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Firms' Offshoring Strategies: a Review

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Abstract

This paper reviews literature on offshoring with the aim to develop a framework within which to analyze firms' strategies. Drawing upon the main assumptions of Transaction cost theory and Resource-based view of firms, it proposes an overview on the offshoring mechanisms developed by firms. Its main contribution is the review of five main firms' dimensions identified in the literature, underlining how firm's organization features, product features, strategic variables, geographical characteristics and innovation processes could lead the implementation of an offshoring strategy.

Keywords: Offshoring, Outsourcing, Intangibles, Coordination.

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1. Introduction

This paper reviews literature on offshoring with the aim to develop a framework within which to analyze firms' offshoring.

Over the last two decades, partially due to the worldwide development of IT communication systems, an increasing number of firms have implemented different kinds of sourcing strategies, gradually exploring the potential of offshoring, and thus reshaping the way the production process is organized.

As early as 1990s, this growing phenomenon has overcome the typical problems of an unknown and risky strategy, to become common among multinational companies as well as smaller ones. Offshoring has firstly emerged as a cost-based strategy, to become an opportunity to exploit a comparable labor talent available in most Eastern countries at a lower cost, thereby opening new high skill labor markets to Western firms.

Knowledge-based activities (such as R&D and design) are also subject to offshoring, as firms search for specific competencies offshore (Cronin et al., 2004). Offshoring requires firms to develop the ability to coordinate critical resources and information that are spread across different geographical locations, and to manage the risk of losing distinctive capabilities (Govindarajan and Gupta, 2001). Firms are called to focus on their strategy sourcing decision in order to properly select processes to be offshored, and

protect, develop, and exploit their core activities, to preserve their own product and process innovation potential.

As regard to evolution of the international competition and the strategic importance of offshoring for firms' competitiveness, this paper attempts to develop a comprehensive analysis of this phenomenon by analyzing different empirical and theoretical approaches.

After an overview of the offshoring mechanisms utilized by firms, section 2 focuses on the firms' dimensions identified in the literature, underlining how firms' organization features, product features, strategic variables, geographical characteristics and innovation processes influence the implementation of an offshoring strategy. Section 3 reviews the main theoretical approaches explored in the offshoring literature. Section 4 presents the conclusions.

2. Taxonomy of sourcing strategy

Offshoring is seen as an evolution of international sourcing strategy. As Monckca and Trent (1991) pointed out, offshoring could be understood as a multi-phased development process, which reflects a gradual evolution of sourcing from domestic purchasing to global sources. Most studies have walked on this path underlining that, despite sectoral dissimilar trends, the evolution of offshore sourcing strategies pertains to a gradual internationalization process that firms, which are constantly focused on reducing costs, implement using distinct business models at each stage. Building on this interpretation, this paper proposes in section 2.1 an attempt to build a new taxonomy. Each sourcing mechanism is investigated through their relations with the firms' dimensions that affect offshoring strategies (section 2.2).

2.1. Sourcing mechanisms

Sourcing mechanisms identify the way a firm governs its processes, referring to either sourcing, manufacturing or R&D and design processes (Ge et al.,

2004). Evidence found in several empirical studies suggests the existence of six main sourcing mechanisms.

2.1.1. Domestic Insourcing

There are several reasons a firm might have to keep its processes in house. At this stage, business process are located in the home country and governed by the firm itself. An internationalization strategy has not yet been implemented, usually due to the lack of firm's convenience to outsource, and even more to offshore processes. This could be the case of smaller firms that are not able to develop an internationalization strategy because of the shortage of financial and human resources, or the one of firms that, using its own organizational factors to run processes, want to maintain full control over them, even though there are incentives to externalize. A good example has been provided by the Italian clothing sector that, in the case of fashion and high style products, and despite international trend, is keeping its production processes in-house as a specific strategic intent.

