COORDINATION OF OFFSHORE OPERATIONS: A MULTI-CASE STUDY

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The main objective of this study is to understand how companies coordinate offshore operations. Even though offshore operations is not a new subject - it has been practiced by companies for a long time, and is a growing operations practice employed by companies worldwide - academic efforts are still needed to achieve a full understanding of this phenomenon. One of those efforts is the comprehension of the strategic aspects of offshore. Offshore has implications for the strategic management field because it can instigate a firm to develop new capabilities and resources. In addition, companies have also moved high skill and core business activities overseas, requiring implementation of new organizational measures. For instance, literature has suggested that capabilities development is important to undertake more complex offshore processes and to overcome managerial challenges, implementation barriers, and coordinate operations. This study takes offshore operations as “the movement or relocation of domestic firm activities and operations abroad” (BUNYARATAVEJ, HAHN, & DOH, 2008, p.227). In order to achieve its objective, eight case studies with manufacturing companies that have implemented captive offshore operations were carried out. The qualitative data were collected through semi-structured interviews. The interview protocol was developed to cover elements related to offshore operations. Using theory building through case studies, it was possible to obtain research outcomes such as types of offshore operations implemented by the companies, as well as, coordination mechanisms. We also suggest propositions. Finally, this study contributes to practitioners identifying mechanisms used by companies in order to coordinate offshore operations.

Palavras-chaves: Offshore; operations; coordination
1. Introduction

Offshore is a growing operations practice worldwide. Over the last decade, companies have moved manufacturing operations abroad, primarily from developed to developing countries. This movement can be considered a strategy formulated in response to the increasing competitiveness of global markets. In recent years, companies have also moved services, high-skill, and core business activities overseas. This shift in offshore to more complex operations may require the creation and implementation of new organizational practices that have implications for various organizational issues (DUKE CIBER/ARCHSTONE CONSULTING, 2005, 2006; DUKE CIBER/BOOZ ALLEN HAMILTON INC., 2007), among those is the necessity to develop new resources and capabilities (DOH, 2005).

Although offshore has been practiced by companies for a long time (HAGELL III & BROWN, 2005; LEWIN & PEETERS, 2006a; NIEDERMAN, 2005; OLSEN, 2006; STRINGFELLOW, TEAGARDEN, & NIE, 2008; STURGEON & FLORIDA, 2000), academic efforts are needed to achieve a full understanding of this phenomenon. One of these efforts is to acquire a better understanding of the strategic aspects of offshore. Over the last decade, researchers have increasingly studied a variety of issues that are related to offshore (e.g. HÄTÖNEN & ERIKSSON 2009; KEDIA & LAHIRI 2007; METTERS 2008a; OLSEN 2006; YOUNGDAHL et al. 2008). Despite this attention, the offshore literature seems to be fragmented (MANNING et al. 2008) mainly because offshore has been investigated from a variety of perspectives (Gregorio et al. 2008; HÄTÖNEN 2009; HÄTÖNEN & ERIKSSON 2009). It has been studied from such viewpoints as operations management, strategy (e.g. LEVINA & SU 2008), interorganizational relationships (e.g. BEUGRÉ & ACAR 2008) and international business (e.g. GROTE & TÄUBE 2007). Perhaps because of this fragmentation, the terms “outsourcing” and “offshore” are often used interchangeably in the literature (e.g. GROSSMAN & ROSSI-HANSBERG 2006; HARRISON & MCMILLAN 2006; HÄTÖNEN & ERIKSSON 2009).

Based on these arguments, our research question is: How do companies coordinate offshore operations? Or, in other words, this study aims to explore how companies develop mechanisms to coordinate offshore operations. Our specific objective is: to identify which kind of mechanisms companies have been using to coordinate offshore operations.

We operationalized our study by multi-case study method. Our research is characterized as a qualitative and descriptive study. We collected data by semi-structured interviews and document analysis based on archival records. We conduct data analysis by qualitative content analysis technique, using categories of analysis developed by theory review, and using CAQDAS®, in order to perform the qualitative data analysis. We analyzed data from eight manufacturing companies. We first analyzed data individually, and then we performed cross-case comparison in order to develop new insights to contribute to the research focus.

