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How does offshore outsourcing of knowledge-intensive activities affect the exports and financial performance of emerging market firms?

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Abstract
The extant literature on offshore outsourcing has focused on large traditional multinational enterprises from the OECD countries, and on their decisions to relocate production- and operations-related activities outside their home country in order to enhance their performance. By contrast, we examine the strategy of firms from emerging economies outsourcing knowledge-intensive activities abroad to improve their competitiveness. Using panel data of 1655 Indian firms over a 13-year period, we find that offshore outsourcing of knowledge-intensive resources makes firms more competitive in the international market, enhancing their exports and financial performance. Moreover, the positive impact of offshore outsourcing on firm profitability is greater as international sales increase. We offer new theoretical contributions and propose managerial implications for firms from emerging markets.
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INTRODUCTION

We explore the impact of offshore outsourcing of specialized knowledge-intensive resources on the export intensity and financial performance of firms originating from emerging markets (EMs). Our study presents a sharp contrast to the received wisdom in the International Business (IB) scholarship that suggests that offshore outsourcing is primarily undertaken by large traditional multinational enterprises (MNEs) from the OECD countries, intending to reduce their production costs by locating their low value-adding activities, such as production, back-office operations, and customer services, into EMs (Bertrand, 2011; Boussebaa, Sinha, & Gabriel, 2014; Lahiri, Karna, Kalubandi, & Edacherian, 2022; Manning, Larsen, & Bharati, 2015; Maskell, Pedersen, Petersen, & Dick-Nielsen, 2007; Sartor & Beamish, 2014). The extant literature recognizes that firms from EMs are fundamentally different from incumbent MNEs, and that they are constantly striving to upgrade

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their resource base and skills as a way to compete with their peers, succeed in internationalization endeavors, move up the value chain, and improve performance (Hernandez & Guillén, 2018; Kotabe & Kothari, 2016; Ramamurti, 2012). However, a gap remains in the analysis of catching up by EM firms (Buckley, Strange, Timmer, & de Vries, 2020). Prior research has attempted to systematically examine this issue (Luo & Tung, 2007, 2018; Madhok & Keyhani, 2012; Buckley, Elia, & Kafouros 2014), but this Pandora's box has not been fully explored and gaps remain (both theoretical and empirical) in academic understanding.

As latecomers in the global economy, firms from EMs usually find that the specialized resources they need are spread across the globe and are tied up in other firms (Gubbi, Aulakh, Ray, Sarkar, & Chittoor, 2010). Consequently, EM firms need to venture further afield in search of such resources, and often resort to mergers and acquisitions (M&As) to get hold of them. A rising number of studies focused on the internationalization strategies of firms from emerging economies attest to this fact (see, for example, Aybar & Ficici, 2009; Buckley et al., 2014; Buckley, Munjal, Enderwick, & Forsans, 2016a, b, c; Buckley & Munjal, 2017; Gubbi et al., 2010; Kumar, Singh, Purkayastha, Popli, & Gaur, 2020; Luo & Tung, 2007; Madhok & Keyhani, 2012).

Unlike most prior related research, we argue that EM firms also embark upon offshore outsourcing strategies with a special motive to access specialized resources that might allow them to successfully internationalize and to improve their performance by enhancing their competitiveness. Offshore outsourcing can provide quick access to resources needed by the firm and, at the same time, can avoid the capital outlay required for M&As or for in-house development (Enderwick & Buckley, 2021; Kenney, Massini & Murtha, 2009; Mudambi & Venzin, 2010). Enderwick and Buckley (2019) suggest that outsourcing partners offer benefits in the creation of additional value, more efficient identification of opportunities, effective safeguarding of technologies, and the suppression of opportunism, supporting the idea that there are several mechanisms through which offshore outsourcing can aid the firm. Our work specifically identifies and empirically tests some of the mechanisms through which offshore outsourcing of specialized resources affects the performance of EM firms.

We examine the phenomenon of offshore outsourcing by utilizing the global factory model, which provides the theoretical underpinning for our investigation. The global factory model, derived from internalization theory (developed from Coase, 1937, *via* Buckley & Casson, 1976), is "a theoretical characterization of the modern networked MNE" with important governance, location, and control implications for the architecture of the global economy (Buckley, 2018: xiv). The model highlights (1) fine slicing of the value chain, and (2) the externalization of those operations that are not the firm's core competencies in order to increase the *international expansion* and to improve the *financial performance* of the firm. This perspective has been facilitated by the rapid growth of the market for market transactions (Liesch, Buckley, Simonin, & Knight, 2012). Consequently, a wide range of activities, including some previously considered core to the corporation, are controlled through contractual links, rather than through internalized management hierarchies (Coase, 1937; Williamson, 1979, 1981).

Nonetheless, with its implicit assumptions that the focal firm (1) keeps proprietary control over intangible and knowledge-intensive resources by internalizing their development, and (2) outsources production related activities to realize efficiency gains associated with their externalization, the global factory model (in its original form) essentially represents large MNEs from the advanced (OECD) economies. This restricts the efficacy of its application to the case of firms from EMs. Unlike incumbent MNEs, firms from EMs usually internalize production-related activities, because their core competencies lie in manufacturing, assembling, and other labor-intensive activities. Intangible and knowledge-intensive resources are accessed from other firms. However, getting access to specialized resources through offshore outsourcing does not provide proprietary control over those resources, which is considered to be critical in the global factory model. Control over specialized resources strengthens the firm's competitive advantages by extending protection over intellectual property (Buckley & Casson, 1976).

Thus, the EM context and the phenomenon of accessing specialized resources through offshore outsourcing provide a theoretical tension, challenging the theoretical wisdom embedded in the global factory model. This gap in our understanding arises because the unique purpose of offshoring and outsourcing in global factories controlled by EM focal firms has not been fully investigated. This study contributes to the extant literature on the global factory model and the internationalization

of EM firms by documenting these firms' rationale to resort to offshore outsourcing, the ensuing impact of this strategy on their internationalization and performance, and the mechanisms through which the expected benefits are realized. By exposing the regularities and modalities of the offshore outsourcing strategy for EM firms, our work suggests that the theory of the global factory requires revision. We offer a theory extension to the current thesis of the global factory model and other internalization-based approaches by suggesting that internalization of specialized resources, as originally advocated by the global factory model (Buckley, 2011; see also Mudambi, 2008, Contractor, Kumar, Kundu, & Pedersen, 2010), is not a necessary condition for the firm to succeed. The global factory structure as adopted by firms from EMs (referred herein as EM global factories) often involves orchestrating specialized resources through offshore outsourcing rather than their internalization. Therefore, it is necessary to disentangle whether or not this strategy of sourcing specialized resources also improves the internationalization and performance of EM global factories, and to explore the mechanisms that may underlie this relationship.

Our empirical analyses, based on a sample of 1655 Indian firms over a time period of 13 years, from 2001 to 2013, present the impact of offshore outsourcing on the performance of EM global factories and the mechanisms through which the potential gains are realized. Overall, our findings show that offshore outsourcing of specialized resources increases firms' competitiveness in the international market. This is reflected in a higher likelihood of exporting and an increased volume of exports. Our results moreover indicate that offshore outsourcing of specialized knowledge-intensive resources has a positive impact on firm performance, thus supporting the argument that these resources enhance EM global factories' overall competitiveness by adding to the firm's stock of knowledge and to its resource base. Finally, we show that offshore outsourcing of specialized resources further enhances financial performance when it is combined with higher export intensity. Two important mechanisms through which the documented improvements in internationalization and financial performance are achieved are the increased employee productivity induced by offshore outsourcing and the complementarity between outsourced specialized knowledge-intensive resources and internal R&D efforts. A number of managerial implications for EM global factories and policymakers are derived from these findings.

The next section discusses the theoretical strands underlying the EM global factories' strategy to seek specialized resources and presents the hypotheses that define the expected relationships between outsourcing, exports, and firm performance. Then, we describe our data and empirical strategy. The explanation of the main results and a battery of robustness tests are presented next. We conclude by discussing the managerial implications of this work.

THEORY AND HYPOTHESES

The global factory model is a powerful theoretical tool for analyzing the international business activities of MNEs. It explains how the focal firm internationalizes and attains better performance by orchestrating its complex value chain at different locations, through a combination of internalization and externalization of activities. Each activity in the value chain is subject to both location (onshore *versus* offshore) and control (internalization *versus* external contract) decisions (Buckley, 2011). Thus, as a rule of thumb, EM global factories (like other firms) need to evaluate the costs of various combinations to take the decision of whether they undertake outsourcing or internalize the activities, and from which location. In this evaluation process, firms consider various *ex ante* and *ex post* costs, such as those related to searching for and selecting a supplier, negotiating the price and the terms of the contract, monitoring and inspecting the work, re-negotiating and enforcing the contract, and litigation costs, should any adverse eventuality occur. When these costs rise, conducting activities through the market is less efficient, and managers are inclined to obtain or produce the necessary resources within the firm's boundaries (Buckley & Casson, 1976).

Although there is merit in this transaction cost-based approach, it does not give sufficient attention to the need for maintaining proprietary control, nor to the dynamics of resource orchestration strategies that firms utilize when making decisions together with the appropriate cost considerations. Moreover, much of the literature on internalization and transaction cost economics implicitly assumes that the focal firm has sufficient capabilities and resources to make a meaningful comparison between the internalization and externalization options, and, as long as cost efficiencies prevail,

internalization will be its preferred strategy. This assumption is often hard to hold in the case of firms from EMs. These firms are different in their capabilities and resource endowment, largely because of the local context at their home country from which they begin to internalize (Buckley et al., 2018; Meyer et al., 2011). Consequently, the option of developing specialized resources, such as advanced technology, within the firm's own boundary is only a theoretical conjecture.

As EM firms often lag behind their global peers, their main objective is to catch up with incumbents (Kumaraswamy et al., 2012) by compressing their path of progression (Enderwick & Buckley, 2021). In other words, EM global factories do not have the luxury of spending time in developing specialized resources internally. Moreover, the base from which they develop knowledge-intensive resources may not be enough to make the process of internal deployment viable. Thus, firms from EMs frequently have no choice but to augment their specialized resources from external sources swiftly to enhance their competitiveness. The acquisition of foreign firms appears to be a popular option that has attracted scholars' attention. Such a strategy provides quick access to critical resources while ensuring proprietary control, but it can be time-consuming and demand substantial investments. In contrast, contracting also provides quick access to the needed resources, but at a much lower cost. However, contracting does not provide control over the resources. This aspect has remained under-researched by IB scholars. The modern resource-based view (Lavie, 2006) also suggests that services of resources matter more than the ownership of resources, implying that the internalization-based approach needs to be revised to fully understand how firms can derive better performance by drawing on resources held by other firms. Nonetheless, unlike acquisitions, offshore outsourcing does not provide exclusive or proprietary control over resources, which is regarded as a necessary condition to derive monopolistic advantages and to earn economic rents through its exploitation (Buckley, 2011; Mudambi, 2008). Thus, we argue that the EM context is unusual in many respects, requiring a revision of the global factory model and a reexamination of its implications for the firm's internationalization and performance.

EM global factories face typical spatial–temporal dynamics and a cost–control tradeoff when making the decision to internalize. The spatial aspects are concerned with the physical location, the temporal aspects are related to the time dimension, the cost aspects are concerned with efficiency gains, and the control aspects refer to the exclusive use associated with the internalization of an activity. In the wake of rapidly growing competition globally, with many competitors from around the world joining the market (Bettis & Hitt, 1995; Liesch et al., 2012), time pressure and the need to secure strategic assets to compete in the global economy are accelerating. In such a context, firms from EMs do not have the time required for the in-house development of specialized resources, even if internalization is more cost-effective. Moreover, limited resource availability and other constraints within their home country further hamper their ability to internalize markets. Therefore, we contend that the time required for in-house development and embeddedness within the home economy may prevent the internalization of high value-adding resources. Given the broad availability of resources in the global market and the need of EM global factories to obtain them quickly, they often rely on resources and capabilities held abroad by other firms (Awate et al., 2015).

Thus, building similar resources and capabilities in-house, especially in a short time period, is either not possible or too expensive. Consequently, firms in EMs look beyond the option of internalization. Moreover, recent advances in information and communication technology have significantly reduced the cost of identifying and communicating with international vendors and partners, who can provide the resources that such firms require (Görg, Hanley, & Strobl, 2008; Olsen, 2006). The resources needed by firms in EMs are also more easily available in global markets compared to building them from scratch (Gubbi et al., 2010). In addition, like managers of traditional MNEs who want to "be judged on their ability to identify, cultivate, and exploit the core competencies that make growth possible" (Prahalad & Hamel, 2000: 4), we argue that managers of EM global factories may also want to find ways to nurture and exploit the core competencies of their firms, which often lie in undertaking manufacturing and standard services (Mudambi, 2008). To this end, they should work as stewards whose main objective is to improve the products and services offered by the firm and to increase the customer base, rather than retaining resources to develop intermediate goods that do not constitute their core business and that require efforts (e.g., innovation) in which firms from EMs have weak competitive advantages. A clear example

that supports this argument is the case of Indian software firms, which aim to provide better customer service by developing new cost-efficient software and web applications, rather than entering into new domains, such as making laptops and computer processors.

