Mantel et al., 2006; Tversky and Kahneman, 1974). Biases and heuristics are “decision rules, cognitive, mechanisms, and subjective opinions people use to assist in making decisions” (Busenits and Barney, 1997, p. 12), as such they are applied in automatic, bounded-rational decision-making (Dutton, 1993).

As one could imagine, a rational decision-making involves a sequence of phases (e.g. identification, development and selection). Instead, in a bounded-rational decision-making process, the same phases do not display the same sequential relationship (Eisenhardt and Zbaracki, 1992). As an example, Mintzberg et al. (1976) show that decisions follow multiple routines in each phase and that phases and routines might repeat without adhering to a specific sequence. Instead, Gino and Pisano (2008) identify four steps that are part of the decision-making process, independently from the specific OM context considered: (1) Acquisition of information; (2) Processing of information; (3) Outcome; (4) Information received through feedback.

Multiple studies have investigated the suitability of the two types of decision-making, finding evidence of the relevant variables to consider. Among others, the mostly cited variables include: complexity (Busenits and Barney, 1997; Eisenhardt and Zbaracki, 1992; Gino and Pisano, 2008); risk and uncertainty (Busenits and Barney, 1997; Li et al., 2014; Mantel et al., 2006); information availability (Gigerenzer and Brighton, 2009; Gray et al., 2017); and personal traits of the decision-makers (e.g. experience, issue familiarity and relevance to the self, role in the organization) (Busenits and Barney, 1997; Dutton, 1993). These studies found evidence that in an environment characterized by high complexity, high uncertainty or information paucity, less rationality is not only required, but even preferable. Similarly, a decision-maker that is either experienced, strongly connected to the decision under evaluation or showing familiarity with the decision will be prone to be less rational (Dutton, 1993). In addition, Busenits and Barney (1997) propose that entrepreneurs, more used to face complex and uncertain situations, are less rational in making decisions than managers.
Unexpectedly, even with its limitations, bounded-rational decision-making have proved to be effective and efficient, given that it is less time-consuming and leads to higher accuracy in uncertain and complex environments (Busenits and Barney, 1997; Gigerenzer and Brighton, 2009; Gray et al., 2017). Nevertheless, organizations need to become aware of the biases that can be introduced in this kind of decision-making and put in place specific actions to overcome them (Eisenhardt and Zbaracki, 1992; Gino and Pisano, 2008; Mantel et al., 2006).

Acknowledging the impact of human behaviour on decision-making, many fields have started to introduce behavioural considerations in their theories (e.g. economics, finance, marketing) (Gino and Pisano, 2008). Only recently, OM started to follow the lead of the other fields (Bendoly et al., 2006; Gino and Pisano, 2008; Mantel et al., 2006). In fact, many OM contexts, characterized by complexity and uncertainty, face the risk to be affected by decision-making biases (Gino and Pisano, 2008). Among others, decisions connected to the Supply Chain (e.g. make or buy, manufacturing location decisions) potentially have all the characteristics underlying a bounded-rational decision-making (Mantel et al., 2006). Also in the context of reshoring, being such decision usually characterized by high complexity and uncertainty (Gray et al., 2017; Wiesmann et al., 2017b), various researchers have claimed that decision-making can show bounded-rational features (e.g. use of heuristic, emotional attachment, personal feelings and mood influence) (Gray et al., 2017; Gylling et al., 2015; Di Mauro et al., 2018).

2.3 Literature gaps and conceptual framework

With the purpose of guiding our research, we developed an initial conceptual framework, based on the literature presented in this section (see Figure 1). The framework helps in visualizing the decision-making and implementation processes and their building blocks. In particular, we retrieve from reshoring literature the identification of the three steps in the internationalization process (Fratocchi et al., 2014). First, the initial location decision should be identified, given that it is an antecedent of the reshoring decision and might influence the perception of the decision-makers in the subsequent decisions (Bals et al., 2016; Kahneman and Lovallo, 2003; Mantel et al., 2006). Next, the decision-making takes place. Generally, the location decision-making involves multiple stages with many influencing factors that vary dynamically. Moreover, the uncertainty usually characterizing these decisions implies considerable expenses in terms of time and resources (Stentoft et al., 2018; Theyel et al., 2018). Finally, once the decision has been taken, the reshoring implementation process takes place. In conclusion, the approach taken by these studies assumes a linear process where the implementation process follows the decision-making one (Bals et al., 2016; Barbieri et al., 2018).
On the contrary, the behavioural decision-making literature suggests an overlap between decision making and implementation processes along the following steps: acquisition of information, processing of information, outcome and information received through feedback (Gino and Pisano, 2008). According to Gino and Pisano (2008), these phases occur in all the different settings proper of OM (e.g. product development and R&D, project management, supply chain management, forecasting, inventory management, and management of information technology). The acquisition of information involves data gathering from different sources (e.g. market, competitors, experimentation, previous experience). Processing of information means the analysis of the collected data, many biases can affect the decision in this stage (e.g. overconfidence, inconsistency, use of heuristic). The outcome phase involves the act of making the final decision and implementing it. Finally the information received through feedback helps to build on the experience and to inform future decision-making processes (Gino and Pisano, 2008). As suggested by the literature on bounded-rational decision-making, the sub-phases are assumed to interact with each other (Eisenhardt and Zbaracki, 1992). Therefore, contrarily to what has been assumed by the reshoring literature, the behavioural decision-making literature questions the sequentiality of phases, leaving room for exploratory studies on this topic.