2.1.2. Domestic Outsourcing

Adopting this sourcing mechanism entails externalizing one or more processes (usually non-core ones) to a vendor located domestically. An internationalization strategy has not yet been implemented but, in spite of domestic insourcing mechanism, at this stage a firm might be usually more open to evaluate an offshore outsourcing strategy. However, at this stage a firm should not be able to offshore the outsourced processes due to the lack of capabilities to run them (e.g. searching for a foreign vendor, relationship managing, etc.). Instead of domestic insourcing, this one is able to provide more flexibility to business processes (thus allowing usually cost reductions), although it could make a firm disinvest its production facilities and consequently cause the risk of limiting its in-house production potential in the short-term. Indeed, once a business process is outsourced, the firm might reduce its technical expertise in running it, as the result of limiting its options for the future.

2.1.3. Third Party Offshore Outsourcing

Firms approaching a new internationalization strategy, involving sourcing or production offshoring, do not have the skills and expertise for searching for a vendor, supporting and maintaining the outsourced process without bearing extra-costs. Because of this, the first stage of a firm going offshore might require the intermediation of a third party (usually an agency specialized in coordinating relationship between the company and the offshore vendor). This approach enables the reduction of the impact of internationalization strategy as it overcomes communication barriers with the vendor, and mitigates risks and cost benefit. Even though it increases costs of monitoring and staff training procedures, it lets a firm overcome problems occurring during contracting and the execution of processes (Khan and Fitzgerald, 2004).

2.1.4. Direct Offshore Outsourcing

With direct offshore outsourcing, “*a business process is governed by a vendor ... located in an offshore*” location (Ge et al., 2004: p. 8). This strategy implies a firm to take initiative in searching for a vendor on foreign market, making decisions, and dealing with the vendor without an intermediary (Khan and Fitzgerald, 2004). According to the authors, this causes bearing of additional costs (such as searching costs to acquire price information on market, transaction costs, coordinating costs, and strategic capabilities set of costs). However, it enables a firm to achieve full cost reductions (without intermediation) by locating its process in lower wage countries. It can be afforded when a firm possesses the right capability and knowledge to manage a vendor searching process and relationship, without which it might bear too high searching and coordinating costs. Indeed, the effectiveness of this strategy is linked to the firm’s ability to build trusty and durable relationships with foreign vendors, as to prevent itself from risks of information stealing or opportunistic behavior (Ge et al., 2004). For this reason, according to the authors, the vendor selection is often focused on reputation (as the result of its maturity, stability and expertise), beyond capabilities, quality, cost and timeliness a vendor could provide.

In order to overcome offshoring typical risks, firms using direct offshore outsourcing are oriented in using multiple supplier relationship (thus rising

supplier competition), even though concentrating processes into a limited number of suppliers could make a firm pursue further economies (e.g. economies of global scale; Gupta and Govindarajan, 2001). Being offshored activities difficult to control, this kind of strategy might not be suitable for all kind of processes, thus limiting its applicability to non-core activities.

2.1.5. Wholly Owned Subsidiary

This category could be classified as pure “offshore insourcing”, and it refers multinational companies (Ge et al., 2004). Apparently, this might be the most costly offshoring strategy, but allows a company to keep full control over the offshored processes and protect itself from the risk of loss of proprietary information and capabilities to competitors.

To aim for long-term advantages, firms may decide to set up an offshore facility, to exploit the potential of new markets, to face foreign demand or to achieve large cost savings. In this case, a firm locates its process in an offshore subsidiary, maintaining a direct control over it. This makes it more suitable to be implemented in the case of more valuable processes, for instance core activities or high knowledge-based ones. This kind of strategy requires a firm to directly invest resources in a foreign country, building strategic alliances or entering into new countries through acquisitions or greenfield operations (Gupta and Govindarajan, 2001).

This approach requires greater effort to maximize knowledge transfer across locations and to co-ordinate and integrate offshored activities (see Gupta and Govindarajan, 2000). Assuring knowledge transfers between a firm and its offshore subsidiary is critical to strategy effectiveness, even more when knowledge is complex to be codified. According to Gupta and Govindarajan (2000) the impact of *tacitness* over knowledge transfer affect the implementation of offshoring strategies. For this reason, not all business processes involving intangible assets can be offshored efficiently, even more if they are outsourced. In fact, Gupta and Govindarajan (2000) submit that *“multinational companies exist because of their ability to transfer and exploit knowledge more effectively and efficiently in the intra-corporate context than*

through external mechanisms” (p.473). The impact of tacitness over knowledge transfer makes it difficult to be managed. This underlines the importance of building efficient communication tools, which are easier to be implemented within an insourcing strategy.

