MEASURING CLIENT-VENDOR DISTANCE IN GLOBAL OUTSOURCING RELATIONSHIPS: A CONCEPTUAL MODEL

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MEASURING CLIENT-VENDOR DISTANCE IN GLOBAL OUTSOURCING RELATIONSHIPS: A CONCEPTUAL MODEL

Katharina Vogt, Robert Gregory, Roman Beck

Abstract
The objective of this paper is to develop a conceptual model for client-vendor distance in global IS outsourcing relationships as previous research on this issue is scarce. A multi-dimensional construct is deductively developed deploying the theory of psychic distance as a theoretical lens. A key finding is that client-vendor distance in global IS outsourcing relationships is constituted by several characteristics that go beyond language barriers, geographical distance, and cultural distance. Thus, the paper lays the grounds for the development of a theory-based measurement model of client-vendor distance in IS. Furthermore, subtle differences exist between near- and offshoring arrangements concerning the relevance and strength of individual dimensions.

1. Introduction

The increasing amount of information systems and global services outsourcing is an apparent trend that is expected to continue in the foreseeable future [23]. The worldwide market for global IT outsourcing services is growing at a fast pace: IDC estimates that expenditures for IT offshoring will increase 14.4 percent on average in the USA and 16.5 percent in Western Europe until 2009 [20]. This is not surprising, considering the associated benefits of cost advantages that client firms can achieve due to significant differences in labor costs between Western countries and offshore locations in Middle and Eastern Europe and Asia [25]. However, these cost advantages do not materialize easily: global outsourcing relating to “inter-country outsourcing” in terms of offshore (including nearshore) outsourcing, is accompanied by unique challenges that can offset the expected benefits [23]. Offshore-specific risks result primarily from client-vendor distance, encompassing not only the geographic dimension but several others such as cultural, economic, and political dimensions [10]. Numerous studies have identified different dimensions of IS client-vendor distance in offshore projects, including managerial issues how to overcome the problems resulting from them [10; 24]. While previous research has enhanced our understanding of individual dimensions of client-vendor distance in IS offshoring, few attempts have been made to create an overall construct that captures the most salient dimensions for both nearshore and offshore client-vendor distance in IS. Moreover, there is still a lack of understanding as to what extent client-vendor distance differs in near- and offshore arrangements [6; 23]. Thus, more research is needed to depict the defining dimensions and characteristics of client-vendor distance in

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global IS outsourcing relationships. Hence, the goal of this research is the development of a concept explaining client-vendor distance in near- and offshore IS outsourcing relationships. For this purpose, and because the existing literature in IS on this issue is scarce, the literature stream on ‘psychic distance’ is used as a theoretical lens for the conceptualization process. The concept of psychic distance originates from international trade research [2] and is based on the assumption that there is a psychic distance between countries in a trade relationship that can hinder effective inter-country collaboration [9]. Our goal is to adapt this construct from international trade and business research to the IS domain and identify those dimensions that fit with existing research in IS to create a model of client-vendor distance in global IS outsourcing relationships. Moreover, our goal is to gain a deeper understanding of the differences between client-vendor distance in IS nearshoring and offshoring. In summary, our main research question is: “What constitutes the distance between client and vendor in global IS outsourcing relationships?”

The remainder of this research paper is structured as follows. In the next section we will provide the theoretical foundation for studying this research question. In section three we will develop a theoretically grounded conceptual model which specifies the dimensions of client-vendor distance in global IS outsourcing relationships and discuss the near- and offshore-specific characteristics of client-vendor distance. Section four is pointing out the limitations as well as opportunities for further research. The paper ends with theoretical and practical contributions alike.

2. Theoretical Foundations

2.1. Offshoring and Nearshoring of Information Systems and Services

Prior research on global IS outsourcing has pointed to the challenge of geographic distance between client and vendor, including primarily time zone differences [8; 13; 30]. Some studies have also looked at language barriers, the most frequently mentioned problem is the lack of English skills of the service provider’s staff [8; 30; 37]. A further dimension of client-vendor distance concerns the cross-cultural differences: numerous studies have analyzed cultural barriers in global IS outsourcing projects, while the predominant research has focused on culture differences on a national level [8; 18; 24; 27; 30]. However, more recently attempts have also been made in IS to study culture at the individual level of analysis [17; 36]. Other issues of client-vendor distance in global IS outsourcing have also been mentioned, including differences in institutions, market structures, economies, politics, and intellectual property regulations [30; 31].