The conceptual framework depicted in Figure 1 attempts to bring together the two considered literature: the reshoring literature, with its traditional approach looking at the decision-making and implementation as sequential phases, and the behavioural decision-making literature, in which the phases proper of the decision-making, as well as the decision implementation, are overlapping and generating loops. In this study, we adopted the traditional approach, proper of the reshoring literature, in the data collection. Instead, we relied on the behavioural decision-making to argument and discuss the empirical evidences.
3 Methodology

Wiesmann et al. (2017) observed in their literature review a predominance of theoretical and conceptual papers on reshoring and argued that this is because reshoring is an emerging and still unexplored phenomenon. In addition, Barbieri et al. (2018) recommended relying on case studies to gain an in-depth understanding of the reshoring decision-making and implementation processes. We therefore decided to adopt a multiple case-study methodology. Case research can be used for exploration, theory building, theory testing and theory elaboration/refinement (Ketokivi and Choi, 2014). The primary purpose of our work is exploration, given that (1) extant literature on the topic is scant (see the literature review section) and (2) there is no established theoretical framework.

We adopted a theoretical sampling method and selected homogeneous cases in term of industry and reshoring country (Eisenhardt, 1989; Patton, 2002). Despite this approach might reduce the possibility to generalize findings, it ensures that variation is not caused by extraneous or confounding variables (e.g. Saunders et al., 2003).

Four cases were carried out in the TCLF industry in Italy (see Table 2). This industry was selected since it has been one of the most affected by globalization in the last decades and, consequently, by the reshoring phenomenon in more recent years (Di Mauro et al., 2018; Fratocchi et al., 2016). Moreover, this choice has been strategic, given that it allowed us to leverage on the results provided by Di Mauro et al. (2018), who studied motivations, governance modes and location choices of companies from the same industry and country.
Table 2 summarizes the main characteristics of the cases. Because a reshoring decision is often related to “intangible” drivers, such as the company image, respondents may be prone to highlight the successful aspects of the operation and describe the decision-making process as a very logical sequence of steps. To avoid this social desirability bias (Chung and Monroe, 2003), we ensured companies anonymity.

Table 2 - Summary of cases

<table>
<thead>
<tr>
<th>Case</th>
<th>Core business</th>
<th>Product/component object of the relocation</th>
<th>Turnover 2016 (mln €)</th>
<th>Employees 2016</th>
<th>Starting country → Final country</th>
<th>Relocation year</th>
<th>Governance mode (Offshoring→Reshoring)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Total look clothing</td>
<td>Seamless sweater</td>
<td>&gt;50</td>
<td>&gt;250 (Group)</td>
<td>Croatia → Italy</td>
<td>2016</td>
<td>Outsourcing→Insourcing</td>
</tr>
<tr>
<td>B</td>
<td>Zips fastener</td>
<td>High-end zip fasteners</td>
<td>2-10</td>
<td>10-50 (Italy) – 50-250 (China)</td>
<td>China → Italy</td>
<td>2010</td>
<td>Insourcing→Insourcing/Outsourcing</td>
</tr>
<tr>
<td>C</td>
<td>Outerwear</td>
<td>High technical content outerwear</td>
<td>10-50</td>
<td>10-50 (Italy) – &gt;250 (Romania)</td>
<td>Romania → Italy</td>
<td>2014</td>
<td>Insourcing→Insourcing</td>
</tr>
<tr>
<td>D</td>
<td>Dyeing</td>
<td>Dyeing of basic colors yarns</td>
<td>2-10</td>
<td>50-250</td>
<td>Hungary→ Italy</td>
<td>2011</td>
<td>Insourcing→Insourcing/Outsourcing</td>
</tr>
</tbody>
</table>

