



Search motives, local embeddedness, and knowledge outcomes in offshoring

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ARTICLE INFO

Keywords:

Offshoring
Knowledge outcomes
Classification scheme
Relational governance
Global value chain

ABSTRACT

In this paper we explicate the role of external knowledge search motives and host country context (local embeddedness) in driving different knowledge outcomes in offshoring. Drawing on the offshoring/offshore outsourcing literature, we develop a classification scheme based on different knowledge search motives (exploitation vs. exploration) and local embeddedness (low vs. deep). Utilizing this classification scheme, we discuss four important knowledge outcomes in offshoring: knowledge replication, refinement, renewal, and recombination. Additionally, we highlight how client-supplier relational governance, and offshoring knowledge, skills and abilities (KSAs) may accentuate the effectiveness of various knowledge outcomes and value creation potential.

1. Introduction

In a knowledge-based economy, organizations are continuously searching for external knowledge sources to survive, innovate and stay ahead of competition (Easterby-Smith, Lyles, & Tsang, 2008; Narula, 2014; Santangelo, Meyer, & Jindra, 2016). There is a broad acknowledgement that internally generated knowledge may not be enough as the value of such knowledge is often constrained by firm-specific capabilities and proprietary technologies (Mudambi & Tallman, 2010). Falling trade barriers, economic liberalization, and technological advancements have aided firms in tapping into global knowledge networks. Consequently, captive offshoring and offshore outsourcing¹ have emerged as important strategic devices to tap into the external sources of knowledge in foreign locations (Verwaal, 2017). In this paper, we use ‘offshoring’ as an umbrella term to indicate both practices—captive offshoring and offshore outsourcing (Contractor, Kumar, Kundu, & Pedersen, 2010; Kedia & Mukherjee, 2009; Mudambi & Puck, 2016; Pereira & Anderson, 2012).

Recent research suggests that increasing number of firms are externalizing their engineering, R&D and product design activities to suppliers located abroad (Martínez-Noya & García-Canal, 2014). The relocation of such high value, knowledge-intensive activities were considered imprudent until few years ago when the consensus was to keep the core activities closer to the headquarters (Martínez-Noya,

García-Canal, & Guillén, 2012). This practice has, however, changed. Firms have considerably broadened their offshoring portfolio to include highly valuable core related activities along with routine activities such as data crunching, work flow systems or billing (Lacity, Solomon, Yan, & Willcocks, 2015; Martínez-Noya et al., 2012; Nieto & Rodríguez, 2011; Rodríguez & Nieto, 2016). This growing trend indicates that firms recognize that external knowledge can be sourced via offshoring and may be used to generate innovative outcomes. Indeed, studies have identified R & D investment and innovation offshore outsourcing as one of the crucial sources of firm growth (Audretsch, Coad, & Segarra, 2014; Rodríguez & Nieto, 2016).

Extant literature acknowledges the importance of external knowledge search behavior of firms in their strategic decision-making process related to offshoring (Mukherjee, Gaur, & Datta, 2013; Pereira, Munjal, & Ishizaka, 2016; Verwaal, 2017). Although literature has delved upon the performance implications of offshoring, there is relatively less work to understand how strategic drivers of offshoring impact a firm's knowledge search behavior and how such behavior influences offshoring governance modes and knowledge outcomes. We redress this oversight.

We identify the potential knowledge creation approaches adopted by offshoring firms as part of their strategic decision making process by focusing on two important dimensions—the content and the context of knowledge to be sourced by the offshoring firm, and how they relate to

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¹ While captive offshoring refers to internal relocation of value chain activities in foreign locations, offshore outsourcing refers to the practice of handing over previously performed internally operated activities to foreign suppliers (Kedia & Mukherjee, 2009; Mudambi & Puck, 2016). Our literature review suggests that most studies use offshoring as an umbrella term to refer to both these activities.

<http://dx.doi.org/10.1016/j.jbusres.2017.10.035>

Received 10 February 2017; Received in revised form 5 October 2017; Accepted 12 October 2017
0148-2963/ Published by Elsevier Inc.

the firm's knowledge search behavior. Extant literature suggests that external knowledge can be applied to generate innovation by adopting two learning approaches: 1) exploration—which refers to generation of new knowledge or capabilities and 2) exploitation—which refers to augmenting the existing knowledge base and capabilities (Bierly, Damanpour, & Santoro, 2009; March, 1991). Thus, the knowledge motives related to the content or type is a crucial part of strategic decision making in offshoring firms as they directly relate to their knowledge strategy.

Additionally, the context of external knowledge that is to be sourced is also important in creating capabilities (Asmussen, Pedersen, & Dhanaraj, 2009) and in determining the knowledge outcomes (Pérez-Nordtvedt, Mukherjee, & Kedia, 2015). Extant literature on knowledge driven R&D offshoring has underscored the importance of host-country context in shaping knowledge benefits (Asmussen, Larsen, & Pedersen, 2016; Narula, 2004, 2014). For example, Rodríguez and Nieto (2016) argue that offshoring enables firms to get embedded in the local context and learn from it. The focal firm needs to understand the technological (Asmussen et al., 2016), socio-cultural (Asmussen & Goerzen, 2013), and institutional context (Asmussen & Goerzen, 2013; Lojacono, Misani, & Tallman, 2017) of the knowledge it seeks. Therefore, to better understand the heterogeneity and background of the external knowledge, the focal firm, to some degree, must be embedded in the host country context.

Such embeddedness is also important for a firm's internal hierarchical knowledge network as it helps in transferring the knowledge generated in a heterogeneous context to the focal firm's home country in order to generate the organizationally valued outcomes that the focal firm was looking for in the first place (Anderson, Gaur, Mudambi, & Persson, 2015; Narula, 2014). Indeed, Meyer, Mudambi and Narula (2011, p., 236) note that “for MNEs, the importance of managing such interfaces continues to increase, both for the benefit of their global organization and for the success of their operations in any particular local context”. Accordingly, we focus on the degree (deep/low) of embeddedness of the focal firm in the local country as an important determinant of the knowledge outcomes in offshoring decision-making process.

As the focus of our paper is on different types of offshoring arrangements, we concentrate on two types of offshoring knowledge context: one in which the focal firm has low embeddedness and the other where it has deep embeddedness. The local context embeddedness is related to Asmussen et al.'s (2016) conceptualization of the same (host-based learning context). In our conceptualization, we explicate whether the sourcing of external knowledge from a foreign location is driven mainly by the home context strategy or the host location embeddedness (Asmussen et al., 2016). However, we do not suggest a temporal precedence of the former over the latter. In doing so, we seek to answer three important and interrelated research questions pertaining to the strategic decision making in offshoring:

RQ 1: How do the main strategic drivers of offshoring relate to a firm's knowledge search strategies?

RQ 2: What are the different knowledge outcomes that emerge when we combine the dimensions of knowledge content and context strategies?

RQ 3: What proximal factors could accentuate value creation potential of the knowledge outcomes of offshoring firms?

By delving deep into the dynamics of search behavior and knowledge creating outcomes through offshoring, we contribute to the existing literature in three ways. First, we integrate the disparate literature streams in the domain of offshoring that deal with the disintegration (fine slicing of value chain activities), location (context), and externalization (governance issues) advantages. In addition, we bring the importance of ‘local context’ back to offshoring research. Often this body of literature, while examining the location dimension,

has focused on the country-level advantages (e.g., tax benefits, labor arbitrage, and time arbitrage) or human capital related advantages (e.g., availability of cheap, qualified personnel) (Contractor, Yong, & Gaur, 2016). Our conceptualization of the local context embeddedness, based on a rich literature stream (e.g., Asmussen et al., 2016; Narula, 2014; Narula & Zanfei, 2005), brings the focus back to the importance of being rooted in the host context in determining the knowledge outcomes and governance strategies in offshoring.

Second, by explicitly linking offshoring firm's resource conditions with its knowledge search behavior and subsequently with its offshoring mode choice, we contribute to the literature that conceptualizes the phenomenon as learning opportunities arising from the ‘creator of positive’ (Jensen, 2009; Kedia & Lahiri, 2007) as opposed to transaction cost driven ‘avoider of the negative’ mindset (Conner, 1991; Gaur, Mukherjee, Gaur, & Schmid, 2011). Finally, our classification of different knowledge outcomes attempts to provide a theoretical as well as practical guidance for potential value creation for the client firm in the context of offshoring. Additionally, we identify the relevant proximate factors that may facilitate the effectiveness of such knowledge outcomes for offshoring firms.

2. Conceptual background

Why do companies engage in offshoring? We conduct a systematic review of offshoring literature (Gaur & Kumar, 2018) and identify several factors that may create value for the client firm, such as cost savings, efficiency gains, flexibility related advantages, access to superior resources and capabilities including knowledge resources, and access to new markets (Albertoni, Elia, Massini, & Piscitello, 2017; Brandl, 2017; Mihalache & Mihalache, 2016; Luo, Wang, Zheng, & Jayaraman, 2012; Rodríguez & Nieto, 2016). To have a more nuanced understanding of this evolving phenomenon, we need to examine the basic tenets of the main theories that laid the very foundation of this literature stream.