This study is organized as follows. In the next section we present a theoretical background on offshore operations. In Section 3 we describe the methodological procedure adopted. In Section 4 we present cross-cases analysis. We conclude with discussion and conclusion, as well as implications for researchers and managers, limitations, and future research directions.
2. Offshore operations – main aspects

Different from the common sense expectation, offshore has been practiced by companies for a long time ago (HAGELL III & BROW, 2005; LEWIN & PEETERS, 2006a; NIEDERMAN, 2005; OLSEN, 2006; STRINGFELLOW, 2007; STURGEON & FLORIDA, 2000). For instance, Ford Motor Company started to produce abroad in 1904, and in Europe, German Daimler started to produce abroad in 1891 (STURGEON & FLORIDA, 2000). Thus, offshore actually is not a new phenomenon (e.g. offshore plants, MOXON, 1975). However, in the literature, sometimes the term “outsourcing” is inappropriately used for “offshore” and the types of offshore have not been clearly articulated. Definitions of offshore in several studies are summarized in Figure 1.

<table>
<thead>
<tr>
<th>Studies</th>
<th>Definitions of Offshore</th>
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</thead>
<tbody>
<tr>
<td>Hagel III &amp; Brown (2005, p. 32)</td>
<td>The movement of business activities to the other countries to exploit cost or skill differentials</td>
</tr>
<tr>
<td>Levy (2005, p. 692)</td>
<td>Subcontracting of particular activities to foreign locations or suppliers, though not necessarily to independent firms</td>
</tr>
<tr>
<td>Niederman (2005 p. 192)</td>
<td>Offshore occurs when organizations in one country outsource work to another country either by creating operations in the foreign country or by contracting with an outsourcing provider who transfers work overseas.</td>
</tr>
<tr>
<td>Gereffi (2006, p. 4)</td>
<td>The decision to move the supply of goods and services from domestic to overseas locations</td>
</tr>
<tr>
<td>Harrisson &amp; McMillan (2006, p. 9)</td>
<td>A broad range of tasks executed by a firm in another country that could include setting up a foreign subsidiary or outsourcing offshore through an arm’s length agreement with another firm</td>
</tr>
<tr>
<td>Leewin &amp; Peeters (2006a, p. 221)</td>
<td>Locating activity to a wholly owned company or independent service provider in another country (usually low cost)</td>
</tr>
<tr>
<td>Bunyaratavej, Hahn, &amp; Doh (2007, p. 8)</td>
<td>The process of moving service activities to other country.</td>
</tr>
<tr>
<td>Ang &amp; Inkpen (2008, p. 338)</td>
<td>The purchase of services from another firm located in another country.</td>
</tr>
<tr>
<td>Leewin, Massini, &amp; Peeters (2008, p. 3)</td>
<td>The process of sourcing and coordinating tasks and business functions across national borders. Offshore may include both in-house (captive, or international in-sourcing) and outsourced activities, which are delivered by an external provider – that is from outside the boundaries of the firm. Outsourcing, in turn, may occur both domestically (onshore) and abroad (offshore). Further, offshore refers to sourcing rather than sales activities, and it supports global or domestic rather than local operations.</td>
</tr>
<tr>
<td>Manning, Massini, &amp; Lewin (2008, p. 35)</td>
<td>The process of sourcing any business task, process, or function supporting domestic and global operations from abroad, in particular from lower cost emerging economies</td>
</tr>
<tr>
<td>Youngdhal, Ramaswamy, &amp; Verma (2008, p. 135)</td>
<td>Service and knowledge offshore can be described as the process of moving service and knowledge work from a home country to an offshore location. The common approaches to offshore include captive (company-owned) processing centers, third party providers (outsourcing), and joint ventures (build, operate, and transfer).</td>
</tr>
<tr>
<td>Hätönen (2009, p. 1)</td>
<td>An offshore operation may be wholly owned by the parent company or it may be outsourced to a specialized provider.</td>
</tr>
</tbody>
</table>
Figure 1- Definitions of offshore