In this respect, seeking specialized resources through outsourcing seems an intelligent strategy. It allows EM global factories to become more competitive and "punch above their weight". This metaphor, used by Contractor (2013: 304), highlights the fact that EM firms are already competing successfully with large OECD-headquartered MNEs. Thus, we contend that outsourcing of specialized resources from abroad confers efficiency and competitive advantages on global factories from EMs, so that their managers are better equipped to grow the firm and to enhance financial performance in the long run.

Using the above theoretical arguments, we propose hypotheses that describe the expected impact of offshore outsourcing on the competitiveness and financial performance of EM global factories.

Offshore Outsourcing and Exports

The IB literature to date supports the argument that offshore outsourcing improves competitive advantages (Doh, 2005; Farrell, 2005; Kotabe & Mudambi, 2009), and strengthens the export performance of the MNE (Bertrand, 2011). At the most fundamental level, offshore outsourcing makes the MNE more efficient and flexible by providing cheaper inputs from a range of suppliers, and at the same time it enables the MNE to concentrate on its core competencies, such as brand building (Buckley, 2011; Contractor et al., 2010). It also enables the MNE to tap into new knowledge and valuable resources held by foreign suppliers (Grant, 1991), complement these with its existing resource base (Cassiman & Veugelers, 2006), and improve its innovativeness (Kotabe, 1990). Extending this stream of the literature to the context of EM global factories, we argue that gains related to offshore outsourcing are not exclusive to the case of traditional OECD multinationals. The gains can also accrue to EM global factories by raising their international competitiveness, which can in turn enhance their exporting likelihood and volume of exports. We present four key arguments for this line of reasoning.

First, offshore outsourcing can provide quick access to frontier technology (Kotabe & Kothari, 2016; Mathews, 2006; Munjal, Requejo, & Kundu, 2019), which may enable EM global factories to not only gain higher productivity but also to realize higher quality of production, both of which are critical factors to succeed in international markets (Bernard & Jensen, 2004; Wagner, 2007). Securing technology and other know-how enables EM global factories to modernize their production lines and consequently achieve production gains (Elia, Munjal, & Scalera, 2020). Thus, sourcing foreign technology can strengthen EM global factories' ability to compete in the international market, where profit margins are often lower and quality requirements are higher, compared to the conditions in the home market. This can motivate EM global factories to engage into new exporting initiatives and to intensify their existing export ventures to obtain rents based on their higher productivity. We stress this point on productivity and quality gains, because production-related capabilities in particular are regarded as a main competitive advantage of EM global factories.

Second, offshore outsourcing can help firms from EMs to save on managerial and other valuable resources by placing the development of specialized resources outside the firm's boundaries. Di Gregorio, Musteen, and Thomas (2009) confirm this argument in the context of small and medium-sized enterprises. These resources can then be reallocated to tackle competition in host markets, to catch up with incumbent MNEs, and to gain tacit market knowledge by conducting tests and experiments that can ultimately contribute to the firm's success in its exporting initiatives (Bianchi & Wickramasekera, 2016; Kim & Hemmert, 2016). Prior research argues that, due to their limited exposure to international markets, firms from EMs tend to lack market knowledge and other marketing assets that are regarded critical for a successful expansion abroad (Guillén & Garcia-Canal, 2009). Therefore, freeing up managerial resources can be particularly advantageous for EM global factories. Moreover, tacit market knowledge is not fungible, which implies that MNEs need to gain it through its own managerial resources (Johanson & Vahlne, 1977).

Third, offshore outsourcing helps EM global factories to build transactional linkages, forge new relationships with other firms in host markets, and identify opportunities for undertaking exports and foreign direct investment (Buckley et al., 2016b, c; Munjal, 2014). Because they are latecomers in the global economy, the extant literature suggests that EM global factories have limited international

experience and low relational capital (Luo & Tung, 2007). This implies that establishing networks with other firms abroad is likely to fill an important gap in their resource endowment, which can provide them with renewed impetus for foreign expansion via exports. In the context of small and medium-sized enterprises, Di Gregorio et al. (2009) confirm that offshore outsourcing helps firms to enhance their networks, and to identify and exploit exporting opportunities. Thus, offshore outsourcing may allow EM global factories to establish linkages with other firms, to identify opportunities for market entry, and, more importantly, to learn about the preferences of customers and rival products (Mathews, 2002, 2006), all of which can help them to initiate and expand their exports into foreign markets.

Finally, we argue that tacit knowledge about the market and the relationships with other firms established by EM global factories through offshore outsourcing can minimize their liabilities of 'foreignness' (Zaheer, 1995), 'outsidership' (Johanson & Vahlne, 2009), and 'emergingness' (Madhok & Keyhani, 2012), and thereby improve their likelihood of exporting and the volume of exports. Therefore, we hypothesize that:

Hypothesis 1a: Offshore outsourcing of specialized resources has a positive impact on EM global factories' likelihood of exporting.

Hypothesis 1b: *Ceteris paribus*, offshore outsourcing of specialized resources yields a positive impact on EM global factories' export intensity.

Offshore Outsourcing and Financial Performance

Given the rapidly evolving global supply chains and growth of trade in tasks, prior research also indicates the benefits of offshore outsourcing that may translate into better financial performance (Fontagné & Harrison, 2017; Mudambi & Venzin, 2010). First and foremost, offshore outsourcing makes the global factory leaner and more cost-efficient (Doh, 2005; Farrell, 2005) by providing access to better and cheaper inputs from foreign suppliers (Gilley & Rasheed, 2000; Kedia & Mukherjee, 2009).

In the context of EM global factories, we argue that offshore outsourcing of specialized resources can provide a platform to improve firm performance. To this aim, we begin by extending one of the arguments presented above and related to the savings in and reallocation of valuable managerial resources, which are expected to enable EM global factories to increase their global competitiveness. We posit that securing specialized resources through offshore outsourcing can lead to significant savings in the capital outlay, and in several recurring costs associated with the development of such resources within the firm's hierarchy, with the ensuing positive impact on financial performance. Some of the specific costs on which EM global factories can save include those associated with setting up R&D centers and hiring scientists. More importantly, offshore outsourcing of specialized resources allows a reduction in the risks associated with the in-house development of technological resources. The lower costs and risk directly translate into higher profitability. Our arguments are in line with previous studies that suggest that developing new technological knowledge in-house is more time-consuming, riskier, and more costly (Atuahene-Gima, 1992; Cohen, Eliasberg, & Ho, 1996; Pisano, 1990).

In addition, offshore outsourcing enables EM global factories to concentrate on the expansion and future growth of their business by freeing up managerial resource and providing access to expert solutions (as and when required). This is likely to further enhance their overall competitiveness, which can translate into higher performance. The expected economic gains derive partly from the fruitful combination of the outsourced specialized resources with the existing resource base of the firm (managerial, marketing, or technological). A stream of the literature on the complementarity between internal and external resources indicates that combining external resources with the existing ones has a positive impact on firm performance, for instance, by swiftly innovating and launching new products into the market (Cassiman & Veugelers, 2006). Prior research on firms from EMs suggests that technological know-how accessed through managerial ties (Kotabe, Jiang, & Murray, 2011) and through offshore outsourcing (Buckley et al., 2016b, c), when combined with internal R&D, produces a synergetic effect in terms of EM global factories' market performance and growth (Elia et al., 2020). R&D can be regarded as a proxy for the firm's absorptive capacity (Cohen & Levinthal, 1990), which can determine the extent to which firms can benefit from resorting to an offshore outsourcing strategy.

Nonetheless, we acknowledge that the relationship between outsourcing from abroad and performance is not necessarily unidirectional. The impact of foreign outsourcing on the performance of EM

global factories could be negative if the *ex ante* and/or *ex post* transaction costs, such as contracting and monitoring costs, are too high (Williamson, 1979, 1981). Moreover, offshore outsourcing entails a risk of opportunistic behavior from the vendors of specialized resources (Hill, 1990). They may charge premium prices, especially because EM global factories are likely to be over-dependent on their suppliers, and because the market for such specialized resources is likely to be oligopolistic, controlled by a few sellers. Williamson (1979, 1981) also suggests that asset specificity and the economic value associated with an asset is likely to diminish if it is developed outside its context. This means that, if EM global factories do not get bespoke specialized resources from their vendors (which will be more expensive), then the likely benefits associated with the utilization of such resources is lower. In addition, contractual and transactional hazards arising from the misspecifications in contracts (Mayer & Salomon, 2006), misalignments between the organization and the nature of transactions (Mudambi & Tallman, 2010; Silverman, Nickerson, & Freeman, 1997), lack of control over vendor firms (Tadelis, 2002), and switching suppliers (Masten, Meehan, & Snyder, 1991) could also hamper firm performance.

We argue that the benefits of offshore outsourcing can exceed the negative implications of hazards. Our key contention is that EM global factories often have enough experience to deal with institutional and transactional hazards and uncertainties (Zahra, Abdelgawad, & Tsang, 2011). The case of Tata Motors (a leading automobile firm from India) setting up its new factory in the state of Gujarat, after initially being entangled with land-related controversies in the state of West Bengal, is a good example that demonstrates the capabilities of EM firms to deal with hazards and uncertainties at home. Tata Motors, in 2008, was caught in a serious controversy for acquiring land in the state of West Bengal for its proposed new factory to manufacture Tata Nano (the world's cheapest car). There were many problems caused by the land acquisition, including a number of farmers who committed suicide protesting against the acquisition. Consequently, the state government took a stand against building of the new factory and cancelled the deal. Tata Motors eventually decided to shift the location to the state of Gujarat, where it set up the factory. This case illustrates that EM firms are generally experienced and skilled in dealing with hazards and uncertainties. The seminal work on institutional voids by Khanna and Palepu (2010) provides several other examples. Thus, the business environment in emerging economies, which is usually less predictable than in advanced countries, provides EM global factories with the necessary experience, skills, and capabilities to adapt and address any eventuality that may arise (Hoskisson, Wright, Filatotchev, & Peng, 2013; Basu et al., 2022; Ahammad, Basu, Munjal, Clegg, & Shoham, 2021). Moreover, transaction-related risk affects both the EM global factory and the vendor. We can therefore expect that both parties perform due diligence to avert risks associated with transactional exchange. Finally, it can be anticipated that complementarity of specialized resources with existing production-related capabilities (Buckley et al., 2016b, c), and the marginal benefits associated with their catching up strategies, are usually higher for EM global factories (Kumaraswamy et al., 2012; Madhok & Keyhani, 2012). Thus, the ensuing benefits can offset the costs associated with offshore outsourcing. Therefore, we anticipate that:

Hypothesis 2: *Ceteris paribus*, offshore outsourcing of specialized resources increases the financial performance of EM global factories.

We now extend our central thesis to the joint effect of offshore outsourcing and exports on the financial performance of EM global factories. Our conjecture is that there is an amplifying effect of offshore outsourcing on firm performance as exports increase. In other words, the impact of offshore outsourcing on the financial performance of the EM global factory is higher for firms with higher exports. In the previous hypotheses, we argued that offshore outsourcing of specialized resources frees up managerial time and other resources, and reduces a firm's capital outlay and other overhead costs, all of which eventually translates into better financial performance. In the case of firms competing in the international market via exports, savings in overhead costs and resources provide slack resources that can be ploughed back by managers for further expansion (or risk-taking) in foreign markets.

In comparison to domestic markets, foreign markets are much larger. This implies that EM global factories may find more opportunities for increasing their scope and scale of production to profitably utilize the slack resources from offshore outsourcing. However, competition in the international market is generally fiercer than competition

in the domestic market (Goldberg & Knetter, 1999), and exporting entails various transaction costs, such as costs associated with the transportation of products (Blonigen, 2001). We argue that, for firms engaged in exporting, the incidence (average cost per unit exported) of these transaction costs decline as the volume of exports increases and, simultaneously, the firm strengthens its competitive position in the international market by increasing the scale and scope of its offerings. Thus, we postulate that the financial performance of EM global factories will increase as they increase their exports by utilizing the slack resources derived from an offshore outsourcing strategy.

