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Overcoming Blind Spots in Global Sourcing Research: Exploiting the Cross-Sections between Supply Chain Management and International Business

Abstract

This article reviews existing work on global sourcing and suggests a number of new theoretical directions for research in this area. We discuss how international business (IB) and supply chain management (SCM) research can benefit from increased cross-fertilization of themes and perspectives. We begin by introducing a taxonomy of global sourcing research, building on relevant insights from SCM research. We then generate recommendations for potential future research on global sourcing, particularly highlighting antecedents, processes, performance and contextual variables. SCM research employs the entire supply chain as the primary unit of analysis (rather than the individual firm), while IB research focuses primarily on international aspects, adapting to institutional contexts in a globalized world. Building on this complementarity, several specific empirical directions are proposed for future research directions.

Keywords:

Global sourcing; global supply chains; international business; supply chain management

1. Introduction

Global sourcing has long attracted attention from international business (IB) scholars, partly in response to the extensive use of global sourcing in practice (e.g., Kotabe, 1992). Global sourcing strategy is broadly concerned with the set of upstream and cross-border choices that firms make in organizing their upstream supply base. Although the IB literature on upstream choices is nowhere near as large as the literature on downstream choices, particularly the issue of market entry, a substantial body of work has now emerged (Schmeisser, 2013). The breadth of topics covered under the general body of work in global sourcing *inter alia* includes core competencies, network design, supplier integration in new product innovation, value chain integration, and sustainable sourcing (Kotabe, 1992; Monczka et al., 2016).

We note that across the IB literature on global sourcing, cross-fertilization of research from other disciplines remains limited. This is surprising as global sourcing has been examined from a variety of disciplinary and theoretical lenses, including supply chain management (SCM), economic geography, organization theory, strategic management, political science, sustainability, and economics (Antràs and Helpman, 2004; Berry and Kaul, 2015; Jia et al., 2017; Kotabe, 1992). We believe that SCM is a particularly promising discipline to help create new research directions for the IB literature. However, in spite of significant parallels, there currently exists a paucity of cross-pollination of ideas across the IB and SCM bodies of research on global sourcing.

In addressing this gap, we assess the current state of the global sourcing literature to better understand what IB and SCM researchers can learn from each other. Our central objective is to encourage cross-fertilization between these two domains, and establish opportunities for a deeper understanding global sourcing phenomena. We find unexploited complementarities in how SCM and IB consider global sourcing activities. Bringing together these bodies of work thus helps to

challenge conventional wisdom in global sourcing research and may also bring together individual SCM and IB researchers (as is the case for the authors of this article). Specifically, we argue that global sourcing research in IB journals can benefit from two major shifts: A shift from the perspective of the *de-jure* firm, i.e. the focal company, towards the *de-facto* firm, i.e. the supply chain; and a shift from a focus on intra-firm coordination towards a focus on dyadic inter-firm relationships (and beyond). Meanwhile global sourcing research in SCM journals can benefit from improved contextualization, particularly by recognizing the importance and nature of a variety of institutions affecting (global) supply chains.

We begin with a summary of concepts in global sourcing research and then depict a taxonomy. Based on this taxonomy, we derive a number of key research questions that apply to global sourcing. Then we match these questions and conceptual perspectives, observing how these perspectives have been applied, where the key gaps lie, and what potential theories can address these gaps. Building upon this we identify a number of directions for future empirical research on global sourcing. The key contributions from this article are therefore threefold: First, through an organized review of the literature and providing a taxonomy we help scholars to locate and position their work; second, by encouraging cross-fertilization we hope to redirect work in the area of global sourcing; and third, by proposing specific research directions we open up opportunities for new empirical and conceptual research projects.

2. Definitions and Key Concepts

Offshoring and outsourcing, and their counterparts, reshoring and insourcing, are key concepts used in global sourcing and are typically portrayed along geographical and governance-mode dimensions (see Figure 1). Over the last two decades this framework has emerged as the dominant

categorization among both SCM (e.g. Foerstl et al., 2016; Gray et al., 2013; Jahns et al., 2006; Tate and Bals, 2017; Tate et al., 2016) and IB (e.g. Contractor et al., 2010; Davidson, 1982; Jensen et al., 2013; Mudambi, 2008) scholars.

-----**Insert Figure 1 Approximately Here**-----

Considering the interrelatedness of these phenomena, for example, global sourcing may follow offshore outsourcing; as Kotabe and Murray (2004, p. 9) note: “a global company adds another international plant to its network of existing plants, it creates the need for sourcing of components and other semi-processed goods to and from new to existing plants. Global manufacturing adds enormously to global sourcing activities either within the same company across national boundaries or between independent suppliers and new plants.”

Global sourcing research in IB has its roots in the historical work on location and control in (globally) dispersed value-added activities (Buckley and Hashai, 2004, 2005; Dunning, 1993, 1998; Kedia and Mukherjee, 2009; Kotabe and Omura, 1989; Leff, 1974). Kotabe and Mol (2006) present much of the foundational work in the IB literature. However, there appears to be a disconnection between that foundational global sourcing work and the stream of work that has emerged over the past decade and a half under the offshoring label in IB and other fields. It is useful to dwell a little on what may have caused this discrepancy.

The underlying practices of global sourcing has evolved to become more complicated and sophisticated, so much so that the concepts discussed in earlier literature may no longer suffice for describing these practices. Global sourcing can include any of the following situations: a single offshore supplier, a tier-2 supplier of components going into an offshore assembly facility, a local cluster of suppliers that support a regional manufacturing facility (e.g. automotive cluster), or a network of global suppliers exporting to multiple production facilities across multiple global

regions. And while the original global sourcing literature mostly discusses components sourced by manufacturing firms, the offshoring literature often looks at services including R&D activities. As such, we find that the objective functions pursued by firms and studied by scholars has shifted; where global sourcing in the early days often had a cost minimization objective, the offshoring literature has increasingly looked at value-based outcomes such as new knowledge and innovation. As an aside, we note that the cost minimization model is increasingly called into question due to both rising labor costs in emerging countries and the discovery of a range of hidden costs associated with operating supply chains across countries (e.g. the “total landed cost”). Furthermore, the terminology developed in the popular press (“offshoring” and “outsourcing”), which was subsequently adopted in scholarly work, rightly or wrongly suggested that an entirely new phenomenon had emerged. Some of the well-cited earlier IB work in this line of inquiry included Doh (2005) and Lewin, Massini and Peeters (2009), who make (almost) no reference to prior work on global sourcing.

A plausible explanation for this omission is that global sourcing of manufactured components and offshoring of innovation activities are qualitatively so different in nature, that the two bodies of literature should really operate in parallel rather than progressing in a linear fashion. It could be that since the offshoring/reshoring and outsourcing/insourcing research terminology became largely based on two dimensions (governance and location, as shown in Figure 1), there was no manner to reconcile the terminology to allow ‘global sourcing’ to fit into it. Another, less benign explanation, would be that global sourcing is such a significant novelty in IB research that authors are led to believe that putting old wine (global sourcing) in new bottles (offshoring) is worthwhile. We do not seek to argue for or against either position in this paper. However, we offer an observation, that if practitioners start using different terms the academic literature generally ought to follow suit – i.e., academics have to be agnostic regarding their choice of terms.