Comprehending how knowledge transfer between subsidiaries and central unit takes place is essential to understand why offshore insourcing is more willing to support it. Indeed, as Gupta and Govindarajan (2000) pointed out, knowledge transfer could depend on the value of knowledge possessed by the source unit, the target absorptive capacity, and the motivational disposition of both the source unit (to share its knowledge) and the target unit (to accept the incoming knowledge). As regards to their results, as knowledge inflows to subsidiaries from the parent corporation tend to be greater than other flow transfers (e.g. knowledge transfer from a vendor to the offshorer), and being the motivation of target unit to acquire knowledge higher than the motivation of the source unit to share its knowledge, organizing in-house knowledge-based processes plays an important role to assure knowledge creating and sharing within the offshoring strategy.

2.1.6. Joint Venture Offshore Outsourcing

Joint venture strategy represents a valid alternative to both offshore outsourcing and offshore insourcing mechanisms. By partnering with a foreign vendor, a firm might be able to benefit from reduced costs, shared risks and, at the same time, keep direct control on the offshored processes. This could be suitable for competing in turbulent environments or even for exploring new markets or competitive sets. In this context, partner selection should be oriented in searching for complementary skills to run the offshored processes. This offshoring mechanism probably needs a firm to have a flexible organizational structure, especially because of firm's strategic intent to enter into new markets. As for offshore insourcing mechanism (discussed above), the possibility to directly manage the offshored processes allows a firm to offshore strategic activities as well.

[TABLE 1]

2.2. Firms dimensions

Although several studies have analyzed sourcing mechanisms, most have focused on specific geographic and sectoral contexts (e.g., Oza and Hall, 2005; Kotabe and Zhao, 2002; Khan and Fitzgerald, 2004). Apparently no one tried to provide a comprehensive understanding of offshoring strategies. For instance, Ge et al. (2004) developed an understanding of strategic sourcing choices focusing on two main dimensions: vertical integration and geographic location of business processes. They provided a useful but not exhaustive view on offshoring strategies, as focused on the reasons why firms go offshore, but they omitted to provide further considerations concerning the way they do it. Other studies explored the relationships between offshoring and firms' strategic factors. For instance, Swamidass and Kotabe (2003) focused on flexibility, balancing cost, quality, technology, dependability and rationalization of operations. Khan and Fitzgerald (2004) suggested that different factors affect firm's decision process (such as organizational, geographical, process and technological factors). Hence, the literature lacks a more integrated view on offshoring.

In order to provide a better understanding of offshoring, therefore I propose an analytical framework based on five dimensions: strategic features, organization features, product features, geographical characteristics, and impact on innovation of sourcing mechanisms.

2.2.1. Strategic features

Due to the associated risks, not all the processes run by a firm are likely to be offshored. Offshoring involves several strategic issues (such as firm's vulnerability, risk exposure, competitive pressure and firm experience), which are likely to influence sourcing mechanism choice. Also, business process characteristics (i.e. process maturity, process specificity, process vulnerability, process modularity, and IT system compatibility) play an important role as well.

Offshoring strategies are mainly driven by labor cost differential across countries (Slack and Lewis, 2002). Despite the advantages of lower labor costs in offshore countries, this kind of strategy involves several risks and emergent difficulties occurring during the process implementation. Those aspects, that arise firm costs, are likely to be the same in both offshore outsourcing and insourcing strategies, made exception for the higher costs of building up a subsidiary organization structure in the latter. Empirical studies (e.g. Kliem, 2004) have widely explored these issue, and particularly on the technical limitations to offshore processes.

A new approach to offshoring costs recently developed in literature pertains to its 'hidden costs'. Hidden costs derive from the implementation of offshoring. Their causes are as follows.

