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Offshoring and access to location-specific advantages -
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Abstract
Most of the existing literature aimed at predicting offshoring success and performance implications does not provide consistent performance results. We suggest that this is due to the existence of a “missing link” between firms’ offshoring strategies and performance. In this paper, we identify how access to particular offshoring advantages may provide this link. The results of a quantitative survey of more than 1000 Scandinavian firms show that certain offshoring factors (governance mode and type of offshored function) indeed impact the access a company acquires to certain offshoring advantages, which may explain the unpredictability of previous performance outcomes.

Keywords: Offshored function, Governance mode, Survey

Introduction
Offshoring is a popular strategic practice whereby firms disaggregate fine pieces of activities from their value chains and relocate (or “offshore”) them across national borders in the pursuit of cost savings, higher performance or learning opportunities (Contractor et al., 2010). Despite the fact that offshoring is not a new phenomenon, the experiences of different companies still often show ambiguous performance results, which both practitioners and researchers fail to foresee and explain (Bardhan et al., 2007; Dibbern et al., 2008; Doh, 2005; Gilley & Rasheed, 2000; Mol et al., 2005). The need to understand and resolve this inconsistency of performance implications of offshoring drives the interest of our study.

The existing literature describes a wide variety of factors that influence the offshoring performance of a firm, such as choice of offshoring governance mode (Ferdows, 2008; Kotabe & Mol, 2009; Leiblein & Reuer, 2002), type of offshored function (Maskell, 2007), offshoring experience (Westner & Strahlinger, 2010) proximity (Boschma, 2005). However, most attempts to verify the findings related to
offshoring effects have produce mixed results (e.g. Kim & Gray, 2008), and the empirical evidence suggests a certain level of equifinality with regard to predictors of offshoring performance, in which different choices might achieve equally good outcomes (Roza et al., 2011; Martínez-Noya & García-Canal, 2011; Mol, 2005).

Recent research suggests that the possible source of the solution lies in the absence of a central offshoring attribute that completes or connects this variety of factors to the performance. For example, Jensen and Pedersen (2011, p. 354) state that “much of the recent offshoring literature focuses on the home country or the offshoring firm, while limited consideration is paid to the local context of the offshoring destinations”. Kim and Gray (2008) and Brouthers and Hennart (2007) claim that existing works do not take into account the strategic motives for offshoring; i.e. the particular offshoring advantages that companies target.

Inspired by these authors, we suggest that in the scholarly pursuit of understanding offshoring performance, there is a “missing link” in extant literature. Thus, in this paper, we study the advantages of offshoring as a possible source of explanation. We see a need to study the relationships between various offshoring factors and particular advantages of offshoring. We name this relationship “the access” to offshoring advantages. We believe awareness about the likelihood of such access is a key to further establishing direct cause–effect relationships between certain offshoring factors and particular performance results. As such, in the present work, we study access to offshoring advantages, which is assumed to be a mediator between offshoring factors (in this work, elements of a company’s offshoring strategy) and the performance of offshoring. It should be noted that further investigation of the connection between offshoring advantages and performance is out of the scope of this paper.

This study builds on the survey data of more than 1000 Scandinavian firms and uses statistical analysis to test how certain factors influence the firms’ realised offshoring advantages. The paper is organised as follows: the theoretical framework on which eight hypotheses are built is introduced first, after which the statistical analysis is presented, followed by the results and discussion.

**Theoretical background and hypotheses**

As stated previously, in this work, we focused on offshoring strategy as one of the key factors influencing offshoring performance. In order to understand the strategy–performance relationship, we studied the well-recognised strategy–structure–performance (SSP) paradigm (Galbraith & Kazanjian, 1986; Miles & Snow, 1984). According to SSP, a firm’s strategy, created in consideration of external environmental factors, drives the development of organisational structure and processes. This strategy–structure combination allows the firm to perform at a desired level.

As this paper takes its outset in the offshoring environment, offshoring strategy pushes the boundaries of the traditional strategy of the firm beyond the home base. Traditional thinking of strategy—as in SSP—cannot cover the complexity of cross-border operations; therefore, we suggest a “strategy–access–performance” framework that is more suited to offshoring. We propose that different strategic decisions about offshoring may provide different levels of access to particular offshoring advantages that influence the performance of the firm (Figure 1).