According to the previous studies, outsourcing is a contractual agreement between a company and an external provider to obtain goods and/or services (DE VITA &WANG, 2006). Offshore, conversely, can be defined as “to the movement or relocation of domestic firm activities and operations abroad” (BUNYARATAVEJ, HAHN, & DOH, 2008, p.227). Thus, the main difference is that, in outsourcing, external provider can be located in the same country, whereas offshore or offshore sourcing implies that the service/product provider is located overseas from the company client (CHAKRABARTY, 2006; NIEDERMAN, 2005; TERJESSEN, 2006).

An important differentiation can be made regarding possess/control of offshore operations. In this study, offshore is defined as outsourcing based on a company’s movement to source tasks or business functions (e.g. assemble) to a third party provider located in a foreign country. Offshore captive is also defined as a company’s movement to source tasks or business functions by own facilities in a foreign country. Finally, offshore partnership is defined as a movement to source tasks or business functions by interorganizational relationships (e.g. joint ventures) in a foreign country. Thus, there are three types of offshore: offshore outsourcing, offshore partnership, and offshore captive (JAHNS, HARTMANN, & BALS, 2006; ROBINSON & KALAKOTA, 2006; YOUNGDHAL, RAMASWAMY, & VERMA, 2008).

Some studies also distinguish nearshoring/nearshore sourcing from offshore/offshore (e.g., CHAKRABARTY, 2006). Nearshoring or nearshore sourcing refers to the sourcing services/products from a provider that is located in a country geographically close to the company client. In a different way, offshore or offshore refers to the sourcing services/products from a provider that is located in a country geographically far away from the company client. Despite geographic considerations, we will refer to both situations as offshore. Types of offshore referred to in various studies are summarized in appendix 1.

Besides those definitions, the evolution of offshore through time can be seen from distinctive and related aspects such as activities moved abroad, strategical importance, and managerial process. In terms of activities moved abroad, companies have been relocating out of the country activities from labor-intensive manufacturing assembly positions to service and knowledge-worker positions (LEVY, 2005a; LEWIN & PEETERS, 2006a; LI, LIU, LI, & WU, 2008; PRESTON 2004; YOUNGDHAL, RAMASWAMY, & VERMA, 2008). Further, the amount of companies using offshore activities is growing (e.g. GIÃO, OLIVEIRA Jr., & VASCONCELLOS, 2008); the scope of activities moved abroad is also increasing. Activities such as engineering, manufacturing, quality assurance, R&D, software development, marketing and consulting have been performed by companies abroad (EFENDIOUGLU, 2006). Thus, the main characteristic of this aspect of offshore evolution is more complex, as value chain activities of companies are being moved to be performed in developing countries (BEUGELSDIJK, PEDERSEN, & PETERSEN, 2009; LI, LIU, LI, & WU, 2008; MANNING, MASSINI, & LEWIN, 2008).

This movement mentioned above seems to be guided for a change in strategic importance of offshore for the companies. The evolution of offshore suggests that companies are searching for more than saving costs based on low wages since companies are choosing offshore
locations which are able to support core business needs (FARRELL, 2006), build capabilities, and obtain results of specialization (HAGEL III & BROWN, 2005). In addition, offshore is being used by companies dealing with globalization effects and international competition (COUCKE & SLEUWAEGEN, 2008), as a source of internationalization for small and medium companies as entrepreneurial opportunities (GREGORIO et al., 2008), and as a source of survival for companies in developed countries (GEREFFI, 2006; JAVALGI, DIXIT, & SCHERER, 2009; KEDIA & LAHIRI, 2007). Therefore, change in managerial viewpoint on the strategic hole of offshore is argued as one of the most important aspects that have fed the offshore growth and evolution (METTERS & VERMA, 2008).