In addition, export markets are generally more rewarding than domestic markets, and firms that are more active in exports are usually more competitive than their counterparts (Piercy, Kaleka, & Katsikeas, 1998). They may have better products and known brands (Kaleka, 2002), which allow them to win customers in the international market and to earn economic rents. Thus, the expected benefits from offshore outsourcing of specialized resources are likely to be enhanced as exports increase, which may in turn enable the EM global factory to achieve superior performance.

Finally, firms with larger export volumes have additional managerial ties (Chetty & Holm, 2000; Coviello & Munro, 1997), entrepreneurial orientation (Fernández-Mesa & Alegre, 2015), and exposure to the international market (Dichtl, Koeglmayr, & Mueller, 1990) compared to their counterparts that do not export or that export less. These foreign networks and the prior experience abroad accumulated due to exporting ventures constitute valuable resources that may further help EM firms in effectively utilizing the resources saved due to offshore outsourcing, leading to higher financial performance. Hence, we propose that:

Hypothesis 3: Export intensity positively moderates the relationship between offshore outsourcing of specialized resources and the financial performance of EM global factories.

DATA, EMPIRICAL MODELS AND ESTIMATION METHODS

Data and Empirical Models

The main source of information used to test the hypotheses is the Prowess database, which provides annual reports and other financial information on Indian firms. This is a popular database that has been used in prior research on India (Buckley et al., 2016a). From Prowess, we obtain the information necessary to define the variables of interest, as detailed below. We need to apply several filters to obtain a sample that enables us to use the difference generalized method of moments (GMM), an estimation method that we justify below. After considering these filters, we obtain an unbalanced panel that comprises 1655 firms (13,340 firm-year observations) over a 13-year time period, from 2001 until 2013. We estimate three different types of empirical models to investigate the proposed relationships, as shown in the conceptual model depicted in Figure 1.

Firstly, to test whether the likelihood of exporting by EM global factories depends on their access to foreign specialized resources (H1a), we estimate a model in which the dependent variable is the *exporting probability* and the independent variable of interest is whether (or not) firms outsource from abroad. More precisely, the following logit model is proposed, which is expressed in terms of the odds ratio (OR) (i.e., the probability of exporting divided by the probability of the event not taking place):

$$\begin{aligned}\log\left[\text{Prob}\left(\text{Exporting}_{it}\right)/\text{Prob}\left(\text{No exporting}_{it}\right)\right] &= \alpha_0 + \alpha_1 \text{Export dummy}_{i,t-1} \\ &+ \alpha_2 \text{Foreign specialized resources dummy}_{i,t-1} \\ &+ \lambda \text{Controls}_{i,t-1} + \varepsilon_{it}.\end{aligned} \tag{1}$$

The *foreign specialized resources dummy* presented in Eq. (1) captures whether the firm resorts to offshore outsourcing and is defined in two different ways. The first proposed dummy variable (*foreign technology dummy*) equals one if the firm pays royalties to acquire technology from abroad, and zero otherwise. Our second dummy variable (*foreign professional services dummy*) equals one when EM

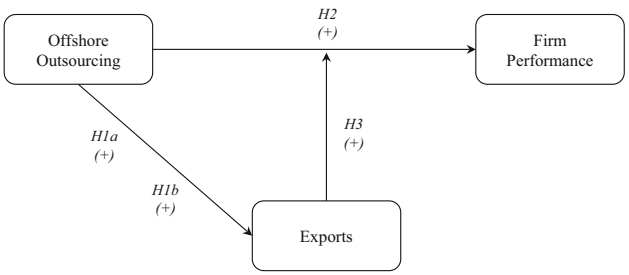


Figure 1 Conceptual model of the relationships between offshore outsourcing, exports and firm performance.

global factories import foreign services, and zero otherwise.

Secondly, to test Hypothesis 1b, we examine whether export intensity improves when EM global factories increase their amount of foreign resources. Thus, we develop a new empirical model in which the dependent variable is *export intensity*, as captured by the revenues from exporting (i.e., international sales), and the main explanatory variables are the amount of resources obtained from abroad. Our second type of model is thus formulated as follows:

$$\begin{aligned}\text{Export intensity}_{it} = {} & \delta_1 \text{Export intensity}_{i,t-1} \\ & + \delta_2 \text{Foreign specialized resources}_{i,t-1} \\ & + \lambda \text{Controls}_{i,t-1} + \varepsilon_{it}.\end{aligned} \tag{2}$$

As in Eq. (1), we consider two different variables that capture the purchase of specialized resources from abroad (i.e., *foreign specialized resources*): (1) *foreign technology*, and (2) *foreign professional services*. On the one hand, *foreign technology* is the ratio of the value of the royalties paid to get access to foreign technology scaled by total assets. *Foreign technology* includes royalty payments made in foreign currency to get technical know-how, technical information, or technology for manufacturing goods or for carrying on its business activity, from another company. On the other hand, the *foreign professional services* variable is the ratio of the amount (in monetary terms) of professional services obtained from partners located overseas divided by total assets. *Foreign professional services* include payments made in foreign currency for professional service, such as information technology, management, and legal consultancy.

Thirdly, we want to establish whether offshore outsourcing is beneficial in terms of profitability (Hypothesis 2) and whether the relationship between foreign specialized resources and financial performance is moderated by the degree of export intensity (Hypothesis 3). To this aim, we develop an empirical model in which the dependent variable is *firm performance*, as captured by return on assets. The independent variables of interest are the previously defined offshore outsourcing variables and their interactions with the amount of revenues from exporting. Thus, our third empirical model is:

$$\begin{aligned}\text{Performance}_{it} = {} & \beta_1 \text{Performance}_{i,t-1} \\ & + \beta_2 \text{Export intensity}_{i,t-1} \\ & + \beta_3 \text{Foreign specialized resources}_{i,t-1} \\ & + \gamma_1 \text{Export intensity}_{i,t-1} \\ & * \text{Foreign specialized resources}_{i,t-1} \\ & + \lambda \text{Controls}_{i,t-1} + \varepsilon_{it}.\end{aligned} \tag{3}$$

In order to test Hypothesis 2, we initially estimate two empirical models in which the focus of attention is the direct effect of either offshore outsourcing of technology or offshore outsourcing of professional services on firm performance. Next, we run two additional regressions in which we also include the corresponding interaction term with the level of exports. Such extended specifications enable us to investigate the moderating role of export intensity (Hypothesis 3).

As can be noted, Eqs. (1), (2), and (3) are all dynamic specifications, given that in the three of them we control for the lag of the dependent variable. All empirical models also include the following control variables. First, *size* is the natural logarithm of firm total assets. Second, *leverage* is considered to control for a firm's capital structure, and is defined as the ratio of total debt divided by total assets. Third, *sales growth* is a measure of the firm's growth, and is computed as sales in t minus sales in t–1 divided by sales in t–1. Fourth, *firm age* is the natural logarithm of one plus the difference between the corresponding year and the date of incorporation of the firm. Fifth, the *M&A dummy* takes the value of one if the firm has conducted a merger or an acquisition in the corresponding year, and zero otherwise. Sixth, *FDI* is the ratio of total foreign direct investment over total assets. The last two variables allow us to control for alternative foreign investment and entry modes that a firm can adopt to internationalize. In addition, time dummies are included in all regression analyses to control for the effect of macroeconomic factors on either the export activity of the business or its profitability. A firm's affiliation to a particular industry could also affect its export strategy and performance. Hence, we include industry dummies in the models that allow us to explore the probability of exporting. Meanwhile, in the models with export intensity or profitability as dependent variable, all of which are estimated with the difference GMM estimator (as explained below), any potential industry impact is captured by the unobserved heterogeneity (or firm fixed effects). Note that the

unobserved heterogeneity controlled for by our panel data method includes any time-invariant firm characteristic, including a firm's belonging to an industry, which remains constant over time. Nonetheless, in an additional effort to make sure that our results are not affected by industry specificities, we re-estimate our main GMM models with industry-adjusted dependent variables, as discussed in the robustness test section.

The main summary statistics (i.e., mean, standard deviation, minimum, 25th percentile, median, 75th percentile and maximum) of all variables considered in the regression analyses and the correlations between each other are presented in Table 1 (Panels A and B).

Estimation Methods

First, given the binary nature of the dependent variable in Eq. (1), this empirical model is estimated using a logit estimator with robust standard errors. A similar technique has been used in the estimation of other probability models (e.g., Kanagaretna, Kong, & Tsang, 2020). To minimize endogeneity concerns, all variables are lagged 1 year, as reflected in Eq. (1). Second, the linear models presented in Eqs. (2) and (3) are estimated using the difference GMM, developed by Arellano and Bond (1991).

The use of a panel data method like the GMM enables us to control for unobserved heterogeneity. In particular, any time-constant firm-specific effect that could affect either the level of exports or firm performance, including a firm's industry affiliation as well as the sub-national location where the firm is embedded within India, all of which are stable over time, are accounted for in our empirical modeling by taking first differences in the estimation process. Therefore, the GMM helps us to alleviate endogeneity problems attributable to omitted variables. In addition, a GMM estimator is particularly suitable to address endogeneity due to simultaneity or reverse causality, which is a common problem in IB, as recently noted by Li, Ding, Hu, and Wan (2021). This is an important issue in our empirical framework, as the two types of relationships that we investigate (i.e., between outsourcing and exports, and between outsourcing and performance) could go in both directions. The GMM emerges as the most adequate instrumental variables method to alleviate this concern by relying on the lags of the explanatory variables as instruments in the estimation process (Li et al., 2021). Indeed, the GMM has been previously used for the estimation of empirical models where the dependent variable is export intensity (e.g., Mariotti & Marzano, 2019) or firm performance (e.g., Qian, Li, Li, & Qian, 2008). The specific instruments that we use are lags from *t*–2 to *t*–5 of all explanatory variables.

In addition, as required when a GMM estimator is utilized, we conduct several specification tests. First, we calculate the Hansen *J* statistic of overidentifying restrictions to check for the lack of correlation between the instruments and the error term. Second, the m_2 statistic is computed to test for the lack of second-order serial correlation in the first difference residuals. Finally, to check the goodness-of-fit of the models, we use three Wald tests of the joint significance of the reported coefficients (z_1), of the time dummy variables (z_2) and of the industry dummy variables (z_3) in the case of the logit estimations. The results from these tests confirm that the proposed empirical models have explanatory power.

We also control for self-selection by using the Heckman technique (Certo, Busenbark, Woo, & Semadeni, 2016; Li et al., 2021) when analyzing the effect of offshore outsourcing on export intensity and performance. The decision to embark on offshore outsourcing could be attributable to several observed and unobserved firm characteristics that simultaneously affect the offshore outsourcing probability and the dependent variables in our models (export intensity and performance). Therefore, we apply a two-step Heckman self-selection model (Dastidar, 2009). In the first-step probit regression, the dependent variable is the likelihood of resorting to offshore outsourcing (be it to acquire foreign technology or foreign professional services), and the explanatory variables are firm size, total debt, sales growth, age, an M&A dummy, foreign direct investment, export intensity, an R&D dummy, and a group affiliation indicator. The group affiliation variable, which is included in this first step but does not appear in the second-step regressions, serves as the exclusion restriction, which is necessary for a proper application of the Heckman method (Certo et al., 2016). In addition, the inclusion of export intensity as a determinant of the offshore outsourcing probability further allows us to control for the bidirectional relationship that might exist between the two. The results from the first-step probit regression are reported in Table IA1 of the Online Appendix and confirm that export intensity affects the probability of offshore outsourcing positively. More importantly, the inclusion of the inverse Mills ratio estimated from

Table 1 Summary statistics, correlations matrix, and mean difference tests

Panel A: Summary statistics

	Mean	SD	Min	25th %-ile	Median	75th %-ile	Max
Performance	0.0308	0.1067	− 1.8946	0.0050	0.0333	0.0730	1.3346
Export intensity	0.1097	0.1767	0.0000	0.0000	0.0237	0.1454	0.9992
Foreign technology	0.0011	0.0058	0.0000	0.0000	0.0000	0.0000	0.2349
Foreign professional services	0.0118	0.0427	0.0000	0.0000	0.0010	0.0068	0.9038
Size	7.7899	2.0486	0.0953	6.3696	7.7319	9.0633	15.1177
Leverage	0.3027	0.1981	0.0000	0.1450	0.2926	0.4353	0.9988
Sales growth	0.1762	0.4122	− 0.9998	0.0000	0.1245	0.2805	4.6549
Firm age	3.1195	0.7101	0.6931	2.7081	3.0910	3.6109	5.0173
M&A dummy	0.0436	0.2041	0.0000	0.0000	0.0000	0.0000	1.0000
FDI	0.0181	0.0741	0.0000	0.0000	0.0000	0.0000	0.9210

