Exploring the Reshoring and Insourcing Decision Making Process

Toward an Agenda for Future Research

Bals, Lydia; Kirchoff, Jon F.; Foerstl, Kai

Document Version
Accepted author manuscript

Published in:
Operations Management Research

DOI:
10.1007/s12063-016-0113-0

Publication date:
2016

License
Unspecified

Citation for published version (APA):
Bals, L., Kirchoff, J. F., & Foerstl, K. (2016). Exploring the Reshoring and Insourcing Decision Making Process: Toward an Agenda for Future Research. *Operations Management Research*, *9*(3-4), 102–116. https://doi.org/10.1007/s12063-016-0113-0

Exploring the Reshoring and Insourcing Decision Making Process: Toward an Agenda for Future Research

Lydia Bals, Jon F. Kirchoff, and Kai Foerstl

Journal article (Post print version)

CITE: Exploring the Reshoring and Insourcing Decision Making Process : Toward an Agenda for Future Research. / Bals, Lydia; Kirchoff, Jon F.; Foerstl, Kai. In: Operations Management Research, 15.06.2016.

The final publication is available at Springer via http://dx.doi.org/10.1007/s12063-016-0113-0

Accepted version status June 2016; forthcoming in OMR

Exploring the Reshoring and Insourcing Decision Making Process: Toward an Agenda for Future Research

Lydia Bals
University of Applied Sciences Mainz;
Copenhagen Business School

John F. Kirchoff
East Carolina University (ECU)

Kai Foerstl
German Graduate School of Management & Law (GGS)

Please cite as follows:
Bals, L., Kirchoff, J.F., Foerstl, K. (Forthcoming): Exploring the Reshoring and Insourcing Decision Making Process: Toward an Agenda for Future Research, Operations Management Research.

1. Introduction

Outsourcing and offshoring have been important business strategies since the early 1990s and continue to be of significant practical and scholarly interest (Feenstra 1998; Blinder 2006; Hätönen and Eriksson 2009; Bals et al. 2013). Outsourcing refers to moving internal activities outside of the company (Ellram et al. 2008) and offshoring refers to the geographical dimension of where to perform such activities, ranging from captive offshoring (make) to offshore outsourcing (buy) options (Jahns et al. 2006). In the past, make-or-buy decisions often resulted in outsourcing to reduce costs and transfer risks and responsibilities to suppliers located offshore (Manuj and Mentzer 2008). More recently, however, studies suggest that managers are increasingly reconsidering some previous outsourcing and offshoring decisions causing them to revoke some of these (McIvor 2013; Ellram 2013), thus reshaping their supply chains.

Firms' decisions to move previously offshored value creation activities back to domestic locations or to reintegrate outsourced value creation activities back into their organization are often referred to as reshoring and insourcing, respectively (Freytag et al. 2012; Gray et al. 2013; Ellram et al. 2013; Stentoft et al. 2015). The reshoring and insourcing phenomena are not new topics in the literature, yet both are still considered emerging research areas (Fratocchi et al. 2014). In particular, the complexities of global production location and sourcing decisions among international organizations require a more in-depth investigation (Hameri and Hintsa 2009; Slepniov et al. 2010; Fratocchi et al. 2013; Gray et al. 2013). While outsourcing and insourcing have been studied extensively (for an overview, see Stentoft et al. 2015), the (reverse) decision in terms of reshoring *and/or* insourcing are not yet well understood. Only recently have studies shed more light on these decision making processes, e.g. for production reshoring and insourcing in Denmark (Stentoft et al. 2015) and US manufacturing reshoring (Tate et al. 2014).

The question of how to reconfigure supply chains remains a complex issue to understand for both scholars and managers (Cagliano et al. 2008). While some firms such as Sleek Audio decided to *simultaneously* reshore and insource, others such as the Outdoor Greatroom Company are now seeking suppliers in closer proximity to their sales markets by changing *only* the geographical scope, and keeping their delivery operations outsourced. A deeper understanding of the decision making processes required to effectively reconfigure supply chains when reshoring and/or insourcing can provide novel insights to researchers and managers alike. Therefore, to enable and stimulate structured future research in the field, this research provides a conceptual framework of reshoring and/or insourcing decision making. More specifically, it seeks to answer the following research questions:

1. *How can reshoring and insourcing decision alternatives be characterized?*
2. *Which topic areas of reshoring and insourcing decision making remain relatively unexplored and hold most potential for future research?*

The first research question is addressed through the development of a conceptual framework of the decision alternatives (Figure 1). To address the second research question, the proposed research agenda is structured along the reshoring and insourcing decision making and implementation process (Figure 2). The resulting process framework structurally builds on the established sourcing decision making processes by McIvor (2010), Handley (2012) and the generic offshoring implementation process by Jensen et al. (2013). Specific future research avenues, including potentially informative theoretical lenses to study them (Table 3), are put forward to guide further inquiry along the decision process model.

2. Defining reshoring and insourcing alternatives

The definitions of the specific terms and combinations of reshoring and insourcing are provided in Table 1. The established terms of offshoring and outsourcing are often interrelated and combined for the design of international production and sourcing strategies to realize performance improvements (Jahns et al. 2006). The reversal of offshoring decisions gives rise to the concept of reshoring which aggregates firm activities closer to the geographical proximity and influence of the firm. Following this geographical angle, the concept of reshoring can also be further differentiated into backshoring and nearshoring. The reversal of outsourcing decisions gives rise to the idea of insourcing, concerned with bringing the value creation activities back into the internal boundaries of the firm.

Insert Table 1 about here.

2.1 Research Approach

Methodologically, this is a conceptual paper which utilizes examples from the U.S. and German business press illustratively to corroborate conceptual answers to the "how" and "which" aspects of the two research questions. Examples from the business press are also used to explore the practical applicability of the conceptual reshoring and insourcing alternatives framework. Similar approaches have been used when the topic at hand is relatively new and industrial practice seems to offer new insights to academia (e.g. Bocken et al. 2014). This is also similar to how Miller et al. (2013) used anecdotal evidence from a national perspective as they found it to inform their research about the complexities of offshoring.

We used the LexisNexis database to study the German and US business press for based on a comprehensive search string for key words "reshoring", "insourcing", "repatriation", "backshoring", each with and without a hyphen (e.g. "back-shoring") and "reverse" in combination with "outsourcing" and "offshoring." These two economies were chosen because both have relatively strong representation of multinational firms. Moreover, in both countries, there has been rising coverage of the reshoring and insourcing phenomena and the emergent political debate around the macro-economic effects surrounding the topic. Finally, both can be considered open economies based on their trade balance across many industrial sectors, thus yielding potentially diverse observations of the reshoring and insourcing phenomena.

The purpose of the keyword search was to find practical examples of each of the theoretically possible reshoring and insourcing decisions available to managers, as illustrated in Figure 1. The exhaustive search was not restricted to a certain period in time and was finalized in July 2015. The search yielded 63 usable article hits for further investigation. The main criteria for inclusion of examples were whether the article provided sufficient information about the respective firm's reshoring and/or insourcing movements so that it could be unambiguously positioned as movement within our conceptual framework (Figure 1). The coding concept covered detailed definitions as outlined in Table 1. Each case was coded by the same two authors and compared to the respective information provided on the company websites and other business press material if available. Based on this triangulation of sources on tabular displays we ensured content validity and internal validity (Gibbert et al. 2008). Complicated cases and differently coded studies were marked and later resolved via discussions between the authors. The iterative process of coding and discussion allowed for a strong calibration between authors leading to high levels of inter-rater reliability (Boyer and Verma 2000). As a result of these coding procedures numerous examples had to be discarded leading to 40 usable business articles yielding 26 practical reshoring/insourcing examples. Out of the 19 possible reshoring and insourcing decision

possibilities displayed in Figure 1, ten could be populated with the 26 examples as listed in Table 2. Examples for the other nine theoretical movements could not be found.

Insert Figure 1 about here.