Finally, as a managerial process, offshore has also spread due to development of the organizational and managerial capabilities to coordinate this process (LEVY, 2005). Offshore may be characterized as a learning-by-doing process evolving from experimental practice based on peripheral activities to core business activities. This aspect suggests that implementation of offshore is done by a continuum of stages. This continuum is based on learning and capability building (LEWIN & PEETERS, 2006b; MASKELL, PEDERSEN, PETERSEN, & DICK-NIELSEN, 2006). Experience accumulated also contributes toward high skill offshore activities (HAGEL III, 2004). Based on those previous studies we propose the following definition: Offshore operations is a strategy-oriented operational and organizational process, which allows companies to achieve strategical goals by moving domestic operations abroad.

3. Methodology

This research is characterized as a descriptive study using multiple cases, with a qualitative approach. The techniques of data collection we used are: (i) semi-structured interviews, (ii) document analysis based on archival records, and (iii) archival quantitative data. For data analysis we used the qualitative content analysis technique (FLICK, 2002; COOPER & SCHINDLER, 2003), based on Bardin (1979), Mayring (2000), and Kelle (2000). This study is also characterized as qualitative descriptive in that it intends to understand in depth which mechanisms companies have been using to coordinate offshore operations.

In general, we carried out this study by three steps. In the first step, we did three explorative case studies, in order to get preliminary findings. The explorative phase was valuable to us to test categories of analysis and improve the protocol as well. Through exploratory case studies, we identified an emergent category of analysis. In the second step, we did five additional cases and returned to the first three cases as well, in order to expand the analysis with more data. Finally, in the third step, we did a cross-case analysis, comparing evidence from cases.

Criteria such as reliability of generalization can be analyzed in qualitative research, yet it has a smaller role than in quantitative research (CRESWELL, 2003). Quality of a case study project can be verified and monitored by four tests as follows: construct validity, internal validity, external validity, reliability (YIN, 2001). The construct validity of the case studies concerns the correct operation in view of the analytical framework or conceptual model of research. We have sought to use different sources of evidences (eight cases), and qualitative data from research reports (e.g. Offshoring Research Network). In addition, key informants were asked to analyze transcriptions in order to ensure the quality of the
transcription process. Internal validity is a requirement for descriptive studies. In this study, we have followed a process of analysis through a structured procedure guided by pre-defined analytical categories, through a theoretical review, and an analytical framework, following thus an inductive logic. External validity refers to the potential generalizability of findings. It can be stated that case studies allow the emergence of new thoughts, assumptions, and theories (EISENHARDT, 1989). One of the alternatives to amplify the generalization can be to analyze more than one case, more than one researcher involved in data analysis, and the search for a case that has specific desirable characteristics (BRYMAN, 1988). Thus, we have used more than one case, which fit into the context of the study object. Finally, reliability refers to the potential for replicating this study in other similar situations. In this study protocols were used and databases were generated.

The main technique for data collection used by this study was the semi structured interview. We have recorded all interviews recorded in audio mode, transcribed them, and then we have sent to the interviewees to a check process. We have also taken field notes during all 24 interviews. The average length of interviews was between 50 minutes to 90 minutes, generating approximately 300 pages of transcription.

According to Eisenhardt (1989), data analysis is central to the development of theory, being the most difficult and least schematic stage of the research. In other words, the goal is to make sense of emerging body of evidence collected (CRESWELL, 2003). In this research, both the data collection instruments and the data analysis were guided by categories of analysis bases on theoretical review. Taking into account the issues set out, we have used in this study qualitative content analysis technique (FLICK, 2002; COOPER & SCHINDLER, 200) based Mayring (2000), and Kelle (2000). We have used Nvivo®, which is a CAQDAS, in order to perform the qualitative data analysis. It is important to note that a CAQDAS does not work as statistical software, which automatically performs statistical operations. A CAQDAS is like a word processor, which does not write a text, but helps to write it. Our intention was therefore to analyze the reports of managers and other subjects in order to be able to extract meaning from their perceptions regarding investigated key aspects. Qualitative content analysis technique is a classical procedure to analyze textual data, including interview transcriptions to media products. It is essential to this technique to use main categories of analysis, usually originated from theory and theoretical models (BRYMAN, 1998; FLICK, 2002).