Transaction cost economics (TCE) has been extensively used in explaining organizational boundary or governance decisions. The central question in TCE is whether a transaction is more efficiently performed within a firm or outside of it (Williamson, 1999). As per TCE, whether a firm integrates vertically to produce some of its own inputs or not depends on the specificity of the input or of any assets that underpin it, the frequency of interaction between firm and supplier, the amount of uncertainty about the input and its related activities, and how opportunistic the supplier is (Williamson, 1975, 1999). An underlying assumption here is that individuals and organizations are “boundedly rational” and, as such, cannot foresee all the possible contingencies in a transaction, making it prohibitively costly to write, monitor, and enforce complete contracts (Grossman & Hart, 1982). Thus, ex ante and ex post transaction costs may “include all search and information costs, as well as the costs of monitoring and enforcing contractual performance” (Robins, 1987, p. 69). In sum, firms aim to minimize associated transaction costs while deciding on make (internalize) or buy (externalize) decisions.

The internalization theory (Buckley & Casson, 1976; Rugman, 1981), which was independently developed by international business scholars, utilized the TCE logic to contend that higher transaction costs in the market leads to internal knowledge generating capacity in MNCs by replacing sub-contracting linkages (Athreye & Cantwell, 2007; Narula & Verbeke, 2015). Drawing on the internalization logic, Dunning's eclectic (OLI) paradigm proposes three distinct but interrelated sets of variables in explaining the internationalization of firms: ownership-specific advantages (O), location-specific advantages (L), and internalization-specific advantages (I) (Dunning, 1979). The eclectic paradigm contends that firms will internalize the cross-border intermediate product markets in the presence of such firm-specific advantages and location-specific advantages.

The OLI paradigm has been extended to understand geographical redistribution of R&D activities by MNCs in which such firm-specific

assets are exploited or augmented in the foreign locations (Dunning & Narula, 1995). The internalization advantages suggest that it may be more advantageous for the MNCs to keep the internalized activities within the firm boundary so as to minimize the transaction costs associated with operating in a different appropriability regime and exercise more control over the concerned activities (Hwang & Gaur, 2009). In case of knowledge intensive value chain activities, MNCs often possess integration capabilities associated with information and communication networks, that may help them to unbundle and scatter parts of their value chain in different locations around the world while maintaining hierarchical control (Mudambi & Tallman, 2010; Narula, 2002).

Dunning's eclectic paradigm and ownership-specific firm advantages point to the resource-based view (RBV) of the firm and development of firm-specific capabilities that could be exploited in foreign locations (Narula & Dunning, 2000). RBV did not originally focus on the firm's boundary choices. However, it has emerged as a dominant framework to analyze one of the central questions of strategy: why do some firms outperform others? (Barney, 1986, 1991; Rumelt, 1984; Wernerfelt, 1984). According to RBV, firms possess a variety of resources that help them to develop capabilities. Among the capabilities, those that are unique, inimitable, non-substitutable and rare, form the bases for competitive advantage (Barney, 1991, 1999). Thus, while TCE focuses on the exchange environment to predict a firm's boundary choices, RBV focuses on the internal resource conditions of the firm and external opportunities (Hwang & Gaur, 2009).

The early studies in the realm of offshoring primarily utilized TCE, internalization theories, and OLI paradigm to explain why firms internalize or externalize certain value chain activities (Kotabe, 1990; Kotabe & Murray, 1990; Murray & Kotabe, 1999). The focus of this early work has mostly been on manufacturing industries. In the late 1990s and early 2000, an important shift occurred in the way we conceptualize offshoring of high value-added knowledge intensive activities, including services. Internationalization of innovative activities such as R & D provided impetus to this intellectual shift. However, most important parts of R & D were still kept embedded closer to the home country that provided good quality innovation infrastructure and appropriability environment (Narula, 2002; Narula & Zanfei, 2003). Additionally, the traditional way of thinking that innovation has only 'internal solutions' was also challenged (Narula & Zanfei, 2003). Accordingly, scholars started to stress the importance of external sources in new knowledge generation (Narula & Hagedoorn, 1999). As offshoring underscored the significance of 'complex integrated networks for the generation of new ownership advantages' based on 'specialized activities conducted in certain locations (Cantwell, 2009, p. 36), scholars called for augmenting the existing theories to better explain this new wave of externalization (Doh, 2005).

In essence, the aforementioned literature points to the importance of searching for new knowledge sources in foreign locations and helps us reconceptualize the phenomenon of offshoring beyond a simple 'make or buy' decision (Contractor et al., 2010; Kedia & Mukherjee, 2009; Mukherjee et al., 2013). Consequently, in the next section, we explore how the strategic drivers of offshoring are related to the content search (explore/exploit) and context (low/deep host country embeddedness) of the knowledge sought in offshoring.

3. Resource drivers and offshoring firm's search for knowledge content

As we explained at the outset, offshoring efforts in its early days were driven primarily by cost considerations. However, such cost advantages evaporate quickly as other firms also follow the suit (Doh, 2005). In an interconnected global economy, although cost remains an important driver, it is not enough. Gaining world class knowledge or tapping into the superior specialized capabilities of the service providers have become increasingly important in the quest for profitability

(Demirbag & Glaister, 2010). A firm's ability to build competitive advantage largely depends on its ability to acquire, and utilize external knowledge and generate novel solutions (Pérez-Nordtvedt et al., 2015). New knowledge acquired by firms plays a pivotal role in determining their innovation performance and competitive advantage (Nuruzzaman, Gaur, & Sambharya, 2017). In turn, innovation serves to improve a firm's market share, value, and survival likelihood, facilitates organic growth, and enables thriving in dynamic market environments (Scalera, Mukherjee, Perri, & Mudambi, 2014). Thus, the value propositions of the firm are often linked to its knowledge outputs that are created internally or acquired from an external source or a combination of both.

Firm's search behavior for external knowledge has two aspects—knowledge exploitation and knowledge exploration. Knowledge exploitation refers to a client firm's intention to tap into competitively similar existing knowledge resources of the offshore suppliers or partners. Knowledge exploration, on the other hand, refers to the search for more novel, cognitively distant, diverse and tacit knowledge solutions in conjunction with the providers located abroad that would help the client firm create the competitive foundation for the future (Miller, Fern, & Cardinal, 2007). The former is driven more for efficiency and the latter for effectiveness and innovation purposes. Relatedly, Jensen and Petersen (2013) observed that while exploration represents "search, risk taking, experimentation, play, flexibility, discovery, and innovation", exploitation refers to "refinement, choice, production, efficiency, selection, implementation, and execution" of knowledge (p. 74).

An offshoring firm's resource/capability conditions may impact its knowledge seeking behavior. RBV assumes resource heterogeneity (i.e., competing firms possess different bundles of resources) and resource immobility (i.e., context specific, non-transferable resource), such that organizations are heterogeneous bundles of resources (Barney, 1991; Wernerfelt, 1984). Prahalad and Hamel (1990) used the notion of core competencies to denote combinations of key strategic resources and capabilities. They defined core competencies as the collective learning in the organization, especially the ability to coordinate diverse production skills and integrate multiple streams of technologies. Three identifying elements characterize core competencies. First, they provide access to a variety of markets. Second, they make a significant contribution to the perceived customers' benefits of the end products. Third, they are difficult for the competitors to imitate. Overall, the RBV/capability-based view contends that a firm's competitive advantage arises from developing and deploying unique, valuable and non-imitable resources. There is clear consensus in literature that knowledge is one of the most important resources a firm can possess (Kogut & Zander, 1992, 1996).

Accordingly, offshoring can be conceptualized as a decision-making process in acquiring resources and capabilities from external sources to fill the gaps within the organizational resource configuration and capability base. The offshoring firm will retain the operations for which it has a higher capability that can result in efficient production (Argyres, 1996). Other operations could be sourced from an offshore location. Thus, a perceived gap in related resources and capabilities motivates the offshoring firm to engage in exploitative search for knowledge in the foreign location.

Additionally, according to RBV, firms that can accumulate distinctive assets and capabilities achieve a competitive advantage over competitors (Barney, 1991; Lahiri, Kedia, & Mukherjee, 2012). Extending RBV logic to offshoring, literature suggests that the process of offshoring may involve exchange, accumulation and reconfiguration of client and partner firm/captive organization resources (Lahiri et al., 2012; Lahiri & Kedia, 2009). Indeed, Hatonen (2009) and Jensen (2009) posit that one of the many benefits of offshoring includes organizational learning or value creation through knowledge resources. Extending this logic we argue that offshoring firm's aspirations for capability differentiation or search for more novel and more specialized capabilities

shall be associated with exploration search behavior. When formally stated,

Proposition 1. Offshoring firm's internal capability gap is likely to be associated with knowledge exploitation search whereas aspirations of capability differentiation are likely to be associated with knowledge exploration search.