The distinction of terms related to reshoring and insourcing is illustrated on the x-axis of Figure 1 providing conceptual clarity concerning the relocation of value creation activities based on the geographic distance from the firm's headquarters home country with the arrow "reshoring". The y-axis highlights the type of governance mode of formerly external value chain activities with an arrow showing "insourcing". It builds on similar frameworks in the offshoring literature with these two axes (e.g. Jahns et al 2006; Contractor et al. 2010), but adds the reversed movements (Foerstl et al. 2016). Hence, this research is concerned with movements from the outer cells of the framework into ownership and location combinations closer to cell number 9, i.e. the *reversed* movements to outsourcing and offshoring. The examples of the movements of value creation activities from one cell to another are summarized in Figure 1, which highlights the movement of each reshoring and insourcing decision within this conceptual framework. Moreover, the retrieved examples are summarized for the respective decisions motivators and results (Table 2).

Insert Table 2 about here.

2.2 Practical examples of reshoring decisions

Nine theoretically feasible one-dimensional movements along the locational dimension of a value creation activity were identified (Table 2). Of these nine, six could be retrieved in the business press, while the remaining three movements were not observed. Based on this analysis, we can first distinguish *Outsourced Backshoring* as movement between offshore and nearshore locations. In both cases, value creation activities previously delegated to suppliers is relocated to the same or alternative suppliers in the buying firm's home country. For instance, the Californian toy brand Wham-O-Toys relocated Frisbee production from a Chinese supplier to an US supplier. Another example is Wal-Mart, who switched sourcing high end appliances, furniture and apparel from Chinese to US suppliers. Both buying firms mentioned as their main decision drivers long lead times, resulting low responsiveness, and high capital lock-up. Other firms (see Table 2) reported cultural problems, geographic distance and intellectual property protection as main sources of high coordination and control costs. Reputation, technological progress and availability of government subsidies were further drivers. No *Outsourced Nearshoring* examples, where supplier value creation activities would be relocated from offshore to a border state location of the buying company, could be retrieved.

Next, numerous examples of *In-house Backshoring* and one example of *In-house Nearshoring* were also identified. For example, Siteco GmbH shut down their wholly-owned Slovenian plant and ramped-up lightning production in a new production facility located next to their Headquarter premises in Germany. Similarly, NCR did backshore their ATM production to the US. Its ATMs had previously been assembled by wholly-owned Indian and Chinese subsidiaries. Firm managers stated coordination between centralized product development and local offshore production as too resource consuming. Moreover, the availability of less labour intensive production techniques and superior quality assurance also favoured production closer to the sales markets. To serve the European markets, NCR also *In-house Nearshored* value creation activities from India to Hungary in order to produce closer to their European headquarters. Other companies, in turn, decided that their current nearshore solutions were problematic due to the detachment of engineering functions, logistical coordination and quality management problems leading to low production yields. Moreover, government incentives also fostered *In-house Backshoring* decisions, particularly for US companies, as exemplified by Ford Motor Company (Table 2). The non-observable, yet theoretically possible decision alternatives of *Collaborative Backshoring* and *Collaborative Nearshoring* could not be retrieved from recent business press (e.g. relocating value creation activities of a long-term partnership offshore or nearshore closer to the focal firm's headquarters location).

2.2 Practical examples of insourcing decisions

Nine potential one-dimensional movements along the ownership dimension (insourcing) of value creation activities were identified, but only two were reported on in the business press. Both cases are concerned with *Domestic Insourcing* as opposed to *Nearshore* or *Offshore Insourcing* (see Figure 2 and Table 2). For instance, JP Morgan Chase chose to re-integrate the provision of their US-based Information Systems Services, which they had previously outsourced to IBM. The drivers of this decision were reported to be poor service levels and slow innovation adoption. Also, Wal-Mart reported to insource part of its supply chain infrastructure from numerous logistics service providers in order to safeguard strong logistical capabilities in a volatile seller market for logistics' services.

Although no further insourcing examples of nearshore or offshore value creation within their respective locational dimension were retrieved, it is theoretically possible for firms to retain value creation activities in specific nearshore or offshore locations, but integrate the activities into its own organizational boundaries, e.g. subsidiaries. Moreover, instead of fully integrating the previously delegated task back into its own organizational boundaries, firms can chose a hybrid governance mode (e.g. joint venture or long-term partnership), which would be referred to as *Collaborative*

Domestic Insourcing, *Collaborative Nearshore Insourcing* or *Collaborative Offshore Insourcing* depending on the destined geographic location of the value creation activity.

2.3 Practical examples of combined reshoring-insourcing decisions

The findings from analysing business press examples suggest that firms are bringing value creation activities "back home" while simultaneously changing the governance mode of the transaction. In doing so, firms integrate more value creation of the back- or nearshored manufacturing activity within their own existing or new production facilities. The most drastic two dimensional movements from offshore-outsource to domestic-in-house value creation activities was at the same time also the most frequently observed combined reshoring-insourcing decision. For example, General Electric invested $800 million into their previously abandoned production site in Louisville, KY in order to revitalize their appliance production in the US, which was previously offshore outsourced mostly to Chinese suppliers. The reason to re-establish geographical proximity to the home market, as well as hierarchical control, was the dramatic decline of sales resulting from product quality problems. As a result of reduced labour content, higher production yield, lower material scrap, and favourable energy costs, the unit costs have gone down. Similar *Backshore-Insourcing* decisions were made by the Varta Microbattery GmbH for their production of small rechargeable micro-batteries used in consumer electronics. The change in strategy away from mass produced heavy industrial batteries towards micro batteries necessitated a faster-time to market than before. In order to be able to deal with the shortening product life-cycles Varta required close integration and co-location of product development, R&D and production within one facility in Germany. As a result, Varta *Backshore-Insourced* manufacturing from a Singaporean supplier to their headquarters plant in Germany. Other firms mentioned shorter lead-times, high logistics and coordination costs, quality control and assurance deficiencies, IP protection, and higher internal capacity utilization during economic downturn as additional drivers of their *Backshore-Insourcing* decisions.

Not all combined movements entailed such drastic alterations value creation model. For instance, Margarete Steiff GmbH decided to *Nearshore-Insource* the production of cuddly-stuffed toys from a Chinese supplier to wholly-owned subsidiaries in Tunisia and Portugal instead of relocating all the way back home to Germany. The decision drivers were the tremendous resources required to keep high quality standards, high costs of auditing to guarantee human working conditions offshore, high fluctuation of the labor force as well as cultural and spatial distance affecting daily operations.

Two examples were found of companies engaged in backshoring, while simultaneously delegating in-house offshore value creation activities to long-term local suppliers. Katjes Fassin GmbH & Co. KG, a German candy producer, was

dissatisfied with the fluctuating costs and quality produced in their recently acquired production plants in Finland and Italy. Katjes originally wanted to backshore-insource production, but did not have enough spare capacity in-house to absorb all of the volume. Therefore, they had to delegate part of the task to a long term strategic supplier in Germany. Hence, they engaged in *Collaborative Backshore (In)sourcing*, while also practicing *Backshore-Insourcing* for the same value creation activity. Similar observations were made at Lemken GmbH & Co.KG who relocated their assembly of agricultural machinery from a wholly-owned Russian subsidiary to a long-term supplier in their home country of Germany. In addition to the already mentioned drivers, Lemken's decision was further fostered by temporarily high material and energy cost, consistently high logistical uncertainty from arbitrary export practices and a lack of shop floor worker motivation.

3. Avenues for Future Research

The conceptual framework for decision alternatives (Figure 1) and practical examples (Table 2) provide terminological clarity for all available decision making alternatives. In order to shed light on firms' decision making processes, the Future Research Avenues (FRAs) were developed taking into account the decision making and implementation process frameworks already established in the literature (see Figure 2). FRAs 1 and 2 are linked to McIvor's (2010) and Handley's (2012) research on the steps involved in global sourcing decisions and outsourcing relationships. FRA 3 is linked to global sourcing decision implementation and change process steps introduced by Jensen et al. (2013). Finally, FRA 4 spans all decision making and implementation steps. The overall future research agenda is summarized in Table 3, where specific research questions for each of the four FRA are suggested. Table 3 also includes suggestions for suitable theoretical lenses to address those questions in future research; they either have been served in the outsourcing and offshoring literature and/or fit to the unit and level of analysis required to study the phenomenon at hand.

Insert Figure 2 here.