Panel B: Correlation matrix

		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Performance	(1)	1.0000									
Export intensity	(2)	0.1273	1.0000								
Foreign technology	(3)	0.0625	− 0.0093	1.0000							
Foreign professional services	(4)	0.0229	0.2742	0.0034	1.0000						
Size	(5)	0.1259	0.0613	0.0373	0.0721	1.0000					
Leverage	(6)	− 0.3454	− 0.0499	− 0.0827	− 0.0526	0.0179	1.0000				
Sales growth	(7)	0.1400	0.0311	0.0024	0.0478	0.0553	− 0.0005	1.0000			
Firm age	(8)	0.1199	0.0698	0.0314	− 0.0162	0.2564	− 0.0957	− 0.1205	1.0000		
M&A dummy	(9)	0.0845	0.0791	− 0.0253	0.0685	0.2001	− 0.0238	0.0299	0.0360	1.0000	
FDI	(10)	0.0140	0.1111	− 0.0240	0.1046	0.0673	− 0.0393	− 0.0123	− 0.0408	0.2227	1.0000

Table 2 Effects of offshore outsourcing of specialized resources on the likelihood of exporting

Dep. var.: exporting probability	(1a) Coefs.	(1b) ORs	(2a) Coefs.	(2b) ORs	(3a) Coefs.	(3b) ORs
Constant and lagged dep. var.						
Constant	− 4.8583	0.0078	− 4.3567	0.0128	− 4.3569	0.0128
	(0.7112)	(0.0055)	(0.6427)	(0.0082)	(0.6467)	(0.0083)
	[0.0000]	[0.0000]	[0.0000]	[0.0000]	[0.0000]	[0.0000]
Export dummy$_{i,t-1}$	6.0334	417.1139	5.7920	327.6739	5.7680	319.8951
	(0.1048)	(43.7335)	(0.1062)	(34.7995)	(0.1061)	(33.9442)
	[0.0000]	[0.0000]	[0.0000]	[0.0000]	[0.0000]	[0.0000]
Control variables						
Size$_{i,t-1}$	0.1579	1.1710	0.0382	1.0389	0.0357	1.0363
	(0.0255)	(0.0298)	(0.0270)	(0.0281)	(0.0272)	(0.0282)
	[0.0000]	[0.0000]	[0.1579]	[0.1579]	[0.1903]	[0.1903]
Leverage$_{i,t-1}$	− 0.5798	0.5600	− 0.4443	0.6413	− 0.4000	0.6703
	(0.2353)	(0.1318)	(0.2358)	(0.1512)	(0.2358)	(0.1581)
	[0.0138]	[0.0138]	[0.0596]	[0.0596]	[0.0899]	[0.0899]
Sales growth$_{i,t-1}$	0.0866	1.0905	0.0704	1.0729	0.0719	1.0745
	(0.1116)	(0.1217)	(0.1155)	(0.1239)	(0.1156)	(0.1242)
	[0.4375]	[0.4375]	[0.5423]	[0.5423]	[0.5342]	[0.5342]
Firm age$_{i,t-1}$	0.0916	1.0959	0.0743	1.0771	0.0762	1.0792
	(0.0746)	(0.0818)	(0.0766)	(0.0825)	(0.0767)	(0.0828)
	[0.2199]	[0.2199]	[0.3324]	[0.3324]	[0.3206]	[0.3206]
M&A dummy$_{i,t-1}$	0.6890	1.9917	0.7243	2.0633	0.7327	2.0806
	(0.4089)	(0.8145)	(0.4168)	(0.8600)	(0.4216)	(0.8772)
	[0.0920]	[0.0920]	[0.0822]	[0.0822]	[0.0823]	[0.0823]
FDI$_{i,t-1}$	4.4512	85.7273	4.1744	65.0038	4.2114	67.4489
	(0.7492)	(64.2310)	(0.8706)	(56.5926)	(0.8598)	(57.9900)
	[0.0000]	[0.0000]	[0.0000]	[0.0000]	[0.0000]	[0.0000]
Hypothesis variables						
Foreign technology dummy$_{i,t-1}$	0.6124	1.8449			0.4168	1.5171
	(0.2072)	(0.3822)			(0.1961)	(0.2975)
	[0.0031]	[0.0031]			[0.0336]	[0.0336]
Foreign professional services dummy$_{i,t-1}$			1.1542	3.1714	1.1276	3.0884
			(0.1125)	(0.3569)	(0.1131)	(0.3494)
			[0.0000]	[0.0000]	[0.0000]	[0.0000]
z_1	3623.96 (8)		3460.92 (8)		3442.58 (9)	
z_2	32.09 (11)		29.72 (11)		29.75 (11)	
z_3	51.86 (8)		48.23 (8)		47.07 (8)	
Pseudo R^2	0.7570		0.7634		0.7638	
No. obs.	11,685		11,685		11,685	

This table presents the logit regression results from estimating Eq. (1). All variables are defined in the Data and Empirical Models section. Columns 1a, 2a, and 3a (1b, 2b, and 3b) report the estimated coefficients (ORs). Robust standard errors are provided in parentheses and p values are reported in brackets. The z_1 is a Wald test of the joint significance of the reported coefficients, whereas the z_2 (z_3) is a Wald test of the joint significance of the time dummies (industry dummies), under the null of no relationship; degrees of freedom in parentheses

the first-step probit model as a control variable in the second step (i.e., in the exports and profitability models) enables us to correct for the self-selection bias and to allay additional concerns on the reverse causality problem that might characterize the offshore outsourcing-exporting relationship.[1]

RESULTS

Main Regression Analyses

To test Hypothesis 1a, we examine the likelihood of exporting and whether it depends upon EM global factories' access to foreign specialized resources (Table 2). We report the estimated coefficients (columns 1a, 2a, and 3a) as well as the ORs

(columns 1b, 2b, and 3b) for each empirical model. It is important to note that ORs can range between 0 and infinity. An OR below 1 indicates that the variable has a negative impact on the exporting probability, whereas a value higher than 1 supports a positive effect. The findings from the logit estimations show that firms that outsource technology and professional services from abroad are more likely to export. Therefore, the empirical evidence is in line with our expectations. Regarding foreign technology (columns 1a and 1b), we observe that α_2 = 0.6124 (p value = 0.0031) and the 95% confidence interval is (0.2064, 1.0184). The estimated OR of 1.8449 (p value = 0.0031) is higher than 1 and has an associated 95% confidence interval of (1.2292, 2.7689), thus confirming the direction of the effect. This result is economically relevant as it implies that offshore outsourcing of technological resources increases the probability of exporting by a magnitude of 5.45% (92.59% vs. 87.14% exporting probability for EM global factories that outsource versus those that do not outsource) keeping all other factors constant at their mean levels.

Offshore outsourcing of professional services also influences the likelihood of exporting positively (columns 2a and 2b). The estimated coefficient is α_2 = 1.1542 (p value = 0.0000), with a 95% confidence interval of (0.9336, 1.3747). As expected, the corresponding OR, with a value of 3.1714 (p value = 0.0000) and a 95% confidence interval of (2.5437, 3.9541), is higher than 1. To interpret the magnitude of this effect, we again fix all control variables at their average levels and examine the difference in the exporting probability between firms that adopt and those that do not adopt a global factory structure via offshore outsourcing. Our empirical evidence highlights that EM global factories that outsource professional services from abroad are 14.03% more likely to export (the exporting probability estimated for each firm category, as classified by their outsourcing status, is 91.67% vs. 77.64%). From a practical point of view, an increase in the likelihood of exporting supports the performance-enhancing power of offshore outsourcing strategies. These conclusions remain unchanged when both offshore outsourcing variables are included simultaneously in the model (columns 3a and 3b).

We contend in Hypothesis 1b that offshore outsourcing of specialized resources will help EM global factories to be more successful in their exporting endeavors given the uncertainty that exporting initiatives entail. Thus, we test whether more intensive use of foreign resources by EM global factories increases the amount of revenues from exporting activities. Table 3 shows that offshore outsourcing of technology and professional services leads to higher international sales. On the one hand, column 1 shows that δ_2 = 0.1301 (p value = 0.0030), being the 95% confidence interval (0.0444, 0.2158). On the other hand, column 2 reports that δ_2 = 0.0951 (p value = 0.0000) and the corresponding 95% confidence interval is (0.0553, 0.1349). These regression results support Hypothesis 1b and confirm that offshore outsourcing of resources improves EM global factories' export performance. A 1% increase in foreign technology (similar to this variable's standard deviation in the subsample of firm-year observations with non-zero foreign technological resources) leads to an export intensity level 0.1301% higher [= (0.1301 × 0.01) × 100]. Such increase is equivalent to 1.19% of mean exports in the sample [= (0.001301/0.1097) × 100], thus supporting the economic relevance of the finding. As regards the outsourcing of foreign services, increasing this type of resource by 5% (similar to this variable's standard deviation in the subsample of firm-year observations with non-zero foreign professional services) is associated with a rise in export intensity that amounts to 0.4755% [= (0.0951 × 0.05) × 100]. This change is equivalent to 4.33% of average export intensity [= (0.004755/0.1097) × 100] and confirms the practical relevance of our empirical evidence. Our conclusions are qualitatively the same when both offshore outsourcing variables enter the right-hand side of the export model simultaneously (column 3).

The next step is to ascertain whether, in line with Hypothesis 2, offshore outsourcing of both types of specialized resources (technology and professional services) improves the financial performance of EM global factories. In Table 4 (columns 1 and 3), we first estimate the stand-alone effects of offshore outsourcing of specialized resources on firm performance. Consistent with Hypothesis 2, the regression results presented in column 1 highlight that β_3 = 0.2925 (p value = 0.0000), with an associated 95% confidence interval of (0.2027, 0.3822). Meanwhile, column 3 reports that β_3 = 0.0755 (p value = 0.0000), being the corresponding 95% confidence interval (0.0477, 0.1033). Therefore, a 1% rise in foreign technological resources is associated with a 0.2925% increase in profitability [= (0.2925 × 0.01) × 100], which is similar to 9.50% of mean performance in the sample [= (0.002925/0.0308) × 100].

Table 3 Effects of offshore outsourcing of specialized resources on firm export intensity

Dep. var.: export intensity	(1)	(2)	(3)
Lagged dep. var.			
Export intensity$_{i,t-1}$	0.4183	0.4038	0.3969
	(0.0143)	(0.0165)	(0.0141)
	[0.0000]	[0.0000]	[0.0000]
Control variables			
Size$_{i,t-1}$	− 0.0157	− 0.0091	− 0.0119
	(0.0052)	(0.0046)	(0.0044)
	[0.0026]	[0.0503]	[0.0067]
Leverage$_{i,t-1}$	0.0262	0.0395	0.0451
	(0.0097)	(0.0100)	(0.0090)
	[0.0071]	[0.0001]	[0.0000]
Sales growth$_{i,t-1}$	0.0017	0.0031	0.0028
	(0.0010)	(0.0010)	(0.0009)
	[0.0820]	[0.0010]	[0.0023]
Firm age$_{i,t-1}$	− 0.0052	− 0.0043	− 0.0056
	(0.0047)	(0.0046)	(0.0045)
	[0.2683]	[0.3583]	[0.2208]
M&A dummy$_{i,t-1}$	0.0009	0.0004	− 0.0001
	(0.0021)	(0.0019)	(0.0018)
	[0.6804]	[0.8196]	[0.9389]
FDI$_{i,t-1}$	0.0048	− 0.0233	− 0.0253
	(0.0119)	(0.0104)	(0.0102)
	[0.6869]	[0.0251]	[0.0133]
Inverse mills ratio	− 0.0551	− 0.0654	− 0.0702
	(0.0087)	(0.0082)	(0.0077)
	[0.0000]	[0.0000]	[0.0000]
Hypothesis variables			
Foreign technology$_{i,t-1}$	0.1301		0.1282
	(0.0437)		(0.0414)
	[0.0030]		[0.0020]
Foreign professional services$_{i,t-1}$		0.0951	0.1029
		(0.0203)	(0.0191)
		[0.0000]	[0.0000]
z_1	118.57 (9)	212.62 (9)	242.26 (10)
z_2	10.26 (11)	9.56 (11)	11.65 (11)
m_2	0.84	0.80	0.76
Hansen	344.58 (303)	379.92 (303)	399.95 (340)
No. obs.	10,030	10,030	10,030

This table presents the difference GMM regression results from estimating Eq. (2). All variables are defined in the Data and Empirical Models section. Heteroskedasticity consistent asymptotic standard errors are provided in parentheses and *p* values are reported in brackets. The z_1 (z_2) is a Wald test of the joint significance of the reported coefficients (time dummies), under the null of no relationship; degrees of freedom in parentheses. The m_2 is a serial correlation test of second order using residuals in first differences, asymptotically distributed as $N(0,1)$ under the null of no serial correlation. The Hansen is a test of the over-identifying restrictions, asymptotically distributed as χ^2 under the null of no correlation between the instruments and the error term; degrees of freedom in parentheses

Our empirical evidence also suggests that increasing offshore outsourcing of professional services by 5% improves firm performance in 0.3775% [= (0.0755 × 0.05) × 100], which corresponds to 12.26% of sample average performance [= (0.003775/0.0308) × 100]. As a consequence, the positive effects reported are not just statistically significant but also economically meaningful.