While the overwhelming amount of previous research in IS has not made a clear distinction between different types of IS offshoring, there are calls for further research to depict the subtle differences between offshoring and nearshoring, among others [23]. In particular, research on IS nearshoring is gaining momentum [6]. However, there is very little literature on this special form of global outsourcing. This becomes especially apparent when looking for a definition of nearshore outsourcing. Despite its increasing consideration in the clients sourcing strategies [6], there is still a lack of a sophisticated understanding of this outsourcing option. In contrast to the various offshoring definitions which can be synthesized to “a form of outsourcing performed outside the client organization’s home country” [23], often but not always associated with another continent [26], up to now nearshore outsourcing is primarily defined through its differentiation from offshoring in terms of spatial distance: whereas any location outside the client’s home country can be called an offshore location, nearshore locations are mainly associated with geographical proximity to the client’s home country [1; 6; 10]. In summary, research in the areas of global IS outsourcing, as well as globally distributed IS outsourcing teams, provide a large number of studies addressing different dimensions of client-vendor distance in global IS outsourcing relationships. However, there is no consensus upon a common framework capturing the defining dimensions and
characteristics of client-vendor distance. The following section provides a literature review of psychic distance research in international trade, marketing, and business that will be used subsequently as a theoretical lens for the conceptualization.

2.2. Research on Psychic Distance in International Trade, Marketing, and Business

The roots of psychic distance date back to Beckerman (1956) who argued that international trade is not only influenced by economic distance, but is also exposed to a “special problem […] by the existence of ‘psychic’ distance” [2]. This argument has been picked up by a group of Scandinavian researchers adopting the concept of psychic distance for their research of the firms’ internationalization process [21; 22]. In the meantime, psychic distance has evolved to be a central concept in the international business literature [35] and has been applied mainly to explain international market selection [15]. Even though some of these studies have put psychic distance on a par with cultural distance [29; 33], there exists a significant conceptual difference between the two concepts. While cultural distance reflects dissimilarities in cultural values among countries and therefore needs to be applied at the country level of analysis, psychic distance is based on the individual sensitivity to dissimilarities between countries and therefore focuses on the individual level of analysis [35]. Moreover, several researchers have identified cultural distance as one out of several dimensions of psychic distance [4; 11; 14; 15; 34]. This view is also supported by the findings of an empirical study examining the impact of psychic distance on organizational performance where only an operationalization of psychic distance using both cultural and business differences contributed to the significantly relevant explanation of organizational performance [14]. Furthermore, recent research results suggest that factors such as local skill levels, social and political stability, host government policy, as well as previous experience with the respective country may have been underrated hitherto with regards to their impact on the individual’s perception of psychic distance [9]. Last but not least, the classification of cultural distance as a dimension of psychic distance is consistent with the suggestion of several researchers to examine culture not only at the country level of analysis but at the individual level [16; 19], since the psychic distance concepts allows for a measurement of cultural differences as perceived by individuals [35].

As any form of global outsourcing can be understood as a form of international trade [3], we are convinced that the application of the psychic distance concept to the IS outsourcing domain is legitimate. Moreover, the ‘psychic distance paradox’ [28] makes the application of the concept to the IS domain interesting for a further reason. The ‘psychic distance paradox’ refers to the risk that the assumption of little psychic distance between the home and the foreign country could lead to the underestimation of actual differences and as a consequence could prevent managers from sharpening their awareness in this regard [28]. As nearshore outsourcing is often being associated with cultural proximity [6], relating to an assumed small psychic distance [35], according to the psychic distance paradox there is definitely a risk of mispricing the “cost for covering distance” [2].

2.3. Psychic Distance – Definitions and Operationalizations

The theoretical concept of psychic distance is based on the assumption of a perceived psychic gap between two countries arising from multifaceted dimensions such as language, culture, religion, education, political systems, business practices, level of development, time zone, laws, and others [4; 9; 12; 34]. However, despite its comprehensive use, no consistent definition of psychic distance has yet emerged throughout the international business literature [9]. Early definitions address the importance of knowing foreign markets, e.g. referred to as “flows of information”[22] or “a firm's degree of uncertainty” [28] and define psychic distance as the “factors preventing or disturbing the flows of information” [22]. More recently, researchers highlight the implications of cultural and
other differences for the companies’ international market selection: according to them, psychic
distance results from the “perception of both cultural and business differences” [14], leading to a
feeling of distance between the home and the foreign country [9; 14; 15]. Whereas Child et al. [9]
enhanced the concept by differentiating between distance creating, distance compressing, and
distance bridging factors, Sousa and Bradley’s [35] understanding of psychic distance emphasized
the individual’s perspective. According to the variety of definitions, the available
operationalizations of psychic distance differ [29]. Table 1 gives a brief overview over the main
operationalizations within the last years.