Our observations regarding the state of global sourcing led us to begin the process of reviewing and summarizing the contributions to global sourcing research from both the SCM and IB perspectives. Figure 2 provides a visual summary of our observations, which we use as the foundation for this study. In Figure 2, apart from the governance and location dimensions that were already included in Figure 1, we introduce an additional dimension that addresses archetypical relationships that may develop in global sourcing environments, i.e. the integration and coordination dimension. Specifically, different forms of inter-organizational relationships may occur along a spectrum of integration and coordination needs that may arise when firms source across borders. These may be a function of the cross-national geographic scope associated with the term “global sourcing” (Davidson, 1982). Although the IB global sourcing literature discusses global integration and coordination (of subsidiaries, knowledge, etc.), discussion of integration and coordination between buyers and sellers has not played much of a role. Recently, the IB research has focused more on different activities as individual modules (Contractor et al., 2010; Larsen, 2016; Lewin et al., 2009). We suggest the dimension of relationship governance is critical to understanding the organizational implications of cross-boundary sourcing activities.

-----Insert Figure 2 Approximately Here-----

2.1 Scope of Global Sourcing – Governance Dimension

The issue of governance scope constitutes a key difference between the two dimensions (Figure 2). IB research considers global sourcing within the scope of all three governance options (“make” “hybrid”, and “buy”), and typically compares the performance amongst them. For example, in the 1990s, global sourcing was defined as the acquisition of components and products from international sources, including both *internal subsidiaries* and *external suppliers* (Kotabe and Omura, 1989; Kotabe and Swan, 1994); Murray et al. (1995, p. 181) argued that “[g]lobal sourcing

involves setting up production operations in different countries to serve various markets, or buying and assembling components, parts or finished products worldwide”. More recently, Schmeisser (2013, p. 390) stated that “offshoring can be understood as a specific manifestation of firm internationalization that is primarily concerned with the internationalization of the firm’s input-market side rather than with the internationalization of sales on the output-market side of the value chain”.

The focus in SCM, by contrast, has historically been to adopt an interfunctional and interorganizational perspective (Das and Handfield, 1997; Mentzer et al., 2001; Monczka et al., 2016). This approach focuses less on a company-specific perspective, but rather envisions the entire supply chain as a quasi-firm which then serves as the primary unit of analysis. For instance, Lambert and Cooper (2000, p. 65) write: “One of the most significant paradigm shifts of modern business management is that individual businesses no longer compete as solely autonomous entities, but rather as supply chains”. This unit of analysis is relative to a particular agent and product (Carter et al., 2015). A prominent shift in supply chain thinking is exemplified by the close alignment of Apple and Foxconn whose processes are interlinked, resulting in value creation to the final user (Froud et al., 2014). More recent work on the digital shifts brought about by the shrinking of global markets emphasize the need for “federated” chains that are consistent with evolution of species (Handfield and Linton, 2017). In this sense, we define global sourcing in terms of the governance, integration and coordination among the organizations in a global supply chain as the *de-facto* firm, with the goal of creating value. This *de-facto* firm consists of multiple enterprises in an integrated network operating as a combined entity. This framework considers not only manufacturing activities, but indeed also technology development, design, and end-of-life-cycle management.

2.2 Location Dimension

As noted above, the question where to locate provision of activities is often intricately linked with the governance decision (e.g. Foerstl et al., 2016; Gray et al., 2013; Contractor et al., 2010; Jensen et al., 2013; Mudambi, 2008). Location research has a long tradition in IB, including work on foreign investment activities (Buckley & Casson, 1976), the ownership-location-internalization paradigm of Dunning (1977), and country-specific advantages (Rugman, 1981). Dunning (1988) differentiated between three categories affecting location decisions, i.e. infrastructure, country risk, and government policy. Subsequent research supports these components empirically (e.g. Mudambi, 1995) and added further potential location advantages such as human capital (Doh, 2005; Graf and Mudambi, 2005; Kedia and Mukherjee, 2009), often focusing on the offshoring context. Location-specific resource advantages (based on geographic location theory and human capital theory) have been emphasized as drivers of offshoring (Kedia and Mukherjee, 2009).

Research on location choice research in SCM research has drawn on transaction cost economics and the resource-based view, particularly highlighting how geographical context might alter transaction costs (McIvor, 2013) and how factor market rivalry affects trends such as ‘reshoring’ (Tate et al., 2014). A special issue on “offshoring, reshoring and the manufacturing location decision” in the Journal of Supply Chain Management in 2013 produced some combined IB and SCM insights on the location decision (e.g. Casson, 2013; Ellram et al., 2013; McIvor, 2013). Since then, additional SCM research (focusing on high-cost countries context) has sought to investigate location decisions using economic attractiveness as well as organizational and technological interdependencies (Ketokivi et al., 2017). We are also witnessing a heightened attention on the effect of government tariffs as a driver towards “localization” of supply chains within trading partners, which is driving supply chain transformation (Vaiseethwaran, 2019).

It is important to clarify that the location dimension as highlighted in Figure 1 centers on the activities transferred, not on the internal organization of the company. In order to cope with an increasingly global supply base, companies may well decide to also change their internal set-up, e.g. by setting up International Purchasing Offices in geographical proximity (Jia et al., 2014). That implies that internal geographic dispersion increases, as members from the focal organization's purchasing team are spread across more than one location (Gibson and Gibbs, 2006). Such changes are an important context for our arguments presented in the next section regarding the integration and coordination dimension. In line with discussions on the expanding international supply base associated with 'global sourcing' in SCM research, geographic dispersion of suppliers has been defined in terms of how a firm's global third party spend is distributed across geographically defined regions (Stock et al., 2000) (shown in Figure 2).

2.3 Scope of Global Sourcing – Integration and Coordination Dimension

Kotabe and Omura emphasize in their 1989 study that the results do not “address the coordination of components sourcing for firms that use multiple sourcing strategies, but a high level of coordination is anticipated and should be an issue for future research” (p. 127). In 1992, Kotabe defined global sourcing as: “Management of the interfaces among R&D, manufacturing and marketing on a global basis and of logistics identifying which production units will serve which particular markets and how components will be supplied for production, such that the firm can exploit both its own advantages and the comparative advantages of various countries” (p. 6). Later IB research has highlighted that firms need both the organizational and technological capacity to decouple and coordinate a network of remotely located in-house and external suppliers (Mudambi, 2008). Kotabe et al. (2008) state: “Thus, executives should understand and appreciate the important roles that product designers, engineers, and production managers, and purchasing managers, among

others, play in global sourcing strategy development” (p. 37). Recent research also suggests that such coordination and cross-functional alignment should occur at the product category level (Trautmann et al., 2009a; Handfield et al., 2015). Yet, as noted earlier, leaving aside few exceptions (Kukharsky, 2016), recent IB work on global sourcing has not focused on functional integration of activities across borders (cf. Bartlett and Ghoshal, 1989; Gereffi and Korzeniewicz, 1994).¹ More generally, some IB literature has discussed changes in internalization advantages (in the context of offshoring), such as increases in overhead costs to coordinate vertical integration, and how new IT and communication technologies have reduced coordination costs for cross-border activities (Kedia and Mukherjee, 2009), but a direct application to global sourcing and the functional level is still lacking.