Insert Table 3 here.

3.1 FRA1: Distinguishing reshoring and insourcing as shift in strategic direction vs. reaction to failure

Future studies should focus on differentiating between reshoring and insourcing decisions made as a result of a deliberate strategic shift versus reaction to failure as these offer different theoretical and managerial contributions. First, organizations may have failed to account for unexpected changes and challenges related to macroeconomics,

political situations, and both tangible and hidden costs, all of which undermined initial objectives and expected benefits of their original offshore-outsourcing decisions (Kinkel and Maloca 2009; Ellram et al. 2013; Larsen et al. 2013). Currently, this scenario has been attributed to imperfect information availability at the time the initial decision was taken, the inability to foresee the behavior of offshore-outsourcing partners (internal of external to the focal firm), and the challenge of predicting future environmental dynamics (Handley and Benton Jr. 2013). It is important to note that the reshoring and insourcing movement started to gain attention and momentum because of these pitfalls (Hoecht and Trott 2006; Freytag et al. 2012; Kinkel 2012). Nevertheless, the decision making process in this context is not well understood yet, but worth further investigation. For example, the decisions made by Katjes Fassin GmbH or Lemken GmbH could be characterized by more short-term focused reshoring and insourcing measures and more immediate reactions to failed offshoring/outsourcing. Such abbreviated decision making processes might negatively affect procedural rationality and negatively affect the feasibility of implementation.

Second, firms may have more strategic considerations towards global production location and sourcing than in the early stages of the primarily cost-driven offshore outsourcing movement. For example modifying or changing the strategic direction of the firm, such as building a stronger global production network with both capable local suppliers and geographically dispersed value creation opportunities (Porter and Kramer 2011). Reshoring and insourcing decisions by Wal-Mart and Varta Microbatteries, for example, were motived by a clear, long-term strategic intent. Furthermore, strategic shifts often develop and emerge over time, indicating first, an adaptation to changes in firms' business environment, then later, part of an intended course of strategic action (Benito et al. 2011; Lewin and Volberda 2011; Fratocchi et al. 2014). This implies that reshoring and insourcing decisions as strategic shifts will structurally impact the entire firm's location and sourcing decision making tasks and processes. Hence, future research should investigate decision making quality in strategic long-term versus risk mitigating short-term reshoring and insourcing decisions.

The impact of long-term versus short-term decisions on the focal firm's supply chain structure and on its supply chain relationships should also be explored given that most firms engage in multiple location and sourcing decisions simultaneously, sometimes for the same value creation activity. For example, specific events such as quickly expiring outsourced contracts which are coming up for renewal may trigger a buying firm's strategic intent to reshore, insource, or both. Such investigations should not only be examined through TCE (e.g. Williamson 1973, 1979, 1998, 2008) regarding the strategic attractiveness of certain make or buy options, for example, but also through other theoretical lenses such as critical incident theory (Flanagan 1954; Gremler 2004) to capture the role of specific events in the decision making process (such as for example a financial crisis, or a supply chain disruption).

3.2 FRA2: Studying potential effects of organizational readiness

Future studies should shed more light on the role of organizational readiness in reshoring and/or insourcing. Organizational willingness is characterized by the degree of motivation the company has to engage in rethinking what remains in-house and what is externalized and where it should be located e.g. because of potential cost savings (e.g. Contractor et al. 2010), and is often dichotomous. Alternatively, organizational readiness provides a complementary perspective. Firms may be willing to engage in reshoring and/or insourcing, but readiness to reshore and/or insource requires that firms assess their ability to handle the eventual outcomes of their decisions, whatever these may be. For offshoring and outsourcing decisions at the firm level, this has been captured in frameworks that introduce a capability assessment based on the RBV (e.g. McIvor 2009, 2013), but for the reverse decision making this has not yet been addressed.

Readiness should also be studied at various levels of analysis, i.e. country (e.g. labor laws), supplier network (e.g. contractual agreements), company (e.g. production capacities), groups and teams (e.g. functional representatives involved in the buying center) and individual (owners and top management). In addition, the group- and team-level should be used as examples for further analysis of readiness. The analysis of reshoring and insourcing decisions from a behavioral perspective such as the buying center is likely to provide further insights into the relationship between organizational willingness and readiness. For example, if willingness is high (e.g. high transaction costs favor reshoring), but readiness is low (e.g. lack of internal capabilities to manage local suppliers or re-integrate value creation activities) different outcomes could ensue, based on the culture and behavioral norms of the buying center. Readiness is a dynamic concept and changes to contingency factors may increase or decrease firms' organizational readiness to reshore and/or insource. The need to study such contingencies and to study the process at different levels of analysis is further elaborated on in the section FRA4. In terms of suitable theoretical lenses to address these issues, investigations into organizational readiness could be supported by resource-based theories such as RBV (e.g. asset selection abilities and own resource possession and knowledge), relational view (e.g. co-operational asset development/deployment), resource dependence theory (e.g. being locked-in with a specific shoring/sourcing situation and its risks), and dynamic capabilities (Barney 1991; Wernerfelt 1984; Teece 2007; Teece et al. 1997), as supply chain design has been proposed as a dynamic capability in the backshoring context (Stentoft and Mikkelsen 2014; Stentoft et al. 2015).

3.3 FRA3: Studying the effects of learning in the implementation phase

Future studies should investigate the role of learning in reshoring and insourcing. The offshoring literature has argued that a firm's past experience with offshoring has strong implications on future offshoring intensity as well as its success (Jensen et al. 2013; Maskell et al. 2007; Tate et al. 2009). Firms with more offshoring experience are more likely to continue offshoring (Lewin et al. 2009). Parallel arguments, which focus on organizational learning, should be used to hypothesize the effect of reshoring and insourcing experience on future reshoring and insourcing decisions. Indeed, organizational learning relates strongly to the implementation stage of such decisions, corresponding to steps six through eight in Figure 2. Successful past implementation of such decisions provides a feedback loop into future decision making processes, e.g. when managers recognize the need and merit to respond to particularly reshoring and insourcing salient drivers. Suggested theoretical lenses to study these learning effects are absorptive capacity and the learning orientation of the firm (Calantone et al. 2002; Levitt and March 1988).

3.4 FRA4: Contingencies and different levels and units of analysis

Future research should take into account contingency factors such as company size, growth or decline scenarios, countries of operation, ownership structure, product portfolio, supply chain structure (e.g. level of tiers) and supply chain relationship structure (e.g. foci of power) in a more stringent manner. Hence, FRA4 is applicable along the entire decision making process (shown in Figure 2). The contingency factors can be differentiated regarding their level of applicability, i.e. environmental, organizational or group/individual (Bals et al. 2015). This is extended here to also add the decision magnitude as well as task/activity characteristics.

Regarding country level factors, aspects such as labor markets and regulation, as well as cultural and geographic distance and technology affect the decision making context. Currently, the latter is a particularly interesting area for future research, as technological advancements are just increasing their effect on various industries, such as the dawning of another leap in manufacturing automation in line with the industry 4.0 developments (Lasi et al. 2014) or robotic process automation for the provision of services (Institute for Robotic Process Automation 2015). They may lead to further regionalization of supply chains, as wage differentials are leveled. For instance, the relocation of production by Varta Microbatteries was strongly driven by production automation advancements which led to lower labor content and more flexible production at the same time.

At the firm level, size would help to capture differences in resources among firms, particularly concerning how the differences might affect organizational readiness (FRA2). Countries of operation (potentially further differentiating

whether R&D, production, and sales activities are located there) should particularly help shed light on the context of capability assessment and the related location choices (steps 3 and 4 in Figure 2). Previous research on international diversification of the manufacturing footprint has identified product diversification, production and sales colocation as moderators for location choice (Lampel and Giachetti 2013). This suggests that factors such as sales units' location (or any other relevant functional tie) should also be investigated as potential moderators for reversal decisions; this may also more generally be termed to study the supply chain complexity (Kinkel 2014). Another obvious distinction on firm level would be between service companies and manufacturers.