4. Flexibility, efficiency gains and offshoring firm's locational embeddedness

The benefits of offshoring include cost savings, efficiency gains and increased flexibility (Mukherjee & Kedia, 2012; Rodríguez & Nieto, 2016). These benefits are realized through several means. First, cost savings may take place directly due to labor arbitrage and operational efficiency. For instance, recently Ford Motors chose to relocate manufacturing of its next generation compact car production facilities to China where it expects to save \$1 billion, which may free up other resources and boost operational efficiency (New York Times, 2017). Such 'freed up resources' can be redistributed to other important areas that represent the offshoring firm's core activities (Rodríguez & Nieto, 2016). Indeed Ford Motors, in the aforementioned case, aims to refocus the cost saved in making high margin vehicles in the North American market (New York Times, 2017). Second, disintegration of value chain activities may also enable the focal firm to become more modular and nimble. Such flexibility related advantages may help the firm to respond more quickly to the market changes in its home as well as in its global environment (Kedia & Mukherjee, 2009). The offshoring firm's flexibility and efficiency gain motives are likely to drive the degree to which the firm needs to be embedded in the host country local context in search for knowledge.

A high degree of external embeddedness implies some loss of organizational flexibility. However, to understand the nature of the knowledge network in a given location, it is imperative for the focal firm to remain embedded in the local innovation system (Meyer et al., 2011; Narula, 2014). Each innovation system is idiosyncratic and each location may have its own social, cultural and industry-specific uniqueness that makes the knowledge generated within that particular system 'sticky' and contextual (Anderson et al., 2015). Thus, organizations that are aiming to benefit from such knowledge may have to invest significant resources to better understand the knowledge background. Such an endeavor may include establishing relationships with key institutions, competitors, and individual players who play central roles in these innovation networks. For instance, Narula and Zanfei (2005, p. 12) observed that "government funding institutions, suppliers, university professors, private research teams, informal networks of like-minded researchers take considerable effort to create" and in some instances the creation of such a network may take years.

From TCE perspective deeper embeddedness in the local context means increased relation-specific investments and higher behavioral uncertainty that may arise from potential 'opportunistic behavior' in such knowledge networks. This threat of opportunism from local partners increases the need for superior monitoring and administrative control, thereby increasing the transaction costs (Gaur & Lu, 2007). Additionally, behavioral uncertainty also causes ex post difficulties because of information asymmetry regarding the tacit and sticky nature of offshore knowledge. A focal firm, therefore, may find it difficult to evaluate the value of knowledge generated in a particular location as such knowledge may help other firms including competitors, and its own proprietary knowledge may become vulnerable to 'hold up' problems. Such uncertainties are higher if the knowledge network is external to the focal firm. Conversely, market transactions in the offshore location (offshore outsourcing) requires less investment in this regard and is associated with less set up costs (Roza, Van den Bosch, & Volberda, 2011).

Thus, taken together, the central insights from TCE suggest that

offshoring firms, in order to maintain their flexibility and efficiency gains and minimize transaction costs, are likely to prefer low degree of local context embeddedness and externalized governance modes. However, it will be more efficient to internalize the transactions when the degree of contextual embeddedness is higher. When formally stated,

Proposition 2. The offshoring firm's perceived flexibility and efficiency gains are likely to be associated with low host context embeddedness in its knowledge search using externalization modes. The offshoring firm's higher host context embeddedness in its knowledge search is likely to be associated with increased internalization of value chain activities.

5. Classification of knowledge outcomes: combining content and context dimensions

Next, based on the dimensions that we described (explore/exploit and low/high context embeddedness), we offer a classification of different types of knowledge outcomes and link them with their respective value creation potential. Value refers to the difference between the benefits derived and the costs incurred (Kang, Morris, & Snell, 2007). When the knowledge content search strategy (explore/exploit) and location approach (embeddedness) of the client firms are combined, we get four different types of knowledge outcomes with differential value creation potential. Since different types of knowledge outcomes help firms in developing capabilities (collective routines and knowledge) that transform inputs into superior value propositions (Zollo & Winter, 2002), we also discuss characteristics of different types of knowledge produced and the nature of value creation. Additionally, we identify the proximal factors that can enhance the effectiveness of value creation potential. For the sake of brevity we limit the focus of this paper on value creation potential only and do not delve into the dynamics of value capture and retention. The RBV, its theoretical extensions such as relational capital perspective, the knowledge-based view (Kogut & Zander, 1992, 1996), and TCE (Williamson, 1975, 1999) form the bases of our theoretical argument.

6. Different types of knowledge outcomes in offshoring

Fig. 1 summarizes four types of knowledge creating models when we combine the nature of offshoring context and knowledge search motive. The resulting quadrants are explained in the following paragraphs.

6.1. Knowledge replication and routine offshore outsourcing

Quadrant I includes firms that resort to offshoring primarily in search of similar but cheaper capabilities in a narrow domain and they stay less embedded in the host country context. To serve their customers better and remain abreast of the competition, these firms often unbundle their non-core (routine) but important value-chain activities and shift production of various activities to foreign locations. In turn, the focal firm can focus on its core competencies in the home market and ensure good service to their domestic customers. The emergence of low wage foreign destinations (e.g., China, the Philippines, India and Central and Eastern European countries) possessing good quality human capital makes the relocation of such value chain activities easier for these firms (Munjal & Kundu, 2017; Pereira & Anderson, 2012; Pereira & Malik, 2015).

The relocation of such activities involves a narrow scope and is driven mainly by the firm's home market strategy. In most cases, firms are propelled by cost-pressure, institutional pressure (e.g., follow the leader behavior) and other regulatory pressures (for example, tax benefits) in making their offshoring decisions. The activities involved typically have a low level of integration with the focal firm and can be outsourced mainly through formal contractual agreements. In addition, such activities need not involve high levels of knowledge transfer

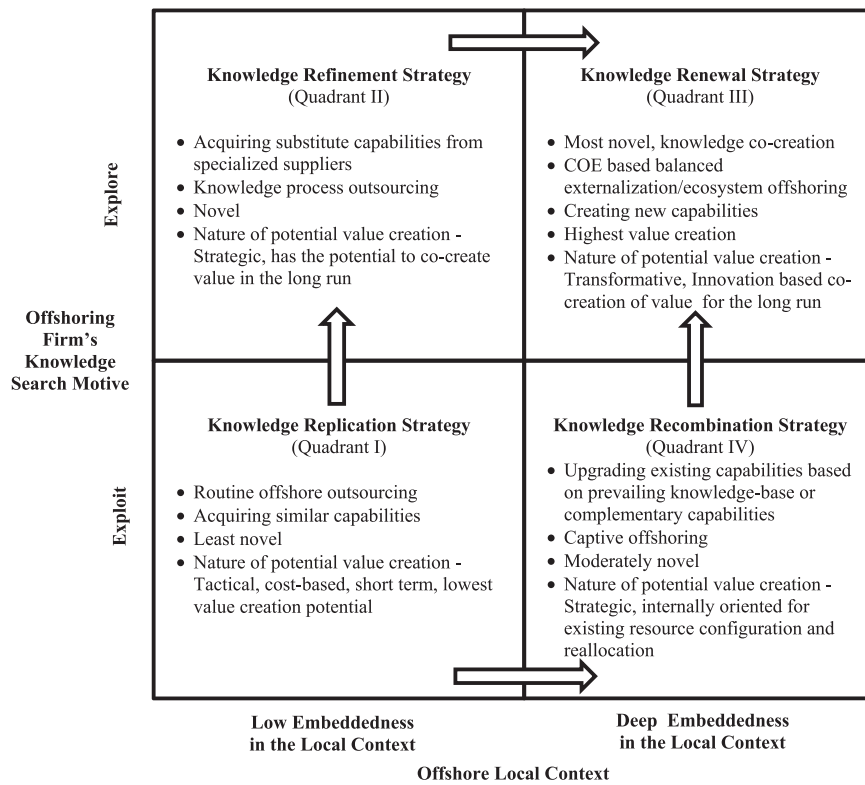


Fig. 1. Different knowledge outcomes in offshoring.

between the supplier and the client resulting in limited scope for learning. The supplier utilizes its own core capabilities for generating knowledge that the client firm can readily employ.

For the focal firm, value from the knowledge outcome is derived mainly from short-term cost reduction and operational efficiency (Kedia & Lahiri, 2007). However, such cost advantages are not sustainable in long run as competitors and other firms soon follow. Offshoring of most non-core IT activities, along with other low value-added routine activities (e.g., billing, call centers), follows this model. Due to the nature of these arrangements, the client firm is always looking to switch suppliers or move to destinations with lower wages. Consequently, the mutual resource commitment is rather low. The emphasis here is on ensuring that the supplier follows the same business functions and standards with very little deviation or modification. In fact, deviation from the standard norms is often sanctioned by the client firm.

From the knowledge-based perspective, the knowledge being transferred to the supplier firm abroad is treated as a model of solutions which can be extracted from the home country and reproduced completely, albeit in cheaper ways, in the offshore location. The client firm creates the rules and the role of the recipient supplier is that of a *rule follower*. There is relatively much less emphasis on the need for the recipient unit to completely understand and internalize the knowledge as the knowledge involved in this process is often very explicit in nature. For these reasons, the need for the client firm to get embedded in the host country local context is very low and the organizational learning involved can be referred to as 'single loop learning'.