By contrast, SCM scholars have consistently defined global sourcing as the *integration and coordination* of sourcing requirements across worldwide locations (Monczka and Trent, 1991). In SCM, distant geographical locations of suppliers and internal coordination of sourcing activities (Trent and Monczka, 2005) are both seen as necessary conditions to speak of “global sourcing”, rather than “international purchasing” (Arnold, 1989; Das and Handfield, 1997; Trent and Monczka, 2003).² Reflecting the perceived complexity of global sourcing, SCM scholars have pointed out that it is critical to align global sourcing with organizational design (Bozarth et al., 1998; Handfield et al., 2015; Quintens et al., 2006; Trent and Monczka, 2003; Trent, 2004). Increased geographic dispersion of internal teams implies that decision making becomes more challenging to coordinate due to organizational boundaries between business units, subsidiaries

¹ Recent research proposes that global sourcing has three dimensions, i.e. degree of internationalization, internal integration, and external integration (Jia et al., 2017). The latter we capture by the governance dimension. Moreover, a commodity chain only becomes global when there is an attempt to organize and optimize an international commodity chain by parties from multiple countries (Gereffi and Korzeniewicz, 1994).

² Dicken (2007) argued that the functional integration of internationally dispersed activities is the main difference between the current era of ‘globalization’ and earlier ‘internationalization’, which was characterized by a simple geographic spread of economic activities across national boundaries.

and functions (Rozemeijer, van Weele & Weggeman, 2003). Recent work in this field has therefore studied the capabilities required to manage distance in purchasing, i.e. the distance both between the source and the user, as well as between the user and others such as budget holders for spend in the business units of a multinational company (Lorentz, Kumar and Srari, 2018).

This more explicit focus on coordination and integration in SCM research compared to IB might stem from a different level of analysis. Much IB research is at the firm level, focusing on cross-border transactions and choices around ownership structures and supplier locations (e.g. Antràs and Rossi-Hansberg, 2009; Berry and Kaul, 2015), meaning the unit of analysis is the *de-jure* firm and its relationship to a set of suppliers. SCM research, however, adopts an interfunctional and interorganizational perspective, recognizing that cross-enterprise integration may distribute ownership of decision-making. For instance, more mature levels of global sourcing are more likely to include higher levels of information exchange, informal partnering, proprietary exchange of product and process design, and other activities (Bozarth et al., 1998). By breaking down functional and organizational “silos” and ownership structures, the unit of analysis is shifted towards the supply chain as a *de-facto* firm. We believe, IB scholars could likewise shift their attention from the *de-jure* firm towards the *de-facto* firm unit of analysis, which opens up a whole new dimension for organizational design considerations.

The SCM discipline offers development (“maturity”) models to differentiate international sourcing from global sourcing. The latter requires relatively high coordination on the focal firm’s side, within its purchasing units, specifically on levels four and five in the Trent and Monczka model (1991, 2003 and 2005), as shown in Table 1. Trent and Monczka (2003, p. 614) argue that “[o]nly those firms that have worldwide design, development, production and global procurement capabilities can progress to this level”. Applying such a functional view can, for example, serve to

study how hybrid purchasing organizations, which mix centralized and decentralized steering elements, can produce coordination and integration benefits, such as economies of scale, information, improved technology and quality levels, responsiveness, learning, and process efficiencies in global sourcing (Bozarth et al., 1998; Trautmann et al., 2009a; Handfield et al., 2015). Different organizational designs of purchasing units enable global sourcing by adequately matching information processing needs (Trautmann et al., 2009b) and there are differences in the effectiveness of global sourcing decision-making processes (Stanczyk et al., 2015).

-----**Insert Table 1 Approximately Here**-----

Although such maturity models have their limitations in explaining firm behaviors, they are useful for classification purposes. We synthesize these insights in Figure 2, in seeking to depict the full scale of global sourcing. This figure highlights the integration and coordination dimension associated with SCM research, recognizing that only organizations at levels 4 and 5 are truly sourcing on a global scale,³ while also integrating the dimension spanning hybrid, make and buy options proposed in the IB research. In the next section, we further describe Figure 2 as a basis for developing a framework for future research in global sourcing.

3. Toward a Framework for Future Research on Global Sourcing

There are four basic questions one can ask about global sourcing, as proposed in Figure 3. These questions, in some shape or form, have dominated the IB discussion of global sourcing (see for

³ Note that since this is an activity lens companies can and do simultaneously engage in combinations of options even for the same product, such as Apple's iPhone (Mudambi, 2008).

instance Kano, 2018; Lahiri, 2015; Lahiri and Kedia, 2009; Larsen, 2016; Mol and Brewster, 2014; Roza, Van den Bosch and Volberda, 2011).

- 1) What are the drivers of global sourcing (e.g., are enterprises forced into this mode to remain competitive, or is this a specific set of decisions tied to a global organizational strategy)?
- 2) How do global sourcing strategies evolve over time (e.g., what are the different strategic paths and processes that lead to different outcomes)?
- 3) What are the (performance) consequences associated with global sourcing (e.g., how does global sourcing affect a range of performance outcomes)?
- 4) How should global sourcing be implemented and executed to achieve the desired outcome (e.g., how do such activities need to be staffed; what are appropriate organizational forms)?

Furthermore, there is a fifth question underlying each of these four questions: What contextual variables influence global sourcing choices, implementation processes, (performance) consequences, and implementations (Kotabe and Mol, 2006)?

-----**Insert Figure 3 Approximately Here**-----

These definitions and taxonomies contain a number of similarities as well as differences in the context of IB and SCM research. One of the key differences concerns the varying scope of global sourcing on the make-or-buy spectrum (cf. Fig. 2). Another difference is that in comparison to the IB discipline, the SCM discipline has been exploring this phenomenon for some time, taking into account all three proposed dimensions. Yet IB research has done much more to study the formal and informal institutional context (the fifth question above).

Building on the three dimensions introduced in Figures 1 and 2, and incorporating the five questions shown in Figure 3, Figure 4 suggests that as organizations have become more mature in their global sourcing efforts, they have moved away from simply offshoring contracted

relationships, and are moving towards a higher level of integration that extends beyond cross-functional alignment, towards sharing of technology, establishing stronger interpersonal relationships, and developing highly efficient logistical networks connected digitally.

By basing our framework on a newly introduced scope of global sourcing that integrates the context of interfirm level integration and coordination, we believe a broader ecosystem of organizational variables can be introduced that may better explain shifts we are witnessing in today's global economy.