Turning towards the group/individual level, to make and implement decisions, most firms rely on internal cross-functional teams, often referred to as the buying center in Organizational Buying Behavior (OBB) (Robinson et al. 1967). Buying centers can be considered essential due to the manifold expertise required to qualify and implement critical decisions such as those involved with reshoring and/or insourcing. Moreover, there are multiple drivers which pull decision makers in opposite directions (Dunning 1980, 1981, 1988, 1993; Nachum et al. 2008; Alcacer 2006; Nachum and Zaheer 2005). Future research should study how strongly managers associate the identified set of reshoring and insourcing drivers with country and firm specific (dis-)advantages (e.g. Rugman 1981, 2006; Rugman et al. 2011). Given the different functional backgrounds and expertise of the buying center's members (e.g. manufacturing, R&D, and purchasing), they are likely to perceive decision drivers differently. Since such different perceptions can lead to conflict and lead to sub-optimal decisions (Stanczyk et al. 2015) further research on the buying center's members' perceptional alignment regarding decision drivers as well as organizational willingness and readiness is likely to yield managerially relevant findings. Selective perception theory or the theory of cognitive misfit would be suitable behavioral theories to study individual perspectives on drivers, capabilities and the value creation task (Dearborn and Simon 1958; Chan 1996).

As another contingency factor, the decision magnitude, is also proposed, e.g. whether the decision is about reshoring and insourcing of specific tasks within a function (e.g. assistance with market analysis in purchasing and supply management).. For example, whereas Wham-O Toys made a decision about switching the supplier (*Outsourced Backshoring*) for half the production volume of one specific toy, i.e. Frisbees, at Wal-Mart the decision was to bring back (*Domestic Insourcing)* supply chain infrastructure, such as warehousing from an external logistics service provider, opening own warehouses.

Finally, the task/activity characteristics are proposed as another contingency factor, as OBB highlights that the decision making process varies with the buying class, i.e. how frequency, novelty, importance and complexity of the buying task influences information needs (Webster and Wind 1972; Wind and Thomas 1980). Hence, valuable

practical insights would be gained by studying the characteristics of value creation activities in terms of time and information requirements, sources and buying center relationships that make the respective task more or less prone to reshoring and/or insourcing.

4. Limitations and Conclusion

The goal of the study was to enable and stimulate structured future research by providing a conceptual framework of reshoring and insourcing decision making. It sought to address two research questions: First, how can reshoring and insourcing decision alternatives be characterized? Second, which topic areas of reshoring and insourcing decision making remain relatively unexplored and hold most potential for future research? Based on our analysis of the relevant literature as well as illustrative examples from the business press, we put forward three main contributions. The first corresponds to our first research questions and the latter two contributions correspond to our second research question. First, this paper offers a common conceptualization of reshoring and/or insourcing to future research. It differentiates the two phenomena reshoring and insourcing along the governance and location dimensions as well as the respective combinations (summarized in the governance mode/location matrix shown in Figure 1) and illustrates how such a conceptual framework for reshoring/insourcing decisions can be utilized, based on an analysis of practical examples from the business press (shown as the moves summarized in Figure 1). Thereby, we, also provide company examples for further empirical analysis (Table 2).

Second, we provide a reshoring and/or insourcing decision making framework and four future research avenues (FRAs). Taking into account that the drivers exert their impact at different stages of the reshoring/insourcing decision making and implementation process, we chronologically structured and summarized four FRAs in line with established decision process frameworks (Figure 2), adapted from the offshoring literature (McIvor 2010; Handley 2012; Jensen et al. 2013). The FRAs address various aspects proposed in previous research, such as why it is important to investigate the two different scenarios of strategy versus failure (as it has been suggested to study the "why" of backshoring and reshoring in more detail, for example by Fratocchi et al. 2014). Research along these lines will help scholars and practitioners better understand organizational readiness (e.g. supply chain design has been suggested as a dynamic capability in backshoring by Stentoft and Mikkelsen 2014; Stentoft et al. 2015). It will also shed light on the learning aspects in reshoring and insourcing decisions. For example, Kinkel (2014) suggested that such decisions warrants further study if they are now more resilient in comparison to earlier decisions and how companies learn from offshoring failures. Finally, contingency factors and different units and levels of analysis are also important aspects of reshoring and insourcing decisions (e.g. similarly suggested in the offshoring literature by Schmeisser 2013 as

taking into account firm-specific factors and environmental factors, or also by Mukherjee et al. 2013 in terms of home country context and process-related contingencies).

Third, specific research questions accompany the four FRAs to guide future scholarly inquiries along the identified avenues (Table 3). In addition, this research also suggests suitable theoretical perspectives to study the respective research questions.

As with all conceptual research, this study has its limitations: By relying on articles from the US and the German-speaking business press, we geographically limited our search of practical examples to developed Western economies. Out of the 19 potential reshoring and insourcing decision possibilities, examples of only ten possibilities were found in U.S. and German business press. However, both countries are drivers of industrial structure with many multinational firms operating in many different industrial sectors. Hence, despite the shortcomings, this approach allowed us to potentially retrieve a broad array of reshoring and/or insourcing examples. Nevertheless, future research should complete our cases of practical reshoring and/or insourcing examples with further empirical data in particular from emerging economies and other mature economies in order to further enhance external validity of findings. The choice of German and US business press sources was driven, in part, by the authors' primary language skills, which already yielded considerable insights to inspire a future research agenda on the topics. We specifically would like to highlight that considering strong additional theoretical angles to elaborate the topic will allow compensating for geographically limited data availability. With this initial study we hope to fuel further empirical inquiry into the reshoring and insourcing decision making processes of firms.

References

Alcacer J (2006) Location choices across the value chain: How activity and capability influence colocation. Management Science 52:1457-1471

Bals L, Daum A, Tate W (2015) From offshoring to rightshoring: Focus on the backshoring phenomenon. AIB Insights 15(4):3-8

Bals L, Jensen PDØ, Larsen MM, Pedersen T (2013) Exploring layers of complexity in offshoring research and practice. In: Pedersen T, Bals L, Ørberg Jensen, PD, Møller Larsen M (eds) The offshoring challenge: Strategic design and innovation for tomorrow's organization, Springer, London, 1-18

Barney JB (1991) Firm resources and sustained competitive advantage. Journal of Management 17(1):99-120

Benito GRG, Petersen B, Welch LS (2011) Mode combinations and international operations: Theoretical issues and an empirical investigation. Management International Review 51:803-820

Blinder AS (2006) Offshoring: the next industrial revolution. Foreign Affairs 85(2):113-127

Bocken, NMP, Short, SW, Rana, P, Evans, S (2014) A literature and practice review to develop sustainable business model archetypes. Journal of Cleaner Production, 65:42-56.

Boyer KK, Verma R (2000) Multiple raters in survey-based operations management research: A review and tutorial. Production and Operations Management 9(2):128-140.

Cagliano R, Caniato F, Golini R, Kalchschmidt M (2008) Supply chain configurations in a global environment: A longitudinal perspective. Operations Management Research 1(2):86-74.

Calantone RJ, Cavusgil ST, Zhao Y (2002) Learning orientation, firm innovation capability, and firm performance. Industrial Marketing Management 31(6):515-524

Chan D (1996) Cognitive misfit of problem-solving style at work: A facet of person-organization fit. Organizational Behavior and Human Decision Processes 68(3):194-207

Contractor F, Kumar V, Kundu S, Pedersen T., 2010. Reconceptualizing the firm in a world of outsourcing and offshoring: The organizational and geographical relocation of high-value company functions. Journal of Management Studies 47(8):1417-1433

Dearborn DC, Simon HA (1958) Selective perception: A note on the departmental identifications of executives. Sociometry 21(2):140-144

Doh JP (2005) Offshore outsourcing: Implications for international business and strategic management theory and practice. Journal of Management Studies 42(3):695-704

Dunning JH (1980) Towards an eclectic theory of international production: Some empirical tests. Journal of International Business Studies 11(1):9-31

Dunning JH (1981). Explaining the international direct investment position of countries: Towards a dynamic or developmental approach. Weltwirtschaftliches Archiv 117(1):30-64

Dunning JH (1988) The eclectic paradigm of international production: A restatement and some possible extensions. Journal of International Business Studies 19(1):1-31

Dunning JH (1993) The globalization of business: The challenge of the 1990s. Routledge, London

