Knowledge transfer in a cross-cultural context

Case study within a Swedish R&D company: Offshore outsourcing to India

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Abstract

The global competition and as the worldwide market has become more open a company’s ability to outsource activities to external companies based in other countries, i.e. offshore outsourcing, has increased dramatically. Companies are starting to transfer higher value-added activities that require certain skills, domain knowledge and experience, i.e. Knowledge Process Outsourcing (KPO). These activities are getting more difficult and complex to manage compared with standardised activities such as payroll, and predict another kind of co-operation and communication between the companies. When the sender and receiver are based in different context, such as organisational and cultural, other aspects might be added to the difficulty. The purpose of this thesis is to describe, and analyse knowledge transfer in a cross cultural context based on three categories identified in the theoretical framework: character of knowledge, distances between sending and receiving context and mutual understanding. Also to answer how cultural differences might affect the knowledge transfer process. The objective of this study is mainly from a Swedish R&D company’s perspective that has an established relation with an external consultancy company based in India. The activities are within the area of dynamical changing software development of complex, communication and knowledge intensive products.

A qualitative case study has been performed based on open target interviews. The findings show that the character of knowledge is an important factor to consider when establishing the knowledge transfer process. It was a need to transfer knowledge not only related to the product itself but also knowledge embedded in organisational routines, processes, practises and norms. This is related to distances between sending and receiving context: organisational and knowledge differences shown in organisational skills and previous experience, and cultural differences mainly visible in communication such as raising problems and an expected top-down approach by managers. The geographical distance adds to the difficulty due to the missing face-to-face contact. The sending company must therefore be very active and can not just expect the receiving company to handle the activity, and especially when the companies’ prerequisites differ as much as in this case. Culture awareness and mutual understanding are factors that improve knowledge transfer.

Keywords: Offshore outsourcing; Knowledge transfer; Software development; Cross cultural awareness; Cultural interaction; India; Communication
Acknowledgement

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Karin Almstedt
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1 Introduction

This chapter gives an introductory background of this thesis and describes the problem, which is narrowed down to the purpose of the research and research question to be answered. Also delimitations and finally the outline are described.

1.1 Background

1.1.1 Offshore outsourcing

The global competition has put pressure on companies to be more flexible and efficient, and as the worldwide market has become less closed and more transparent a company’s ability to outsource activities has increased dramatically (Clott, 2004). Contributing factors are also improvements in communication and networking techniques such as Information technology (IT) which makes it possible to work in a distributed way around the world (McIvor, 2005). In Sweden a growing number of companies are outsourcing activities to external companies, primarily based in low-cost countries (Alpman, 2005; Lundbäck, 2005). There can be several motives behind an outsourcing decision, such as cost reduction, achieve greater effectiveness, create long-term relations, free resources, focus on the core business, establish on a potential market, expand on an already established market etc (Yakhlef, 1997; Pinto&Harms, 2005; Quelin&Duhamel, 2003; Barthelemy, 2001).

The definition of offshore outsourcing is not uniform in literature, and the definition used in this thesis is ‘External Offshore’ according to description in chapter 1.5.1; one company outsourcing to an external company in another country. The type of offshore outsourcing most often mentioned in media and books, although not always specified in clear context (author’s comment), is to great extent IT and specific business processes such as call centres, technical support, standardized business processes (i.e. payroll), simpler software development. These activities are referred to as Information Technology Outsourcing (ITO) and Business Process Outsourcing (BPO) and can often be managed by basic processes consisting of templates and standardized business processes (MayerBrown, 2007).

Companies are however starting to outsource more complex and higher value-added activities such as integrated business processes, software development and software maintenance, i.e. areas within Research and Development (R&D) (McIvor, 2005; OutsourcingJournal-b, 2005; DiamondCluster, 2006). These activities are referred to as Knowledge Process Outsourcing (KPO) and often require certain skills, domain knowledge and experience of the people carrying out the activity. These activities are also getting more difficult and complex to manage compared with standardised activities, and predict another kind of co-operation and communication between the partners (King, 2005; Yakhlef, 1997; Smith et al, 1996).