-----Insert Figure 4 Approximately Here-----

Moreover, the different colors shown in Figure 4 help visualize the difference in scope between current IB and SCM research. For SCM, global sourcing's scope (highlighted in grey) is specifically about 'buy' scenarios that occur either nearshore or offshore and can be classified as either level 4 or 5 on the integration and coordination dimension. For IB research global sourcing spans the full range of the governance dimension ('buy', 'hybrid' and 'make'), but also (implicitly) involves a high level of integration and coordination. We propose here to extend these dimensions further, in order to 1) build a bridge between these diverse research streams so that they may borrow frameworks and learn from each other, and 2) add a sixth level for the integration and coordination dimension in addition to the five established levels shown earlier in Table 1. This sixth dimension holds promise as an area of future research for both fields, as it proposes that some supply chains move to an orchestrated state at the interfirm level, and move beyond the *de-jure* firm level to the *de-facto* firm level across supply chains. In relating this dimension to the questions in Figure 3, Figure 4 highlights that future research could shed further light on the drivers, decisions, performance, implementation processes and contextual factors that exist in the context of a common global sourcing taxonomy.

To summarize, the framework shown in Figure 4 represents a step-wise development from Figure 1 (two dimensions), to Figure 2 (three dimensions) to Figure 4 (summarizing the scope differences of IB and SCM in the framework of Figure 2). This approach highlights the full spectrum of operating models that exist within both the SCM global sourcing and IB literature today, and creates a common model allowing discussion and debate to occur around a common framework.

Next we proceed to explore these questions further in the context of a number of theoretical lenses tied to the foundations of SCM research. We briefly describe them here, as not all of them may be familiar to the IB reader. We do not intend to examine the entire breadth of relevant SCM theories, as this has been done elsewhere (e.g., Hult, 2011).

3.1 Bullwhip Theory

The bullwhip effect, also known as the Forrester effect, represents one of the first major theoretical advances in the discipline of SCM. This theory is effective in explaining the unexpected outcomes observed in a retail supply chain when an organization's orders to its suppliers display greater variation than the original demand for those orders further downstream (Forrester, 1961; Lee et al., 1997). This relationship is ascribed to behaviorally rational decision making. In the pre-SCM age, when suppliers' suppliers and customers' customers were ignored as part of a black box viewed as an external "environment", organizations simply assumed they had to live with a given type of order variability, which they buffered with inventory. This paradigm changed when supply chain thinking enabled organizations to explain the underlying phenomena as part of the bullwhip effect (Lee, 2010), i.e. when switching the focus from the *de-jure* firm (= the firm as a legal entity) to *de-facto* firm (= the supply chain). Recent studies based on empirical analyses (e.g., Shan et al., 2014), laboratory experiments (e.g., Croson et al., 2014) and simulation models (e.g., Wan and Evers,

2011) reliably demonstrate that the bullwhip effect's hypotheses are largely supported. In a cross-national context, lack of insight into customer demand is typically greater. So we see the bullwhip effect as potentially being of particular importance to the coordination and integration aspect of global sourcing, because efforts to improve information and communication across the supply chain are particularly helpful for reducing the bullwhip effect. It is subject to future research to explore whether *global* sourcing settings are particularly exposed to the adverse effects of the bullwhip effect, due to factors such as the liability of foreignness and institutional differences (e.g. formal and informal contracts, culture) that make coordination more difficult than it would be in local settings.

3.2 Transaction Cost Economics

Transaction cost economics (TCE) is far from new to IB scholars. There is, however, a different emphasis in the SCM literature. TCE is the singular most popular theory used to ground SCM research (Defee et al., 2010), but a sharp and on-going debate is under way about its usefulness between TCE and SCM scholars (e.g., Williamson, 2008; Zipkin, 2012). Many phenomena in SCM research can be formulated as contracting problems (Cachon, 2003) and in this context TCE's ability to explain behaviors with a high degree of abstraction is a powerful and useful theoretical foundation upon which to build empirical models. Yet TCE fails to explain SCM phenomena that are unrelated to the specific class of problems spanning supply chain relationships. SCM research poses that we should explore the notion that clusters of related transactions can be organized as supply chains to satisfy a demand; this may cause a shift within the TCE literature "from a focus on bilateral transactions, to examining transactions within a supply chain context" (Wever et al., 2012). Research on global sourcing may also benefit from the ongoing debate that introduced three distinct network forms of governance lying between the extreme end points of Williamson's characterization of markets versus hierarchies, which can be conceived as three types of supply

chain (Gereffi et al., 2005). This particularly addresses the governance dimension of global sourcing, providing a more sophisticated way of describing intermediate forms of ownership. The IB literature could benefit from such extensions of TCE, as they better reflect the empirical reality of longer-term global relationships.

3.3 Contingency Theory

The term “contingency theory” has been used as an umbrella term for the alignment of culture, people, strategy, structure, and technology that results in ubiquitous performance improvement (Galbraith, 1977; Lawrence and Lorsch, 1967). This body of theory has been criticized for methodological and theoretical reasons (Tosi and Slocum, 1984). In particular, contingency theory critics claim it is not a real “theory” (Schoonhoven, 1981), and that researchers have used contingency approaches to explain all types of phenomena that identify a “fit” between two arbitrary variables. Despite these claims, a great number of studies have adopted contingency approaches to explain relationships between ecosystem and organizational variables in SCM strategy. For instance, Fawcett et al. (2008) argue that the actions of strategic supply chains must align with the external environment to succeed in creating value. Fisher (1997) proposed that a match between product characteristics and supply chain strategies is needed to succeed in creating customer value; Wagner et al. (2012) provide empirical support for this model. Lee’s (2002) and Gligor’s (2017) extensions of Fisher’s model can be interpreted as a derivation of contingency theory. In a broad sense, global sourcing is affected by a wide variety of contingencies. More narrowly, there are emerging studies of how contingency theory may be applied to global sourcing decisions. A recent study by Bals et al. (2018) highlights the importance of taking a contingency perspective for understanding purchasing organizations and combining a detailed view of macro-level structural dimensions with micro-level characteristics. As such a contingency approach is potentially helpful to address the integration and coordination dimension of global sourcing. Yet,

as noted above, it is a little unclear to what extent contingency in these studies is a theory rather than a means to bring in a variety of contextual factors.

3.4 Systems Theory

Systems theory has been used to view supply chains as holistic in nature, i.e., a supply chain operates as a linked system, rather than as independent and disjointed nodes (i.e., individual businesses) (cf. Ackoff, 1971; von Bertalanffy, 1968). SCM in this context is characterized from “a total systems perspective across multiple functions and multiple tiers of suppliers” (Monczka et al., 1998, p. 78). Adopting this perspective has been helpful in explaining previously unexplained phenomena, including the bullwhip effect (Lee et al., 1997; see above), the portfolio effect (Zinn et al., 1989), and ripple effects related to resilience and sustainability (e.g. Koh et al., 2012; Qi et al., 2004). It also paved the way for division of labor between supply chain members, e.g., via postponement strategies (Swaminathan and Lee, 2003). Again, the supply chain is a the *de-facto* firm in such research, emphasizing the integrated nature of the supply chain system. However, due to the often poorly-defined boundaries that exist between a supply chain and its environment, Ackoff’s (1971) characteristics of the “organization” system do not necessarily apply in the case of the “supply chain” system. To cope with the challenges associated with these boundary conditions, a number of researchers have made promising attempts to re-conceptualize supply chains as complex adaptive systems (e.g., Choi et al., 2001; Surana et al., 2005). Carter et al. (2015) have presented a useful theory of the supply chain that builds on this view. This approach still remains open to further exploration and study and it might be worthwhile to interpret the supply chain as a social–ecological system (cf. Fischer et al., 2015). We are not aware of previous applications of such perspectives to global sourcing. In principle, given its flexible traits, a systems approach (Gammelgaard, 2004) could be applied to any of the three dimensions of global sourcing.