From the transaction cost vantage point, increased flexibility is maintained and the resulting efficiency gains minimize the transaction costs associated with uncertainty concerns. We refer to this type of short-term value creation potential as *tactical* and exemplifying *knowledge replication*. From a theoretical standpoint, knowledge replication refers to 'transferring or redeploying competences from one concrete economic setting to another' (Teece, Pisano, & Shuen, 1997, p. 525). The nature of the value creating potential is not context specific and thus can be imitated easily by rival firms. Pinho and Prange (2016) refer to

the capabilities formed by such exploitation endeavors as 'threshold capabilities'. Based on this, we propose,

Proposition 3. Knowledge exploiting firms with a preference for low levels of local embeddedness are likely to engage in arm's length relationship with its offshoring partner. Such offshoring arrangements have short-term tactical value creation potential mainly through knowledge replication.

6.2. Knowledge refinement and knowledge process offshore outsourcing

Firms in Quadrant II embark on offshoring to exploit the superior capability of service providers or suppliers that are available in the global resource markets. Such international outsourcing efforts involve knowledge intensive and critical high-end activities of the value chain that require more interaction (than quadrant I firms) between the client firm and the offshore suppliers. The embeddedness in the local context, however, still remains low. Horizontal activities such as applications development and applications integration, human resource management functions (HRM), legal processes, and employee relationship management (ERM) in knowledge process outsourcing (KPO) are examples of this kind.

The KPO comprises the performance of high-end, value-added work, in which co-location with the focal client firm is not necessary. Although it involves market transactions, the efforts are internally driven as the offshored process is strategic in nature and the client firm adopts supplier's superior substitute capabilities that 'consolidate' the knowledge-base of the client firm (Prange & Verdier, 2011). From the supplier's perspective KPO requires an understanding of the client's industry segment and how the client functions. The supplier also requires specialized knowledge skills. A small section of the organizational pyramid performs high-end critical knowledge work. Such arrangements are often short-term in nature; based on the success of the projects, clients may extend their relationships and outsource more complex activities to the offshore supplier.

From a knowledge-based perspective, specialized capabilities of the

suppliers are tapped and critical activities are fine-sliced to generate new knowledge. For instance, important value chain activities such as R&D or production are divided into even more fine grained sub-activities (Contractor et al., 2010). Mudambi and Tallman (2010) suggest that when value chain can be disaggregated while separating knowledge processes from the physical production aspect, then labor arbitrage gains are superseded by other forms of advantages such as access to superior human talent, and capabilities of the partner firm. Such benefits help firms to respond more quickly to the changing market conditions while staying flexible (Kedia & Mukherjee, 2009). Moreover, in line with transaction cost concerns, the ‘core’ of the ‘core activities’ are still kept in-house. For example, Contractor et al. (2010) observed that in pharmaceutical companies’ preparation of test batches clinical trials are often offshore outsourced while the client firm closely guards the science or the genetics behind such trials.

Given that such arrangements involve knowledge intensive processes and explorative search, specialized suppliers may need to put extra efforts to cater to the needs of the client firm. The contracts involved are more flexible than quadrant I firms as the knowledge exploration implies more room for adaptation. We refer to this knowledge outcome as *knowledge refinement* as it relates to the augmentation of client’s knowledge base by supplier firms that have specialized capabilities in that particular business domain (Lema, 2015). In other words, the content of knowledge generated in this arrangement is re-configured or rearranged such that the client can absorb and utilize the knowledge according to its home context. The essential nature of knowledge refinement is one wherein the content of knowledge, i.e. the ideas and concepts that form the cognitive and semantic aspect of knowledge are adapted and thus constitutes a double loop learning.

Most offshore providers who are responsible for knowledge refinement manage end-to-end processes. Such knowledge intensive arrangements are not task-based in nature. Thus, the offshore providers have full control over the offshored activities while the partnership is governed through an ‘ally’ governance strategy which alleviates the TCE concerns associated with the lack of collocation (Mudambi & Tallman, 2010; Narula & Santangelo, 2009). We refer to this as *strategic value* creation mainly through *knowledge refinement*. There are several examples of such offshore outsourcing activities. For example, Lema (2015) document that the Indian software providers such as MindTree, Infosys and Wipro have developed advanced problem solving capabilities that are highly creative in nature and are not predefined. They also observe that U.S clients draw upon these capabilities to augment their knowledge repertoire.

In sum, the offshoring firms benefit from this high-end skill base, collective domain expertise, and industry-specific knowledge that can produce integrated, innovative solutions. The world-class delivery model of offshore outsourcing providers also benefits clients that receive focused solutions especially with compressed delivery timeframes. Tata Consultancy Services (TCS) as a service provider is a case in point. It owns nine R&D labs (Engineering & Industrial solutions, Insurance, Telecom, Travel & Hospitality, Retail, Life Sciences and Pharma, IT) focused on specific industry segments. TCS aims to co-create long term transformative value for its clients by ‘allying’ with them while using high quality innovation inputs generated in its R&D labs. Accordingly, we propose the following for Quadrant II firms.

Proposition 4. Knowledge exploring firms that have low embeddedness in the host country context are likely to engage in knowledge process outsourcing with the offshore partner. Such offshoring arrangements have more long-term strategic value creation potential mainly through knowledge refinement.

6.3. Knowledge renewal and ecosystem-based offshoring

Quadrant III contains firms that represent knowledge renewal outcomes that is part of a knowledge ecosystem and benefits their entire

global value chain (GVC) through a dynamic mutual learning process (Jensen & Petersen, 2013; Kedia & Lahiri, 2007; Li, Liu, Li, & Wu, 2008). These offshoring firms search for new, disruptive capabilities and are deeply embedded in the local context by forging multiple relationships with the local network. Access to the network partner’s tacit knowledge and co-creation of new and disruptive knowledge solutions across multiple locations is central to this type of inter-firm collaboration (Linder, 2004). Such collaborations often take the form of a network or an “eco-system”.

The central theme of this type of offshoring relates to relocating of core business processes and value chain activities to other countries and coordinating those disintegrated activities tightly with the originator’s strategic moves to realize strategic renewal and transformation (Farrell, 2005; Linder, 2004). The resulting ‘disruptive capabilities’ may eventually result in strategic reconfiguration at the corporate level by significantly altering the existing operating routines (Pinho & Prange, 2016). The value-chain activities involved in such arrangements tend to be highly complex, tacit, and knowledge-intensive in nature (Jensen & Petersen, 2013). Accordingly, the complete externalization of these activities is not common, and most companies prefer embedded models including where R&D innovation centers and centers of excellences forge network relationships among client firms and overseas partners. Li et al. (2008, p. 259) describe such collaborative arrangements succinctly:

“For example, Pocket PC is taking a firm hold in the mobile information appliance market place today. This success cannot be attributed to any single company but a dynamic network of companies working together. They include Microsoft developing the Windows Mobile OS, hardware designers such as HTC in Taiwan, software companies, wireless vendors as well as value-added distributors throughout the world. Naturally all parties involved gain from the advancement of a common platform”.

The software giant SAP and its knowledge ecosystem is another case in point. SAP has R&D labs in USA, Germany, France, Bulgaria, Israel, China, Canada and India. Recently, it has opened a third co-innovation lab in Bangalore, India where it aims to generate new business solutions by working with its partners, customers, competitors on future technologies. The depth and breadth of this locally embedded network can be gauged from the fact that it involves the following companies as co-innovation partners: Arteria Technologies, Cisco, Cognizant, F5 Networks, Hewlett-Packard, Intel, Intelligroup, KLG Systel, Larson & Toubro Infotech, MindTree, MobileOne I P, NetApp and Wipro Technologies. Asian Paints is deeply engaged in this co-innovating network as a SAP customer (First Post, 2017).

In sum, following this deeply embedded, knowledge exploring offshoring model, client firms achieve knowledge renewing outcomes. This knowledge often creates long-run competitive advantage for the clients compared to those models that merely focus on cost savings. The transformative value is created through knowledge co-creation or knowledge renewal which involves the creative melding of ideas from two seemingly unrelated domains to generate novel combinations of knowledge. Garud and Nayyar (1994) refer to this process as one of cumulative synthesis in which ideas from different domains are joined to create novel insights. Thus, new knowledge manifests itself as varied “transformations” of existing ideas and patterns of social interactions. These transformations can range from altered knowledge structures at the individual level to new activities, modified routines, business strategy decisions, etc. at the collective level.

The example below from the SAP ecosystem, India describes the process and its core philosophy in knowledge renewal (c.f. First Post, 2017).