Table 1: Operationalizations of psychic distance

<table>
<thead>
<tr>
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<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Cultural distance</td>
<td>Culture (incl. differences in language)</td>
<td>Cultural values, beliefs, attitudes, and traditions</td>
<td>Culture</td>
<td>Social ties (Cultural and language similarities, sport preferences)</td>
</tr>
<tr>
<td>Language differences</td>
<td>(not mentioned)</td>
<td>Language</td>
<td>Language</td>
<td></td>
</tr>
<tr>
<td>(not mentioned)</td>
<td>Geographical distance (incl. temporal and climatic differences)</td>
<td>Climatic conditions</td>
<td>Time zones</td>
<td>Geographic ties</td>
</tr>
<tr>
<td>Legal &amp; political differences</td>
<td>(not mentioned)</td>
<td>(not mentioned)</td>
<td>Political systems</td>
<td>Political ties</td>
</tr>
<tr>
<td>Economic differences</td>
<td>Level of economic and technological development</td>
<td>(not mentioned)</td>
<td>Industrial / economic development</td>
<td>Development</td>
</tr>
<tr>
<td>(not mentioned)</td>
<td>Level of education, and education</td>
<td>Education level</td>
<td>(not mentioned)</td>
<td></td>
</tr>
<tr>
<td>Differences in</td>
<td>(not mentioned)</td>
<td>(not mentioned)</td>
<td>Commercial ties</td>
<td></td>
</tr>
<tr>
<td>market structure</td>
<td>(not mentioned)</td>
<td>(not mentioned)</td>
<td>Colonial links</td>
<td>Historic ties</td>
</tr>
<tr>
<td>(not mentioned)</td>
<td>(not mentioned)</td>
<td>(not mentioned)</td>
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</tbody>
</table>

The following dimensions have been mentioned in the respective operationalization only.

<table>
<thead>
<tr>
<th>Differences in business practice</th>
<th>Procurement power of customers</th>
<th>Religions</th>
<th>Information ties</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Lifestyles</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Consumer preferences</td>
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</tr>
</tbody>
</table>

Most of the above presented operationalizations of psychic distance feature the differences between
the home and the foreign countries [4; 9; 14; 34]. Brewer’s [4] operationalization of psychic
distance however is based on the understanding of psychic distance “as factors preventing or
disturbing the flows of information between firm and market” and thus sharpens the understanding
of psychic distance through emphasizing the development of knowledge about foreign country
markets [4]. He argues that – instead of perceived similarities or dissimilarities – especially the
managers’ familiarity with foreign markets is shaping the concept of psychic distance [4]. We adopt
his operationalization for our research due to the knowledge-intensive nature of global IS
outsourcing.
3. Model Development

3.1. Characterizing Dimensions of Client-Vendor Distance in Global IS Outsourcing Relationships

In order to construct a model of client-vendor distance in global IS outsourcing relationships, we use Dibbern et al.'s [10] conceptualization of offshore-specific client-vendor distance as a starting point. Concentrating on the interaction between client and vendor, the researchers selected geographic and culture distance as well as language barriers to be the most salient factors creating client-vendor distance [10]. We intend to broaden this view based on numerous results from international trade research indicating that a couple of other factors may also contribute significantly to the perceived distance between client and vendor [4; 11; 14; 15; 34]. Thus, we enhance the existing concept of client-vendor distance by additional categories based on the theoretical concept of psychic distance. As already outlined before we therefore adopt the operationalization of Brewer [4]. In order to identify the characterizing dimensions of client-vendor distance, we map the client-vendor distance measures that have been indentified from the near- and offshore outsourcing literature to the national psychic distance elements defined by Brewer [4]. In the process, we find the factors described in the domain literature to be mostly congruent with the operationalization of psychic distance. Thus, we use the psychic distance elements as the foundation for our model. However, taking into account the particularities of the global IS outsourcing domain and building upon prior research in IS, we need to conduct the following adjustments in the sense of modifying existing elements as well as adding a new dimension. An overview on the mapping results including the modifications is presented in table 2.