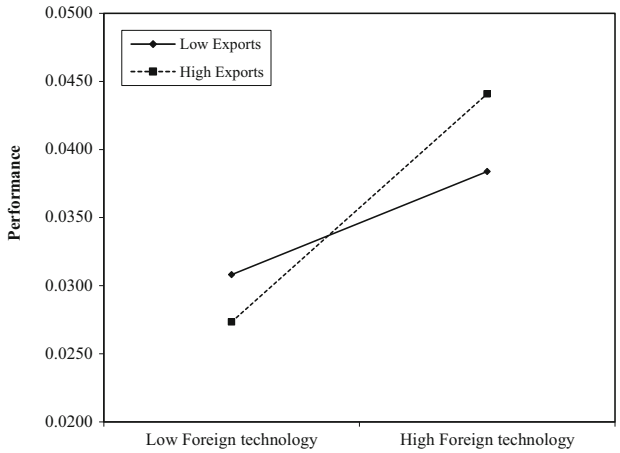
Another important question is whether EM global factories that outsource specialized resources benefit more in terms of performance if they also export their products and/or services. Interestingly, consistent with Hypothesis 3, Table 4 (columns 2 and 4) shows that the joint effects of export activity with foreign technology and professional services on firm profitability are positive. Therefore, we

Table 4 Effects of export intensity and offshore outsourcing of specialized resources on firm performance

Dep. var.: performance	(1)	(2)	(3)	(4)
Lagged dep. var.				
Performance$_{i,t-1}$	0.2030	0.1985	0.2028	0.1993
	(0.0099)	(0.0088)	(0.0093)	(0.0073)
	[0.0000]	[0.0000]	[0.0000]	[0.0000]
Control variables				
Size$_{i,t-1}$	− 0.0586	− 0.0637	− 0.0567	− 0.0569
	(0.0053)	(0.0036)	(0.0047)	(0.0034)
	[0.0000]	[0.0000]	[0.0000]	[0.0000]
Leverage$_{i,t-1}$	0.0420	0.0430	0.0444	0.0473
	(0.0106)	(0.0084)	(0.0102)	(0.0083)
	[0.0001]	[0.0000]	[0.0000]	[0.0000]
Sales growth$_{i,t-1}$	0.0003	− 0.0008	0.0014	0.0008
	(0.0012)	(0.0011)	(0.0011)	(0.0010)
	[0.8207]	[0.4705]	[0.2297]	[0.4166]
Firm age$_{i,t-1}$	0.0030	0.0045	0.0056	− 0.0013
	(0.0075)	(0.0072)	(0.0076)	(0.0067)
	[0.6843]	[0.5373]	[0.4594]	[0.8512]
M&A dummy$_{i,t-1}$	0.0028	0.0029	0.0024	0.0026
	(0.0020)	(0.0018)	(0.0019)	(0.0017)
	[0.1566]	[0.1184]	[0.2027]	[0.1291]
FDI$_{i,t-1}$	− 0.0143	− 0.0151	− 0.0287	− 0.0212
	(0.0130)	(0.0125)	(0.0125)	(0.0096)
	[0.2713]	[0.2266]	[0.0217]	[0.0272]
Export intensity$_{i,t-1}$	− 0.0171	− 0.0099	− 0.0015	0.0108
	(0.0109)	(0.0086)	(0.0117)	(0.0099)
	[0.1170]	[0.2495]	[0.8966]	[0.2758]
Inverse mills ratio	− 0.1057	− 0.1033	− 0.1069	− 0.1119
	(0.0091)	(0.0071)	(0.0086)	(0.0061)
	[0.0000]	[0.0000]	[0.0000]	[0.0000]
Hypothesis variables				
Foreign technology$_{i,t-1}$	0.2925	0.3511		
	(0.0457)	(0.0327)		
	[0.0000]	[0.0000]		
Export intensity$_{i,t-1}$ × foreign technology$_{i,t-1}$		1.2114		
		(0.2327)		
		[0.0000]		
Foreign professional services$_{i,t-1}$			0.0755	− 0.0058
			(0.0142)	(0.0121)
			[0.0000]	[0.6340]
Export intensity$_{i,t-1}$ × foreign professional services$_{i,t-1}$				0.1091
				(0.0213)
				[0.0000]
z_1	108.27 (10)	185.71 (11)	116.22 (10)	178.18 (11)
z_2	68.11 (11)	100.44 (11)	68.06 (11)	84.34 (11)
m_2	0.76	0.73	0.78	0.76
Hansen	388.80 (340)	440.45 (377)	395.71 (340)	443.17 (377)
No. obs.	10,030	10,030	10,030	10,030

This table presents the difference GMM regression results from estimating Eq. (3). All variables are defined in the Data and Empirical Models section. Heteroskedasticity consistent asymptotic standard errors are provided in parentheses and p values are reported in brackets. The z_1 (z_2) is a Wald test of the joint significance of the reported coefficients (time dummies), under the null of no relationship; degrees of freedom in parentheses. The m_2 is a serial correlation test of second order using residuals in first differences, asymptotically distributed as $N(0,1)$ under the null of no serial correlation. The Hansen is a test of the over-identifying restrictions, asymptotically distributed as χ^2 under the null of no correlation between the instruments and the error term; degrees of freedom in parentheses

Panel A. Offshore outsourcing of technological resources



Panel B. Offshore outsourcing of professional services

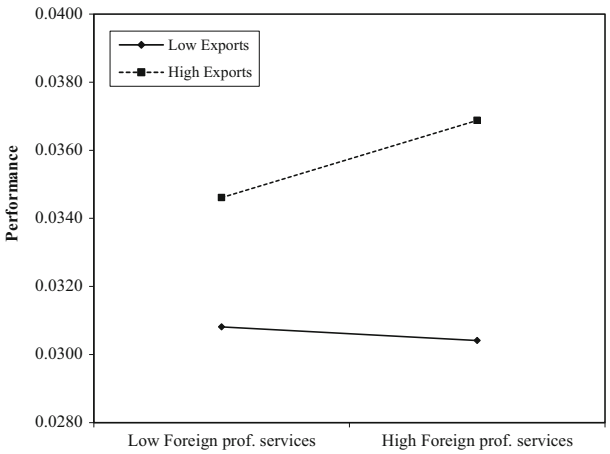


Figure 2 Moderating effect of exports in the offshore outsourcing–firm performance relationship.

conclude that EM global factories, on average, are more competitive and benefit more strongly from operating in international markets. First, we observe in column 2 that γ_1 = 1.2114 (p value = 0.0000) and its 95% confidence interval is [0.7550, 1.6679]. Second, column 4 shows that γ_1 = 0.1091 (p value = 0.0000), with a 95% confidence interval of [0.0674, 0.1508]. The interaction effects captured by these two estimated coefficients are depicted in Figure 2 (Panels A and B). Panel A highlights that the positive impact of foreign technology on performance is more pronounced in the case of firms with high export intensity (as reflected in the slope of the lines). Similarly, Panel B shows that export intensity positively moderates the relationship between offshore outsourcing of specialized resources and firm profitability. This panel highlights that an increase in foreign professional services does not translate into higher profitability in the case of EM global factories with low export intensity, whereas foreign professional services have a positive impact on the performance of firms with high export intensity (dashed line).

To assess the economic relevance of these findings, let us analyze the differences in the performance increase attributable to a rise in foreign specialized resources between firms that differ from each other in their export intensity. To this aim, we assume that 16% (35%) is a low (high) export intensity level, which is similar to the mean (mean plus one standard deviation) of the exports variable in the subsample of firm-year observations with non-zero exports. In the case of businesses with a low level of exports and based on the estimated coefficients presented in column 2 (Table 4), we conclude that a 1% increase in foreign technology contributes to improve firm performance by 0.5449% {= [(0.3511 × 0.01) + (1.2114 × 0.16 × 0.01)]}. A similar rise in offshore outsourcing of technological resources in a firm with high export intensity is associated with a rise in profitability of 0.7751% {= [(0.3511 × 0.01) + (1.2114 × 0.35 × 0.01)]}. The difference between both increments (i.e., high versus low exporting firms) amounts to 0.2302% [= (0.007751 – 0.005449) × 100], which is equivalent to 7.47% of mean performance in the sample [= (0.002302/0.0308) × 100]. Therefore, our results on the moderating impact of export intensity are relevant not only in statistical terms but also from a practical perspective.

Regarding the differential effect of foreign professional services between high versus low exporting EM global factories, we conduct a similar analysis, but using the estimated effects reported in column 4 (Table 4). In this case, we observe that increasing offshore outsourcing of professional services by 5% leads to a higher profitability of 0.0583% {= [(− 0.0058 × 0.05) + (0.1091 × 0.16 × 0.05)]} in an EM global factory with a low exports level. Meanwhile, the same increase in foreign professional services improves performance by 0.1619% {= [(− 0.0058 × 0.05) + (0.1091 × 0.35 × 0.05)]} in an EM global factory with high export intensity. Therefore, the difference in the profitability increase between both types of firms is equivalent to 0.1036% [= (0.001619 – 0.000583) × 100]. This is an economically meaningful difference, as it constitutes 3.37% of average performance [= (0.001036/0.0308) × 100].[2]

Mechanisms

In the theoretical framework, we contend that offshore outsourcing positively affects the competitive advantage of firms from EMs by providing them with access to valuable specialized resources. Accordingly, we expect that offshore outsourcing leads to higher export intensity and financial profitability, as the empirical evidence presented in the previous section suggests. What remains empirically unclear is whether the positive impact of offshore outsourcing on exports and performance is attributable to increases in firms' competitiveness. Improvement in productivity is one natural way to achieve a higher competitive advantage (Tomiura, 2007; Wagner, 2007). Therefore, we now explore whether offshore outsourcing is beneficial in terms of productivity. The aim of the new analyses is to provide empirical support for the theoretical reasoning that leads to the formulation of our hypotheses.

Specifically, we estimate several models in which the dependent variable is employee productivity, measured as the ratio of sales to the compensation to employees.[3] Given that the resulting variable is rather skewed, we take the natural logarithm, which allows us to get a dependent variable with a distribution closer to the normal. Like the export and performance models, which are dynamic, the productivity models include the lag of the dependent variable in the right-hand side. The set of control variables is the same as above, except for a new control variable: the natural logarithm of employees. We are compelled to account for this firm characteristic, given that our goal is to explain employee productivity. The new regressions are conducted using a smaller sample of 632 firms (5496 firm-year observations) due to missing observations in the employee variable.

The results are presented in Table 5. Interestingly, and in line with our theoretical arguments, we observe that offshore outsourcing of specialized resources positively affects employee productivity (columns 1 and 3) and this positive effect is strengthened as firms increase their volume of exports (columns 2 and 4). Hence, we conclude that increases in productivity associated with offshore outsourcing indeed explain (at least partly) the positive link between this strategy and export intensity and profitability.

Another channel through which foreign specialized resources from offshore outsourcing could improve firm performance is by combining them with valuable resources developed internally. One clear example of high value-adding activities is R&D. A firm's R&D intensity reflects the availability of internal valuable resources. Hence, we investigate whether the positive effect of offshore outsourcing of specialized resources on financial profitability is amplified as EM global factories increase their investments in R&D. The new results are reported in Table 6. Note that due to missing values in the R&D variable, the models are estimated using a smaller sample (673 firms that make 5877 firm-year observations). Our empirical evidence (as captured by the estimated coefficients on the interaction terms between the offshore outsourcing variables and R&D) supports the idea that combining external (from offshore outsourcing) and internal (as captured by R&D) valuable resources boosts firm performance, as we expected.

The findings presented in this section enable us to confirm two different mechanisms that explain the positive effect of offshore outsourcing on export intensity and financial profitability. First, we show that getting access to foreign specialized resources increases productivity, thus improving firm competitiveness. The resulting increase in competitive advantage allows the firm to rise its sales abroad and get better performance. Second, we find that the positive impact of offshore outsourcing on profitability is amplified as R&D rises. Therefore, we conclude that the beneficial consequences of an offshore outsourcing strategy in performance terms partly derive from the combination of the valuable external resources from this strategy with valuable resources developed internally.