“At SAP, we believe in the philosophy that collaborative innovation can make a bigger impact to the industry”, said Kush Desai, managing director, SAP Labs India. “Working in synergy with our partners and customers and starting early in the development cycle helps us in building future products that address technology needs in a comprehensive

manner. These products not only help our customers empower their employees with decision-making tools that streamline their processes, but they also enable companies to respond quickly to the ever-changing needs of their customers. With the launch of the SAP Co-Innovation Lab in Bangalore, we are delighted to broaden the reach of the network of SAP Co-Innovation Labs directly to our Indian ecosystem”.

Based on the above discussion, we propose the following for Quadrant III firms:

Proposition 5. Knowledge exploring firms that are deeply embedded in the local context are likely to co-create transformative value with their offshore network partners mainly through knowledge renewal. Such arrangements are likely to have a more balanced externalization approach.

6.4. Knowledge recombination and captive offshoring

Quadrant IV firms offshore their knowledge-intensive but non-core functions while remaining more embedded in the local context. Many European companies have used captive offshoring strategy for knowledge processes by relocating in Central and Eastern European countries that have similar work cultures or similar contract enforcement policies. This approach mitigates the fear of knowledge loss, and the focal firm reaps the benefit of high-quality human capital in foreign locations. For example, some proprietary databases, models, and algorithms in equity research would be critical to the client firm. Similarly, the databases and research findings of a clinical trial from a pharmaceutical company would need to be protected from misappropriation (TPI, 2008). Remaining firmly rooted in the local context allows these companies to better manage and control the available talent in that particular location. In the last decade, many captive operations have evolved their scope of services to include more knowledge intensive value adding tasks.

For example, in a recent McKinsey report, the authors noted that a high percentage of work carried out in the captive centers in India now requires deep level of business understanding and analytical skills where analysts model the impact of natural calamities on insurance pricing or budgeting and financial planning for the client firm (Chandok, Kekre, & Khetarpal, 2013). This represents examples of enhancing the already-known knowledge base with complementary capabilities found in a foreign location. This theme echoes in the scholarly literature that suggests that new product development projects carried out in captive centers enable client firms to significantly reduce the time to market while providing access to high quality engineers and scientists (Boehe, 2010). Goodyear is another example of this type. Their innovation centers in Luxembourg and Germany now account for the majority of innovation activities and play an important role in determining the innovation resilience of the tire giant while being embedded in the European local market (Scalera et al., 2014).

In sum, the knowledge outcome that is created by acquiring and assimilating captive organizational knowledge is referred to as *knowledge recombination*. It results in creating value adding and upgrading ‘complementary capabilities’ for the client firm as the source of strategic value creation potential and involves double loop learning for the partners (as opposed to quadrant II firms who acquire substitute capabilities). When formally stated,

Proposition 6. Knowledge exploiting firms that are deeply embedded in the local context are likely to engage in captive offshoring and are likely to create potential value mainly through knowledge recombination activities.

At this juncture, it is important to note that the offshoring arrangements and the resulting knowledge outcomes are not static and may travel from one quadrant to another. The arrows in Fig. 1 indicate the same. For instance, with the evolution of supplier capabilities

offshoring firms may decide to hand over more important value chain activities and move from quadrant I to quadrant to II. Or, it may start better understanding the local context and initiate embedding itself to exploit the location specific resources while keeping it captive (quadrant I to IV). Likewise, captive centers may over time establish relationships with the local innovation network partners and move from quadrant IV to III.

7. The facilitators of different knowledge outcomes

7.1. Relational governance

The proponents of the relational view of the firm argue that a given firm's relationships with its business partners can be a source of competitive advantage (Dyer & Singh, 1998; Madhok, 2002). The traditional view of the firm has identified resources internal to the firm as possessing superior value creating properties. The relational view extends this logic to the inter-firm relationships and argues that crucial resources may span firm boundaries in today's networked economy (Schotter, Mudambi, Doz, & Gaur, 2017). A close relationship based on relational contract between the offshoring firm and its business partners can accentuate the value creation potential from the knowledge outcomes in several ways.

First, research shows that more cooperative or closely connected inter or intra-organizational partnerships may lead to improved level of knowledge sharing (Anderson et al., 2015), better communication (Malhotra & Gaur, 2014; Pérez-Nordtvedt et al., 2015), and superior firm performance (Gaur & Lu, 2007; Lahiri et al., 2012). There is a rich literature stream that underscores the importance of social exchange, trust, relationship capital, and partnership quality in order to achieve organizationally valued outcomes (Khanna, Gulati, & Nohria, 1998; Srinivasan, Mukherjee, & Gaur, 2011). Studies pertaining to our present context have argued that close and trust-based partnership between focal firms and service providers involved in offshoring and outsourcing are needed for joint value creation (Gopal & Koka, 2012; Gopal & Sivaramakrishnan, 2008; Kedia & Lahiri, 2007). Therefore, the close social interaction in the presence of a relational approach is likely to increase the transparency of the knowledge exchanged and help the focal firm to reap maximum benefits from such knowledge.

Second, in alliance management literature, an external partnership leveraging capability emerges as a source of competitive advantage (Dyer & Singh, 1998; Kedia & Lahiri, 2007). In case contentious issues arise in the partnership, the mechanisms to mitigate the conflict or the associated uncertainty are already in place if the partners establish close relationships (Gaur et al., 2011). This approach is different from a formal contract driven approach in which partner firms attempt to put in place the mechanisms when specific issues arise. A relational approach can better deal with unforeseen contingencies than the formal contract driven approach. This is important for offshoring related deals as negotiations in the offshoring industry are often not constant in nature and evolve over a period of time. Accordingly, we propose:

Proposition 7. Ceteris paribus, the effectiveness of value creation potential from knowledge replication, refinement, renewal and recombination is likely to enhance in the presence of greater collaborative partnerships between the focal firm and its offshore partner(s) utilizing relational contracts as the governance mechanism.

7.2. Offshoring KSAs

Certain organizational capabilities might allow for effective management of knowledge flow in offshoring arrangements and, thus, directly contribute to the client firms' value creating strategies as they increase the internal embeddedness of the geographically relocated dispersed units (Meyer et al., 2011). Gainey and Klaas (2003) identify the knowledge, skills and abilities (KSAs) gained through interaction

with outside suppliers, as an important firm specific capability in effectively managing outsourcing relationship. They argue that KSAs such as contract negotiation skills, familiarity with the market for the service being outsourced, knowledge of alternate supplier arrangements, knowledge of the supplier's cost structure, and the ability to monitor and evaluate measurable performance outcomes of the suppliers are all central to making effective use of outsourcing arrangements. Without these KSAs, decision-makers are less likely to develop specific and detailed contracts that can protect the interests of their firms. These capabilities stem from prior contractual experiences that aid in developing skills, identifying competent partners, and effectively negotiating, monitoring, and enforcing terms of exchanges. Firms possessing such KSAs are likely to contemplate offshoring with more confidence in order to benefit from specialized partner firms' capabilities (Gerbl, McIvor, Loane, & Humphreys, 2015).

From knowledge management vantage point, offshoring KSAs will also mean the ability of a client firm to transfer, scan, receive, assimilate and exploit valuable external knowledge from diverse bases of expertise scattered throughout the world (Gerbl et al., 2015; Mudambi, 2008). The scanning, integration and exploitation of external knowledge is often difficult owing to the embeddedness and tacitness of the knowledge involved (Anderson et al., 2015; Narula, 2014). Often such knowledge is not codifiable and not easily transferable. Thus, the ability to do so and, in particular, do better than the competition can assist a firm to effectively search for heterogeneous knowledge sources.

In offshoring it is also very important for the clients to ensure that their requirements and expectations are clearly comprehended and met for by the offshore suppliers through adequate transfer of relevant knowledge. Some of the knowledge of the domain in question can be highly tacit, "sticky," and deeply embedded in the idiosyncratic internal practices of the client firm. For example, blueprints, internal business processes, and idiosyncratic routines are often difficult to articulate because of their tacit and embedded nature. Likewise, clients need to acquire thorough knowledge of the various resources and capabilities of the engaged suppliers so that unforeseen deviations from the contract (delay in delivery, degradation of quality etc.) can be avoided and firms can achieve the desired outcomes through the ongoing offshore outsourcing partnerships.

Further, clients need to acquire knowledge of the providers' background, past performance standards, resources and capabilities, market credibility, trustworthiness, and overall dependability, both before and during the contracts. In addition, the client firms also need to assimilate valuable knowledge generated from their offshore partners and exploit them for their own benefit. Sometimes offshore suppliers may develop world-class capabilities in executing complex tasks through repeated interactions with clients in advanced economies and gaining in-depth understanding of their business processes (Mukherjee & Kedia, 2012; Pereira, Malik, Howe-Walsh, Munjal, & Hirekhan, 2017). In order to reap the benefit of the knowledge created by suppliers, the client firm has to fully comprehend this knowledge and use it for business

transformation (Kedia & Lahiri, 2007; Mukherjee et al., 2013). Utilizing the dynamics capabilities perspective Lahiri et al. (2012) argue that knowledge accumulated by the domestic client firm in this manner may reduce the client's in-house production costs over time, leading to cost savings and increased innovation. In essence, we argue that high levels of offshoring KSAs will enhance the value creation potential of the client firm's knowledge outcomes. When formally stated,

Proposition 8. *Ceteris Paribus*, the effectiveness of value creation potential from knowledge replication, refinement, renewal and recombination is likely to enhance in the presence of greater offshoring KSAs.