According to Howell (1999) outsourcing of complex activities, such as R&D, has not been the object by researchers in the same way as for example manufacturing and IT. Software development is for example “widely acknowledged as a knowledge intensive industry characterized by complex system design, rapid update of technology-related knowledge,
and strong competition for sustaining innovation” (Assimakopoulos&Yan, 2006). Software development is also a process in constant change where all parameters are not as predictable as in standardized activities and often consist of judgement based work. This makes trust and mutual understanding even more important to decrease the uncertainty between the partners (Howell, 1999).

1.1.2 Knowledge transfer

Knowledge transfer is a vital part in the offshore outsourcing process, and depends on the complexity of the activities and also to which extent it is possible to decode the knowledge related to the activity. Software development and software maintenance\(^1\) are examples of complex activities that need to be reviewed from another angle in comparison with administrative tasks that can be performed according to more standardised instructions (Yakhlef, 1997). Recent study about knowledge transfer has indicated that the concept of knowledge as an object to transfer has to be broader (Kogut&Zander, 2003; Choi, 2001; Collins&Hitt, 2006). Kogut&Zander (2003) stress the role of tacit knowledge, see chapter 1.4.2, in the discussion of knowledge transfer. When transfer knowledge intensive technology, knowledge transfer also includes management knowledge such as know-how as well as technological knowledge. Some difficult issues arise such as transfer of knowledge that is developed through personal experience and knowledge that is embedded in particular organisation’s routines, norms, information-flows and the way decisions are made (Ibid). Therefore companies need also to recognize the importance of inter-personal dynamics involved in the transfer of tacit knowledge, according to Collins&Hitt (2006).

One of the most popular countries for offshore outsourcing is India, which has become a major back-office destination for activities such as telemarketing, simpler software development, standardized business processes and IT services. The low wages, the English language and the resource pool of engineers are contributing factors (Deloitte Research Report, 2004; DiamondCluster, 2006). These activities will in year 2008 constitute of approximately 7% of India’s GDP (Forbes, 2008). Outsourcing to India is in articles and media often described in rather positive terms, and negative aspects are only mentioned in brief, if mentioned at all. There are, however, quite many companies that bring activities back on-shore (King, 2005; Deloitte Research Report, 2004; DiamondCluster, 2006; Petersen, 2006b), and according to surveys made by Deloitte Research (2004) and DiamondCluster (2006) most companies mention the operational complexity as the biggest concern. Language barriers and cultural differences have also been identified as a big concerns, increasing the risk of miscommunication. Those problems can arise even when teams in different countries speak the same language since phrases and words often have different meanings in different cultures (Ibid). The importance of cultural competence is also getting more highlighted in media, such that tasks are performed in different ways, and how decisions are taken (Petersen, 2006a).

In the current literature regarding knowledge transfer there are several books and articles about sharing information within the same company (Diedrich, 2004; Kalling&Styhre, 2003), tools for sharing information (Diedrich, 2004) and knowledge transfer within

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\(^1\) Software maintenance is actually a part of software development; maintenance of what has been developed.
manufacturing (Sunaoshi et al., 2005). As offshore outsourcing is getting more complex and cultural differences are more highlighted in media the author misses research within offshore outsourcing in the context of dynamically changing software development, and also how cultural awareness can be a factor to consider in knowledge transfer.

However, regarding the last issue an article “Cultural awareness in knowledge transfer to China – The role of guanxi and mianz” (Buckley et al., 2006) is relevant indeed but focused on China. It is also stressed by Kalling & Styhre (2003) that it is important for researchers to do detailed empirical studies wherein the context-dependent aspects of knowledge are constituted and employed. The choice to study this subject deeper is influenced by the hot topic of offshore outsourcing to India and the author’s will to contribute with empirical findings to the academic debate around knowledge transfer and offshore outsourcing. The author has also her own experience of offshore outsourcing of R&D activities from a Swedish company to an Indian based consultancy company, which was a long learning experience and therefore the author hope this study will contribute with some information to companies thinking of India as an offshore outsourcing destination.