Firstly, by offshoring business processes, firms might be no longer able to develop their own knowledge, thus being exposed to the risks of losing business knowledge as activities are outsourced to a vendor. Breaking off knowledge accumulation processes could lead a firm to lose its competitiveness. Even though it is more likely to pertain to the sole offshore outsourcing strategy, communication inefficiencies and knowledge transfer barriers (as seen before) extend this risk to offshore insourcing strategy too. The more knowledge-intensive, the higher the likelihood of weakening firm's knowledge accumulation process (Gupta and Govindarajan, 2000).

Secondly, due to the risk of imitation by competitors, offshoring could be risky for high intellectual property processes. For this reason, processes involving key competencies are often kept in-house and embedded in the firm's central organization (Ge et al., 2004).

Thirdly, offshoring might reduce incentives for innovation in the long run. This is due to cost and knowledge constrains, that limit firm's ability to pursue critical innovation (Fuchs and Kirchain, 2005). Indeed, as some sector trends suggest, the authors suggest that sometimes firms are more willing to cost-

compete instead of producing new technologies, thus causing a redefinition of process and product quality standards (see section 2.2.5.).

Finally, by moving manufacturing processes in low cost countries, offshoring strategies cause a great impact over occupational level of firm's home country. Causing the emerging of a negative impact over public opinion, it might affect the firm's reputation (damaging its relationship with employees, shareholders, and social parts), and might hurt long-term strategic positioning (Rottman and Lacity, 2006).

Beyond hidden costs, offshoring strategies imply also preventable costs that can be classified as financial, managerial, behavioral and legal risks (Kliem, 2004). According to Kliem, they pertain to foreign countries' currency exchange fluctuations (financial costs); to expectation mismatch between the firm and the vendor, and inadequate experience of managing sourcing process (managerial costs); to cultural and language differences, slow learning curve, lack of interaction among team members, and lack of necessary knowledge to exploit business processes (behavioral costs); and, finally, to trade barriers, political instability, and requirement of contractual and transaction skills (legal costs). These risk factors have a large strategic impact.

In addition, strategic dimension involves business process features as well. As regards process life cycle, Ge et al. (2004) suggest that there should be a direct relationship between process maturity and firms' propinquity to offshore. According to them, as in the early stages of process life cycle new processes are not well known, firms are still not able to manage offshored processes, firstly due to the lack of organization skills. In conclusion, while selecting a process to be offshored, a firm should keep into consideration its features and main factors. As regards intangible assets, specific employees training (Ge et al., 2004), difficulties in managing tacit knowledge across different locations (Gupta and Govindarajan, 2000, 2001; Ge et al., 2004) and difficulties in problem solving (Gupta and Govindarajan, 2001) make a process difficult to be offshored before it reaches the stage of maturity in its life cycle.

2.2.2. Organization features

Implementing an offshore strategy implies organizational adaptation to the new process. Once a process has been offshored, either insourcing or outsourcing, the probable presence of cultural and communication mismatches between the firm and its subsidiary (or a vendor) influences the effectiveness and efficiency of that process. Offshoring strategy implies a redefinition of firms' management, communication, monitoring processes, and performance metrics (Ge et al., 2004). The opportunity to go offshore is linked to the ability of a firm to evolve its organization promoting flexibility and adaptation to the new offshore context, whereas organization (influencing firm's resources and experience stock) often represents a barrier for smaller companies.

The greater effort a firm is called to carry out concerns to build a 'global business team' (Govindarajan and Gupta, 2001). Although the implementation process is driven by several factors (such as contracting procedures, contingency planning and performance monitoring), building a process management suitable to the new sourcing mechanism seems to be the most important step of offshoring strategy implementation. As Govindarajan and Gupta (2001) pointed out, *'successful teams strive to build trust and overcome barriers of geography, language and culture'* (p.63). According to them, building an effective global business team means to face the challenge of cultivating trust among the team members, overcome communication barriers, align goals of individual team members, ensure knowledge transfers within the firm (in the case of offshore insourcing) or among the firm and a vendor, ensure the team has necessary skills, and clarify teams objectives. To achieve these objectives a firm should assure diversity within the team, for instance building multi-cultural and multi-national teams to foster creativity and a more comprehensive search for an assessment of option (Govindarajan and Gupta, 2001). Moreover, according to Govindarajan and Gupta, the possible overcoming communications barriers should be faced by training in language and cross-cultural adaptation, encouraging communication and knowledge transfers among team members, allocating team leadership in turn, allowing conflicts resolutions and building trust.