8. Discussion and conclusions

Offshoring efforts are driven by a broad range of internal and external factors such as cheaper labor cost, talent shortage in the home market, industry pressure, improved operational efficiency and flexibility, superior specialized capabilities of the service providers, joint-innovation, increased focus on core areas of the focal firm etc. (Lahiri, 2016; Mihalache & Mihalache, 2016). Notwithstanding its merits, deriving knowledge outcomes from offshoring is not straightforward (Dibbern, Winkler, & Heinzl, 2008). The process of externalization of the activities that were previously performed by the focal firm itself involves the loss of direct control, increased dependence on the collaboration partners, and uncertainties associated with the geographic, institutional, cultural, and temporal distances (Contractor et al., 2016). This implies that managing offshoring and deriving innovative outcomes out of it may be more complex than originally contemplated (Stringfellow, Teagarden, & Nie, 2008). In this paper we provide a more nuanced understanding of this complexity by shedding light on the knowledge search behavior and local context embeddedness of the offshoring client firm. In addition, we also create a classification of knowledge outcomes by combining the two aforementioned dimensions. Finally, we identified the proximal facilitators of those knowledge outcomes as they relate to their value creation potential. Our analysis has several implications for research.

8.1. Implications for research

For the outsourcing/offshoring literature, this paper expands our understanding of the strategic decision making processes as they relate to creating distinct knowledge outcomes in offshoring. The classification scheme we developed identifies different forms of potential value creation and clarifies the characteristics associated with each type. Our analysis also clarifies the conditions in which knowledge search choices made by offshoring firms are likely to succeed. Table 1 demonstrates the nature of different knowledge outcomes and their characteristics in greater detail.

Three important contributions emerge from our research. First, our

Table 1
Nature of the knowledge outcomes in offshoring.

Nature of knowledge outcomes	Replication	Refinement	Renewal	Recombination
Organizational learning	● Single loop	● Double loop	● Dynamic mutual learning	● Double loop
Locus of knowledge	● Client firm	● Supplier firm	● Knowledge ecosystem or network	● Intra-firm partnerships
Type of capability	● Threshold	● Consolidating	● Disruptive	● Value adding
Nature of capability	● Similar	● Substitute	● New dynamic	● Complementary
Value creation potential	● Tactical	● Strategic	● Transformational	● Strategic
Activities involved	● Routine/peripheral	● More complex/knowledge intensive	● Business model innovation/new markets/new products	● Product and design enhancements
Offshoring mode	● Routine offshore outsourcing	● Knowledge process offshoring	● Ecosystem-based, highly embedded COEs	● Captive offshoring

Source: Type of capability is based on Pinho and Prange (2016).

paper explores a set of relatively underdeveloped, implicit, however important questions pertaining to offshoring literature, as outlined in the introduction section: What drives the knowledge search strategies in offshoring firms? What are the different types of knowledge outcomes created by offshoring and what factors affect their value creation potential? Answering these questions is important, because they relate directly to client organizations' strategic decision making and potential value creation. To this end, this issue has immense political, corporate, economic, and societal implications. Several researchers have addressed the question but not in specific details (Doh, 2005; Farrell, 2005; Kotabe & Mudambi, 2009). Our contribution lies at the firm level analysis of generating knowledge outcomes through offshoring.

Second, our focus on the knowledge context allows us to throw light on the importance of external embeddedness in driving innovation approaches of offshoring firms. Surprisingly the issue of context has been rather conspicuous in its absence from the mainstream offshoring literature (except, Asmussen et al., 2016). Our conclusion, that most novel value creation potential is likely to be associated with highly embedded, COE and ecosystem driven offshoring, points to the direction of a rather *balanced externalization* approach. This shift from the championing of total externalization (e.g., Doh, 2005) to a more balanced approach points us back to the works of early seminal research that stressed on the importance of creating a strong local strategy via COEs (Dunning & Narula, 1995; Narula, 2002).

Finally, while our first set of contributions have immediate effect on understanding value propositions from the perspective of the client firm, our identification of the relational capital and offshoring KSAs as facilitators of the knowledge outcomes points to the importance of internal embeddedness to derive knowledge flow-related benefits (Asmussen, Foss, & Pedersen, 2013) to offshoring client firms (Narula, 2014). This may also provide a mental model for the offshoring firms which should increase the cognitive aspects of understanding offshoring. As with all models the conception of this classification is expected to produce additional insights into international business.

8.2. Implications for practice

Our analysis has several implications for managers of firms that are involved directly or indirectly in offshoring. Our classification of knowledge outcomes offers guidance for managers regarding how they should manage their internal resources to ensure effective flow of knowledge to and from the offshore partners and other network firms. Extant research has repeatedly delineated the vitality of internal embeddedness of knowledge generating units within the MNE network for effective knowledge exchange and utilization. In this regard, we stress, in particular, the internal facilitators that may help overcome the potential challenges of uncertainties associated with such knowledge flows. For example, operating managers and employees should develop a nuanced understanding of the link between their own onshore employees, offshore suppliers and partner firms to accrue long-term benefits for both partners (Pereira & Fontinha, 2014; Pereira, Malik, & Sharma, 2016).

It will also be important to establish formal tools and procedures within the company to acquire external knowledge generated abroad. Indeed, boundary spanning individuals who can scout knowledge producing networks in a foreign location, maintain relationship with key suppliers, and bring key information back to the home country headquarters need to be properly developed and trained. Research has shown that focal firm's level of involvement often determines the motivation of offshore partners (suppliers or captive organizations) to share key knowledge (Ciabuschi, Dellestrand, & Martín, 2011). To this end, boundary spanners can play a crucial role in ensuring the viability of offshoring as a viable strategic tool for organizational value creation. Offshoring firms that anticipate and implement these changes by designing their organizations and encouraging their managers to initiate and establish collaborative relationships will be well positioned for the

future to exploit the benefits of offshoring. Offshoring is intricately related with firms' GVC dispersion (Mudambi & Puck, 2016). Through better exploitation of the benefits of offshoring, managers will be able to better govern their firms' dispersed GVCs.

9. Concluding remarks

The viability of offshoring as a strategic tool is contingent on its value creating potential via different types of knowledge outcomes. Offshoring firms often experience mixed results and even failure (Dibbern et al., 2008). Our framework offers an explanation of such unexpected outcomes and suggests ways for enhancing value creation. Our analysis also offers a more nuanced understanding of the process by weaving together the learning and strategic perspectives of offshoring. In practice, firms develop strategies based on their core knowledge and capabilities but also work to restructure, rebundle, and leverage their external partnerships to create further value in dynamic environments. Our framework should inspire additional research to understand the complex nature of value creation in offshoring activities.

References

- Albertoni, F., Elia, S., Massini, S., & Piscitello, L. (2017). The reshoring of business services: Reaction to failure or persistent strategy? *Journal of World Business*, 52(3), 417–430.
- Anderson, U., Gaur, A. S., Mudambi, R., & Persson, M. (2015). Unpacking inter-unit knowledge transfer in multinational enterprises. *Global Strategy Journal*, 5(3), 241–255.
- Argyres, N. (1996). Evidence on the role of firm capabilities in vertical decisions. *Strategic Management Journal*, 17, 129–150.
- Asmussen, C. G., Foss, N. J., & Pedersen, T. (2013). Knowledge transfer and accommodation effects in multinational corporations: Evidence from European subsidiaries. *Journal of Management*, 39(6), 1397–1429.
- Asmussen, C. G., & Goerzen, A. (2013). Unpacking dimensions of foreignness: Firm-specific capabilities and international dispersion in regional, cultural, and institutional space. *Global Strategy Journal*, 3(2), 127–149.
- Asmussen, C. G., Larsen, M. M., & Pedersen, T. (2016). Organizational adaptation in offshoring: The relative performance of home- and host-based learning strategies. *Organization Science*, 27(4), 911–928.
- Asmussen, C. G., Pedersen, T., & Dhanaraj, C. (2009). Host-country environment and subsidiary competence: Extending the diamond network model. *Journal of International Business Studies*, 42–57.
- Athreye, S., & Cantwell, J. (2007). Creating competition? Globalisation and the emergence of new technology producers. *Research Policy*, 36(2), 209–226.
- Audretsch, D. B., Coad, A., & Segarra, A. (2014). Firm growth and innovation. *Small Business Economics*, 43(4), 743–749.
- Barney, J. (1986). Strategic factor markets: Expectations, luck and business strategy. *Management Science*, 32, 1231–1244.
- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17, 99–121.
- Barney, J. (1999). How a firm's capabilities affect boundary decisions. *Sloan Management Review*, 40, 137–146.
- Bierly, P. E., Damanpour, F., & Santoro, M. D. (2009). The application of external knowledge: Organizational conditions for exploration and exploitation. *Journal of Management Studies*, 46(3), 481–509.
- Boehe, D. M. (2010). Captive offshoring of new product development in Brazil. *Management International Review*, 50(6), 747–773.
- Brandl, K. (2017). Direct and indirect value creation in offshored knowledge-intensive services. *International Journal of Physical Distribution and Logistics Management*, 47(2/3), 137–155.
- Buckley, P. J., & Casson, M. C. (1976). *The future of the multinational enterprise*. London: Macmillan.
- Cantwell, J. (2009). Location and the multinational enterprise. *Journal of International Business Studies*, 40(1), 35–41.
- Chandok, P., Kekre, S., & Khetarpal, S. (2013). Taking captive offshoring to the next level. *McKinsey report*.
- Ciabuschi, F., Dellestrand, H., & Martín, O. M. (2011). Internal embeddedness, headquarters involvement, and innovation importance in multinational enterprises. *Journal of Management Studies*, 48(7), 1612–1639.
- Conner, K. R. (1991). A historical comparison of resource-based theory and five schools of thought within industrial organization economics: Do we have a new theory of the firm? *Journal of Management*, 17, 121–154.
- Contractor, F. J., Kumar, V., Kundu, S. K., & Pedersen, T. (2010). Reconceptualizing the firm in a world of outsourcing and offshoring: The organizational and geographical relocation of high-value company functions. *Journal of Management Studies*, 47(8), 1417–1433.
- Contractor, F. J., Yong, Y., & Gaur, A. S. (2016). Firm-specific intangible assets and subsidiary profitability: The moderating role of distance, ownership strategy and subsidiary experience. *Journal of World Business*, 51(6), 950–964.