Considering that decision-making and implementation processes usually last various months (sometimes years), we adopted a retrospective longitudinal approach. Various strategies were adopted to minimize the two main issues of retrospective research: lack of memory and post-rationalization (Voss et al., 2016). The first problem is related to the impossibility to recall important events that happened a long time before; to overcome this problem the selection of the interviewees and the assessment of their knowledge about the events have been of fundamental importance (Voss et al., 2016). Post-rationalization concerns a change in the interpretation of events over time; consequently, we triangulated data from secondary sources (Voss et al., 2016).

The data collection involved semi-structured interviews (the interview protocol is reported in Appendix) and multiple researchers in order to achieve higher reliability. The coding process was also carried out by different researchers to ensure a robust and shared data reduction process (Miles and Huberman, 1994; Voss et al., 2016).

As suggested by Eisenhardt (1989), we first performed a within-case analysis, to become intimately familiar with each case without aiming at generalizing patterns among the cases; then, a cross-case analysis allowed us to generalize the conclusions drawn from the cases.
In order to avoid any confirmation bias (Nickerson, 1998), even if we had in mind an idea of decision-making and implementation processes as presented in the conceptual framework, we asked the respondents just to recall how the processes went and the decisions were taken. Similarly, we reported the results of the within case analysis with the same logic, in order to transparently present what the interviewees recalled.

The data collection and analysis were designed to guarantee construct validity, internal and external validity and reliability (Voss et al., 2002). Particularly, the construct validity was achieved through triangulation of data sources, as well as through the involvement of multiple researchers in all the steps of the research. Internal validity was ensured by following a pattern matching approach: the propositions were developed in an iterative way till theoretical saturation was reached. External validity was strengthened thanks to the multiple case method that allowed to compare results and evidences across cases. Finally, reliability was ensured by the transparency of the research process as well as by the development of a research protocol on which the semi-structured interviews were based (see Appendix).

4 Results

4.1 Within-case analysis

4.1.1 Case A

The company is headquartered in Northern Italy, where the high value-added activities are also carried out (e.g. human resources management, design, purchasing, sales, and production planning). Between 1990s and 2000s, the company delocalized its production activities first in Spain, then in France, Tunisia, and Eastern Europe. Starting from 2005, the company has started to outsource production activities to external suppliers as well as to a manufacturing company belonging to the same group. In 2016, company A decided to bring back some machineries from Croatia to Italy and start to produce again a specific product, a seamless sweater, there. The machineries were bought from the mentioned manufacturing company belonging to the same group of company A and partially updated with cutting edge technologies, thanks to the collaboration with a strategic machinery supplier. Moreover, all the raw materials (yarn) and accessories (e.g. zips, buttons) suppliers, selected for this product, are located in Italy, to ensure the achievement of a true “Made in Italy” product. The “Made in” effect was indeed one of the main drivers of the reshoring decision. Other drivers, according to the company’s Chief Operating Officer (COO), were the higher level of automation allowed by the new technology used, the development of innovative know-how, the higher service level towards the retailers,
the internal branding (towards the employees), and the proximity between production and
research and development (R&D). The main barriers were instead the labour cost, partially
compensated by the adoption of a higher automated technology, and the lack of some
competences in Italy, lost due to the extensive offshoring processes of the last decades.
Nowadays, company A has decided to stop the production of the seamless sweater and to bring
the machineries back again to Croatia. The main reason behind this choice is that the customers
have not appreciated the “new” product, therefore its production has been terminated.
The company has not followed a structured decision-making process during the reshoring
decision. The decision was triggered by the opportunity to improve the brand perception by the
customer and to use a low labour-demanding technology that allowed to reduce the cost gap
between Croatia and Italy. In the process, beside the Chief Executive Officer (CEO) and the
Chief Operating Officer (COO), various company departments were involved: marketing and
communication, the sales department and R&D. The decision-making process took two months
and entailed an analysis of the costs associated with the shipment of the machineries from
Croatia to Italy, the design and development of the new product, as well as, its pricing. The
final reshoring decision was made by the CEO.
After the decision was taken, everything has been set up in the reshoring location in Italy
(implementation process): the raw materials were ordered, the machineries were shipped to the
new production site, the human resources were hired through an internal process and trained.
After three months the production started, first with a pilot production and then with the regular
process. An ex-post analysis allowed to establish the differences in the production costs, lead
time, and margins. All these data, as well as the sales related data, were constantly monitored.
During the implementation process, the operations management function has been heavily
involved, to manage the production process.
Figure 2 provides a summary of the reshoring decision-making and implementation processes
of company A, with the detail of activities and involved stakeholders (in italics).
4.1.2 Case B