Ellram L, Tate W, Billington C (2008) Offshore outsourcing of professional service: A transaction cost economics perspective. Journal of Operations Management 26(2):148-13

Ellram L (2013) Offshoring, reshoring, and the manufacturing location decision. Journal of Supply Chain Management 49(29): 3-5

Ellram L, Tate W, Petersen K (2013) Offshoring and reshoring: an update on the manufacturing location decision. Journal of Supply Chain Management 49(2):14-22

Feenstra R (1998) Integration of trade and disintegration of production in the global economy. Journal of Economic Perspectives 12(4):31-50

Flanagan JC (1954) The critical incident technique. Psychological bulletin 51(4):327

Foerstl K, Kirchoff JF, Bals L (2016) Reshoring and Insourcing: Drivers and Future Research Directions. International Journal of Physical Distribution and Logistics Management 46(5): 1-26

Fratocchi L, Barbieri P, Di Mauro C, Nassimbeni G, Vignoli M (2013) Manufacturing back-reshoring - An Exploratory approach for hypotheses development. http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2333106. Accessed 13 February 2014

Fratocchi L, Di Mauro C, Barbieri P, Nassimbeni G, Zanoni A (2014) When manufacturing moves back: Concepts and questions. Journal of Purchasing and Supply Chain Management 20(1):1-6

Freytag PV, Clarke AH, Evald MR (2012) Reconsidering outsourcing solutions. European Management Journal 30(2):99-110

Gibbert M, Ruigrok W, Wicki B (2008) What passes as a rigorous case study? Strategic Management Journal 29 (13). 1465-1474

Gray JV, Skowronski K, Esenduran G, Rungtusanatham JM (2013) The reshoring phenomenon: What supply chain academics ought to know and should do. Journal of Supply Chain Management 49(2):27-33

Gremler DD (2004) The critical incident technique in service research. Journal of Service Research 7(1):65-89

Hameri AP, Hintsa J (2009) Assessing the drivers of change for cross-border supply chains. International Journal of Physical Distribution & Logistics Management 39(9):741-761

Handley SM (2012) The perilous effects of capability loss on outsourcing management and performance. Journal of Operations Management 30(1):152-165

Handley SM., Benton Jr WC (2013) The influence of task- and location-specific complexity on the control and coordination costs in global outsourcing relationships. Journal of Operations Management 31(3):109-128

Hätönen J, Eriksson T (2009) 30+ years of research and practice of outsourcing – Exploring the past and anticipating the future. Journal of International Management 15(2):142-155

Hoecht A, Trott P (2006) Outsourcing, information leakage and the risk of losing technology-based competencies. European Business Review 18(5):395-412

Institute for Robotic Process Automation (2015) The Automation of knowledge work will be this decade's engine of growth. http://www.irpanetwork.com/what-is-robotic-process-automation. Accessed 31 May 2015

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

Jensen PDØ, Larsen MM, Pedersen T (2013) The organizational design of offshoring: Taking stock and moving forward. Journal of International Management 19(4):315-323

Kinkel S (2014) Future and impact of backshoring – Some conclusions from 15 years of research on German practices. Journal of Purchasing and Supply Management 20(1):63-65.

Kinkel S (2012) Trends in production relocation and backshoring activities. International Journal of Operations & Production Management 32(6):696-720

Kinkel S, Maloca S (2009) Drivers and antecedents of manufacturing offshoring and backshoring - A German perspective. Journal of Purchasing and Supply Management 15(3):154-165

Lampel J, Giachetti C (2013) International diversification of manufacturing operations: Performance implications and moderating forces. Journal of Operations Management 31(4):213-227

Larsen MM, Manning S, Pedersen T (2013) Uncovering the hidden costs of offshoring: The interplay of complexity, organizational design, and experience. Strategic Management Journal 34(5):533-552

Lasi H, Fettke P, Kemper HG, Feld T, Hoffmann M (2014) Industry 4.0. Business and Information Systems Engineering 6(4):239-242

Levitt B, March JG (1988) Organizational learning. Annual Review of Sociology 14:319-340

Lewin AY, Massini S, Peeters C (2009) Why are companies offshoring innovation? The emerging global race for talent. Journal of International Business Studies 40(6):901-925

Lewin AY, Volberda HW (2011) Co-evolution of global sourcing: the need to understand the underlying mechanisms of firm-decisions to offshore. International Business Review 20(3):241-251

Manuj I, Mentzer JT (2008) Global supply chain risk management strategies. International Journal of Physical Distribution & Logistics Management 38(3):192-223

Maskell P, Pedersen T, Petersen B, Dick-Nielsen J (2007) Learning path to offshore outsourcing: From cost reduction to knowledge seeking. Industry and Innovation 14(3):239-257

McIvor R. (2009) How the transaction cost and resource-based theories of the firm inform outsourcing evaluation. Journal of Operations Management 27(1):45-63

McIvor R (2010) Global services outsourcing, Cambridge, Cambridge University Press.

McIvor, R (2013) Understanding the manufacturing location decision: The case for the transaction cost and capability perspectives. Journal of Supply Chain Management 49(2): 23-26.

Miller V, Mukherji A, Loess K (2013) The complexity of offshoring: A comparative study of Mexican Maquiladora plants and Indian outsourcing offices from an institutional-prospect theory perspective. In: Pedersen T, Bals L, Ørberg Jensen, PD, Møller Larsen M (eds) The offshoring challenge: Strategic design and innovation for tomorrow's organization, Springer, London, 385-405.

Mukherjee D, Gaur AS, Datta A (2013) Creating value through offshore outsourcing: An integrative framework. Journal of International Management 19(4):377-389.

Nachum L, Zaheer S (2005) The persistence of distance? The impact of technology on MNE motivations for foreign investment. Strategic Management Journal 26(8):747-67

Nachum L, Zaheer S, Gross S (2008) Does it matter where countries are? Proximity to knowledge, markets and resources, and MNE location choice. Management Science 54(7)1252-1265

Porter ME, Kramer MR (2011) Creating shared value. Harvard Business Review 89(1/2):62-77

Robinson P, Faris C, Wind Y (1967) Industrial buying and creative marketing. Allyn and Bacon, Boston

Rugman AM (1981) Inside the multinationals: The economics of internal markets. Columbia University Press, New York

Rugman AM (2006) Inside the multinationals. Palgrave Macmillan, New York

Rugman AM, Verbeke A, Nguyen PCQT (2011) Fifty years of international business theory and beyond. Management International Review 51(6):755-786

Schmeisser B (2013) A systematic review of literature on offshoring of value chain activities. Journal of International Management 19(4):390-406.

Slepniov, D, Waehrens, BV, Jorgensen, C (2010) Global operations in motion: Managing configurations and capabilities. Operations Management Research 3(3):107-116.

Stanczyk A, Foerstl K, Busse C, Blome C (2015) Forthcoming. Global sourcing decision making processes: Politics, intuition and procedural rationality. Journal of Business Logistics 36(2):160-181

Stentoft J, Mikkelsen OS, Johnsen TE (2015) Going local: A trend towards insourcing of production? Supply Chain Forum: An International Journal 16(1):2-13

Stentoft J, Mikkelsen OS (2014) Backshoring manufacturing: Notes on an important but under-researched theme. Journal of Purchasing and Supply Management 20(1):60-62

Tate WL, Ellram L, Bals L, Hartmann E (2009) Offshore outsourcing of services: An evolutionary perspective. International Journal of Production Economics 12(2):512-524

Tate WL, Ellram LM, Schoenherr T, Petersen KJ (2014) Global competitive conditions driving the manufacturing location decision. Business Horizons 57(3):381-390

Teece DJ (2007) Explicating dynamic capabilities: the nature and microfoundations of (sustainable) enterprise performance. Strategic Management Journal 28(13):1319-1350

Teece DJ, Pisano G, Shuen A (1997) Dynamic capabilities and strategic management. Strategic Management Journal 18(7):509-533

Webster Jr FE, Wind Y (1972) A general model for understanding organizational buying behavior. Journal of Marketing 36(2):12-19

Wernerfelt B (1984) A resource-based view of the firm. Strategic Management Journal 5(2):171-181