Team building is likely to have more importance on the development of offshore insourcing strategies. However, it is important to promote a trusty relationship with a vendor as well, working to better align both firm's and vendor's objectives in looking for process effectiveness through communication. As regards aligning both objectives, contract choice (e.g. between fixed-price and time-and-material contract) should be aimed to stimulate process efficiency and effectiveness (Rottman and Lacity, 2006).

2.2.3. Product features

Speaking about the process feature as a dimension influencing sourcing mechanism choice, its maturity has been pointed out as an important feature to exploit offshoring potential. The same assumptions could be made to product features, which could be mainly referenced to the life cycle approach. As early as 1966, Vernon theorized that, as the product evolves through its life cycle and become less innovative, the location of production moves gradually to less developed countries where, beyond exploiting economies of scale, taking advantage of cheaper labor cost. More recently, Kotabe et al. (1998), Bozarth et al. (1998) and Swamidass and Kotabe (1993) have associated the evolution of offshore sourcing strategies to the length of the product life cycle. Bozarth et al. (1998) argued that internationalization generally shortens the product life cycle; this means the need of faster supplying processes, which are generally difficult to be made by domestic suppliers. Thus, it is clear that the maturity of the product, as well as both its standardization and its modularity, makes it easier for companies to offshore.

Another product feature affecting the opportunity to develop offshoring strategies is the technology intensity of a product. Due to the risks discussed above (first of all the one of making valuable information known to competitors), the higher the technological intensity, the lower a firm's inclination to offshore the development of new products and new technologies. However, it is widely accepted that a rapid development of technology could lead firms to source globally looking for new technical capabilities (Kotabe et al., 1998).

2.2.4. Geographical characteristics

According to Ge et al. (2004), geographic dimension of firm's strategy is mostly driven by the attractiveness of geographical locations in relation to labor cost inputs, markets commercial attractiveness, and incentives to set up a facility (which the authors named 'geographical scope' of firms). Hence, the decision to locate the process either domestically or offshore is usually based on the trade-off between the comparative advantage of both, relating to potential market and risks, country legislation and, above all, availability of high quality and specialized workers. However, offshoring choice involves logistic costs as well. For this reason, beyond the exchange rate of countries' currencies, proximity to supply sources becomes determinant when transportation costs tend to be high (Hong and Holweg, 2005). Furthermore, in some developing countries, offshore vendors have invested heavily in technical education, and the improvement of infrastructures has made the offshoring phenomenon potentially easier and more reliable (Khan and Fitzgerald, 2004). Several areas have also achieved cost leadership in some industries, becoming well known to provide high quality product with a low wage rates (Handfield, 1994). In many cases, developing countries incentivize foreign investments providing low tax regime or financially supporting the settlements of foreign facilities (Ge et al., 2004). However, investing in developing countries implies risks linked to political, institutional and legal environment of a country, which can erase the advantage from the availability of low-cost labor. Indeed, differences in culture and communication are often responsible of lack of process effectiveness (Handfield, 1994).

Another interesting point of view is provided by Rottman and Lacity (2006). The authors considered cost and risk factors extremely changeable, particularly in developing countries, where firms run the risk of being entrapped in locations that could no longer face their expectations. Therefore, location choice must be considered a trade-off between both positive and negative factors affecting the effectiveness of offshoring, where physical, cultural, linguistic and legal distances surely impact over transaction costs. Distance is likely to cause the emerging of miscommunication, lack of

coordination, infrastructure incompatibility, cultural misunderstanding and conflicting expectations (Oza and Hall, 2005) that sometimes make offshoring not convenient.