Inspired by Kelle (2000), we have sought a data analysis integrated processes. For the first step we created nodes in order to analyze data accordingly to ours categories of analysis. For the second step, we analyzed each node by categories of analysis in order to analyze the content of each node by each case. For the third step, we analyzed each node by crossing evidence from cases, in order to identity patterns, differences among cases, and suggestion of propositions. For the fourth step, we clustered nodes by and cross categories of analysis in order to identify association among them, which was valuable to improve some propositions and add others as well.

4. Results

We have collected data from eight companies. According to the purpose of this study, we have chosen companies from the manufacturing sector. In addition, we have chosen
companies that have been employing captive offshore operations. Five are Brazilian companies (A, D, E, F, and H), one is American (G), one is Danish (B), and one is German (C). After analyzing each company separately, we have compared each case, aiming to identify similarities and differences. In order to get more information from case analysis, some evidence will be compared with ORN (2009) report, especially general coordination aspects of offshore operations aspects.

Regarding coordination of offshore operations, managers from all companies highlight decision centralization at country home headquarter as a main aspect. This way, companies are trying to keep abroad facilities’ goals aligned with company proposals, as well as to keep standardization of management procedures among locations. For instance,

Thus, the entire system is integrated and centralized. Today all our production needs are centered in our headquarters. So they know what we have to produce, as is our warehouse, as is our process ... everything is centralized there. (COMPANY G)

All guidelines leave from here; here is the controller. So, investment risk, expansion of industrial units, all is born here. These units make their business plans, which we consolidate when we make our strategic planning. (COMPANY D)

In fact, the unit abroad has to generate profit itself, it has to generate revenue, it is a Business Unit. But it is subordinated to headquarters. So it depends very much, and all the planning it is executed here. (COMPANY E)

The units abroad, all units, we can say, they are their own, but are supervised by headquarters. Everything here has to have approval from headquarters. (COMPANY C)

Management committees are another main coordination aspect. Managers from companies B, D, F, and G have highlighted this as a way to keep management practices aligned, as well to discuss strategies, goals, achievements, and share experience among abroad facilities. Thus, decision centralization appears to be a main way to coordinate offshore operations. For instance,

There is a management committee involving all the units. This committee meets every two weeks to discuss and review all the guidelines and overall management goals that are transmitted to all units. So, our decisions depend on what is deliberated on those meetings. (COMPANY B)

We are having meetings, which managers from all locations join. We have committees for logistics, production, purchase and management. So the idea is to try to put everyone on the same alignment. (COMPANY D)

We meet monthly, the whole team; we analyze the outcome of each unit, analyzing what happened and setting new management goals. (COMPANY F)

We have weekly meetings with the entire network, even here. So we have meetings with all unities abroad. We discuss market, management issues, and so on. Corporately, in order to keep the synergy among locations. (COMPANY G)
Although these above aspects have been considerably emphasized, other detached coordination aspects seem to be associated with companies’ own experience on implementation of offshore operation. **Back office support structure** was highlighted by company A as a way to support expatriates on management of abroad locations. For instance,

We have people working 24 hours to provide support to areas such as engineering logistics, purchasing, and this kind of the organizational support for all plants. We have people working 24 hours. For example, in the support of HR to expatriates, it has three people who turn 24 hours just to stay on full time. The phone rang; they are available to that external staff. It's hard, who's out there, it's hard when you do not have a connection or a telephone, or need a decision, a document, information, and it is difficult. (COMPANY A)

**Integrated information system** was highlighted by companies G and H as a way to transfer essential information, as well as control abroad facilities’ achievements. **Communication among locations** highlighted by company B and G as a way to share management experience among abroad location, which is central to aligning management issues. Finally, **offices abroad** were highlighted by company H has a way to ensure control of its offshore outsources operations. For instance,

We frequently communicate among locations. Periodically we analyze management guidelines and then transform this in operations decisions that are communicated to all units. (COMPANY B)