<table>
<thead>
<tr>
<th>Psychic distance</th>
<th>Dimensions of client-vendor distance from offshore outsourcing literature</th>
<th>Dimensions of client-vendor distance from nearshore outsourcing literature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Political ties [6]</td>
<td>Political / economic dimension [10]; Legal dimension [10; 26; 30; 31]</td>
<td>Political / economic dimension [1; 6; 26]; Legal dimension [30]</td>
</tr>
<tr>
<td>Geographic ties [6]</td>
<td>Geographic dimension [7; 8; 10; 30]; Temporal dimension [7; 10; 30; 31]</td>
<td>Geographic dimension [1; 6]; Temporal dimension [1; 6; 30]; Accessibility dimension [1]</td>
</tr>
<tr>
<td>Social ties [6]</td>
<td>Cultural dimension [10; 18; 24; 30; 31]; Language dimension [10; 30; 37]</td>
<td>Cultural dimension [1; 6; 26; 30]; Language dimension [1; 6; 26; 30]</td>
</tr>
<tr>
<td>Information ties [6]</td>
<td>/</td>
<td>/</td>
</tr>
<tr>
<td>Development [6]</td>
<td>Infrastructure dimension [10; 30; 31]</td>
<td>Infrastructure dimension [1; 30]</td>
</tr>
<tr>
<td>Level of education [9; 12; 34]</td>
<td>Personnel dimension [26; 31]</td>
<td>Personnel dimension [1; 26]</td>
</tr>
</tbody>
</table>

First, we disaggregate the element ‘social ties’ which is reflected through the indicators cultural and language similarities as well as sport preferences and adopt the view of the global IS outsourcing literature where the cultural and the language dimension are commonly treated as two discrete dimensions. We do not include the indicator sport preferences because in contrast to cultural and language differences, this factor is not presumed to have a big impact on IS business client-vendor relationships. With regards to the element ‘geographic ties’, we add the temporal dimension
(different time zones) as these two characteristics are commonly used to represent the spatial distance in global outsourcing arrangements. The same holds for the element ‘political ties’ which we complement with a legal dimension, thereby acknowledging the role of legal issues in global IS outsourcing. To our knowledge, ‘information ties’ referring to the availability of secondary information on the foreign country as well as to immigration numbers have not been used as a measure for client-vendor distance in the global IS outsourcing literature so far. Moreover, this factor has not been part of any of the other operationalizations. However, resuming Brewer’s [4] knowledge-centric understanding of psychic distance, we consider information ties to be relevant for client-vendor distance in global IS outsourcing relationships based on the assumption that a broad information base enables managers to more easily learn about a foreign country and thus decreases the managers’ psychic distance to this country. As the availability of well-educated resources has been emphasized to be a key success factor for offshore outsourcing [26], we finally argue to additionally include the dimension „level of education“ being cited by several studies elaborating on psychic distance [9; 12; 34].

Based on the mapping results described above, we create a model of client-vendor distance in global IS outsourcing relationships suggesting that client-vendor distance in global IS outsourcing relationships is constituted by several characteristics that go beyond language barriers, geographical distance, and cultural distance. An overview of the dimensions definitions is presented in Table 3.

**Table 3: Client-Vendor-Distance – Definition of Constituting Factors**

<table>
<thead>
<tr>
<th>Client-Vendor Distance Dimensions</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial dimension</td>
<td>The commercial dimension refers to existing commercial relationships such as “imports and exports of both goods and services” [4].</td>
</tr>
<tr>
<td>Political dimension</td>
<td>The political dimension refers to “close political relationships” [4].</td>
</tr>
<tr>
<td>Historic dimension</td>
<td>The historic dimension refers to former colonial relationships as well shared wars [4].</td>
</tr>
<tr>
<td>Geographic dimension</td>
<td>The geographic dimension refers to the actual “geographic distance between countries” [4].</td>
</tr>
<tr>
<td>Temporal dimension</td>
<td>The temporal dimension refers to the time zone differences between client and vendor [12].</td>
</tr>
<tr>
<td>Cultural dimension</td>
<td>The cultural dimension refers to cultural differences between client and vendor [4].</td>
</tr>
<tr>
<td>Language dimension</td>
<td>The language dimension refers to language preferences in terms of national language, business language, or alphabet [4].</td>
</tr>
<tr>
<td>Information dimension</td>
<td>The information dimension refers to the availability of secondary information on the foreign country [4].</td>
</tr>
<tr>
<td>Development dimension</td>
<td>The development dimension refers to the “level of development of the foreign country” [4].</td>
</tr>
<tr>
<td>Educational dimension</td>
<td>The educational dimension refers to “differences in education levels among countries” [12].</td>
</tr>
</tbody>
</table>