Robustness Tests

We conduct a battery of additional analyses to check the consistency and robustness of our findings. To save space, the results from these analyses are reported in the Online Appendix. First, regarding the empirical model used to test Hypothesis 1a, we initially employ a logit estimator. We now rerun the regressions with the probit method. The empirical evidence presented in Table IA2 of the Online Appendix corroborates the initial results. That is, offshore outsourcing of specialized resources increases EM global factories' probability of exporting.

Second, we estimate new empirical models to test Hypothesis 1b. Given that we have in the sample firms that do not export during the whole sample period, one concern is that they are substantially

Table 5 Effects of export intensity and offshore outsourcing of specialized resources on firm productivity

Dep. var.: productivity	(1)	(2)	(3)	(4)
Lagged dep. Var.				
Productivity$_{i,t-1}$	0.4801	0.4806	0.4835	0.4933
	(0.0083)	(0.0047)	(0.0063)	(0.0032)
	[0.0000]	[0.0000]	[0.0000]	[0.0000]
Control variables				
Size$_{i,t-1}$	0.0010	− 0.0027	− 0.0024	0.0020
	(0.0101)	(0.0070)	(0.0070)	(0.0034)
	[0.9236]	[0.6968]	[0.7339]	[0.5520]
Leverage$_{i,t-1}$	− 0.1746	− 0.1326	− 0.2378	− 0.1838
	(0.0251)	(0.0145)	(0.0237)	(0.0146)
	[0.0000]	[0.0000]	[0.0000]	[0.0000]
Sales growth$_{i,t-1}$	0.0079	0.0079	0.0079	0.0081
	(0.0039)	(0.0025)	(0.0035)	(0.0026)
	[0.0449]	[0.0020]	[0.0246]	[0.0018]
Firm age$_{i,t-1}$	− 0.0897	− 0.0782	− 0.0729	− 0.0916
	(0.0229)	(0.0146)	(0.0223)	(0.0179)
	[0.0001]	[0.0000]	[0.0011]	[0.0000]
M&A dummy$_{i,t-1}$	− 0.0013	− 0.0034	− 0.0040	0.0038
	(0.0051)	(0.0034)	(0.0041)	(0.0021)
	[0.7977]	[0.3131]	[0.3278]	[0.0749]
FDI$_{i,t-1}$	− 0.2649	− 0.2478	− 0.2023	− 0.2254
	(0.0230)	(0.0181)	(0.0198)	(0.0118)
	[0.0000]	[0.0000]	[0.0000]	[0.0000]
Export intensity$_{i,t-1}$	− 0.3271	− 0.3542	− 0.2961	− 0.4036
	(0.0214)	(0.0154)	(0.0245)	(0.0148)
	[0.0000]	[0.0000]	[0.0000]	[0.0000]
Employees$_{i,t-1}$	− 0.0518	− 0.0479	− 0.0468	− 0.0463
	(0.0106)	(0.0063)	(0.0086)	(0.0058)
	[0.0000]	[0.0000]	[0.0000]	[0.0000]
Inverse mills ratio	0.0878	0.0699	0.0916	0.0905
	(0.0137)	(0.0084)	(0.0112)	(0.0056)
	[0.0000]	[0.0000]	[0.0000]	[0.0000]
Hypothesis variables				
Foreign technology$_{i,t-1}$	0.4237	0.2326		
	(0.1093)	(0.0583)		
	[0.0001]	[0.0001]		
Export intensity$_{i,t-1}$ × foreign technology$_{i,t-1}$		4.7424		
		(0.4796)		
		[0.0000]		
Foreign professional services$_{i,t-1}$			0.0691	− 0.8999
			(0.0321)	(0.0225)
			[0.0319]	[0.0000]
Export intensity$_{i,t-1}$ × foreign professional services$_{i,t-1}$				1.6907
				(0.0241)
				[0.0000]
z_1	534.44 (11)	1,834.50 (12)	803.75 (11)	8,298.92 (12)
z_2	204.52 (11)	1,030.17 (11)	278.23 (11)	485.60 (11)
m_2	− 0.30	− 0.28	− 0.28	− 0.26
Hansen	395.60 (377)	428.11 (414)	406.91 (377)	433.07 (414)
No. obs.	4232	4232	4232	4232

This table presents the difference GMM regression results from estimating a model with firm productivity as dependent variable. All variables are defined in the Data and Empirical Models, and in the Mechanisms sections. Heteroskedasticity consistent asymptotic standard errors are provided in parentheses and *p* values are reported in brackets. The z_1 (z_2) is a Wald test of the joint significance of the reported coefficients (time dummies), under the null of no relationship; degrees of freedom in parentheses. The m_2 is a serial correlation test of second order using residuals in first differences, asymptotically distributed as $N(0,1)$ under the null of no serial correlation. The Hansen is a test of the over-identifying restrictions, asymptotically distributed as χ^2 under the null of no correlation between the instruments and the error term; degrees of freedom in parentheses

Table 6 Effects of R&D and offshore outsourcing of specialized resources on firm performance

Dep. var.: performance	(1)	(2)
Lagged dep. var.		
Performance$_{i,t-1}$	0.0755	0.0673
	(0.0039)	(0.0040)
	[0.0000]	[0.0000]
Control variables		
Size$_{i,t-1}$	− 0.0718	− 0.0824
	(0.0016)	(0.0017)
	[0.0000]	[0.0000]
Leverage$_{i,t-1}$	0.0453	0.0687
	(0.0034)	(0.0051)
	[0.0000]	[0.0000]
Sales growth$_{i,t-1}$	0.0020	0.0008
	(0.0007)	(0.0006)
	[0.0018]	[0.2177]
Firm age$_{i,t-1}$	− 0.0057	− 0.0130
	(0.0048)	(0.0047)
	[0.2380]	[0.0055]
M&A dummy$_{i,t-1}$	− 0.0059	− 0.0060
	(0.0009)	(0.0007)
	[0.0000]	[0.0000]
FDI$_{i,t-1}$	− 0.0232	− 0.0277
	(0.0066)	(0.0055)
	[0.0005]	[0.0000]
Export intensity$_{i,t-1}$	0.0093	0.0097
	(0.0053)	(0.0036)
	[0.0782]	[0.0065]
R&D$_{i,t-1}$	− 0.0952	− 0.2661
	(0.0301)	(0.0210)
	[0.0016]	[0.0000]
Inverse mills ratio	− 0.1274	− 0.1453
	(0.0024)	(0.0027)
	[0.0000]	[0.0000]
Hypothesis variables		
Foreign technology$_{i,t-1}$	0.1772	
	(0.0142)	
	[0.0000]	
R&D$_{i,t-1}$ × foreign technology$_{i,t-1}$	9.9503	
	(0.7188)	
	[0.0000]	
Foreign professional services$_{i,t-1}$		0.0268
		(0.0038)
		[0.0000]
R&D$_{i,t-1}$ × foreign professional services$_{i,t-1}$		0.7794
		(0.0699)
		[0.0000]
z_1	814.86 (12)	909.02 (12)
z_2	408.56 (11)	409.06 (11)
m_2	− 0.35	− 0.34
Hansen	439.32 (414)	443.88 (414)
No. obs.	4531	4531

This table presents the difference GMM regression results from estimating a modified version of Eq. (3) that includes the moderating role of R&D. All variables are defined in the Data and Empirical Models, and in the Mechanisms sections. Heteroskedasticity consistent asymptotic standard errors are provided in parentheses and p values are reported in brackets. The z_1 (z_2) is a Wald test of the joint significance of the reported coefficients (time dummies), under the null of no relationship; degrees of freedom in parentheses. The m_2 is a serial correlation test of second order using residuals in first differences, asymptotically distributed as $N(0,1)$ under the null of no serial correlation. The Hansen is a test of the over-identifying restrictions, asymptotically distributed as χ^2 under the null of no correlation between the instruments and the error term; degrees of freedom in parentheses

different from exporting firms and hence influence the findings from the models in which export intensity is the dependent variable. To alleviate this concern and get a more homogenous sample, we re-estimate these models after removing firms that fall in the non-exporting category during all years covered in the study. The estimated coefficients, which are obtained using a smaller sample of 1193 firms (9934 firm-year observations), are reported in Table IA3 and are in line with the initial findings.

Third, we estimate an extended version of the performance models which considers both types of offshore outsourcing simultaneously. The new regression results presented in Table IA4 confirm our previous empirical evidence. We find further support for Hypothesis 2, related to the positive direct effect of offshore outsourcing of specialized resources on firm profitability, and for Hypothesis 3, on the moderating role of export intensity in the relationship between offshore outsourcing and performance.

Fourth, we combine in one single measure the two offshore outsourcing dimensions analyzed in the paper to check if we still find support for the four hypotheses formulated in the study when specialized resources are merged in just one variable. On the one hand, to test Hypothesis 1a, we define a new dummy variable that equals 1 if EM global factories import either technology or professional services from abroad and zero if they do not resort to any kind of offshore outsourcing. On the other hand, the alternative measure for our explanatory variable of interest in the empirical models developed to test Hypotheses 1b, 2, and 3 is the ratio of total overseas outsourcing (i.e., outsourcing of technology and professional services) scaled by total assets. The regression results obtained with these new variables are shown in Table IA5. We confirm that offshore outsourcing of specialized resources increases both exporting likelihood and export intensity. In addition, overseas outsourcing is also beneficial in terms of profitability and especially with higher export intensity.

Finally, we re-estimate the export and performance models using an industry-adjusted dependent variable. As explained above, in the estimation of the models, we use a panel data method that allows us to account for firm fixed effects. These include any time-invariant firm characteristic, including a firm's belonging to a particular industry (which remains constant over time). However, to rule out the possibility that industry specificities bias our findings, we can define an industry-adjusted dependent variable for our models (Pindado, Requejo, & de la Torre, 2011), which is an alternative strategy to control for industry effects. Accordingly, two new variables are defined: industry-adjusted exports and industry-adjusted performance. Industry-adjusted exports (performance) is calculated by subtracting the industry mean exports (performance) from the firm's exports (performance). Industry means are computed at the most precise industry code level for which there is a minimum of five firms. The resulting variables consider the position of the firm in relation to the sector. Therefore, our industry-adjusted measures capture the firm's competitive advantage as compared to its industry peers. The new results are reported in Table IA6, and they are qualitatively similar to the empirical evidence discussed above.

To fully understand our results, it is important to take into account the context under investigation; namely, an emerging economy such as India. Global factories from India are increasingly exposed to competitive market forces. Therefore, exporting their products and/or services abroad is a natural option for many of them. However, selling products and/or services abroad implies that EM global factories face fiercer competition from international players. Firms from EMs might find it difficult to succeed in such international endeavors because of their limited access to some specialized resources (technology and professional services). Hence, outsourcing resources from abroad can be a good solution to assure and increase positive returns from exporting initiatives. Our findings support this line of reasoning. Therefore, improvements in firm competitiveness come not only from selling products and/or services abroad but also from gaining access to valuable resources, both technological and non-technological, from partners in other countries with competitive advantages in the provision of such resources.

DISCUSSION AND CONCLUSIONS

In the current context of increasing competition, gaining access to competitive resources is vital to achieve higher firm performance, and the same is true for EM global factories. In this regard, our study reveals that accessing specialized resources through offshore outsourcing improves EM global factories' internationalization by increasing their likelihood and volume of exports. It may even give rise to a prosperous cycle of further improvements in the competitiveness of EM global factories,

because, with specialized resources and advanced knowledge, they will attract the attention of traditional OECD MNEs for the development of the high value-adding activities of the latter, as an alliance partner, a vendor, or an acquisition target (Munjal, Andersson, Pereira, & Budhwar, 2021). Brandl, Jensen, and Lind (2018) note that EM firms that establish this type of transactional relationships with MNEs are likely to increase their resource base and competitiveness due to spillover effects, exchange of resources, and learning from MNEs.

Our study constitutes a sharp contrast to the existing literature on offshore outsourcing that focuses on the OECD MNEs that use outsourcing as a strategy to minimize costs by relocating production to low-cost destinations, mainly to the countries in the East and South East Asia. In contrast, and in line with Enderwick & Buckley (2019), we argue that the motivation for offshore outsourcing by firms from EMs is not to reduce costs but to gain access to specialized resources, such as cutting-edge technology, in order to be more productive and competitive in the international market. We provide two prominent examples of Indian firms to illustrate how offshore outsourcing of specialized resources enhanced their export performance. Our first example is Tata Motors, the leading automobile firm, which has been outsourcing various technologies from Bosch, the globally renowned German firm, for various expert systems and technological inputs required for manufacturing automobiles (Wells, 2010). These inputs have enabled Tata to ensure that its automobiles comply with various environmental and safety standards, such as Euro 6, that are required to export cars to Europe and other parts of the world. Our second example is Suzlon, a leading firm in the production of wind turbines. Suzlon sourced sophisticated wind turbine technology from European firms such as Sudwind and RE power. This enabled Suzlon to offer the most comprehensive product portfolios, ranging from submegawatt on-shore turbines at 600 Kilowatts to the world's largest commercial 6.15-Megawatt offshore turbine (Suzlon, 2012).