The company was established in Northern Italy and always maintained there its headquarters. It is a family firm and the strategic decisions regarding the company are taken by the two family members (father and son) who still run the company. In the 80s, the company opened a joint venture in China, where half of the employees (almost 100 people) were dedicated to the production activities. The Chinese plant is currently focused on the production of low-end products. In 2010, the company decided to move part of its manufacturing activities back to Italy, to extend the core business to high-end products (e.g. zips and other accessories for clothing and leather items) for luxury brands. The manufacturing activities of the low-end products were instead kept in the Chinese joint venture plant. The new plant in Italy is much less vertical integrated than the Chinese one; in fact, it is more economically convenient to outsource some activities to external suppliers, despite finding capable suppliers has been a real challenge for company B.

The main drivers of the relocation decisions, as stated by the company’s Chief Executive Officer (CEO), were the search for a new and more profitable market, the need for a higher quality, having a “Made in Italy” product, guaranteeing a higher service level to the luxury brands, lower costs for quality control, and intellectual property protection. The main barriers have instead been the suppliers’ shortage, an issue significantly underestimated by the company, the lack of public funding for reshoring initiatives, especially for SMEs, the establishment of commercial agreements among different brands that became part of larger groups (e.g. Kering, LVMH) that limited the freedom of supplier selection to a lot of company
B’s potential customers, and the weakness of the case company’s brand with respect to some bigger competitors (more likely to be selected by the large customers).

The company has not followed a structured decision-making process during the reshoring decision. The decision was triggered by the opportunity to enter into a “new” more profitable market (high-end products for the luxury brands). The entrepreneur, eager to seize this opportunity, did not lose much time into data collection and analyses. General information about costs, financing opportunities, as well as the investment analysis were developed with the support of an external business consultant. The decision-making took almost six months and the people involved were the two entrepreneurs (family members), the business consultant and a technical expert to support the machineries selection.

After the decision was taken, the implementation took six months, the time needed to produce and import the machineries from China. Some criticalities were encountered during the process. First, it was more difficult than expected to penetrate the new market, thus leading to lower revenues and longer time to recover the investment. Moreover, the company missed to evaluate the presence and availability of suitable suppliers during the decision-making; this revealed to be a critical issue during the implementation, since the company had still to import some components from China, thus increasing its inventory costs. To resolve the issue, the company have had to make some additional investments to train and help some strategic partners to develop the needed competencies.

Figure 3 provides a summary of the reshoring decision-making and implementation processes of company B, with the detail of activities and involved stakeholders (in italics).

Figure 3 - Decision-making and implementation processes of case B
4.1.3 Case C

The company’s headquarters are in Northern Italy, where all the high value-added activities have always been maintained (e.g., administration, management, R&D, purchasing, sales, quality control). Case C is a family firm at the third generation, with family members from two generations involved in the top management. Starting from the ‘90s, the company has begun the process of manufacturing delocalization to Romania. At the beginning, the activities were entrusted to third-party suppliers. A fully-owned company was then founded in Romania in 1996. In 2008, the case company decided to run a production test in China. However, due to quality issues all the manufacturing activities were brought back to Romania in 2011. In 2014, because of the customers (high-end brands of technical and sport clothing) requests for small batches of very high-quality and highly innovative products, the company decided to bring some production activities back to Italy.

The production and foreign office manager has identified three main drivers of this reshoring decision: the difficulty to produce small batches in Romania, the high technological content of the products and the need to maintain a linkage between the high value-added activities and the manufacturing. The main barriers have been the lack of competences in Italy (the company should hire graduated people to find someone that have sewing abilities) and consequently the high labour cost, which was partially compensated by the higher value recognized by the customer to a “Made in Italy” product.

The company has followed a decision-making process made of few phases, to some extent well-defined. The decision was triggered by the difficulty of the plant in Romania to manage small volumes, as requested by some customers. Therefore, the first phase was an analysis of the current situation, to evaluate the lowest batch size that the Romanian plant could handle. Then, the products that could not be realized in Romania (due to the small batches required) were identified and the company started looking for alternatives, such as outsourcing to external suppliers in Romania or reshoring to Italy. Information was collected about the available capacity at home, the costs connected with reshoring, the availability of potential suppliers and the sales forecasts. All the data confirmed the convenience of the reshoring solution. The final decision was made by the entrepreneur, with the support of the production manager. An important role in making the process very fast (less than six months) was played by the experience of the entrepreneur, and by the limited risk connected with the decision, given that the plant in Romania was maintained (for products with larger batches).