- Demirbag, M., & Glaister, K. W. (2010). Factors determining offshore location choice for R & D projects: A comparative study of developed and emerging regions. *Journal of Management Studies*, 47(8), 1534–1560.
- Dibbern, J., Winkler, J., & Heinzl, A. (2008). Explaining variations in client extra costs between software projects offshored to India. *MIS Quarterly*, 32(2), 333–366.
- Doh, J. P. (2005). Offshore outsourcing: Implications for international business and strategic management theory and practice. *Journal of Management Studies*, 42(3), 695–705.
- Dunning, J. H. (1979). Explaining changing patterns of international production: In defence of the eclectic theory. *Oxford Bulletin of Economics and Statistics*, 41(4), 269–295.
- Dunning, J. H., & Narula, R. (1995). The R & D activities of foreign firms in the United States. *International Studies of Management & Organization*, 25(1–2), 39–74.
- Dyer, J. E., & Singh, H. (1998). The relational view: Cooperative strategy and sources of interorganizational competitive advantage. *Academy of Management Review*, 23, 660–679.
- Easterby-Smith, M., Lyles, M. A., & Tsang, E. W. (2008). Inter-organizational knowledge transfer: Current themes and future prospects. *Journal of Management Studies*, 45(4), 677–690.
- Farrell, D. (2005). Offshoring: Value creation through economic change. *Journal of Management Studies*, 42(3), 675–683.
- First Post (2017). <http://www.firstpost.com/business/sap-expands-global-ecosystem-with-co-innovation-lab-in-bangalore-1871963.html>.
- Gainey, T. W., & Klaas, B. S. (2003). The outsourcing of training and development: Factors impacting client satisfaction. *Journal of Management*, 29(2), 207–229.
- Garud, R., & Nayyar, P. R. (1994). Transformative capacity: Continual structuring by intertemporal technology transfer. *Strategic Management Journal*, 15, 365–385.
- Gaur, A. S., & Kumar, M. (2018). A systematic approach to conducting review studies: An assessment of content analysis in 25 years of IB research. *Journal of World Business* (forthcoming).
- Gaur, A. S., & Lu, J. W. (2007). Ownership strategies and survival of foreign subsidiaries: Impacts of institutional distance and experience. *Journal of Management*, 33(1), 84–110.
- Gaur, A. S., Mukherjee, D., Gaur, S. S., & Schmid, F. (2011). Environmental and firm level influences on inter-organizational trust and SME performance. *Journal of Management Studies*, 48(8), 1752–1781.
- Gerbl, M., McIvor, R., Loane, S., & Humphreys, P. (2015). A multi-theory approach to understanding the business process outsourcing decision. *Journal of World Business*, 50(3), 505–518.
- Gopal, A., & Koka, B. R. (2012). The asymmetric benefits of relational flexibility: Evidence from software development outsourcing. *MIS Quarterly*, 36(2), 553–576.
- Gopal, A., & Sivaramakrishnan, K. (2008). Research note—On vendor preferences for contract types in offshore software projects: The case of fixed price vs. time and materials contracts. *Information Systems Research*, 19(2), 202–220.
- Grossman, S. J., & Hart, O. D. (1982). Corporate financial structure and managerial incentives. *The economics of information and uncertainty* (pp. 107–140). University of Chicago Press.
- Hatonen, J. (2009). Making the locational choice: A case approach to the development of a theory of offshore outsourcing and internationalization. *Journal of International Management*, 15, 61–76.
- Hwang, P., & Gaur, A. S. (2009). Organization efficiency, firm capabilities and economic organization of MNEs. *Multinational Business Review*, 17(3), 143–162.
- Jensen, P. D. (2009). A learning perspective on the offshoring of advanced services. *Journal of International Management*, 15(2), 181–193.
- Jensen, P. D., & Petersen, B. (2013). Global sourcing of services: Risk, process, and collaborative architecture. *Global Strategy Journal*, 3(1), 67–87.
- Kang, S.-C., Morris, S. S., & Snell, S. A. (2007). Relational archetypes, organizational learning, and value creation: Extending the human resource architecture. *Academy of Management Review*, 32, 236–256.
- Kedia, B. L., & Lahiri, S. (2007). International outsourcing of services: A partnership model. *Journal of International Management*, 13, 22–37.
- Kedia, B. L., & Mukherjee, D. (2009). Understanding offshoring: A research framework based on disintegration, location and externalization advantages. *Journal of World Business*, 44(3), 250–261.
- Khanna, T., Gulati, R., & Nohria, N. (1998). The dynamics of learning alliances: Competition, cooperation, and relative scope. *Strategic Management Journal*, 19(3), 193–210.
- Kogut, G., & Zander, U. (1992). Knowledge of the firm, combinative capabilities, and the replication of technology. *Organization Science*, 3, 383–397.
- Kogut, G., & Zander, U. (1996). What do firms do? Coordination, identity and learning. *Organization Science*, 7, 502–519.
- Kotabe, M. (1990). The relationship between offshore sourcing and innovativeness of US multinational firms: An empirical investigation. *Journal of International Business Studies*, 21(4), 623–638.
- Kotabe, M., & Mudambi, R. (2009). Global sourcing and value creation: Opportunities and challenges. *Journal of International Management*, 15(2), 121–125.
- Kotabe, M., & Murray, J. Y. (1990). Linking product and process innovations and modes of international sourcing in global competition: A case of foreign multinational firms. *Journal of International Business Studies*, 21(3), 383–408.
- Lacity, M. C., Solomon, S., Yan, A., & Willcocks, L. P. (2015). Business process outsourcing studies: A critical review and research directions. *Formulating research methods for information systems* (pp. 169–251). UK: Palgrave Macmillan.
- Lahiri, S. (2016). Does outsourcing really improve firm performance? Empirical evidence and research agenda. *International Journal of Management Reviews*, 18(4), 464–497.
- Lahiri, S., & Kedia, B. L. (2009). The effects of internal resources and partnership quality on firm performance: An examination of Indian BPO providers. *Journal of International Management*, 15(2), 209–224.
- Lahiri, S., Kedia, B. L., & Mukherjee, D. (2012). The impact of management capability on the resource-performance linkage: Examining Indian outsourcing providers. *Journal of World Business*, 47(1), 145–155.
- Lema, R. (2015). Problem framing in new innovation spaces: Insights from software outsourcing. In M. McKelvey, & S. Bagchi-Sen (Eds.). *Innovation spaces in Asia: Entrepreneurs, multinational enterprises and policy* (pp. 279–300). Cheltenham: Edward Elgar Publishers.
- Li, Y., Liu, Y., Li, M., & Wu, H. (2008). Transformational offshore outsourcing: Empirical evidence from alliances in China. *Journal of Operations Management*, 26(2), 257–274.
- Linder, J. C. (2004). Outsourcing as a strategy for driving transformation. *Strategy & Leadership*, 32, 26–31.
- Lojacono, G., Misani, N., & Tallman, S. (2017). Offshoring, local market entry, and the strategic context of cross-border alliances: The impact on the governance mode. *International Business Review*, 26(3), 435–447.
- Luo, Y., Wang, S. L., Zheng, Q., & Jayaraman, V. (2012). Task attributes and process integration in business process offshoring: A perspective of service providers from India and China. *Journal of International Business Studies*, 43(5), 498–524.
- Madhok, A. (2002). Reassessing the fundamentals and beyond: Ronald Coase, the transaction cost and resource based theories of the firm and the institutional structure of production. *Strategic Management Journal*, 23, 535–550.
- Malhotra, S., & Gaur, A. S. (2014). Spatial geography and control in foreign acquisitions. *Journal of International Business Studies*, 45(2), 191–210.
- March, J. G. (1991). Exploration and exploitation in organizational learning. *Organization Science*, 2, 71–87.
- Martínez-Noya, A., & García-Canal, E. (2014). International evidence on R & D services outsourcing practices by technological firms. *Multinational Business Review*, 22(4), 372–393.
- Martínez-Noya, A., García-Canal, E., & Guillén, M. F. (2012). International R & D service outsourcing by technology-intensive firms: Whether and where? *Journal of International Management*, 18(1), 18–37.
- Meyer, K. E., Mudambi, R., & Narula, R. (2011). Multinational enterprises and local contexts: The opportunities and challenges of multiple embeddedness. *Journal of Management Studies*, 48(2), 235–252.
- Mihalache, M., & Mihalache, O. R. (2016). A decisional framework of offshoring: Integrating insights from 25 years of research to provide direction for future. *Decision Sciences*, 47(6), 1103–1149.
- Miller, D. J., Fern, M. J., & Cardinal, L. B. (2007). The use of knowledge for technological innovation within diversified firms. *Academy of Management Journal*, 50(2), 307–325.
- Mudambi, R. (2008). Location, control and innovation in knowledge-intensive industries. *Journal of Economic Geography*, 8, 699–725.
- Mudambi, R., & Puck, J. (2016). A global value chain analysis of the 'regional strategy' perspective. *Journal of Management Studies*, 53(6), 1076–1093.
- Mudambi, S. M., & Tallman, S. (2010). Make, buy or ally? Theoretical perspectives on knowledge process outsourcing through alliances. *Journal of Management Studies*, 47(8), 1434–1456.
- Mukherjee, D., Gaur, A. S., & Datta, A. (2013). Creating value through offshore outsourcing: An integrative framework. *Journal of International Management*, 19(4), 377–389.
- Mukherjee, D., & Kedia, B. L. (2012). Offshoring and MNC strategy. In H. Merchant, & A. Verbeke (Eds.). *Handbook of international strategic management* (pp. 413–429). Elgar Publishing.
- Munjal, S., & Kundu, S. (2017). Exploring the connection between human capital and innovation in the globalising world. *Human capital and innovation* (pp. 1–11). UK: Palgrave Macmillan.
- Murray, J. Y., & Kotabe, M. (1999). Sourcing strategies of US service companies: A modified transaction-cost analysis. *Strategic Management Journal*, 20, 791–809.
- Narula, R. (2002). Innovation systems and 'inertia' in R & D location: Norwegian firms and the role of systemic lock-in. *Research Policy*, 31(5), 795–816.
- Narula, R. (2004). R & D collaboration by SMEs: New opportunities and limitations in the face of globalisation. *Technovation*, 24(2), 153–161.
- Narula, R. (2014). Exploring the paradox of competence-creating subsidiaries: Balancing bandwidth and dispersion in MNEs. *Long Range Planning*, 47(1), 4–15.
- Narula, R., & Dunning, J. H. (2000). Industrial development, globalization and multinational enterprises: New realities for developing countries. *Oxford Development Studies*, 28(2), 141–167.
- Narula, R., & Hagedoorn, J. (1999). Innovating through strategic alliances: Moving towards international partnerships and contractual agreements. *Technovation*, 19(5), 283–294.
- Narula, R., & Santangelo, G. D. (2009). Location, collocation and R & D alliances in the European ICT industry. *Research Policy*, 38(2), 393–403.
- Narula, R., & Verbeke, A. (2015). Making internalization theory good for practice: The essence of Alan Rugman's contributions to international business. *Journal of World Business*, 50(4), 612–622.
- Narula, R., & Zanfei, A. (2003). The International Dimension of Innovation. In J. Fagerberg, D. Mowery, & R. Nelson (Eds.). *Handbook of Innovation*.
- Narula, R., & Zanfei, A. (2005). *Globalisation of innovation*. Oxford: Oxford University Press 318–345.
- New York Times (2017). <https://www.nytimes.com/2017/06/20/business/ford-focus-china-production.html>.
- Nieto, M. J., & Rodríguez, A. (2011). Offshoring of R & D: Looking abroad to improve innovation performance. *Journal of International Business Studies*, 42(3), 345–361.
- Nuruzzaman, N., Gaur, A. S., & Sambharya, R. (2017). *A micro-foundations approach to studying innovation in multinational subsidiaries*. (Working paper).
- Pereira, V., & Anderson, V. (2012). A longitudinal examination of HRM in a human resources offshoring (HRO) organization operating from India. *Journal of World*