In the case of the SSP paradigm, it was later confirmed by various empirical studies that certain strategy and structure combinations resulted in significantly different performances (Defee & Stank, 2005). Our proposition is that as strategy and structure are considered a baseline requirement for organisational performance, similarly, strategy and access alter the offshoring performance. If so, it might take us one step
closer to understanding why performance varies so much in the case of offshoring firms.

![Figure 1- Framework of the paper](image)

**Advantages of offshoring**  
A commonly cited work by Kedia and Mukherjee (2009) describes the “disintegration–location–externalization” (DLE) framework, which summarises the advantages of offshoring: disintegration advantages (related to increased modularity and flexibility), location-specific advantages (availability of resources, markets and low-cost labour) and externalisation advantages (associated with collaboration with foreign external partners). Inspired by the DLE framework, this paper refers to knowledge and technology, new markets, raw materials, qualified labour and low-cost labour as offshoring advantages.

**Offshoring strategy**  
According to the literature, offshoring strategy most commonly builds on three separate decisions: (1) clarifying the activity or function that is to be relocated (e.g. Gilley & Rasheed, 2000, Maskell et al., 2007), (2) the offshoring governance mode (Brusoni & Prencipe, 2001; Ferdows, 2008; Hutzschenreuter et al., 2011; Martínez-Noya & García-Canal, 2011; Mudambi, 2008) and (3) the location to which the activity or function is relocated (Boschma, 2005; Bunyaratavej et al., 2008; Farrell, 2006; Jensen & Pedersen, 2011). To narrow the scope, we focused on two of those factors: type of offshored function and offshoring governance mode. In general, one can distinguish between captive offshoring mode (relocation of activities to owned facilities abroad) and offshore outsourcing mode (vertical disintegration of activities and their delegation to external suppliers abroad) (Slepniov & Waehrens, 2008). Within the range of organisational functions, we focused on production and research and development (R&D), as they are commonly believed to be opposites in terms of value added, complexity of information, constituting processes and offshore implementation (Mudambi, 2008; Roza et al., 2011).

**Impact of offshoring mode on access to offshoring advantages**  
According to the literature on multinational enterprises (e.g. Zaheer, 1995), firms operating in foreign markets incur additional costs that local firms do not face. These costs are often referred to as the liability of foreignness. The main sources of liability of foreignness come from unfamiliarity with and lack of roots in the local environment (including lack of legitimacy of foreign firms, economic nationalism and restrictions of the home country environment on foreign organisations), as well as distance. Abbott (2007) and Ghemawat (2001) characterised the physical, temporal, cultural, organisational, political, administrative and psychological distances that are generally seen as impediments to distributed work and offshoring arrangements. The main difficulties are related to communication, coordination, control and trust.
Due to the offshoring firm’s unfamiliarity with the local environment, a third-party local supplier can potentially be of help in providing important contextual information, assistance and securing the offshoring firm from mistakes (Das & Bing-Sheng, 2000; Zhao & Calantone, 2003). However, due to the physical and psychological distances, the third-party supplier would have very little incentive to provide such information (Hendriks, 1999) unless it is so stated in a contract. In this light, using the offshore outsourcing mode for accessing location-specific advantages provides little guarantee of overcoming the liability of foreignness. It also limits the firm to the capability and discretion of one single partner, with few opportunities for supervision or influence and perhaps even getting into a dependent relationship (Lei & Hitt, 1995), as well as significantly slowing down the firm’s own potential learning.

On the other hand, through the establishment of a captive offshore facility, the physical proximity to the market allows the firm to gradually learn from its own experience (Maskell et al., 2007) and from local connections, because the reduction of distance should also make relationships with suppliers more cooperative (Abbott, 2007). Moreover, captive offshoring provides the company with the opportunity to be exposed to the entire local network of potential providers of different types of information: know-how, raw materials and labor market knowledge, as well as local consumer preferences (Andersson et al., 2007; Ciabuschi et al., 2011). This significantly increases the potential of the company’s access to all of the offshoring advantages in terms of both amount and variety, makes it less dependent on a single provider and makes it more effective in choosing the best sources. In addition, captive offshoring provides the opportunity to access, for example, new knowledge and technology, not only in terms of appropriating benefits from them, but also in terms of learning and developing new internal technological capabilities. Knowledge and technological know-how are usually of a complex and tacit nature. Their transfer requires frequent communication, collocation, trust, possibly even mutually adapted processes and common standards (Cavusgil et al., 2003; Möller et al., 2002; Gereffi et al., 2005).