After the decision was taken, the implementation was very short (almost immediate) given that both the Italian and the Romanian plants were already operative. The company did not feel the
need to reintegrate production with the other activities, because this integration was not lost
during the previous offshoring stage (the company maintained both the plant in Italy and in
Romania). Some criticalities were encountered during the process because of the increased
workload on the employees. The company tried to hire new employees, but this was a difficult
task because of the competence shortage in Italy (its home country). On the contrary, the
company found great support from the suppliers, that were willing to agree very convenient
conditions just to support the increase of local (domestic) orders. The biggest benefit was an
increase of sales thanks to the “Made in Italy” brand and this has convinced the company to go
further in this pilot production and, for the next future, to bring an entire production line in
Italy.

Figure 4 provides a summary of the reshoring decision-making and implementation processes
of company C, with the detail of activities and involved stakeholders (in italics).

Figure 4 - Decision-making and implementation processes of case C

4.1.4 Case D

The company D is headquartered in Northern Italy and its core activities concern the dyeing
and finishing of cotton yarns. It is recognized as one of the leading companies in the activities
aimed at increasing the cotton yarn quality. However, it is an intermediate actor that struggles
in maintaining its margin and is pressed both by suppliers and customers. To stand over this
pressure, the company has strategically decided to establish very tight partnerships with its
customers, thus making them aware of the difficulties faced and seeking for a collaborative
problem solving. Of course, this puts its first customer in a very powerful position, given that
almost 40% of sales depend on this customer. Following the request of the abovementioned
strategic customer, in 2004 the company moved part of the production in Hungary, by acquiring
a local dyeing company. When in 2011 the customer decided to further offshore its production from Hungary to Egypt, company D decided to reshore the production to Italy, where some production capacity was still available.

During the offshoring experience, company D was also able to insource some activities, that were not part of its traditional production process. After reshoring, these activities were then outsourced again to an Italian supplier. The availability of suppliers in Italy was a key factor in allowing the firm to reshore. No barriers were identified except for the loss of the investment in the Hungarian plant, that was not sustainable anymore without the strategic customer.

The company’s reshoring decision-making was triggered by the choice of its strategic partner to further offshore its production from Hungary to Egypt. Therefore, being the investments needed in the Hungarian plant not affordable, the company decided to bring its production back to Italy. The decision-making process was therefore very simple: first, the company looked for some alternative partners; then, it evaluated the availability of production capacity at home; and finally, the entrepreneurs (the three brothers running the company) decided to reshore the production. The whole process took just 4 months.

The implementation was immediate, since the production activities were maintained in Italy also during the offshoring phase. The company just needed to contact the customers to communicate the decision and to assess whether they wanted to change the ordered quantity, given that the Made in Italy product had a difference pricing. Moreover, some employees with technical skills were involved in a reverse engineering activity to identify the process characteristics (in terms of chemicals, treatments, temperatures, etc.), with the aim to obtain the same product that was manufactured in Hungary.

Figure 5 provides a summary of the reshoring decision-making and implementation processes of company D, with the detail of activities and involved stakeholders (in italics).
Cross-case analysis

The analysis of cases has highlighted that each decision-making process has its own specificities. In some cases, the phases were very blurred, almost done in parallel in a very exploratory way (Cases A and B). Even when the process is better defined (Cases C and D), a common path cannot be identified. Anyway, all the companies recognize that if they had better structured their decision-making, the reshoring would have been more effective and efficient.

In general, lots of information is collected and processed (e.g. demand forecasting, costs analyses, and expected return of the investment).

As far as the stakeholders involved are concerned, someone in a powerful position within the company is always involved (e.g. the entrepreneur or the CEO). Sometimes people from outside the company (e.g., consultants) are involved in decision-making process; this happens however only in case that some competences or resources cannot be found inside the company (for example in case of smaller companies, such as case B). In Case A, the decision was also influenced by the company functional units, through a bottom-up process. All the companies recognized that the decision-making was rather fast (2 to 6 months). However, they were often not sure about when the process started.