In addition, our study suggests that EM global factories can choose among different strategies to obtain the resources they need. Among the various options, the extant literature has primarily focused on M&A because of the wave of acquisitions made by firms originating from emerging economies in the last two decades (Fuad & Gaur, 2019; Madhok & Keyhani, 2012). Complementing this strand of research, we highlight the fact that accessing specialized resources can occur through offshore outsourcing. The strategy of offshore outsourcing, in comparison to M&A, is economic because the acquiring firm does not have to buy the whole business, which would imply locking capital into the purchase of unnecessary assets of the target firm. An additional advantage of offshore outsourcing, *vis-à-vis* M&A, is that it minimizes the managerial efforts needed to deal with institutions of the host country because the firm establishes only a contractual link, not an ownership link, with the foreign vendor. Therefore, amassing specialized resources through outsourcing enables EM global factories to avoid inherent transaction costs associated with the ownership and control of the acquired firm. Prior research on post-merger integration suggests that the acquirer firm incurs further substantial costs (in addition to the purchase price) to integrate the acquired firm (Kale, Singh, & Raman, 2009). This is one of the primary reasons why most acquisitions fail, or why post-acquisition performance does not attain the desired level of success. In contrast, offshore outsourcing saves the global factory from incurring transaction costs linked with physical embedding in the host country, and from the cost of managing a foreign affiliate in a geographically, institutionally, and culturally distant country. Consequently, our study reveals that offshore outsourcing can enhance EM global factories' profitability. However, it is worth acknowledging that outsourcing does not give the firm full and exclusive proprietary rights over the resources and the tacit knowledge held by the vendor firm. This implies that, while offshore outsourcing is an economical strategy in comparison to M&A, it comes with reduced benefits potentially accruable from the resources accessed from the vendor firm.

This paper contributes to the growing literature on the internationalization strategy of firms from EMs. It suggests that offshore outsourcing of advanced specialized resources has been a neglected element in theorizing (Pereira, Munjal, & Ishizaka, 2019; Quinn, 2000). The global factory model, with an implicit focus on OECD multinationals, overlooks the offshore outsourcing of high-end activities. The origin of global factories in technology-poor countries modifies the theory considerably and, in particular, challenges the 'internalize knowledge and outsource operations' mantra that advanced country MNEs adopt. Our theoretical extension, therefore, is to assert that,

besides location and control, which are sufficiently explored in the extant literature, the nature of transactions and the parties involved (the focal firm and its supply chain partners), along with their motivations, must be considered in IB theorization. In the case of EM global factories, the use of outsourcing and market contracts will often be superior to internalization advantages in technology and specialized services provision. This is an important theoretical corrective. Our empirical evidence suggests that offshore outsourcing in these areas is successful both in the propensity to export and in the financial outcome, leading to enhanced competitiveness of EM global factories. Our findings show that offshore outsourcing by EM global factories is a resource-building strategy to achieve higher competitiveness. The results presented in this work contrast with the arguments of Gubbi et al. (2010), who contend that advanced resources such as technology may not be readily available in the market, and, therefore, that firms from emerging economies need to undertake more expensive M&A to access them. Although acquiring another business can give access to valuable resources, we show that firms in EMs follow the global factory structure to obtain them at a lower cost from specialized vendors.

It is possible to generalize the findings of our study based on a sample of firms from India to other similar contexts, but we propose that future research should examine our hypotheses on another set of firms drawn from other emerging economies. It is important to note that every country and region (including other EMs) has its own peculiarities that derive partly from its institutional framework and governance structures. For instance, the State still plays a crucial role in the Chinese corporate sector. Therefore, it does not seem reasonable to extrapolate our findings without previously analyzing the similarities with the Indian economy. The fact that our sample does not include firms from other EMs is both a limitation and an opportunity for future studies. Indeed, a cross-country examination can add to the richness of the investigation. Moreover, scholars may want to explore the phenomenon of offshore outsourcing and the managerial motivation behind undertaking offshore outsourcing for specialized resources. This may reveal other qualitative aspects that are difficult to include in pure quantitative studies but are equally important, such as the role of managerial attitudes and hubris towards having a supply chain established in OECD countries.

Our work has several implications for managers and policymakers. On the one hand, managers of EM global factories should be aware of the potential benefits from establishing outsourcing relationships with foreign partners which give them access to valuable resources that are difficult to generate internally. When designing outsourcing strategies, it is important that decision-makers within EM global factories look beyond the borders of their home country if they want to incorporate the most advanced technology and services in their production process. By using the most up-to-date resources, EM global factories will be in a better position to compete with their counterparts from Western economies. On the other hand, policymakers should recognize that nowadays firms are competing at an international level, not only to broaden their customer base, but also to obtain the resources they need. Therefore, to promote firms' competitiveness and productivity, it is important that new regulations facilitate the exchange of resources across borders.

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NOTES

[1]Despite the advantages and the adequacy of the GMM for our regression analyses, we also test the proposed hypotheses with an alternative strategy. Based on the first-step probit model reported in the Online Appendix (Table IA1), we predict the probability of offshore outsourcing. Then, we estimate the export and performance models using either the OLS, within-group, or 2SLS estimator, and including the predicted probability and its interaction with export intensity as the main explanatory variables of interest (in the OLS and within-group regressions) or as instrumental variables of offshore outsourcing (in the 2SLS regressions). To save space, the results are not reported, but they are available from the authors upon request. The empirical evidence from these analyses is consistent with the main GMM regression results discussed in the Main Regression Analyses section.

[2]In our performance models, we control for the direct effect of exports on profitability and observe no statistically significant effect. Given the discussion in the IB literature that the relationship between exporting and performance could follow an S-shape (e.g., Xiao, Jeong, Moon, Chung, & Chung, 2013), we re-estimate the empirical models reported in Table 4 but adding to the right-hand side the linear, quadratic, and cubic terms of exports. Consistent with Xiao, Jeong, Moon, Chung, and Chung (2013), exports affect firm performance positively at moderate levels, but negatively at low and high levels. The results are not reported to save space, but they are available from the authors upon request. More importantly, we continue to find support for our hypotheses even when we control for the non-linear relationship between export intensity and firm performance.

[3]Our regression results remain qualitatively unchanged when we use the ratio of sales to the number of employees instead. The only difference worth noting is a loss in the statistical significance of the direct effect of foreign technology on productivity. The results are not reported to save space, but they are available from the authors upon request.

REFERENCES

Ahammad, M. F., Basu, S., Munjal, S., Clegg, J., & Shoham, O. B. 2021. Strategic agility, environmental uncertainties and international performance: The perspective of Indian firms. *Journal of World Business,* 56(4): 101218.

Arellano, M., & Bond, S. 1991. Some tests of specification for panel data: Monte Carlo evidence and an application to employment equations. *The Review of Economic Studies,* 58(2): 277–297.

Atuahene-Gima, K. 1992. Inward technology licensing as an alternative to internal R&D in new product development: a conceptual framework. *Journal of Product Innovation Management*, 9(2): 156–167.

Awate, S., Larsen, M. M., & Mudambi, R. 2015. Accessing vs sourcing knowledge: A comparative study of R&D internationalization between emerging and advanced economy firms. *Journal of International Business Studies,* 46(1): 63–86.

Aybar, B., & Ficici, A. 2009. Cross-border acquisitions and firm value: An analysis of emerging-market multinationals. *Journal of International Business Studies,* 40(8): 1317–1338.

Basu, S., Munjal, S., Budhwar, P., & Misra, P. 2022. Entrepreneurial adaptation in emerging markets: Strategic entrepreneurial choices, adaptive capabilities and firm performance. *British Journal of Management*. https://doi.org/10.1111/1467-8551.12572.

Bernard, A. B., & Jensen, J. B. 2004. Why some firms export. *The Review of Economics and Statistics,* 86(2): 561–569.

Bertrand, O. 2011. What goes around, comes around: Effects of offshore outsourcing on the export performance of firms. *Journal of International Business Studies,* 42(2): 334–344.

Bettis, R. A., & Hitt, M. A. 1995. The new competitive landscape. *Strategic Management Journal,* 16(S1): 7–19.

Bianchi, C., & Wickramasekera, R. 2016. Antecedents of SME export intensity in a Latin American Market. *Journal of Business Research,* 69(10): 4368–4376.

Blonigen, B. A. 2001. In search of substitution between foreign production and exports. *Journal of International Economics,* 53(1): 81–104.

Boussebaa, M., Sinha, S., & Gabriel, Y. 2014. Englishization in offshore call centers: A postcolonial perspective. *Journal of International Business Studies,* 45(9): 1152–1169.

Brandl, K., Jensen, P. D. Ø., & Lind, M. J. 2018. Advanced service offshore outsourcing: Exploring the determinants of capability development in emerging market firms. *Global Strategy Journal,* 8(2): 324–350.

Buckley, P. J. 2011. International integration and coordination in the global factory. *Management International Review,* 51(2): 269.

Buckley, P. J. 2018. Introduction. In P. J. Buckley (Ed.), *The global factory: Networked multinational enterprises in the mordern global economy*Cheltenham: Edward Elgar.

Buckley, P. J., & Casson, M. C. 1976. *The future of the multinational enterprise*. London: Macmillan.

Buckley, P. J., Clegg, L. J., Voss, H., Cross, A. R., Liu, X., & Zheng, P. 2018. A retrospective and agenda for future research on Chinese outward foreign direct investment. *Journal of International Business Studies,* 49(1): 4–23.

Buckley, P. J., Munjal, S., Enderwick, P., & Forsans, N. 2016a. Cross-border acquisitions by Indian multinationals: Asset exploitation or asset augmentation? *International Business Review,* 25(4): 986–996.

Buckley, P. J., Munjal, S., Enderwick, P., & Forsans, N. 2016b. The role of experiential and non-experiential knowledge in cross-border acquisitions: The case of Indian multinational enterprises. *Journal of World Business,* 51(5): 675–685.

Buckley, P. J., Munjal, S., Enderwick, P., & Forsans, N. 2016c. Do foreign resources assist or impede internationalisation? Evidence from internationalisation of Indian multinational enterprises. *International Business Review,* 25(1): 130–140.