2.2.5. Impact on firm's innovation processes

Over the last years, offshoring strategies have had a relevant impact over firms' innovation processes, especially in those sectors that are characterized by technology intensive and high-skilled jobs. Several works have pointed out that offshoring might limit firms' ability to innovate in high-technology sectors. Offshoring is understood to limit innovation opportunities, as firms pay too much attention to cost reduction.

According to Fuchs and Kirchain (2005), in the optoelectronics industry, firms have gradually moved competition toward a greater emphasis on the production of the prevailing technology, instead of exploiting the competitiveness provided by innovation-based strategies. In the semiconductor industry, this same trend provided a chance for U.S. firms to compete with Asian competitors within the production of low-end or mature chips. However difficulties in finding innovative capabilities in offshore production facilities entail a great barrier to the development of innovation. The main evidence is the separation between design activities and production that, according to the necessity to assure constant linkages between them, makes it more difficult to be pursued.

An explanation of this trend could be found in the sharpening of international competition, that is making firms adopt even more a wider approach to the offshoring of knowledge intensive activities, and also those that, involving intangible resources, are narrowly related to innovation developing process. So, it is likely to disregard the accepted thought that innovative activities should not be offshored as they involve mostly tacit knowledge, whose transfer difficulties across locations has always make them "*an important case of 'non-globalization'*" (Patel and Pavitt, 1991).

Ernst (2005) analyzed the evolution of offshoring of intangibles. According to him, *“geographic proximity can become a disadvantage for innovative activities that involve complex technological knowledge”* (Ernst, 2005, p.12). Regarding design activities, he suggests that keeping teams concentrated in a unique location (i.e. inshore) could be more expensive, and moreover they could develop opportunistic behaviors and lower their productivity as the result of gaining contractual power. Hence, even though proximity and co-location for innovation activities continue to be accepted as the main factors leading innovation process effectiveness, a new point of view is coming up, explaining why, for instance, in the U.S. chip industry firms are progressively moving design activities to Asian markets. In this case, the offshoring of high skilled activities is becoming easier due to both the reshaping of skill requirements and work organization in high-tech sector, and the early springing up of several Asian system design clusters, mostly thanks to a quick development of design training services in those markets (Ernst, 2005).

The access to specialized skilled labor has given new opportunities to firm in pursuing cost reductions in design activities, motivating them to invest in in-house offshore design engineering facilities. Design process offshoring, according to Brown and Linden (2005), has been implemented using a gradual approach, proceeding firstly with the sole offshoring of standardized design tasks (such as physical design), and then gradually moving toward more complex and resource-intensive ones (such as logic verification), whereas complexity of tacit knowledge sharing between design teams keeps on being the main obstacle to process offshoring.

This evidence suggests that offshoring of processes involving intangible resources should be coupled with adapted skill training in the offshore location. The availability of high skilled workers is thus necessary for a firm to exploit offshoring strategy strengths, without losing competitiveness. The quick development of Asian design facilities is gradually reshaping competition, even in the case in which they are not qualified as the Western ones. In this case, the real impact of offshoring comes out, whereas the lack of high-skilled facilities is not enough to limit its diffusion. An evidence comes from the

optoelectronics industry enquired by Fuchs and Kirchain (2005) where, as already explained before, firms have moved their strategies toward cost-based competition, separating design activities (kept in-house) and production (even more offshore outsourced), thus bearing the costs of managing tacit knowledge transfers and limiting firms' opportunities to develop innovation.

Table 1 provides overview of the different approaches developed in the literature on offshoring company sourcing mechanisms and firm dimensions.

[TABLE 2]

3. Theoretical approaches to offshoring

Two theoretical perspectives seem to be suitable to explain offshoring strategies: transaction cost economics and resource-based view of the firm.