The systemic character of a supply chain (see Carter et al., 2015) is a useful observation for IB research.

3.5 Resource-based View

The resource-based view (RBV) is useful in explaining the link between resources and sustained competitive advantage for a firm (Barney, 1991). IB scholars have often applied this view but might benefit from a slightly different interpretation in SCM. Critics have advanced various arguments regarding the applicability of the RBV in disciplines like operations management (Bromiley and Rau, 2016) and whether the RBV genuinely suggests that SCM can be a source of competitive advantage. Still others, such as Barney (2012), argue that the RBV suggests that SCM can, “at least in some settings”, be a source of sustained competitive advantage. As phenomena connected to interorganizational relationships play a key role in SCM, in order to explain superior performance, other scholars have forwarded the relational view to consider dyads or networks of firms (Dyer and Singh, 1998; Lavie, 2006) or even explicitly the supply chain (Carter et al., 2017) as the unit of analysis. This theory has repeatedly been used as a foundation for building empirical models in SCM-related research (e.g., Mesquita et al., 2008; Wieland and Wallenburg, 2013). It is particularly this latter interpretation of the RBV that is almost absent in IB. By adopting it, IB scholars could shift the unit of analysis from the *de-jure* firm towards the *de-facto* firm.

3.6 Resource Dependence Theory

Resource dependence theory (RDT) argues “that organizations are constrained and affected by their environments and that they act to attempt to manage resource dependencies” (Pfeffer and Salancik, 2003, p. xxiii). Researchers have used this theory to explain the formation of different types of interorganizational arrangements, such as vertical integration and joint ventures (Pfeffer and Salancik, 2003). Moreover, RDT predicts that the formation of interorganizational

arrangements is positively associated with organizational autonomy and legitimacy (Drees and Heugens, 2013). Handfield (1993) used RDT to explain buyer–seller relationships in the context of bilateral dependence, leading to performance advantages. Given RDT’s “current status as a premier perspective for understanding organizational–environmental relations” (Drees and Heugens, 2013, p. 1688) and due to the fact that SCM’s implicit notion of the supply chain as the *de-facto* firm bridges between an organization and its environment, RDT continues to be very useful as a basis for ongoing SCM research. The notion of interdependence between buyers and sellers seeking to create mutually-derived value is an important component of the *de-facto* firm concept (Handfield, 1993). A limitation is that while RDT can be used to understand the role of power in supply chain relationships, it fails to explain the role of other types of supply chain mechanisms, for example, trust (Ireland and Webb, 2007). Importantly though, Borgatti and Li (2009) have noted that “SCM has not been just dyadic, as, say, most of resource dependency has been, but has — through the notion of chains — implicitly considered paths through a network of firms”. IB scholars might benefit from these advancements in SCM by exploring the role of power in light of both internal and external coordination.

3.7 Organizational Learning

Levitt and March (1988) observed that behavior in an organization is based on organizational routines and that organizational actions are history-dependent and target-oriented. This perspective characterizes organizational learning “as learning by encoding inferences from history into routines that guide behavior” (p. 320). Argyris and Schön (1978) distinguish between different types of learning, such as double-loop learning that relies on detection and correction of error, “in ways that involve the modification of an organization’s underlying norms, policies and objectives” (p. 3). The IB literature has extensively used the learning lens. However, one could argue that it falls behind the SCM literature when it comes to studying *interorganizational* learning. A good deal of

global sourcing research employs the organizational learning lens, particularly in understanding how organizations self-organize and learn to improve global sourcing capabilities (Maskell et al., 2007). Several studies have used organizational learning theory to justify empirical models in SCM. In particular, it has been extended beyond a single organization model into an *interorganizational* learning context between supply chain actors (e.g., Azadegan et al., 2008). Learning has also been applied to explain phenomena related to the bullwhip effect (e.g., Wu and Katok, 2006). Organizational learning often creates tensions between “exploration” and “exploitation” (Dodgson, 1993). In an SCM context, Sanders (2008) used learning as the basis for evaluating how different patterns of IT use by suppliers relate to coordination activities with buyers. Again, it might be beneficial for the IB literature to leave the firm as the unit of analysis behind and follow the path of SCM scholars by exploring interorganizational learning situations.

3.8 Agency Theory

Agency theory is concerned with the relationship between two parties, a principal who delegates work and an agent who performs that work. The theory implicitly assumes that divergent agency objectives render it difficult to verify what the other party is doing (Eisenhardt, 1989; Jensen and Meckling, 1976), thus particularly looking into coordination issues. Given that SCM is generally concerned with the alignment of commercial contractual relationships between industrial parties, it comes as no surprise that agency theory has emerged as a popular theoretical foundation. In SCM, agency theory has been used to explore patterns of behavior involving quality management (Zu and Kaynak, 2012), risk management (Zsidisin and Ellram, 2003), disintermediation of actors in the aerospace industry (Rossetti and Choi, 2008) and vendor-managed inventory (Rungtusanatham et al., 2007) in supply chains. The SCM literature has historically emphasized the importance of relationships as a means for connecting parties in a *de-facto* manner, particularly in the industrial

marketing context (Ellram and Murfield, 2019). However, agency theory remains controversial (Eisenhardt, 1989), as it relies on assumptions characterized as unrealistic (Perrow, 1986). A singular question that arises is whether a theory originally developed to describe relationships between individuals can, in fact, be applied to interorganizational relationships in industrial or service-based supply chains. Because agency theory models individual behavior, it is not always straightforward to transpose this to two or more organizations, though more recently studies have been transferring this to the buyer–supplier dyad (e.g. Prosman et al., 2016). Although agency theory is far from novel in IB, researchers might benefit from incorporating this particular extension.

4. Moving Global Sourcing Research Forward

Organizational research in global sourcing can greatly benefit from the integration of views that span the SCM and the IB research, and we encourage the cross-pollination of disciplines to create new ways of exploring research within this phenomenon. In considering different views, it is also useful to consider the different levels of analysis that may provide context for the research. In Figure 5, we develop an overview of the different unit and level of analysis contexts for SCM and IB research that are also reflected in the previously discussed theories.

-----Insert Figure 5 Approximately Here-----

Currently, much research is focused on dyads at the inter-organizational level. This approach, while useful, fails to capture many of the more specific interactions that occur at the inter-functional level, specifically between buyers and internal stakeholders of the firm, and the bridging of these relationships with external suppliers (Cousins et al., 2011). These cross-functional dialogues are important in capturing the diverse business requirements for modern supply chains that span

technical and relational attributes. Finally, the interpersonal relationships that exist between parties in different global supply chain entities can provide an important set of future directions for IB and SCM research and paves the way for behavioral research (Schorsch et al., 2017).