Buckley, P., & Munjal, S. 2017. The role of local context in the cross-border acquisitions by emerging economy multinational enterprises. *British Journal of Management,* 28(3): 372–389.
Buckley, P. J., Elia, S., & Kafouros, M. 2014. Acquisitions by emerging market multinationals: Implications for firm performance. *Journal of World Business*, 49(4): 611–632.
Buckley, P. J., Strange, R., Timmer, M. P., & de Vries, G. J. 2020. Catching-up in the global factory: Analysis and policy implications. *Journal of International Business Policy,* 3(2): 1–28.
Cassiman, B., & Veugelers, R. 2006. In search of complementarity in innovation strategy: Internal R&D and external knowledge acquisition. *Management Science*, 52(1): 68–82.
Certo, S. T., Busenbark, J. R., Woo, H. S., & Semadeni, M. 2016. Sample selection bias and Heckman models in strategic management research. *Strategic Management Journal,* 37(13): 2639–2657.
Chetty, S., & Holm, D. B. 2000. Internationalisation of small to medium-sized manufacturing firms: A network approach. *International Business Review,* 9(1): 77–93.
Coase, R. H. 1937. The nature of the firm. *Economica,* 4(16): 386–405.
Cohen, W. M., & Levinthal, D. A. 1990. Absorptive capacity: A new perspective on learning and innovation. *Administrative Science Quarterly,* 35(1): 128–152.
Cohen, M. A., Eliasberg, J., & Ho, T. H. 1996. New product development: The performance and time-to-market tradeoff. *Management Science,* 42(2): 173–186.
Contractor, F. 2013. Punching above their weight: The sources of competitive advantage for emerging market multinationals. *International Journal of Emerging Markets,* 8(4): 304–328.
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.
Coviello, N., & Munro, H. 1997. Network relationships and the internationalisation process of small software firms. *International Business Review,* 6(4): 361–386.
Dastidar, P. 2009. International corporate diversification and performance: Does firm self-selection matter? *Journal of International Business Studies,* 40(1): 71–85.
Di Gregorio, D., Musteen, M., & Thomas, D. E. 2009. Offshore outsourcing as a source of international competitiveness for SMEs. *Journal of International Business Studies,* 40(6): 969–988.
Dichtl, E., Koeglmayr, H. G., & Mueller, S. 1990. International orientation as a precondition for export success. *Journal of International Business Studies,* 21(1): 23–40.
Doh, J. P. 2005. Offshore outsourcing: Implications for international business and strategic management theory and practice. *Journal of Management Studies,* 42(3): 695–704.
Elia, S., Munjal, S., & Scalera, V. G. 2020. Sourcing technological knowledge through foreign inward licensing to boost the performance of indian firms: The contingent effects of internal R&D and business group affiliation. *Management International Review,* 60(5): 695–721.
Enderwick, P., & Buckley, P. J. 2019. Beyond supply and assembly relations: Collaborative innovation in global factory systems. *Journal of Business Research,* 103: 547–556.
Enderwick, P., & Buckley, P. J. 2021. The role of springboarding in economic catch-up: A theoretical perspective. *Journal of International Management,* 27: 100832.
Farrell, D. 2005. Offshoring: Value creation through economic change. *Journal of Management Studies,* 42(3): 675–683.
Fernández-Mesa, A., & Alegre, J. 2015. Entrepreneurial orientation and export intensity: Examining the interplay of organizational learning and innovation. *International Business Review,* 24(1): 148–156.
Fontagné, L., & Harrison, A. 2017. *The factory-free economy: Outsourcing, servitization, and the future of industry*. Oxford: Oxford University Press.
Fuad, M., & Gaur, A. S. 2019. Merger waves, entry-timing, and cross-border acquisition completion: A frictional lens perspective. *Journal of World Business,* 54(2): 107–118.
Gilley, K. M., & Rasheed, A. 2000. Making more by doing less: An analysis of outsourcing and its effects on firm performance. *Journal of Management,* 26(4): 763–790.
Goldberg, P. K., & Knetter, M. M. 1999. Measuring the intensity of competition in export markets. *Journal of International Economics,* 47(1): 27–60.
Görg, H., Hanley, A., & Strobl, E. 2008. Productivity effects of international outsourcing: Evidence from plant-level data. *Canadian Journal of Economics,* 41(2): 670–688.
Grant, R. M. 1991. The resource-based theory of competitive advantage: implications for strategy formulation. *California Management Review*, 33(3): 114–135.
Gubbi, S. R., Aulakh, P. S., Ray, S., Sarkar, M. B., & Chittoor, R. 2010. Do international acquisitions by emerging-economy firms create shareholder value? The case of Indian firms. *Journal of International Business Studies,* 41(3): 397–418.
Guillén, M. F., & García-Canal, E. 2009. The American model of the multinational firm and the "new" multinationals from emerging economies. *The Academy of Management Perspectives,* 23(2): 23–35.
Hernandez, E., & Guillén, M. F. 2018. What's theoretically novel about emerging-market multinationals? *Journal of International Business Studies,* 49(1): 24–33.
Hill, C. W. 1990. Cooperation, opportunism, and the invisible hand: Implications for transaction cost theory. *The Academy of Management Review,* 15(3): 500–513.
Hoskisson, R. E., Wright, M., Filatotchev, I., & Peng, M. W. 2013. Emerging multinationals from mid range economies: The influence of institutions and factor markets. *Journal of Management Studies,* 50(7): 1295–1321.
Johanson, J., & Vahlne, J. E. 1977. Process of the internationalization development firm-a model of knowledge foreign and increasing market commitments. *Journal of International Business Studies,* 8(1): 23–32.
Johanson, J., & Vahlne, J. E. 2009. The Uppsala internationalization process model revisited: From liability of foreignness to liability of outsidership. *Journal of International Business Studies,* 40(9): 1411–1431.
Kale, P., Singh, H., & Raman, A. P. 2009. Don't integrate your acquisitions, partner with them. *Harvard Business Review,* 87(12): 109–115.
Kaleka, A. 2002. Resources and capabilities driving competitive advantage in export markets: Guidelines for industrial exporters. *Industrial Marketing Management,* 31(3): 273–283.
Kanagaretnam, K., Kong, X., & Tsang, A. 2020. Home and foreign host country IFRS adoption and cross-delisting. *Journal of International Business Studies,* 51(6): 1008–1033.
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.
Kenney, M., Massini, S., & Murtha, T. P. 2009. Offshoring administrative and technical work: New fields for understanding the global enterprise. *Journal of International Business Studies,* 40(6): 887–900.
Khanna, T., & Palepu, K. G. 2010. *Winning in emerging markets: A road map for strategy and execution*. Boston: Harvard Business Press.
Kim, J. J., & Hemmert, M. 2016. What drives the export performance of small and medium-sized subcontracting firms? A study of Korean manufacturers. *International Business Review,* 25(2): 511–521.
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*, 2(15): 121–125.
Kotabe, M., & Kothari, T. 2016. Emerging market multinational companies' evolutionary paths to building a competitive advantage from emerging markets to developed countries. *Journal of World Business,* 51(5): 729–743.
Kotabe, M., Jiang, C. X., & Murray, J. Y. 2011. Managerial ties, knowledge acquisition, realized absorptive capacity and new product market performance of emerging multinational companies: A case of China. *Journal of World Business,* 46(2): 166–176.
Kumar, V., Singh, D., Purkayastha, A., Popli, M., & Gaur, A. 2020. Springboard internationalization by emerging market firms: Speed of first cross-border acquisition. *Journal of International Business Studies,* 51(2): 172–193.
Kumaraswamy, A., Mudambi, R., Saranga, H., & Tripathy, A. 2012. Catch-up strategies in the Indian auto components industry: Domestic firms' responses to market liberalization. *Journal of International Business Studies,* 43(4): 368–395.
Lahiri, S., Karna, A., Kalubandi, S. C., & Edacherian, S. 2022. Performance implications of outsourcing: A meta-analysis. *Journal of Business Research,* 139: 1303–1316.
Lavie, D. 2006. The competitive advantage of interconnected firms: An extension of the resource-based view. *The Academy of Management Review,* 31(3): 638–658.
Li, J., Ding, H., Hu, Y., & Wan, G. 2021. Dealing with dynamic endogeneity in international business research. *Journal of International Business Studies,* 52(3): 339–362.
Liesch, P. W., Buckley, P. J., Simonin, B. L., & Knight, G. 2012. Organizing the modern firm in the worldwide market for market transactions. *Management International Review,* 1(52): 3–21.
Luo, Y., & Tung, R. L. 2007. International expansion of emerging market enterprises: A springboard perspective. *Journal of International Business Studies,* 38(4): 481–498.
Luo, Y., & Tung, R. L. 2018. A general theory of springboard MNEs. *Journal of International Business Studies,* 49(2): 129–152.
Madhok, A., & Keyhani, M. 2012. Acquisitions as entrepreneurship: Asymmetries, opportunities, and the internationalization of multinationals from emerging economies. *Global Strategy Journal,* 2(1): 26–40.
Manning, S., Larsen, M. M., & Bharati, P. 2015. Global delivery models: The role of talent, speed and time zones in the global outsourcing industry. *Journal of International Business Studies,* 46(7): 850–877.
Mariotti, S., & Marzano, R. 2019. Varieties of capitalism and the internationalization of state-owned enterprises. *Journal of International Business Studies,* 50(5): 669–691.
Maskell, P., Pedersen, T., Petersen, B., & Dick-Nielsen, J. 2007. Learning paths to offshore outsourcing: from cost reduction to knowledge seeking. *Industry and Innovation,* 14(3): 239–257.
Masten, S. E., Meehan, J. W., & Snyder, E. A. 1991. The costs of organization. *Journal of Law, Economics, and Organization,* 7(1): 1–25.
Mathews, J. A. 2002. *Dragon multinational: A new model for global growth*. Oxford: Oxford University Press.
Mathews, J. A. 2006. Dragon multinationals: New players in 21st century globalization. *Asia Pacific Journal of Management,* 23(1): 5–27.
Mayer, K. J., & Salomon, R. M. 2006. Capabilities, contractual hazards, and governance: Integrating resource-based and transaction cost perspectives. *The Academy of Management Journal,* 49(5): 942–959.
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.
Mudambi, R. 2008. Location, control and innovation in knowledge-intensive industries. *Journal of Economic Geography,* 8(5): 699–725.
Mudambi, R., & Venzin, M. 2010. The strategic nexus of offshoring and outsourcing decisions. *Journal of Management Studies,* 47(8): 1510–1533.
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.
Munjal, S. 2014. Foreign acquisitions by Indian multinational enterprises: Testing and extending internationalisation frameworks. *AIB Insights,* 14(3): 21–22.
Munjal, S., Requejo, I., & Kundu, S. K. 2019. Offshore outsourcing and firm performance: Moderating effects of size, growth and slack resources. *Journal of Business Research,* 103: 484–494.
Munjal, S., Andersson, U., Pereira, V., & Budhwar, P. 2021. Exploring reverse knowledge transfer and asset augmentation strategy by developed country MNEs: Case study evidence from the Indian pharmaceutical industry. *International Business Review,* 30(6): 101882.
Olsen, K. B. 2006. Productivity impacts of offshoring and outsourcing. In *OECD*. STI Working Paper (2006/1): 1–35.
Pereira, V., Munjal, S., & Ishizaka, A. 2019. Outsourcing and offshoring decision making and its implications for businesses: A synthesis of research pursuing five pertinent questions. *Journal of Business Research,* 103: 348–355.
Piercy, N. F., Kaleka, A., & Katsikeas, C. S. 1998. Sources of competitive advantage in high performing exporting companies. *Journal of World Business,* 33(4): 378–393.
Pindado, J., Requejo, I., & de la Torre, C. 2011. Family control and investment–cash flow sensitivity: Empirical evidence from the Euro zone. *Journal of Corporate Finance,* 17(5): 1389–1409.
Pisano, G. P. 1990. The R&D boundaries of the firm: an empirical analysis. *Administrative Science Quarterly*, 31(5): 153–176.
Prahalad, C. K., & Hamel, G. 2000. The core competence of the corporation. In R. L. Cross, & S. B. Israelit (Eds.), *Strategic learning in a knowledge economy*: 3–22. Oxford: Butterworth-Heinemann.
Qian, G., Li, L., Li, J., & Qian, Z. 2008. Regional diversification and firm performance. *Journal of International Business Studies,* 39(2): 197–214.
Quinn, J. B. 2000. Outsourcing innovation: The new engine of growth. *Sloan Management Review,* 41(4): 13.
Ramamurti, R. 2012. What is really different about emerging market multinationals? *Global Strategy Journal,* 2(1): 41–47.
Sartor, M. A., & Beamish, P. W. 2014. Offshoring innovation to emerging markets: Organizational control and informal institutional distance. *Journal of International Business Studies,* 45(9): 1072–1095.
Silverman, B. S., Nickerson, J. A., & Freeman, J. 1997. Profitability, transactional alignment, and organizational mortality in the US trucking industry. *Strategic Management Journal,* 18(S1): 31–52.
Suzlon. 2012. Suzlon corporate website [online]. [Accessed 12 October]. Available from: https://www.suzlon.com/in-en/about-suzlon
Tadelis, S. 2002. Complexity, flexibility, and the make-or-buy decision. *The American Economic Review,* 92(2): 433–437.
Tomiura, E. 2007. Foreign outsourcing, exporting, and FDI: A productivity comparison at the firm level. *Journal of International Economics,* 72(1): 113–127.
Wagner, J. 2007. Exports and productivity: A survey of the evidence from firm-level data. *The World Economy,* 30(1): 60–82.
Wells, P. 2010. The Tata Nano, the global 'value' segment and the implications for the traditional automotive industry regions. *Cambridge Journal of Regions, Economy and Society,* 3(3): 443–457.

Williamson, O. E. 1979. Transaction-cost economics: The governance of contractual relations. *The Journal of Law and Economics,* 22(2): 233–261.
Williamson, O. E. 1981. The economics of organization: The transaction cost approach. *American Journal of Sociology,* 87(3): 548–577.
Xiao, S. S., Jeong, I., Moon, J. J., Chung, C. C., & Chung, J. 2013. Internationalization and performance of firms in China: Moderating effects of governance structure and the degree of centralized control. *Journal of International Management,* 19(2): 118–137.
Zaheer, S. 1995. Overcoming the liability of foreignness. *The Academy of Management Journal,* 38(2): 341–363.
Zahra, S. A., Abdelgawad, S. G., & Tsang, E. W. 2011. Emerging multinationals venturing into developed economies: Implications for learning, unlearning, and entrepreneurial capability. *Journal of Management Inquiry,* 20(3): 323–330.

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