1.2 Research question and Purpose

The knowledge transfer studied in this thesis is related to offshore outsourcing from a Swedish R&D company to an external consultancy company based in India, and the activities are within the area of dynamically changing software development of complex, communication and knowledge intensive products. As described in the background, knowledge transfer is a vital part of an offshore outsourcing process and cultural awareness might be an important factor to consider as there might be cultural differences in the process.

The research question is formulated as:

- *How do cultural differences affect knowledge transfer in an offshore outsourcing process?*

The purpose with this thesis is to describe the mentioned knowledge transfer in the cross-cultural context, to improve the understanding of the phenomena, and based on the theory framework identify categories relevant for this study, and use these categories to analyse the empirical findings.

1.3 Delimitations

This thesis is limited to two different organisations, referred to as Alpha and Beta, within the same Swedish R&D company which perform offshore outsourcing to the same Indian consultancy company based in India. The focus is mainly from the Swedish R&D company’s perspective. Due to confidentiality, none of the companies will be named in this thesis. This will, however, not affect the research as the subject is not company specific.

The focus is limited to the area of software development, with primarily soft issues such as culture in focus. The activities are maintenance of software which can be categorised as knowledge intensive (KPO). This thesis will deal with risks identified with knowledge
transfer, but not risks such as loss of competence or making core competence visible for others to imitate, and neither will it consider the importance of trust in the relationship.

1.4 Definitions

1.4.1 Outsourcing and Offshore Outsourcing

The definition of outsourcing and offshore outsourcing is not uniform in literature and articles (author’s comment). This follows that it is difficult to know the situation, for example if a company has outsourced business internally (i.e. within the company) or externally (i.e. to another company), and if it has outsourced within the country (i.e. onshore) or abroad (i.e. offshore). A clarifying overview of the definitions by Kling (2006) is visualised in Figure 1, there ’onshore’ means the company’s country of origin and ‘offshore’ means another country. According to these definitions the thesis is handling ’External Offshore’. Another definition used in connection with outsourcing is nearshore, i.e. offshore outsourcing to a country nearby the country of origin (Pinto&Harms, 2005).

<table>
<thead>
<tr>
<th>Modes of Organizing Product Development</th>
<th>Internal</th>
<th>External</th>
</tr>
</thead>
<tbody>
<tr>
<td>Onshore</td>
<td>Internal</td>
<td>External</td>
</tr>
<tr>
<td>Offshore</td>
<td>Internal Offshore</td>
<td>External Offshore</td>
</tr>
</tbody>
</table>

Figure 1. Definitions of outsourcing. (Kling, 2006:65)

1.4.2 Knowledge – Tacit and Explicit

Knowledge can broadly be classified into explicit and tacit knowledge. The difference is based on whether knowledge can or can not be codified and transmitted in a formal, systematic language or representation (Kogut&Zander, 2003). Explicit knowledge is formal and systematic which makes it possible to communicate and distribute (such as reports, databases and manuals). Tacit knowledge is personal and therefore difficult to distribute to other persons. Tacit knowledge, also called “silent knowledge”, is often connected to an activity and to how a person involves to a certain context (Nonaka, 1994).

1.5 Outline of this thesis

In the following chapters, first the used research design is described with introduction and motivation to the chosen research methodology. Next, an overview of India as an offshore outsourcing destination, and further the theoretical framework is defined to give relevant theory for the purpose of this thesis. Then, the results from the empirical case study is presented, and later analysed in relation to the theoretical framework. This thesis is tied together with a conclusion based on the research question and the purpose. A final discussion is completing this thesis and areas for further study are suggested.
2 Research Methodology

This chapter aims at providing an introduction and motivation to the chosen research methodology for this thesis. The research design is described, which makes it possible for someone else to be able to follow and perform a similar research.

2.1 Research design

The choice of research strategy and method for data collection depends on the formulated problem description, purpose and research question (Patel&Davidson, 2003). The intension with this thesis revolves around transfer of complex knowledge in a cross-cultural context, as in an offshore outsourcing situation and investigates how cultural differences might impact the knowledge transfer. Quantitative and qualitative methods are two different approaches how to proceed in research considering research strategy and method for data collection. The methods can be used separately, or be combined (Bryman, 1997). They have different strengths to consider when precede a study. The strength with quantitative data is the possibility to do statistical analyses based on the collected information. The method is, however not suitable for explanations of social processes. The strength with qualitative data and methods are that they show an overall picture for an increased understanding of the social processes and of the context (Holme&Solvang, 1991). According to Bryman (1997) “the most fundamental characteristic in qualitative research is the pronounced will to see or express events, action, norm and values on the basis of the investigated persons own perspective” (Ibid, 1997:77). One disadvantage considered with qualitative method is that the result might not be valid for situations other than the studied context (Holme&Solvang, 1991).