The previously defined theories may be useful in considering activities within the furthest-most quadrant in Figure 4, wherein organizations are moving towards higher levels of integration and coordination, which is highlighted as interfirm orchestration. Some of the more relevant theories that address these issues include bullwhip theory, contingency theory, and the others shown in Table 2. We have no doubt that these theories can prove to be useful, but may need to be extended or interpreted differently in this furthestmost quadrant of our framework.

-----**Insert Table 2 Approximately Here**-----

To this end, we developed a matrix in Table 2 that builds on a foundation of the current literature, and introduces novel directions for global sourcing research. In the first column, we reiterate the five main research questions posed earlier. The second column contains some more specific questions. And the third column contains novel perspectives that have not yet been extensively integrated into existing theory. These suggestions are intended to generate interesting theoretical statements that may be used as the basis for building hypotheses and propositions for empirical testing and exploration in both SCM and IB research.

The third column of Table 2 presents a specific set of possible projects we consider to be particularly interesting and exciting. This is presented *in lieu* of an exhaustive list of theoretical implications. This list is intended as a catalyst for future discussion and debate by scholars to begin to undertake more systematic studies of global sourcing in the IB domain. Some of these project examples include the following.

- *Systemic perspective of an entire supply chain.* This approach would involve comparing geographical dispersion among different supply chains, to determine performance differentials. What necessitates such dispersion (drivers) and how does it affect performance? For example in the automotive industry, prior studies have found that localization of suppliers is a key requirement, while electronics contract manufacturing has no such constraints. A possible predictive factor could be that the complexity of the product or knowledge intensity drives dispersion of the supply chain (Gray et al., 2013; Choi et al., 2001). But then this may also imply that supply chains within industries differ in their dispersion. It is important to note that it is *not* a bird's-eye interpretation of the supply chain as a network any longer, but the interpretation of the supply chain as a complex adaptive system that has evolved in the literature as the so far best explanation of the behavior of this system (Carter et al., 2015).
- *Resource dependence perspective on performance of global supply chains.* A prediction here is that in cases where there is strong, unilateral dependence in supply chains in a common cultural setting (e.g. the Japanese *keiretsu*), this may in the short term lead to higher performance for the more powerful player(s), but in the longer term will undermine supply chain performance due to unwillingness and inability of suppliers to develop, and unwillingness of buyers to switch to possibly more competitive suppliers. There is some prior research on *keiretsu* that would be useful to think about. For instance, supplier development strongly impacts performance outcomes and by definition requires smaller supply bases, and closer relationships (Handfield, 1993; Terpind et al., 2008). This increased level of dependence may also drive increased investment in visibility systems across entities in the same supply chain (Handfield and Linton, 2017).

- *Bullwhip effect in global supply chains.* Existing bullwhip studies typically exclude the existence of country borders from their analyses. But across borders the lack of communication that characterizes the bullwhip effect may be more likely to occur (see also Levy, 1995), due to many forms of distance. Geographic distance of course induces logistical uncertainties, but other forms of distance including culture and time zone differences also play a role. Distances also lower social interaction, another element seen as key to improving supply chain performance (Cousins et al., 2009). A prediction would thus be that the more dispersed and diverse a supply chain is, the stronger will be the bullwhip effect. On the other hand, as organizations integrate their systems to develop real-time shared data in the supply chain, lack of information visibility becomes less of a problem, and all parties in the chain can work to replace inventory with information (Handfield and Linton, 2017).
- *Distance effects in global value creation networks.* Another possible research study would posit that Asian and Western informal institutional differences, especially culture, may have an explanatory effect on the impact of supply chain disruption. The difference in how Asian and Western managers view the nature of uncertainty results in fundamental gaps in how they view disruption in the context of contracts and transaction costs (Nisbett, 2004). Asian managers tend to be very comfortable working in relationships that have fewer contractual obligations, while Western managers feel decidedly less so (Nisbett, 2004; Choi et al., 2001). This level of analysis would provide a valuable addition in the ‘interpersonal’ dimension of research shown in Figure 5. This is an area where IB research can augment existing theories in SCM, as the cultural components of buyer–seller relationships is not well understood in SCM research. In doing so, IB researchers might propose that instead

of, or in addition to, informal institutional differences there are formal institutional differences, arising for instance from regulation, that could explain behavioral differences.

- *Managing distance.* Related to our fourth research question on implementation and execution, recent work has discussed capabilities for managing distance in a purchasing department (Lorentz et al., 2018). To further study the capabilities needed in the other functions involved in global sourcing and bridge this research to studies on knowledge seeking in IB research would help to generate insights on how managers improve the skills required for the integration and coordination dimension.

5. Conclusions

In this article we have 1) taken stock of existing work on global sourcing, providing a common taxonomy, 2) argued for more cross-fertilization between the IB and SCM traditions in global sourcing, and 3) attempted to provide a number of specific new research ideas. We conclude that the IB and SCM traditions in work on global sourcing can learn from each other; while in IB research there is opportunity to study how coordination and integration takes place across functions and borders of firms, SCM research would benefit from studying many of the international issues explored in IB work (particularly as related to informal and formal institutions). SCM has moved beyond an internally-focused or dyadic buyer–supplier view a while ago, also beyond a bird’s-eye view on a static network, now increasingly redefining the supply chain as a complex adaptive system (Carter et al., 2015). So both disciplines can explicitly build their future research on the understanding that global sourcing not only covers the make/hybrid/buy governance options and nearshore and offshore location options, but in addition deliberately takes into account that there is both an internal coordination and an external “orchestration” component (Figure 4). By adding the integration and coordination dimension as a third dimension to the taxonomy, this paper

explicitly fosters a reconciliation between research streams on offshoring/reshoring, outsourcing/insourcing and global sourcing, seeking to actively bridge between the two domains. Using the SCM approach, with its strength in attempting to consider the entire supply chain rather than the perspective of any individual firm, and IB's coverage of international aspects (such as institutional context), we were able to suggest a number of interesting new directions for global sourcing research.

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Table 1: The Integration and Coordination Levels (adapted from: Trent and Monczka, 2003)

| Level 1 | Level 2 | Level 3 | Level 4 | Level 5 |
|------------------------------------|--|---|---|---|
| Engage in Domestic Purchasing only | Engage in International Purchasing As-Needed | International Purchasing as Part of Sourcing Strategy | Integration and Coordination of Global Sourcing Strategies Across Worldwide Locations | Integration and Coordination of Global Sourcing Strategies with Other Functional Groups |
| | | | “requires worldwide information systems, personnel with advanced knowledge and skills, extensive coordination and communication mechanisms, an organizational structure that can centrally coordinate global activities and executive leadership that endorses a global approach to sourcing” (Trent and Monczka, 2003, p. 614) | “participants proactively integrate and coordinate common items, processes, designs, technologies and suppliers across worldwide purchasing centers and with other functional groups. This integration occurs during new product development as well as during the sourcing of items or services to fulfill production requirements. Level V global sourcing strategy links horizontally with other functional groups, particularly engineering, operations, and, increasingly, marketing. Furthermore, design, build, and sourcing responsibilities are often assigned to the most capable units around the world.” (Trent and Monczka, 2003, p. 614). |
| | International Purchasing | | Global Sourcing | |