Williamson OE (1973) Markets and hierarchies: some elementary considerations. American Economic Association 63(2):316-325

Williamson OE (1979) Transaction-cost economics: The governance of contractual relations. Journal of Law and Economics 22(2):233-261

Williamson OE (1998) Transaction cost economics: How it works; where it is headed. De Economist 146(1):23-58

Williamson OE (2008) Outsourcing: Transaction cost economics and supply chain management. Journal of Supply Chain Management 44(2):5-16

Wind Y, Thomas R (1980) Conceptual and methodological issues in organisational buying behavior. European Journal of Marketing 14(5-6):239-263

FIGURES AND TABLES

Fig. 1 Practical Clustering of Reshoring and Insourcing Alternatives

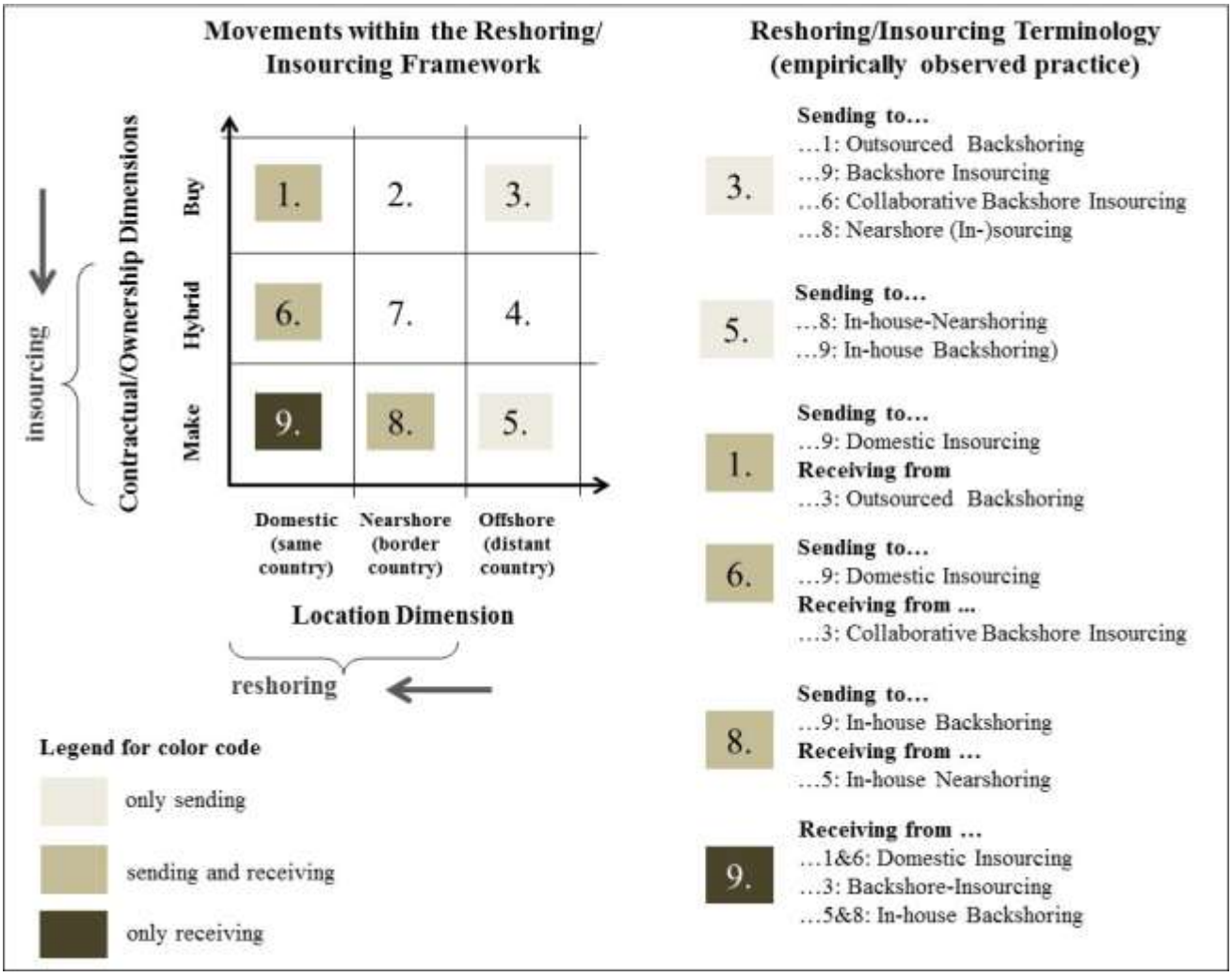

Fig. 2 Future Research Agenda Mapped to Reshoring and Insourcing Decision Making and Implementation Process

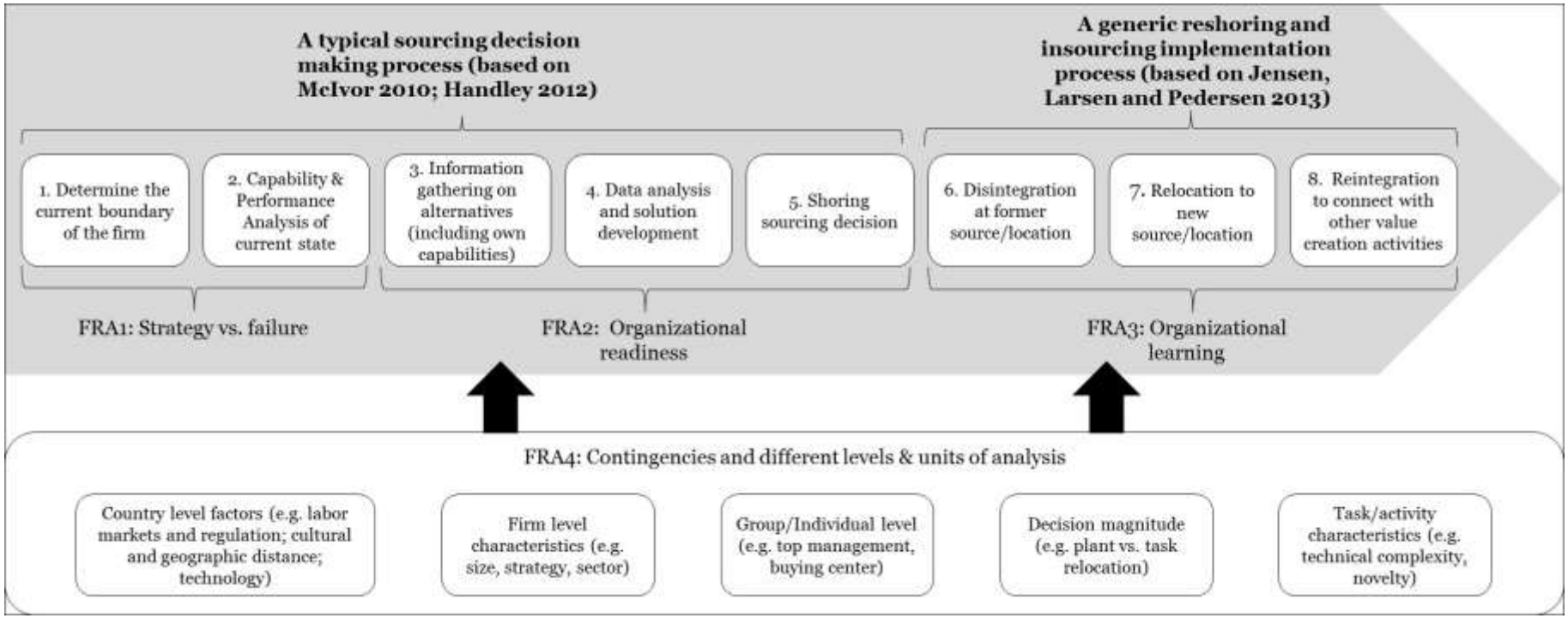

Table 1: Basic Definitions

Term	Definition
Offshoring	Offshoring refers to the relocation of value chain activities outside of the company's home country based on the location of its headquarters, or more generally "international relocation of disaggregated firm value chain activities in captive, collaborative or outsourced governance modes" (Bals et al. 2013:3).
Outsourcing	Outsourcing refers to work that "is performed by independent parties who are not part of the firm's employee base" (Ellram et al. 2008; p. 149).
Reshoring	Reshoring is defined as the relocation of value chain activities from offshore locations to geographically closer locations such as domestic or nearshore countries (e.g. Fratocchi et al. 2014; Gray et al. 2013). *Backshoring* is the decision to partially or fully relocate value chain activities to the home country of the firm's headquarters (Fratocchi et al. 2014; Kinkel and Maloca 2009). *Nearshoring*, on the other hand, denotes repatriating manufacturing capacities from the foreign host country to a location closer to the home country, but not within the borders of the firm's home country (e.g. for a U.S. firm, from China to Mexico) (Fratocchi et al. 2014; Ellram et al. 2013).
Insourcing	Insourcing is defined as "the decision to reincorporate an outsourced activity within a company that had formerly been transferred to an external supplier" (Cabral et al. 2013, p. 2).