- Business*, 47(2), 223–231.
- Pereira, V., & Fontinha, R. (2014). Global talent management in knowledge intensive firms in Europe and India. *Global talent management* (pp. 183–196). Springer International Publishing.
- Pereira, V., & Malik, A. (2015). *Human capital in the Indian IT/BPO industry*. Springer.
- Pereira, V., Malik, A., Howe-Walsh, L., Munjal, S., & Hirekhan, M. (2017). Managing yopatriates: A longitudinal study of generation Y expatriates in an Indian multinational corporation. *Journal of International Management*, 23(2), 151–165.
- Pereira, V., Malik, A., & Sharma, K. (2016). Colliding employer-employee perspectives of employee turnover: Evidence from a born-global industry. *Thunderbird International Business Review*, 58(6), 601–615.
- Pereira, V., Munjal, S., & Ishizaka, A. (2016). Outsourcing and offshoring decision making and its implications for the firm. *Journal of Business Research* (Call for Papers).
- Pérez-Nordtvedt, L., Mukherjee, D., & Kedia, B. L. (2015). Cross-border learning, technological turbulence and firm performance. *Management International Review*, 55(1), 23–51.
- Pinho, J. C., & Prange, C. (2016). The effect of social networks and dynamic internationalization capabilities on international performance. *Journal of World Business*, 51(3), 391–403.
- Prahalad, C., & Hamel, G. (1990). The core competence of the corporation. *Harvard Business Review*, 68(3), 79–91.
- Prange, C., & Verdier, S. (2011). Dynamic capabilities, internationalization processes and performance. *Journal of World Business*, 46, 126–133.
- Robins, J. A. (1987). Organizational economics: Notes on the use of transaction cost theory in the study of organizations. *Administrative Science Quarterly*, 32, 68–86.
- Rodríguez, A., & Nieto, M. J. (2016). Does R & D offshoring lead to SME growth? Different governance modes and the mediating role of innovation. *Strategic Management Journal*, 37(8), 1734–1753.
- Roza, M., Van den Bosch, F. A., & Volberda, H. W. (2011). Offshoring strategy: Motives, functions, locations, and governance modes of small, medium-sized and large firms. *International Business Review*, 20(3), 314–323.
- Rugman, A. M. (1981). *Inside the multinationals: The economics of international markets*.
- Rumelt, R. P. (1984). Towards a strategic theory of the firm. *Competitive strategic management* (pp. 556–570). .
- Santangelo, G. D., Meyer, K. E., & Jindra, B. (2016). MNE subsidiaries' outsourcing and insourcing of R & D: The role of local institutions. *Global Strategy Journal*, 6(4), 247–268.
- Scalera, G. V., Mukherjee, D., Perri, A., & Mudambi, R. (2014). A longitudinal study of MNE innovation: The case of Goodyear. *Multinational Business Review*, 22(3), 270–293.
- Schotter, A., Mudambi, R., Doz, Y., & Gaur, A. S. (2017). Boundary spanning in global organizations. *Journal of Management Studies*, 54(4), 403–421.
- Srinivasan, M., Mukherjee, D., & Gaur, A. S. (2011). Buyer-supplier partnership quality and supply chain performance: Moderating role of risks, and environmental uncertainty. *European Management Journal*, 29(4), 260–271.
- Stringfellow, A., Teagarden, M. B., & Nie, W. (2008). Invisible costs in offshoring services work. *Journal of Operations Management*, 26(2), 164–179.
- Teece, D., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, 18, 509–533.
- TPI (2008). Knowledge process offshoring: A balanced view of an emerging market. Retrieved from http://www.tpi.net/pdf/researchreports/KPO_ResearchReport_july07.pdf.
- Verwaal, E. (2017). Global outsourcing, explorative innovation and firm financial performance: A knowledge-exchange based perspective. *Journal of World Business*, 52(1), 17–27.
- Wernerfelt, B. (1984). A resource-based view of the firm. *Strategic Management Journal*, 5, 171–181.
- Williamson, O. E. (1975). *Markets and hierarchies: Analysis and antitrust implications*. New York: Free Press.
- Williamson, O. E. (1999). Strategy research: Governance and competence perspectives. *Strategic Management Journal*, 20, 1087–1108.
- Zollo, M., & Winter, S. G. (2002). Deliberate learning and the evolution of dynamic capabilities. *Organization Science*, 13(3), 339–351.