Table 2: Research Questions for Future Exploration

| Research Questions | Sample Research Questions | Sample Existing Theoretical Perspectives | Novel Theoretical Perspectives |
|---|---|---|---|
| RQ1: What are the drivers or antecedents of global sourcing? | <ul style="list-style-type: none"> Is global sourcing a function of seeking lower costs, market penetration, or pursuit of emerging technological differentiation? Which drivers lead to the necessity of organizing buy/hybrid/make global sourcing with a high degree of integration and coordination versus the other options highlighted in Figure 2 (e.g. international purchasing)? What else can be learned from the sequential notion that the “buy” variant of global sourcing can be a result of offshore outsourcing or captive offshoring, or other such decisions? What are synergies that companies can aim for with buy/hybrid/make global sourcing and how can firms assess such synergies? | <ul style="list-style-type: none"> Transaction costs; asset specificity and uncertainty determine choice of governance mode Resource-based view; internal resource strength relative to outside suppliers determines choice of governance mode Institutional theory; offshoring is a consequence of host institutional setup and home-host differences | <ul style="list-style-type: none"> Systems theory; global supply chains should not be interpreted from a bird’s-eye view on static networks but as complex adaptive or social-ecological systems Organizational learning; shared systems for knowledge transfer can create new technological advantages through learning capabilities |
| RQ2: How does global sourcing strategy come about? | <ul style="list-style-type: none"> Through what steps do firms move from being truly domestic to truly global in their sourcing strategies? To what extent is this a reversible process? How do firms scope the internal integration and coordination needs to engage in buy/hybrid/make global sourcing? How can internal integration and coordination be operationalized (e.g. integration and coordination mechanisms versus organizational structures)? | <ul style="list-style-type: none"> Resource-based view; tangibility of resources and viewing suppliers as an extension of these resources supports idea of supply chain integration | <ul style="list-style-type: none"> Resource dependence theory; integration and coordination is negotiated between partners |
| RQ3: What are the (performance) consequences of global sourcing? | <ul style="list-style-type: none"> Which effects do buy/hybrid/make global sourcing strategies have on performance metrics such as cost, time, quality, sustainability and innovation? What factors make global sourcing strategy more or less successful? Do performance effects of buy/hybrid/make global sourcing fade over time (e.g. performance peak right after implementation, then fading); are there other temporary effects (e.g. after contracts expire, when contracts are renegotiated)? | <ul style="list-style-type: none"> Transaction costs and agency; alignment between transaction characteristics and governance choices / principal and agent should prevent an effect on performance Bullwhip effect; inventory is a | <ul style="list-style-type: none"> Systems theory; performance should be assessed and compared for entire supply chains Social exchange theory; social interactions can facilitate innovation, and should be assessed and measured |

| | | | |
|--|---|--|---|
| | <ul style="list-style-type: none"> How are incentives of cross-functional teams and globally dispersed parts of buy/hybrid/make global sourcing organizations aligned and how are they linked to performance? | function of behavior, and global visibility tracking inventory levels across organizations can reduce anticipated inventory levels | |
| RQ4: How to implement/manage global sourcing to achieve the desired outcome? | <ul style="list-style-type: none"> Which organizational models in purchasing and supply management facilitate or hinder buy/hybrid/make global sourcing? Who conducts buy/hybrid/make global sourcing implementation projects and what are critical success factors in such projects? How do firms retain knowledge about buy/hybrid/make global sourcing implementations (to enable organizational learning)? | <ul style="list-style-type: none"> Organizational learning; over time firms become more proficient in global sourcing | <ul style="list-style-type: none"> Agency theory; co-located actors acting as agents can promote local knowledge transfer to close gaps that might exist culturally between organizations in different geographies Dynamic capabilities: distance management capabilities influence whether the desired outcomes can be achieved |
| RQ5: What contextual variables influence global sourcing choices, implementation processes, and (performance) consequences? | <ul style="list-style-type: none"> How are the drivers, implementation, and performance of buy/hybrid/make global sourcing influenced by: <ul style="list-style-type: none"> National institutional factors Industry specific factors Firm level factors Activity level factors | <ul style="list-style-type: none"> Transaction costs; higher transaction costs lead firms to shy away from global sourcing Contingency theory; global sourcing varies depending on national institutions Systems theory; systems of organizational flows may vary based on firm characteristics | <ul style="list-style-type: none"> Bullwhip effect; cross-national differences exacerbate demand unpredictability Resource dependence theory; prior experience with certain governance/location modes influences coordination and integration approach Organizational learning; influence of prior experience on decision making |

Figure 1: Terminological overview: Offshoring/Reshoring versus Outsourcing/Insourcing;
 adapted from Tate and Bals, 2017; Foerstl et al. (2016); Tate et al. (2016); Jahns et al., 2006.

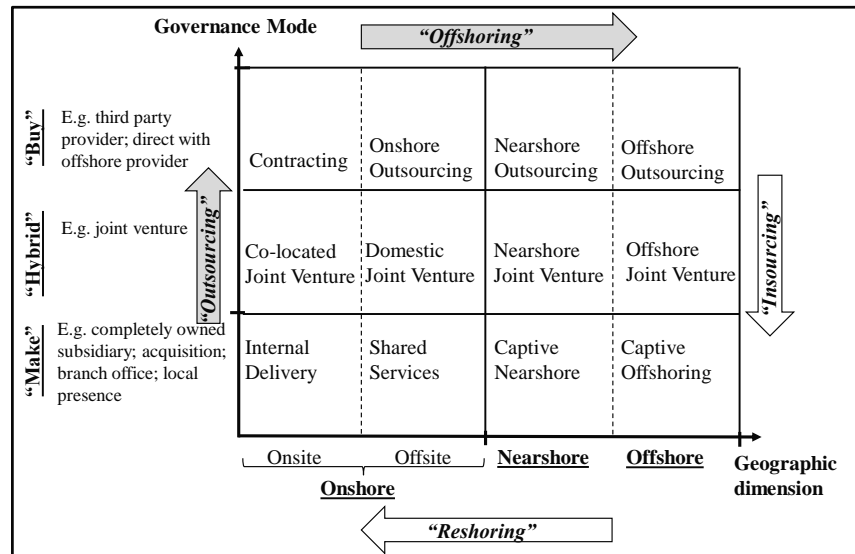


Figure 2: Terminological clarification SCM versus IB perspectives on Global Sourcing (highlighted in blue and grey)