Table 2: Practical Examples of Reshoring and Insourcing and their Results

From Strategy […] to […]	Terminology for the Change in Strategy	Practical Example	Reported Results
Change in Ownership of the Task			
1 to 6	*Collaborative Domestic Insourcing*	**not retrieved from the business press**	
1 to 9	*Domestic Insourcing*	▪ **Firm:** JP Morgan Chase ▪ **Task:** Information Systems Services (7years, $5billion contract, terminated after 21 months) ▪ **From:** IBM, US ▪ **To:** JP Morgan Chase, US	▪ **Decision Motivators:** reduced IS efficiency from poorer service levels, slowed innovation adoption ▪ **Result:** publically perceived as management failure
6 to 9	*Domestic Insourcing*	▪ **Firm:** Wal-Mart Inc. ▪ **Task:** Supply chain infrastructure, such as warehousing ▪ **From:** External Logistics Service Provider ▪ **To:** Opening of own warehouses	▪ **Decision Motivators:** Strategic motive of securing strong supply chain capabilities; instability in the market for logistics services ▪ **Result:** Higher internal costs are compensated by higher service level in peak-times
2 to 7	*Collaborative Nearshore Insourcing*	**not retrieved from the business press**	
2 to 8 or 7 to 8	*Nearshore Insourcing*	**not retrieved from the business press**	
3 to 4	*Collaborative Offshore Insourcing*	**not retrieved from the business press**	
3 to 5 or 4 to 5	*Offshore Insourcing*	**not retrieved from the business press**	
Change in Geographic Locational of the Task			
3 to 1 or 2 to 1	*Outsourced Backshoring*	▪ **Firm:** Wal-Mart Inc. ▪ **Task:** Textiles, furniture and higher-end appliances ▪ **From:** Chinese suppliers ▪ **To:** US suppliers	▪ **Decision Motivators:** Reduce lead-time and inventory levels, enhancing responsiveness to volatile demand, subsidies ▪ **Result:** job creation in the US; shorter-time to market resulted in lower stock-levels and less capital lock-up. Responsiveness to seasonality and short-term trends
		▪ **Firm:** Outdoor Greatroom Company ▪ **Task:** Production of fire pits and outdoor shelter ▪ **From:** Chinese suppliers ▪ **To:** US suppliers	▪ **Decision Motivators:** Long order lead-times and capacity reservation & commitment policies with Chinese suppliers. ▪ **Result:** Enhanced flexibility of production schedules and demand responsiveness

		▪ **Firm:** Apple ▪ **Task:** Design, development, and production of personal computers (Mac Pro) ▪ **From:** Asian supplier ▪ **To:** California, USA with Flextronics as assemblers of 'Made in USA' Macs	▪ **Decision Motivators:** "Made in the USA" approach and rising labor costs in Asia, image and reputation ▪ **Result:** Dec 2013: Apple Launches 'Made in USA' Campaign with New Mac Pro
		▪ **Firm:** Wham-O Toys ▪ **Task:** Frisbee production (half the volume) ▪ **From:** China, (Supplier) ▪ **To:** Lompoc, California, USA (Supplier Marvel)	▪ **Decision Motivators:** Reduction of the carbon footprint, local for local production, lower control and coordination costs to serve US market, reduced labor in production process ▪ **Result:** Creation of 12 new jobs, lower inventories
		▪ **Firm:** Google Inc. ▪ **Task:** Production of the NexusQ media streamer ▪ **From:** Chinese Supplier ▪ **To:** San Jose, California, USA (supplier production)	▪ **Decision Motivators:** Soaring labor costs in China, long lead times, protection of intellectual property, irresponsive partners ▪ **Result:** By August, 2012, Google had halted production of the Nexus Q indefinitely; the device was too expensive ($299) and production costs with American wages were too high
3 to 2	*Outsourced Nearshoring*	**not retrieved from the business press**	
5 to 9	*In-house Backshoring*	▪ **Firm:** NCR (US) ▪ **Task:** ATM Production ▪ **From:** China, India ▪ **To:** Columbus, Georgia	▪ **Decision Motivators:** Proximity to the sales market to implement lean production, disconnect between potential overseas production and design teams; government incentives (subsidies); access to skilled, talented workforce ▪ **Result:** Opened a new 350,000-square-foot ATM manufacturing facility, creation of 850 jobs; awarded TAC Award 2014
		▪ **Firm:** Peerless Industries ▪ **Task:** Audio-visual mounting systems ▪ **From:** China ▪ **To:** Aurora, Illinois, USA	▪ **Decision Motivators:** Cost of intellectual property protection, cost of freight, the cost of carrying extra inventory, and the cost of quality assurance and monitoring, low-cost access to land and machinery in Illinois ▪ **Result:** Increased ability to implement product or process changes; major savings due to inventory reduction; responsiveness to demand fluctuations
		▪ **Firm:** Siteco Beleuchtungstechnik GmbH Traunreut, Germany ▪ **Task:** Lighting manufacturing ▪ **From:** Marobor, Slovenia ▪ **To:** Traunreut, Germany	▪ **Decision Motivators:** Decreased labor content (from production automation) and reduced labor costs (after negotiations with core workforce representatives) in Germany; high coordination effort to achieve desired quality levels abroad, rework costs; misperceptions about workforce motivation and cultural proximity ▪ **Result:** Creation of 58 domestic jobs
		▪ **Firm:** Caterpillar ▪ **Task:** Compact engine manufacturing ▪ **From:** Japan ▪ **To:** Victoria, Texas, USA	▪ **Decision Motivators:** Low taxes, predictable regulations, fair courts and skilled workforce, proximity to supply base, proximity to demand

			▪ **Result:** New 600,000 square foot plant, local employment, streamlined administrative and production processes require less buffer inventory
		▪ **Firm:** Yamaha Motor Corp. U.S.A ▪ **Task:** Manufacturing of recreational all-terrain vehicle models ▪ **From:** Japan ▪ **To:** Newnan, Georgia, USA	▪ **Decision Motivators:** Consolidation of production management, manufacturing technologies and R&D, local responsiveness to market demand ▪ **Result:** Creation of 300 jobs; lower logistics and capital lock-up costs
8 to 9	*In-house Backshoring*	▪ **Firm:** Whirlpool ▪ **Task:** Manufacturing of washing machines ▪ **From:** Monterrey, Mexico ▪ **To:** Clyde, Ohio, USA	▪ **Decision Motivators:** Cross-border logistics, production for local market (90% of the commercial machines are sold in the U.S. → tie more directly into U.S. logistics) ▪ **Result:** Reduced logistics costs and less inventory, March 2014: Creation of 400 jobs in southwest Ohio (expected to be complete by 2018)
		▪ **Firm:** Otis ▪ **Task:** Elevator production ▪ **From:** Mexico ▪ **To:** South Carolina	▪ **Decision Motivators:** Colocation of R&D and production, shorter order lead-times (backlog of overdue elevators caused order cancellations) save money and help fill orders faster ▪ **Result: P**roduction cost reduction through reduction of indirect costs (rework, quality, capital lock-up)
		▪ **Firm:** Ford Motor Company ▪ **Task:** Production assembly of the F-series pickups ▪ **From:** Mexico ▪ **To:** Ohio	▪ **Decision Motivators:** to take full control of design and engineering and production in one place, subsidies, favorable worker union agreements, energy and shipping costs, access to skilled workers, ▪ **Result:** Production start in 2015, bringing 2000 jobs to the region, consideration to reshore more models from China, Japan and Mexico
		▪ **Firm:** Electrolux (Headquartered in Stockholm, Sweden) ▪ **Task:** Household appliances and appliances for professional use ▪ **From:** Quebec, Canada ▪ **To:** Memphis, Tennessee, USA	▪ **Decision Motivators:** Highly skilled and motivated workforce, low cost labor ($13.5/hour); government incentives ▪ **Result:** Factory carries high expectations as a long-term job producer from politicians; reduced logistical complexity and inventory reduction
5 to 8	*In-house Nearshoring*	▪ **Firm:** NCR (European HQ in Germany) ▪ **Task:** ATM Production ▪ **From:** China, India, ▪ **To:** Hungary	▪ **Decision Motivators:** Proximity to the sales market to implement lean production, access to skilled, talented and work force ▪ **Result:** Reduced shipping cost, reduced inventory, less lead time
4 to 6 or 7 to 6	*Collaborative Backshoring*	**not retrieved from the business press**	
4 to 7	*Collaborative Nearshoring*	**not retrieved from the business press**	
Ownership and Locational (Two Dimensional) change of the task			
2 to 9 or		▪ **Firm:** General Electrics (GE)	▪ **Decision Motivators:** Declining sales from quality problems