Regarding access to the new market, the entry most often occurs with products and technologies that already exist at the home company (Zaheer, 1995). Therefore, the offshoring firm might have problems ensuring that the offshore partner reaches and maintains a sufficient quality level of the products. This may be difficult to accomplish in the offshore outsourcing mode due to the possible lack of connections, communication and trust between the parties (as was mentioned earlier), as well as differences in their learning curves (Berggren & Bengtsson, 2004). Such issues could limit the firm’s access to the local market when using the offshore outsourcing mode. Based on these arguments, we suggest that the captive offshoring mode is more likely to provide access to all the location-specific advantages than the offshore outsourcing mode. Thus, we pose the following hypotheses:

**H1.** Companies using the captive offshoring mode are more likely to gain access to knowledge and technology than those using the offshore outsourcing mode.

**H2.** Companies using the captive offshoring mode are more likely to gain access to new markets than those using the offshore outsourcing mode.

**H3.** Companies using the captive offshoring mode are more likely to gain access to raw materials than those using the offshore outsourcing mode.

**H4.** Companies using the captive offshoring mode are more likely to gain access to qualified labour than those using the offshore outsourcing mode.

**H5.** Companies using the captive offshoring mode are more likely to gain access to low-cost labour than those using the offshore outsourcing mode.
Impact of type of offshored function on access to location-specific advantages

Roz a et al. (2011) divided company functions into competence exploiting and competence creating activities based on added value. Competence exploiting focuses on deploying existing technologies (e.g. production), while competence creating focuses on technologically advanced activities (e.g. R&D). Exploitation activities are closely linked to cost advantages, whereas exploration activities are more focused on value creation by innovation. Based on this division, most of the location-specific offshoring advantages can also be separated into the two corresponding groups: low-cost labour and raw materials are mainly the sources of cost advantages, while access to knowledge and technology and qualified labour assume more of the value creation. Thus, we may assume that a company offshoring, for example, a competence-creating function is more likely to be capable and prepared to access the same type of offshoring benefit. As Martínez-Noya and García-Canal (2011) put it, “…firms having valuable technological capabilities are better prepared to identify, negotiate and monitor external providers of technology and technological services”. Regarding access to new markets, previous works (e.g. Lewin, 2009) have suggested that companies can offshore some of their R&D activities as a certain offshoring trial aimed at discovering opportunities for further market penetration. Based on these arguments, we suggest the following hypotheses:

H6: Companies offshoring R&D are more likely to gain access to knowledge and technology or qualified labour than those offshoring production.

H7: Companies offshoring production are more likely to gain access to low-cost labour or raw materials than those offshoring R&D.

H8: Companies offshoring R&D are more likely to gain access to new markets than those offshoring production.

Methods

The eight hypotheses suggested in the previous section were tested on the quantitative survey data. The survey is part of a research program studying the operationalization and effects of global operations networks (GONE). The program, which was initiated in Denmark in 2009, was funded by the Danish Strategic Research Council and carried out in collaboration with other universities. As part of the program, a survey was designed and sent out to more than 3000 Scandinavian firms to gather information about their offshoring experience; responses were received from over 1000 companies.

In this section, we explain how the main concepts of the work are present and measured in the survey. Five target advantages of offshoring are used: access to new markets, raw materials, knowledge and technology, qualified labour and low-cost labour. The companies were asked to rate their last offshoring implementation, and the access to realised advantages was a measure of the outcome.

The governance mode originally covered captive offshoring, offshore outsourcing and joint venture. However, the number of companies using joint ventures was so low that they were disregarded for statistical reasons. The offshored functions are represented by production, service and R&D in this dataset. Without the aim of covering all other possible factors influencing the outcome of offshoring, some other often suggested factors were included as control variables to ensure a solid statistical model. According to the literature, the size and origin of the company (Narula, 2004), the complexity of the implementation (Sr ikanth & Puranam, 2011), the destination (Boschma, 2005) and experience with offshoring (Jensen, 2009) are worth considering; therefore, they were included as control variables in the model. The companies were divided into small and medium-sized enterprises (SMEs: having less than 250
employees) and large companies (over 250 employees). The complexity of the implementation is a combined variable that measures, on a seven-point scale, how much the implementation is standardised, simple and routine, independent, integrated, creative and innovative, contains many processes or requires highly skilled people. We also considered destination, as we expected to find differences when companies offshore to distant locations or low-cost regions or have knowledge of intense regions. Experience in offshoring is also included. A summary of the variables is presented in Table 1.