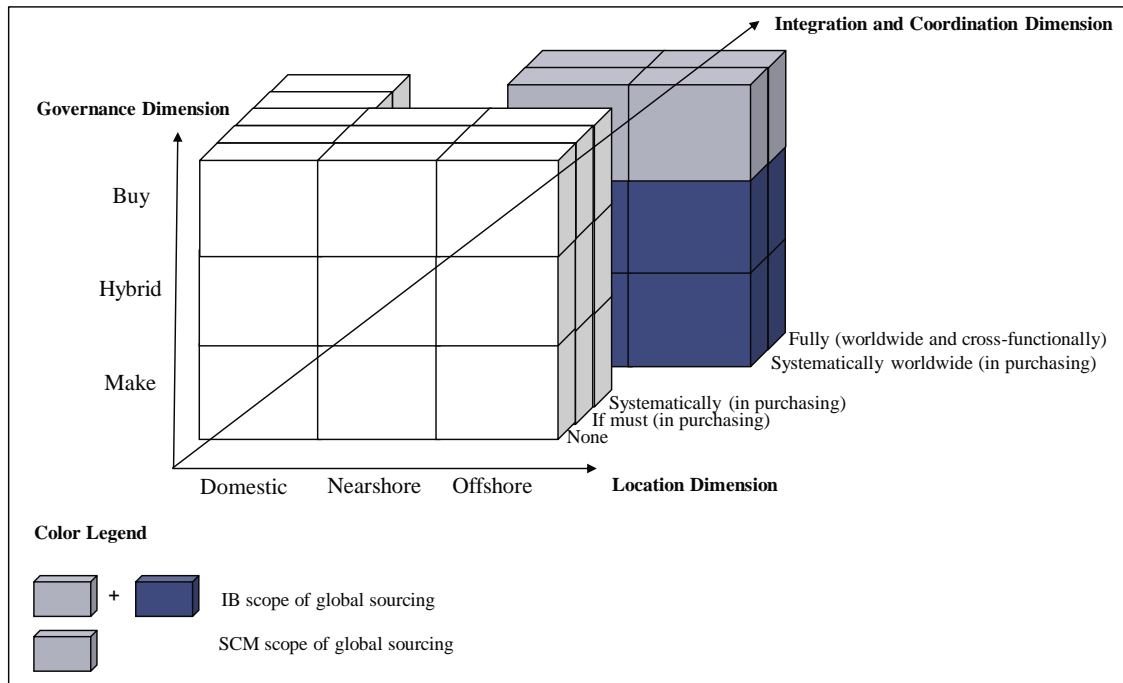


Figure 3: Conceptual Model Showing Global Sourcing Research Areas

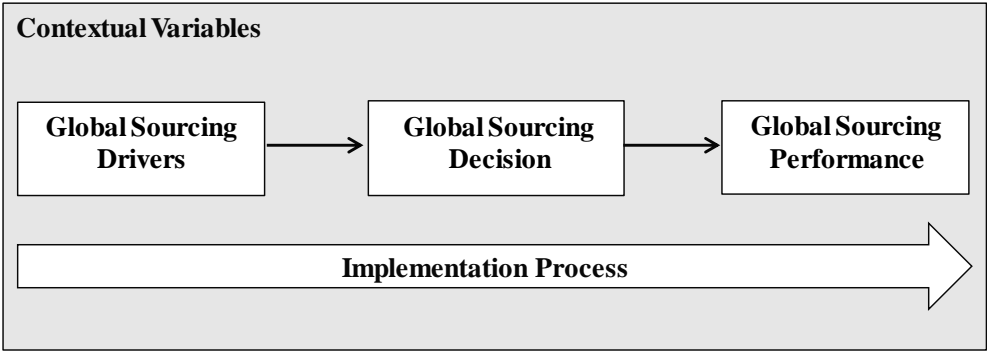


Figure 4: Concluding framework and global sourcing taxonomy

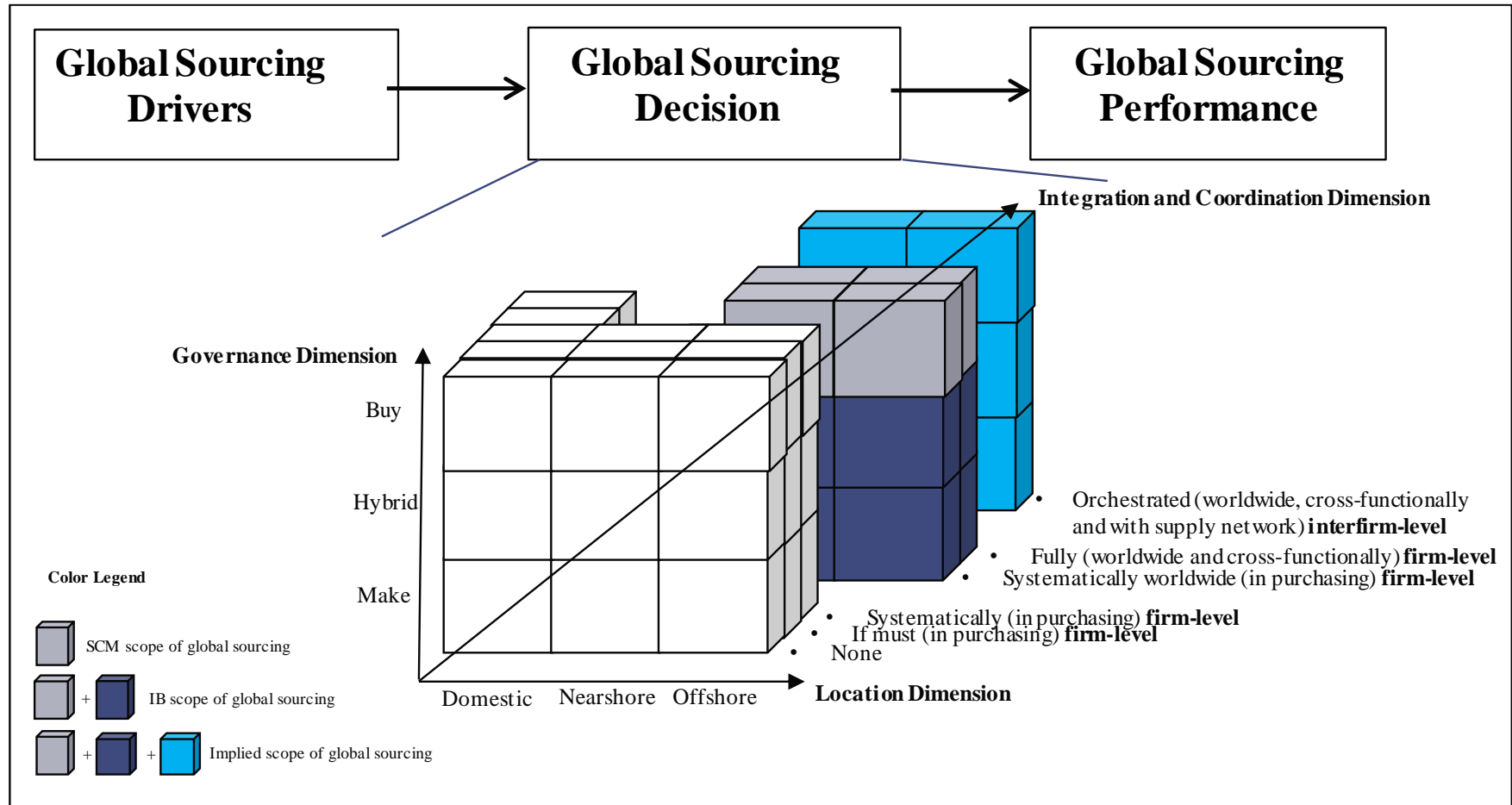


Figure 5: Levels of Analysis for SCM/IB Research