Transaction cost economy (TCE) provides an explanation of why firms implement either offshore insourcing or offshore outsourcing choice. Whenever transaction costs are high, firms should be stimulated to coordinate internally their offshored production in order to avoid the disadvantages of external mechanisms and market imperfections. "Within a firm, this market transactions are eliminated and in place of the complicated market structure with exchange transactions is substituted the entrepreneur coordinator, who directs production" (Coase, 1937, p.2). Moreover, according to Williamson's (1975) point of view, as regards to different circumstances either outsourcing or insourcing choices might minimize costs. Referring to offshoring, this assumption should be interpreted as to help a firm in determining whether to internalize or externalize when market prices and imperfections are not only the sole factors which is involved in sourcing strategy choice. Transaction, search, contracting and coordination costs are related to make or buy decisions involved in sourcing mechanisms described above. Each sourcing mechanism has different costs, benefit and risk characteristics, and outsourcing might be not appropriate for all the offshored

business processes when market imperfections, asymmetric information and, subsequently, opportunistic behavior might have a significant impact on firms' strategies (Parkhe and Arvind, 1993). However, referring to the same point of view of the authors, offshore outsourcing strategy might be also meant as an opportunity to exploit external economies, due to a greater potential associated to suppliers in collecting and managing information in a foreign context.

TCE has also been used to explain supply chain and logistics implications of offshoring. Puga (2002) explained how the reduction of transport cost worldwide decreases the importance of firm's proximity to market, and how regions might gain competitiveness because of economic globalization. Other approaches have tried to explore the perspectives of implementing both just in time (JIT) production and global sourcing strategy. Vickery (1989) studied how US companies overcome problems that hinder the implementation of JIT and global sourcing, pursuing both of them (such as difficulties to manage distance and punctuality on sourcing). Vickery pointed out that firms can avoid these disadvantages as follow: by increasing the frequency of deliveries from foreign suppliers through improving a logistical and production planning and scheduling (see also Ettl and Sethuraman, 2002); by improving communication between buyer and supplier; by concentrating sourcing relationships into a few suppliers; by speeding up custom lead time using foreign trade zone status (Vickery, 1989). Moreover, according to Handfield (1994), even though "*JIT purchasing programs are difficult to*" be logistically implemented with offshoring, a firm can avoid this disadvantage by adopting several procedures, for instance "*weekly delivery from a stocking location near the plant, building special storage facilities in house, establishing limited windows of supply opportunity, setting precise dates of delivery, or long-term contracting with overnight delivery firms*" (Handfield, 1994, p.46). The reference to these approaches is, in this work, useful to understand the complexity a firm is going to face when approaching offshoring strategy making, that should not be considered only as a 'make or buy' trade-off.

Another perspective that provides an interpretation of offshoring strategies is the resource-based view of the firm. It conceived a definition of firm as means to cultivating knowledge transfer in an offshoring strategy (see paragraph 2.1.5.). According to them, firms are “*organizations that represent social knowledge of coordination and learning*” (Kogut and Zander, 1996, p.502). Knowledge is likely to support coordination, communication and learning within the firm itself, thus potentially privileging (in an offshoring approach) insourcing mechanisms instead of outsourcing ones. On the other hand, offshore insourcing mechanism requires greater efforts to coordinate and execute processes, so implying greater costs and probably limiting innovation (Fuchs and Kirchain, 2005; Ettlie and Sethuraman, 2002). This is to say, the choice of sourcing mechanism should be considered as a trade-off between running processes with the required resources and capabilities and bearing the lowest communication and coordination costs.

Furthermore, the importance of a knowledge approach to offshoring is supported by the fact that, being the firm’s culture and knowledge difficult to imitate, firms decide to outsource when suppliers have the suitable knowledge. This is confirmed by Anand and Kogut (1997) who analyzed US foreign direct investments and found that offshoring is often triggered by technological capabilities of foreign suppliers, confirming the central rule of firm’s resources and capabilities.

The focus on a knowledge approach to offshoring is assisted by another analysis provided by Conner and Prahalad (1996). This knowledge-based view of firm predicts that the choice between insourcing or outsourcing is based on both the probability of opportunism and the value of knowledge sought to run the process. According to this approach, “*the organizational mode, through which individuals cooperate, affects the knowledge they apply to business activity*” (Conner and Prahalad, 1996, p.477); consequently, the offshoring mechanisms choice might be interpreted as based on both the opportunistic potential and the knowledge sourcing capability to run processes of each business model.