### 3.2. Comparing Client-Vendor Distance in Off- and Nearshore Outsourcing Relationships

If we now compare nearshoring with offshoring, the main differences between these two forms of global outsourcing are the level of geographic distance and time zones differences [9; 37]. Therefore, client firms in a nearshore arrangement have lower communication and coordination costs than client firms in an offshore arrangement [26]. Furthermore, based on the assumption of
cultural and linguistic proximity [6; 30], less misunderstandings might occur [26]. Both nearshore and offshore outsourcing are associated with lower wage costs [5]. However, the wage level in nearshore locations is claimed to be higher [30]. This might partly be justified through a competitive educational system. In Middle and Eastern Europe for instance, the number as well as the quality of university graduates equals to Western Europe as well as to the US [26]. Thus, well-educated personnel is available but costly; the lower wage costs of India can only be realized in a nearshore arrangement when turning towards so called “emerging nearshore destinations” [30]. However, in contrast to established emerging nearshore locations often lack appropriate professional experience [30], as they are just evolving to become a well-developed market for IS outsourcing services [26]. The historical dimension referring to past linkages such as colonial relationships has only been found in the nearshore related literature. One explanation could be, that in nearshore arrangements a however natured historic relationship can be taken as granted as nearshore destinations are typically neighboring countries of the clients’ home country. However, we assume that there are other kinds of historical linkages which are directly related to the geographical proximity. The exploration of these potential linkages is subject to future research. Resuming the discussion above, client-vendor distance-related issues not only arise in offshore but also in nearshore arrangements. However, our analysis shows that the importance of the constituting factors of this distance differ in comparison to offshore outsourcing [30]. As of today, academic literature on nearshore outsourcing is scarce: only few scientific publications explicitly cover the nearshore phenomenon. Moreover, publications on offshore outsourcing do often not state the host country [23] so that the identification of potential nearshore outsourcing projects is difficult. This lack of empirical and non-empirical data on nearshore outsourcing needs to be addressed in future research. Further ideas for further research activities will be discussed in the subsequent section.

4. Limitations and Further Research

There are several limitations to be taken into account. First and foremost, it should be recognized that the client-vendor distance model depicted above has been deductively derived from the existing literature. No empirical data was at our disposal in order to challenge and, if applicable, complement the concept. Thus, the findings may miss dimensions that are influencing client-vendor distance in practice but are not captured in the scientific literature yet. Second, it should be kept in mind that we based our analysis on a scarce literature basis with regards to the nearshore phenomenon. In reference to the study’s limitations, several opportunities for future research become apparent. First, as our work has been conceptual so far, we consider qualitative interviews to be an interesting research opportunity in order to further explore today’s model. Moreover, it would be promising to conduct a quantitative study to empirically validate the theoretical model as well as to evaluate the relative importance of the individual concepts of client-vendor distance and their interplay. Furthermore, we would like to encourage researchers to contrast client versus vendor perspectives in the process, as client-vendor distance in interorganizational exchange relationships is not necessarily symmetric in nature [32]. For example, an Indian vendor already having several customers from Germany might perceive a smaller psychic distance as a German client starting his first offshore project with an Indian vendor. Implications for future research emerge also from the previous discussion on nearshore outsourcing which is slightly different from offshore outsourcing. Thus, further research is needed to study more in detail the difference between client-vendor distance in nearshoring as opposed to offshoring arrangements. In this context it would be also interesting to evaluate the specifics of client-vendor distance in outsourcing relationships comprising only one country.
5. Conclusion

This paper is the first attempt to develop a comprehensive concept of client-vendor distance in global IS outsourcing relationships. Prior work mainly discussed the well-known challenges resulting from geographic and time zone differences, cultural distance and language barriers. By applying a theoretical lens from international trade literature (i.e. psychic distance), we are able to offer a broader view on the most salient dimensions for both nearshore and offshore client-vendor distance. By doing so, we lay the grounds for the development of a theory-based measurement model of client-vendor distance in IS. The main theoretical contribution of this paper is the deductive development of a model for client-vendor distance in near- and offshore arrangements increasing our understanding of psychic distance in interorganizational exchange relationships in general and in global IS outsourcing relationships more specifically. Furthermore, we enhance the domain literature through the introduction of a new theoretical concept, i.e. the psychic distance concept from international trade research. The paper also offers some practical contributions: based on the depicted multifaceted client-vendor distance in global IS outsourcing relationships, managers can learn to increase their familiarity with vendors from foreign countries also beyond intercultural training programs. For instance, studying secondary information on the foreign country will increase the knowledge on the host country and concurrently might decrease the feeling of distance. Furthermore, the identified dimensions of client-vendor distance can be taken into account in the course of the vendor selection process. From a vendor perspective, especially (emerging) nearshore destinations would probably be well advised to develop their unique selling points based on the knowledge of distance-creating characteristics identified above. This could then result in nearshore-specific application scenarios deploying the phenomenon’s as well as the country’s individual strengths.

6. References