We use integrated systems in all locations. We have a network for exchanging information between the units here and abroad. This system allows most management processes to be done in country. (COMPANY H)

We have an integrated information system that allows centralization of all information in headquarters. (COMPANY G)

We frequently have virtual meetings to address regular issues, but mainly for exchange of information among units. (COMPANY G)

With the level of development that we have both the supplier and the product, you cannot do it just being here. You have to be there, you literally have to live it. You have to define what level of quality and product that you want. For this, you have to keep someone there in order to control the operations. (COMPANY H)

We identified a diverse number of clusters; suggesting that coordination aspects of offshore operations may be distinctive among each other. It suggests that aspects of coordination of offshore operations are associated with companies’ own experiences on implementation of those operations. In addition, Figure 2 below shows that companies implementing offshore captive only have reported more diverse numbers of coordination mechanisms as follows: decision centralization, management committee, and communication among location. On the other hand, companies implementing offshore captive and outsource have reported perceptions more centered on decision centralization. These findings lead us to present the following propositions:

P1: The more companies centralize their decisions, the better companies coordinate their offshore operations.
P2: There is a direct relationship between the type of offshore implemented by companies and the type of offshore operations coordination mechanisms used by companies.

Figure 2 - Coordination mechanisms by type of offshore operations

5 conclusion and discussion

Using eight cases, we focused on clarifying how companies coordinate offshore operations. As a managerial process, the spread of offshore is due to the development of organizational and managerial capabilities to implement this process (e.g. LEVY, 2005). Although offshore operations is not a recent organizational practice (e.g. STURGEON & FLORIDA 2000), how companies develop capabilities to manage and implement it remains unclear (e.g. STRATMAN, 2008).

Mechanisms of coordination of offshore operations emerged in the first three case studies we analyzed. Because of that, we have added coordination of offshore operations as a category of analysis. We have identified six coordination mechanisms used by companies. We have observed one interesting pattern among companies: all cases reported decision centralization as a way to coordinate their offshore operations. These findings suggest that decision centralization is the main coordination mechanism of offshore operations. Previous studies (e.g. GROTE & TÄUBE, 2007; KEDIA & MUKHERJEE, 2009) have pointed out that losing control of operations is a main companies’ threat to implementing offshore operations. Thus, companies have been centralizing their decisions in order to reduce that threat.

We have identified another important pattern; companies implementing only offshore captive have reported the more diverse number of coordination mechanisms as follow: decision centralization, management committee, and communication among locations. On the other hand, companies implementing offshore captive and outsource have reported perceptions more centered on decision centralization. Based on this finding, we suggest that development of coordination mechanisms varies according to how companies have been implementing
offshore operations. This is an important finding since there is no clear understanding of coordination mechanisms of each type of offshore operations in the literature.

Companies should develop control mechanisms to ensure control of their offshore operations. Our findings suggest that decision centralization is the main mechanism used by companies to maintain control of offshore operations. However, the need for additional mechanisms varies according to how companies have been implementing their offshore operations. For instance, companies have also been using management committees in order to align management and operational procedures among locations. As well, offices abroad have been used to reduce the risk of losing control of offshore outsource operations. Thus, companies should plan how they are going to implement offshore operations, realize which risks may be faced, and design mechanisms of coordination.

Several limitations of this study merit discussion. First, the scope is limited to manufacturing companies implementing offshore captive operations. Results regarding offshore operations aspects and capability development by DC cannot be extended beyond this contingency. This is a disadvantage of a case study: the lack of external validity and its idiosyncratic theories (EISENHARDT, 1989).

Second, the sample case companies were not randomly sampled but were chosen by manufacturing sector, type of offshore operations implemented, and access to interviews. This may cause some bias in the results. However, we have chosen manufacturing companies implementing offshore captive in order to avoid the literature confusion between offshore operations and outsource, and in order to contribute to reduce the lack of empirical studies of this kind of companies on offshore operations. Third, the small number of interviews by companies may also cause some limitations in the results. However, future studies may benefit from the propositions suggested, exploring them with other research methods such as surveys.