In conclusion, an important contribution comes from Ettlé and Sethuraman (2002), who have used both the transaction cost theory and the resource-based theory to explain the locus of supply and global manufacturing. Their work evaluated whether the resource-based and the transaction cost theory could predict the level of offshore sourcing. Referring to the former, they submitted a positive relation between global sourcing and the commitment to new technologies and R&D intensity. As to the latter, they predicted that the proportion of global sourcing should be directly linked to the vertical integration of the firm and the presence of any governance structure able to reduce transaction cost (such as JIT and TQM). In conclusion, their point of view confirms that firms' vertical integration intensity could be inversely related to firms' attitude to offshore.

4. Conclusion

With the aim to provide a better understanding of offshoring strategies, this paper reviewed the main approaches developed in literature over the last 20 years.

Even though the offshoring phenomenon has been studied through several perspectives, a comprehensive approach is still missing in the literature. A main reference should be made relating to the opportunities and risks provided by developing countries, that are reshaping competition worldwide, causing Western firms progressively redefining sourcing, manufacturing, and even R&D and design processes.

In an extremely changeable context, firms switch their strategies towards offshoring, from one sourcing mechanism to another, as soon as they become aware of cost advantages provided by those choices. Cost reducing by itself does not mean the offshoring strategy will be successful. Planning an offshore sourcing strategy (either in sourcing or outsourcing) entails focusing on several factors affecting process effectiveness. Firms should develop an optimal organizational dimension (as to properly manage the offshored

processes), focus on competencies at the locations, and assure coordination across locations (Gupta and Govindarajan, 2000). For these reasons, it is extremely important that they could acquire the required capabilities and knowledge to run processes offshore.

Research has been mainly focused on sourcing and manufacturing offshoring. Instead, only a few approaches have been developed in order to investigate progressive focusing of firms' offshoring strategies on high knowledge-based processes, such as those involving firms' core activities or even intangible resources (such as R&D and design activities). As regard to the importance of intangible resources for firms' competitiveness, further inquiries are supposed to be made in order to investigate on the offshoring of core activities, which is progressively being implemented by firms in several sectors.

At the same time, the role of Joint Ventures mechanisms on firms' offshoring strategies needs to be clarified. The diffused carelessness about this and others issues, as far as to be linked to their relative importance, underlines instead that offshoring phenomenon is even partially unknown, and so are its implications.

Further research is so required to get an understanding of this growing phenomenon that is redefining one of the main corollaries of offshoring literature, that has always considered those activities as an "important case of 'non-globalization'" (Patel and Pavitt, 1991). Indeed, although the evidence that offshoring of intangibles involves extra costs (due to the unavoidable slowness of knowledge transfer process and to the difficulties in managing remote teams), it is progressively conditioning the evolution trend of high innovative sectors. Hence, greater efforts should be focused on tacit knowledge communication and sharing, paying more attention on knowledge transfers within offshoring outsourcing mechanisms, which literature has apparently been careless about. In working toward them, a research agenda should be aimed at investigating communication structures and managerial implication of offshoring processes involving firm's distinctive capabilities.

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HOME COUNTRY	ABROAD
<ul style="list-style-type: none"> • DOMESTIC INSOURCING • DOMESTIC OUTSOURCING 	<ul style="list-style-type: none"> • WHOLLY OWNED SUBSIDIARY • JOINT VENTURE • DIRECT OFFSHORE OUTSOURCING • THIRD PARTY OFFSHORE OUTSOURCING

Table 1 – Sourcing mechanisms

<i>Firm Dimensions</i> <i>Sourcing Mechanisms</i>	<i>Organization features</i>	<i>Strategic features</i>	<i>Geographical characteristics</i>	<i>Product features</i>	<i>Impact on innovation</i>
<i>Domestic Insourcing</i>					
<i>Domestic Outsourcing</i>					
<i>Direct Offshore Outsourcing</i>					
<i>Third Party Offshore Outsourcing</i>					
<i>Wholly Owned Subsidiary</i>					
<i>Joint Venture Offshore Outsourcing</i>					

Table 2 – Empirical studies on offshoring