Cases A and B had a decision-making triggered by an internal opportunity that the marketing department and the entrepreneurs identified, to increase their sales and margins. In both the cases the decision-making was very blurred, probably because of the willingness to seize the opportunity as faster as possible. Instead, case C had a defined decision-making triggered by an internal problem, that needed to be addressed to satisfy the customers. The company went through the analysis of the current situation to understand the existing problems, the identification of the exact characteristics of the product that needed to be relocated, and data
collection and analysis about the new possible solutions. Finally, Case D’s decision was triggered by an external change (i.e. the customer deciding to further offshore its production) and then the company considered different options and collected all the needed information before deciding to reshore its production.

Once the decision is taken, the **implementation** process is usually very fast (less than six months). In cases A and B, an ex-post analysis allowed to assess the differences with what was expected during the decision-making process in terms of costs, sales and benefit, and they turned out to be quite different, thus evidencing a bad initial analysis. This ex-post analysis was experienced by the cases that followed a very blurred decision-making, thus evidencing the lack of confidence about the reshoring decision. Generally, the reshoring decision had a positive effect on the company image, both externally and internally (in front of employees), independently from the type of decision-making process followed by the company.

Interestingly, even if the interviewees tried to separate their reshoring decision-making and implementation processes, by looking at the processes they describe (Figures 2, 3, 4, and 5) it is clear how the two processes are blended in practice. In fact, even during what the companies described as “decision-making”, part of the analyses was already oriented in planning the implementation of the reshoring decision. This is the case of company A that was already designing the new product or Case B that was selecting the new machineries for the relocated production. Case C and D instead just went through a waterfall approach, where the decision-making phase ended with a go (vs. no go) decision, and the implementation was started immediately afterwards. In all the cases, a very strong role was played by the CEO of the company (in most cases also the entrepreneur, i.e., cases B, C, and D) that strongly believed in the reshoring decision and found the occasion to make it suitable for the company.

5 Discussion

In order to contribute to the scientific debate on the reshoring decision-making and implementation, we summarize in this section the most insightful evidences of our paper and discuss them in light of the relevant literature presented in Section 2. Based on this, we also develop a set of propositions that might drive future research in this field.

The first insight derived from the empirical investigation is that, in most of the analysed cases, the decision-making phases appear to be blurred and not well-defined. This seems to indicate that the reshoring decision involve high levels of uncertainty, as hypothesized by Gray et al. (2017), and this leads companies to adopt a “flexible” approach towards decision-making.
(Verganti, 1999), in line with the uncertainties and risks that characterize a location decision (Gylling et al., 2015; Huq et al., 2016; Tate et al., 2014; Tate and Bals, 2017). In light of the behavioural decision-making literature, this result is not surprising. In fact, it provides evidence of the bounded-rational feature of the reshoring decision-making process, being characterized by non-sequential phases and multiple routines and cycles (Eisenhardt and Zbaracki, 1992; Mintzberg et al., 1976). Moreover, in case of high uncertainty or complexity, we found that companies include an “ex-post analysis”, to assess the decision after its implementation. This is the situation for Case A, where the change in the governance (from outsourcing to insourcing) led to a higher complexity and therefore the need to evaluate ex-post the results. Similarly, Case B had to face a high uncertainty given all the factors that changed during the offshoring period (e.g. suppliers not available anymore in the home country, establishment of strong competitors).

Previous literature supports this evidence concerning uncertainty and complexity as driving factors towards a bounded-rational decision-making (Bendoly et al., 2006; Eisenhardt and Zbaracki, 1992; Li et al., 2014). Moreover, this finding supports the claim made by Hartman et al. (2017) that companies usually fail to consider process complexity and uncertainty during the decision-making stage. As a consequence, a first proposition can be derived for further investigation:

**Proposition 1: When the reshoring decision is complex or uncertain, the decision-making process is managed through a flexible approach, characterized by an overlapping of phases and problem-solving cycles.**

As discussed in the cross-case analysis, most interviewees had difficulties in identifying the exact shift from the decision-making to the implementation process. This could mean that an additional phase should be considered, i.e., a more structured transition period in preparation to the implementation. This phase was however not formally recognized by the interviewees. The evidence collected calls into question the effective separation between the decision-making and the implementation processes, hypothesised by Bals et al. (2016). In fact, the two processes appear to be overlapped with implementation-related activities anticipated before the definitive decision and analyses typical of the decision-making postponed to justify ex-post the correctness of the choice. Nevertheless, this result is in line with the literature on behavioural decision-making. The main phases identified in the literature are not completely separated between decision-making and implementation (as shown in Figure 1), moreover they are supposed to loop and not to be sequential (Mintzberg et al., 1976). Hence, the second proposition is:
**Proposition 2:** Decision-making and implementation processes are strictly intertwined and need to be analysed jointly to consider all the relevant elements of a reshoring decision.