Future studies may explore each aspect of offshore operations (barriers, strategic role, and coordination) by type offshore, as well, comparing results between manufacturing companies and services companies. This can be done by choosing specific company cases, seeking to explain qualitatively how these elements are different among types and sectors. This can also be done by a survey, seeking to quantitatively measure the length of those differences.

References


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### Appendix

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<th>Studies</th>
<th>Types of offshore</th>
<th>Definitions</th>
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</thead>
<tbody>
<tr>
<td>Carmel &amp; Agarwal (2002, p. 65)</td>
<td>Offshore captive</td>
<td>Offshore outsourcing includes both offshore insourcing to an internal group within a global corporation as well as offshore outsourcing a third-party provider.</td>
</tr>
<tr>
<td>Hagel III &amp; Brown (2005, p. 32)</td>
<td>Offshore insourcing or captive Offshore outsourcing</td>
<td>An offshore operation is wholly owned by the parent company. An offshore operation is outsourced to a specialized service provider.</td>
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<tr>
<td>Gereffi (2006, p. 4)</td>
<td>Offshore captive Offshore outsourcing</td>
<td>These activities may be carried out in facilities owned in whole or in part by the parent firm, and by transnational suppliers.</td>
</tr>
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<td>Harrisson &amp; McMillan (2006, p. 8)</td>
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<td>Bunyaratavej, Hahn, &amp; Doh (2007, p.8; 2008, p. 228)</td>
<td>Offshore captive Offshore outsourcing</td>
<td>Offshore can be done internally within companies through the establishment of foreign affiliates or foreign subsidiaries. Offshore can be done externally via outsourcing services to a third-party provider.</td>
</tr>
<tr>
<td>Grote &amp; Täube (2007, p. 52)</td>
<td>Offshore captive Offshore outsourcing</td>
<td>Offshore can occur within the same firm or the same corporate group. Offshore can occur in combination with outsourcing.</td>
</tr>
<tr>
<td>Kedia</td>
<td>Offshore captive</td>
<td>The spectrum of international outsourcing of services also includes</td>
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</table>
Lahiri (2007, p. 23) | Offshore outsourcing | The practice of firms setting up their own centers in foreign countries and maintaining full control, a practice commonly referred to as captive offshore. The former notion of international outsourcing of services which is also referred to as independent third-party offshore outsourcing.

Beugré & Acar (2008, p. 448) | Offshore insourcing or captive offshore outsourcing | The parent company establishes a fully owned subsidiary in a foreign location. The parent company enters into a contractual arrangement with an independent partner.

Manning, Massini, & Lewin (2008, p. 41) | Offshore captive offshore outsourcing | Offshore may include both in-house (captive, or international insourcing) and outsourced activities.

Stratman (2008, p. 275) | Offshore captive offshore outsourcing | The work is conducted by wholly or partially owned offshore subsidiaries of the onshore parent company. A firm outsources the work to offshore third party service providers.

Youngdhal, Ramaswamy, & Verma (2008, p. 136) | Offshore captive offshore outsourcing | Offshore partnership | When organizations desire to maintain complete control over their offshore operations, they pursue a captive offshore strategy. When an organization’s management team decides to outsource service and knowledge work to a third-party provider. When an organization’s management team decides to outsource service and knowledge work to a third party provider through a joint venture.

Javalgi, Dixit, & Scherer (2009, pp. 157-158) | Offshore captive offshore outsourcing | Offshore partnership | When a company decides to produce goods or services by setting up its own subsidiary abroad in order to gain control of its business activities and take advantage of locational factors (e.g. access to cheap labor and human talent). Offshore outsourcing is the delegation of some of an organization’s recurring internal business functions and decision rights to a third party (or vendor) in a foreign country, who specializes in those functions. The third type of business model that reflects joint ventures, which are common in the software industry.

Appendix 1 - Definitions of types of offshore

^ Computer Assisted Qualitative Data Analysis Software.