Table 1 – Explanation of variables

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>Variable</th>
<th>Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access to</td>
<td>new markets, raw materials, knowledge &amp; tech</td>
<td>7-point scale (1=not at all; 7=highly)</td>
</tr>
<tr>
<td></td>
<td>qualified labour, low-cost labour</td>
<td></td>
</tr>
<tr>
<td>Independent</td>
<td>Governance mode</td>
<td>Captive offshoring, offshore outsourcing</td>
</tr>
<tr>
<td>variables</td>
<td>Offshored function</td>
<td>Production, service, R&amp;D</td>
</tr>
<tr>
<td>Control variables</td>
<td>Origin of the company</td>
<td>Danish, Swedish</td>
</tr>
<tr>
<td></td>
<td>Size of the company</td>
<td>SME, large company</td>
</tr>
<tr>
<td></td>
<td>Experience in offshoring</td>
<td>Yes, no</td>
</tr>
<tr>
<td></td>
<td>Complexity of implementation</td>
<td>Integrated, standardised, innovative, etc.</td>
</tr>
<tr>
<td></td>
<td>(7-point scale)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Destination</td>
<td>Far East, Eastern Europe, USA, Western Europe, Scandinavia</td>
</tr>
</tbody>
</table>

Access to the advantages was measured on an ordinal scale; thus, five ordinal regressions were entered into IBM SPSS software to calculate the results. First, all of the variables were omitted in their original seven-point scale versions, but the proportional odds assumption was violated; thus, this model was not suitable. The outcome variable was then reordered in a way that the seven-point scale was compressed into a three-point scale. In the original scale, 1 was “no access” and 7 was “high access”. In the new scale, 1 was “no access”, 2 was “low to medium access” and 3 was “high access”.

Results
All results from the ordinal regressions are shown in Table 2. According to the results, hypotheses 2, 3 and 6 were accepted, showing that companies using the captive offshoring mode are more likely to gain access to new markets and raw materials, and companies offshoring R&D are more likely to gain access to knowledge and technology and qualified labour. The rest of hypotheses showed insignificant results. Some of the control variables provided additional outcomes. Companies with experience in offshoring are more likely to gain access to knowledge and technology. The level of complexity also has an influence: companies that described their offshoring implementation as less complex were less likely to gain access to knowledge and technology, new markets or raw materials, but more likely to access low-cost labour. Companies that offshored to the Far East, Eastern Europe or the USA showed similarities in that they were more likely to gain higher access to knowledge and technology, markets, raw materials or qualified labour. Companies offshoring to Western Europe, Scandinavia or the USA were less likely to access low-cost labour.
Service  
-0.67(0.29)*  -0.46(0.34)  -0.61(0.35)  -0.76(0.39)*  0.06(0.32)  
Swedish  
-0.56(0.21)**  -0.15(0.21)  0.10(0.21)  -0.45(0.21)*  -0.24(0.20)  
SME  
-0.24(0.19)  0.24(0.19)  0.19(0.19)  0.05(0.19)  0.01(0.18)  
Multiple offshoring  
0.58(0.20)**  0.26(0.20)  -0.11(0.20)  0.00(0.20)  -0.03(0.18)  
Low complexity  
-0.68(0.31)*  -0.77(0.31)**  -1.14(0.35)**  -0.10(0.30)  0.64(0.29)**  
Medium complex.  
-0.08(0.22)  -0.22(0.22)  0.00(0.22)  0.39(0.23)  0.38(0.21)  
Far East  
1.93(0.71)**  1.24(0.58)*  1.43(0.70)*  1.24(0.55)*  0.00(0.52)  
Western Europe  
1.45(0.75)  0.34(0.63)  0.82(0.76)  1.02(0.61)  0.00(0.52)  
Eastern Europe  
1.58(0.71)*  0.72(0.58)  1.51(0.70)*  1.33(0.56)*  0.00(0.52)  
USA  
2.40(0.88)**  1.87(0.85)*  1.12(0.85)  2.05(0.85)*  -1.76(0.70)***  
SA  
1.26(0.86)  0.72(0.76)  0.97(0.87)  0.75(0.74)  -0.70(0.69)  
Baltic  
1.37(0.75)  0.09(0.62)  0.94(0.73)  1.06(0.60)  -0.01(0.56)  
Scandinavia  
1.26(0.77)  0.81(0.65)  1.15(0.76)  0.56(0.62)  -1.92(0.60)***  