3 to 9 or 4 to 9	*Backshore Insourcing*	▪ **Task:** Appliance production (GeoSpring water heater) ▪ **From:** Chinese supplier ▪ **To:** Previously abandoned site in Louisville, Kentucky (initial investment of $800 million).	▪ **Result:** Material and labor cost went down; energy efficiency went up. GE beat the China-made price of $1,599 compared to Louisville-made $1,299. Also the manufacture of washing machines and refrigerators moved from China to Kentucky
		▪ **Firm:** Varta Microbattery GmbH, Ellwangen, Germany ▪ **Task:** Small rechargeable and non-rechargeable button cells (micro batteries) for consumer electronics and medical equipment ▪ **From:** Singaporean supplier ▪ **To:** Own plant in Germany	▪ **Decision Motivators:** Change of product strategy away from heavy mass produced heavy industrial and automotive batteries; resulted in the necessity of internal R&D and production integration to deal with shortening product life-cycles ▪ **Result:** numerous successful new product launches**;** faster-time to market than before; job creation in Germany and labor motivation went up
		▪ **Firm:** Sleek Audio ▪ **Task:** High end headphones ▪ **From:** Chinese suppliers ▪ **To:** Self-owned manufacturing plant in Manatee County, Florida	▪ **Decision Motivators:** Strategic motives due to loss of local control over manufacturing processes and quality assurance ▪ **Result:** Shorter-lead times, automated production and enhanced capacity utilization of Florida plant
		▪ **Firm:** Ericson ▪ **Task:** Product integration (network products global communication equipment), testing, repair operations, and the management of the supply chain ▪ **From:** Supply Chain Service providers such as Flextronics, Sanmina-SCI and Solectron with production in Far East ▪ **To:** Fully-owned Swedish plant	▪ **Decision Motivators:** Economic downturn affecting the telecommunications market in 2002-2003; dissatisfaction with product and management quality; decreased cost advantage from outsourcing (higher logistics and storage costs) ▪ **Result:** Safeguarding internal capacity utilization, faster lead-time and more reliable production-yield
		▪ **Firm:** The Coleman Company ▪ **Task:** 16-quarter wheeled plastic cooler ▪ **From:** China (supplier) ▪ **To:** Wichita, Kansas, USA (own production plant)	▪ **Decision Motivators:** Rising Chinese manufacturing and shipping costs; vulnerability of the supply chain to external events ▪ **Result:** Lower coordination effort, lower inventory levels
3 to 6	*Collaborative Backshore Insourcing*	▪ **Firm:** Outdoor Greatroom Company ▪ **Task:** production of fire pits and outdoor shelter ▪ **From:** Chinese, contractors ▪ **To:** USA, long-term supplier	▪ **Decision Motivators:** Long order lead-times and capacity reservation & commitment policies with Chinese suppliers; "American-made" approach as image campaign ▪ **Result:** The company's offerings are 60% domestic-made products, improves the speed of fulfilling customer orders
3 to 7	*Collaborative Nearshore Insourcing*	**not retrieved from the business press**	

3 to 8 or **4 to 8 or**	*Nearshore (In)sourcing*	▪ **Firm:** Margarete Steiff GmbH. ▪ **Task:** Production of cuddly toys / stuffed animals ▪ **From:** Chinese contract manufacturer ▪ **To:** Company-owned production facilities in Portugal and Tunisia	▪ **Decision Motivators:** Tremendous resources to keep the quality standards at the desired high level in China (Fehr 2010); cost of auditing to guarantee humane working conditions; high fluctuation rates in their labor force; peak demand eased, cultural and spatial distance ▪ **Result:** Capacity in nearshore plants was expanded
2 to 6 or **5 to 6 or** **8 to 6**	*Collaborative Backshore (In)sourcing*	▪ **Firm:** Lemken GmbH & Co.KG, Germany ▪ **Task:** design, production, sale of agricultural machinery for soil working and sowing. ▪ **From:** Kaliningrad, Russia (est 1993) ▪ **To: Germany** in 1997 (to a long-term German supplier – so it was in fact backshore-partnership of production but design was done in-house and sales remained in Russia)	▪ **Decision Motivators:** Varying quality, low productivity, high monitoring cost, high material (steal price) and energy cost, lack of worker motivation and qualification, arbitrary import 6 export practices at the Polish-Russian and Russian-Lithuanian border ▪ **Result:** Lower safety stocks causing less capital lock-up; less delivery delays and backlogs
		▪ **Firm:** Katjes Fassin GmbH & Co. KG ▪ **Task:** Production of sweets of newly acquired brands ▪ **From:** Finland and Italy (own sites) ▪ **To:** Germany (long-term supplier)	▪ **Decision Motivators:** Unsatisfactory quality (Finland); production yield and cost fluctuations (Italy) **Result:** Increase output and security of supply to retail customers

Table 3: Research Questions Mapped to Future Research Avenues (FRAs)

FRAs	Specific Research Questions	Recommended Theoretical Perspective
FRA1: Strategy vs. failure	Investigate: • …implications of decisions resulting from failure vs. strategic intent • …the underlying processes behind reshoring and insourcing decisions • …risk mitigation and disruption prevention • …supplier contract renewals allowing new strategic focus…impact on supply chain structure and relationships	• TCE • Critical incident technique
FRA2: Organizational readiness	Investigate: • …firms' ability to handle the eventual outcomes of their decisions • …readiness at various levels of analysis, i.e. country (e.g. labor laws), supplier network (e.g. contractual agreements), company (e.g. production capacities), groups and teams (e.g. functional representatives involved in the buying center) and individual (owners and top management). • … bandwagon effects and other decision biases in the valuation of drivers and performance benefits • …what types of managerial experiences and values impact reshoring and/or insourcing decisions • …the perception of readiness across the buying center • …buying center decision making biases related to group composition • …organizational readiness to deal with different levels of governance and locational relationships (country, supply chain, company, individual)	• Resource-based view • Resource dependence theory • Relational view • OBB • Dynamic capabilities
FRA3: Organizational learning	Investigate: • …effect of changes in experience portfolio within buying center on decision making • … whether some of the moves in Figure 1 actually more difficult than others and require more experience and the development of other and/or more complex capabilities • …whether some offshore-outsourcing decisions are easier to reverse than others as a result of stronger or weaker capability loss	• Learning orientation of the firm • Absorptive capacity
FRA4: Contingency factors and different levels & units of analysis	Investigate: • …social capital available in home country • …changing requirements regarding educated and skilled labor • …disruptive technological advances causing supplier competitive and geographic comparative advantages to erode (e.g. 3D printing) • …control and monitoring costs of distant vs. close suppliers and in-house locations • …purchasing categories that favor or hinder reshoring/insourcing	• Critical incident technique • OBB • RBV • TCE • Contingency theory