The previous proposition is also in line with Gray et al.’s (2017) view that companies do not need to wait to have complete information to make a location decision. In fact, the analysed companies managed this issue by anticipating the implementation, thus being able to speed up the process and collect accurate information at the same time. This also indicates that the decision-making was at least partly emotional, with the entrepreneur/CEO being the main sponsor of the reshoring initiative. In other words, we have the impression that sometimes the analyses performed were more oriented to justify a decision already in the mind of the entrepreneur/CEO rather than to help him/her to take the decision. Previous literature has demonstrated that emotions can play a positive role in decision-making. In fact, while infused emotions or moods can drive the decision to be fully irrational, expected emotions and situational anxiety can instead become a fundamental part of a bounded-rational decision-making, by allowing the decision-maker to make sense of his/her choice, even when the results are uncertain (Li et al., 2014). In addition, Di Mauro et al. (2018) highlighted some emotional elements (e.g. the sense of belonging to the local territory) among the factors driving the reshoring decision. We would however make a step further and develop the following proposition:

**Proposition 3:** When the decision is perceived as complex or uncertain, reshoring decision-making is driven by emotional factors (e.g. sense of belonging to the local territory, responsibility towards employees, connectedness with the family), that may characterize other factors just as enablers.

This generates some preliminary evidences about one of the future research avenues identified by Barbieri et al. (2018), namely the role of the entrepreneur in driving reshoring decisions. In fact, in three of the analysed cases (Case B, C, and D), the decision has been strongly driven by the entrepreneurs, that have been proved to be more used to face uncertain and complex environments and, therefore, in making successful bounded-rational decisions, by relying on previous experiences (Busenits and Barney, 1997).

Finally, when a company is not satisfied anymore with the offshore location, it can evaluate whether to move to another third country or to go back home. Recent evidence suggests that movements to third countries are happening (Barbieri et al., 2019), but despite the broad choice of alternative locations, going back to the home country represents an option followed by a
significant amount of companies. Our paper helps to explain this “home-country bias”. As a matter of fact, all the sampled companies did not consider during the decision-making process alternative offshoring locations (besides the current offshoring country), thus demonstrating the existence of a home-country bias effect (Obstfeld and Rogoff, 2000) that creates a higher propensity to invest in the home country. The reason might be due to the fact that the home country represents a familiar context, where there is a higher social capital and there could be a national regulation supporting domestic companies (Fratocchi et al., 2014). Evidence of such effect was previously provided by Gray et al. (2017) and their cases of small and medium enterprises relocating production in their home countries against any common sense. Instead, Di Mauro et al. (2018) explained the preference of reshoring over nearshoring both through a “Made in” effect and an emotional “sense of belonging” to an industrial district. Even if the analysed cases provide evidence form the same context and could therefore be explained by the same underlying factors (i.e. “Made in” and “sense of belonging”), we believe that a more general effect, explained by the tendency to strive for something less uncertain, could be hypothesised from this larger evidence. Consequently, the fourth proposition is:

**Proposition 4**: A home-country bias effect prevents companies from considering all the location alternatives, thus limiting their ability to flexibly modify their Global Manufacturing Footprint towards rightshoring.

### 6 Conclusions

6.1 **Contribution to research, management practice and policy makers**

The paper answers to a precise call for research on the reshoring decision-making and implementation raised by the most recent reshoring studies (Barbieri et al., 2018; Wiesmann et al., 2017; Ketokivi et al., 2017). Through an empirical investigation of four case studies, we shed light on the phases, collected information, stakeholders involved and criticalities faced. We then developed four propositions focused on various features of the reshoring decision-making and implementation processes. This is the first step to gain a better understanding on “how” reshoring is implemented (Barbieri et al., 2018).

Our study has significant implications for reshoring – and more in general global operations management – **literature**.

First, we pointed out that reshoring projects might be characterized by different levels of uncertainty and complexity which affect the decision making and implementation processes. When the drivers are more objective and external (e.g., a customer asking for smaller batches),
the overall process looks more structured with a better separation between the decision-making and the implementation phases. Vice-versa, when the drivers are more subjective and internal (e.g., ”Made in” effect) the overall process is not very structured and there is an overlap between the decision-making and the implementation phases. Hence, future research should depart from an ideal linear process and try to develop a more flexible approach by collecting insights on the information to be collected by companies and the level of detail, to help firms in high uncertainty and complexity contexts to face successfully the decision (Gray et al., 2017).