Model $\chi^2$  
49.89  45.58  50.35  47.37  74.27  
N  
181  181  180  181  178  
Df  
15  15  15  15  15  
p<  
0.00  0.00  0.00  0.00  0.00  
R2 - Cox and Snell  
0.24  0.22  0.24  0.23  0.34  
R2 - Nagelkerke  
0.27  0.25  0.28  0.27  0.35  
R2 - McFadden  
0.13  0.12  0.14  0.13  0.13  

Columns contain: B(SE) and the significance where *p<0.05, **p<0.01, ***p<0.001

Discussion

Looking at the hypothesis testing results all together (as well as some control variables), three interesting conclusions can be suggested (Figure 2). The first conclusion is that if a company offshores R&D, it is more likely to gain higher access to knowledge and technology and qualified labour, regardless of the offshoring mode it chooses. This suggestion is supported by the following factors: (1) confirmation of the importance of the R&D function for accessing knowledge and technology and qualified labour (acceptance of H6) and (2) insignificance of the offshoring mode for gaining access to knowledge and technology and qualified labour (insignificance of H1 and H4). Such a conclusion can be supported by the argument that the nature of the offshored function defines the readiness and ability of the firm to assimilate and use the external knowledge, as well as locate and evaluate it and the supplier (Martínez-Noya & García-Canal, 2011). In addition, performance of the R&D function increases absorptive capacity of an organisation, which may allow it to make use of any available knowledge elements and “spillovers” of the partner, disregarding the organisational boundaries (Dyer & Singh, 1998; Cohen & Levinthal, 1990).

The second conclusion is that if a company chooses the captive offshoring mode, it is more likely to gain higher access to new markets and raw materials, regardless of the type of function it offshores. This suggestion is supported by two factors: (1) acceptance of H2 and H3 regarding captive offshoring providing a higher likelihood of high access to new markets and raw materials and (2) insignificance of the function type in gaining access to these offshoring advantages (H7 and H8). This suggestion can be supported by the argument that appropriation of these particular offshoring advantages is much more dependent on physical proximity to them than functional fit. Thus, for example, proximity to the raw materials supply and the knowledge of local supply networks allows the offshoring company to obtain and maintain favourable price levels for a
longer period of time. This also prevents a third-party supplier from appropriating the benefits of lower costs based on their general knowledge of market prices. Regarding access to the new market, offshoring of production and R&D can be equally effective as long as they are able to overcome the liability of foreignness, which is more easily accomplished with a physical presence (captive offshoring).

![Figure 2 – Main conclusions of hypothesis testing](image)

Lastly, we can suggest that to access low-cost labour, the choice of location is more important than both the mode and function type. This conclusion is supported by the following factors: (1) insignificance of the mode for accessing low-cost labour (H5) and (2) the fact that particular offshoring destinations (the Far East and Eastern Europe) that were included in the hypothesis testing as control variables had an impact on access to low-cost labour. We argue that this is because the cost differences between the offshoring and hosting countries largely depend on their labour situations, rather than on the strategy of the offshoring company.

**Conclusions**

The advantages of offshoring are the reason companies relocate abroad. Thus, it is fair to assume that gaining or not gaining those particular advantages seriously alters performance outcomes. By showing that some straightforward links exist between strategic decisions and particular offshoring advantages, our paper proves that access to offshoring advantages is a possible “missing link” between offshoring strategies and offshoring performance that can explain the ambiguity of previous performance results. This finding also points to the need for further study of the relationships between particular offshoring advantages and particular performance measures in order to draw direct links between certain elements of the strategy and performance results.

It can generally be concluded that access to location-specific offshoring advantages is indeed conditioned by the elements of the strategy of the offshoring firm. However, as shown in the results, these elements are not equally important for all types of offshoring advantages. As such, function type appeared to be more important for accessing knowledge and technology and qualified labour; offshoring mode for accessing new markets and raw materials and offshoring destination for accessing low-cost labour. These results have some important implications for practitioners: the need to take precise consideration of the nature of the offshoring target benefit as a basis for the choice of offshoring governance mode, as well as when considering which type of function to offshore and to which destination. Moreover, our results provide direct recommendations in this regard.
Limitations of the work include narrowing the access influencing factors to strategy elements while there can be other internal and external factors. In addition, we addressed only two “extreme” types of offshoring modes, and the findings are limited to Scandinavian companies. These limitations open potential avenues for further research.

References