Second, we highlighted the existence of a relevant emotional component in the reshoring decision. This generates a warning signal about the research on reshoring drivers. In fact, when the decision is driven by an emotional factor, all the other drivers might become “justification” factors that are considered just to make the decision looking feasible, and not the “real motivations”. In that case, any answer provided by respondents in surveys or interviews might be biased by some kind of post-rationalization, that might lead to a biased alignment of drivers with outcomes (Johansson and Olhager, 2018). In order to better understand this behavioural aspect, it would be useful to go back to the original offshoring decision and see what type of conflicts and problems it generated. The reshoring decision could be, in fact, emotionally anchored to the initial offshoring decision, such as a sense of guilt for leaving the home country with the related implications (e.g., changing suppliers, workforce layoffs).

Our study has also significant implications for managers and policy makers. We made one of the first attempts to shed light on the “how to reshore” issue, which is of particular importance for managers, and we highlighted the activities and the analyses that should be performed by companies and the stakeholders that can be involved in the decision. This actually provides managers some initial guidelines for the reshoring decision-making and implementation processes. Furthermore, we provided evidence of some potential problems that companies might face during the reshoring implementation (such as the difficulties in finding employees with the needed skills as well suitable suppliers). This suggests managers to consider these potential problems carefully and to plan in advance actions for mitigating them.

In addition, we showed to managers and entrepreneurs that the reshoring decision-making is bounded-rational. Even if research have demonstrated the efficacy of this kind of decision-making in uncertain and complex contexts (Eisenhardt and Zbaracki, 1992; Li et al., 2014), some actions can be envisaged in order to avoid cognitive shortcomings of decision-makers (Gino and Pisano, 2008; Kahneman and Lovallo, 2003). Some examples concern the creation of more diverse viewpoints by, i) involving people with different backgrounds in the decision-making, ii) creating devil’s advocates or involving outside experts, iii) making people
responsible of the decisions aware of the role that their mood can play in their decision-making, and iv) comparing the possible outcomes of a decision with similar past projects in order to base the decisions on more accurate predictions (Eisenhardt and Zbaracki, 1992; Kahneman and Lovallo, 2003; Li et al., 2014; Mantel et al., 2006).

Finally, our study provides evidence of the existence of a home-country bias (Fratocchi et al., 2014; Obstfeld and Rogoff, 2000) that keeps companies connected to their home country even when they make an offshoring decision. This might suggest policy makers to act on the barriers (e.g. lack of suitable suppliers, competence shortage, and lack of funding opportunities) that prevent companies from bringing the production back rather than designing policies aimed at increasing the reshoring drivers through incentives.

6.2 Limitations and future research

This study does not come without limitations. First, being an exploratory study, a case study approach has been selected as research method. Therefore, despite we tried to ensure a theoretical generalizability by adopting a rigorous research design, our results cannot be statistically generalized. In future, quantitative studies (e.g. surveys) could help in overcoming this limitation and empirically testing the propositions developed in our study. The evidences presented in this paper will help in improving the survey design and reducing any bias.

Moreover, the selected cases belong to the same context (country and industry). This was a thoughtful decision, that allowed us to control for some contingent variables and to leverage on previous studies conducted in the same context (Di Mauro et al., 2018). Nevertheless, studying different industries and countries could add new and meaningful insights.

Finally, we analysed the decision-making process of companies that eventually decided to reshore. Future research could integrate cases of companies that did not decide to reshore as an outcome of the decision-making process.
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Appendix

The interview protocol

1. Section 1: General information about the company and the interviewees
   1.1. Interviewees: Names, roles, experience.
   1.2. Company: Number of employees, turnover, main products, evolution of the products offer over years, number and location of plants.

2. Section 2: Evolution of the manufacturing footprint
   2.1. Main steps over years in terms of relocations and changes in governance modes
   2.2. Focus on one (or more) reshoring decision(s):
      2.2.1. Chain of events connected to the reshoring decision(s)
      2.2.2. Products/Activities/Supply Chain involved and their characteristics
      2.2.3. Objectives, Drivers of the decision(s), Enabling factors, Outcomes

3. Section 3: Decision-making process
   3.1. Description of the process and timing
   3.2. Phases, stakeholder involved, collected information, risks evaluated
   3.3. Differences with previous offshoring

4. Section 4: Implementation process
   4.1. Description of the process and timing
   4.2. Phases, stakeholder involved
   4.3. Changes in the relationships with stakeholders after reshoring
   4.4. Learning process, criticalities faced, costs and benefits
   4.5. Differences with previous offshoring