Due to the objective of this study, to not measure any phenomena but to describe a certain context and deeper analyse some categories within the context, and also answer the research question How do cultural differences affect knowledge transfer in an offshore outsourcing process? the author believes a qualitative approach is found best suitable for giving an understanding about the phenomena. When dealing with culture aspects it can be difficult to use a quantitative method because of the complexity to collect measurable data (Bryman, 2002). This study has a descriptive character as it will study and describe development and phenomena in a certain context (Merriam, 1994), and also according to Wallen (1996); “prior knowledge exist within the context, to research existence and prevalence”. The research strategy is described in the next section.

2.2 Qualitative method

2.2.1 Research strategy

This thesis is based on a single case study chosen to reflect relevant experience in the scope of this study. The author considers a case study approach as best suitable to get the empirical data and for evaluation. The application of a case study is according to Merriam (1994:9) “to get deeper insights concerning a certain situation and how the involved persons interpret it”. Case study is also adequate when the questions are of “How” and
"Why" character, when the investigation can not be controlled and the focus is on prevailing events rather than historical ones (Yin, 1994). According to Yin (1994) it is essential to create a theoretical framework in a case study, whether the purpose is to develop or test theory. Theory is not only for defining the research design and data collection, but also to generalize the result of the case study.

The reason for using a single case study in comparison to using a multiple case study is the author’s will to deeper study a certain context, and according to Gustavsson (edit.) (1994) a single case with a rich context can be useful as practise for other in the same situation and be compared with other case studies and theories within the studied area. A multiple case study should also have been on a more superficial level within the given time frame of this study (Ibid; Yin, 1994). The object for the chosen case to study is based on the following criteria:

- The company’s R&D should be focused on software development, not manufacturing.
- The company should be based in Sweden and have an established relation with an external Indian company based in India. Different companies are required to study organisational cultural differences, and different nationalities are required to study national cultural influences, and an established relation is necessary to get an offshore outsourcing situation.
- The company should have been in the business long enough to have established procedures, solid management and an organisational culture.

Several companies were matching these criteria, and one company was chosen. They expressed a positive attitude towards this study and willingness to give access to information as well as respondents to the interviews. The author has previously been employed by the company and also been involved in the studied offshore outsourcing process (2 years ago). According to Holme&Solvang (1991) it can be an advantage for the researcher to be familiar with the context to study; to easier understand the phenomena, the motives behind and the expressed signals by the respondents. It is probably also easier to get access to the respondents. One disadvantage is however the risk of a bias view based on the researcher’s own opinion. The respondents might also be too familiar with the researcher and be aware of the researcher’s opinion and act on that. How this might have affect this study is further discussed regarding reliability in chapter 2.2.5.

2.2.2 The iterative qualitative method

The qualitative method used in this study is visualized in Figure 2, as an iterative process. Data analysis is an on-going process during the whole study (Merriam, 1994) and described in more detail in chapter 2.2.4. As being a major part of this study, data collection is described in a separate section.
2.2.3 Data collection

This study started with searching for and reading literature to increase the pre-understanding and to get a picture of earlier research within the context to describe. After a couple of weeks the author considered a certain level of saturation had been reached and a pattern of relevance regarding the context could be seen and also what could be an area of interest to study further (Yin, 1994). Based on the findings the author described the background, the problem description, defined the purpose and the research question. Also wrote a context description of India, created a theoretical framework and defined questions for the interview guides. This part of the research strategy was however not done only in the beginning of this study but performed iteratively as visualised in Figure 2.

The literature is primarily from scientific articles and books. The database used for collecting the scientific articles was primarily Business Source Premier. It is mainly the articles that have contributed with current information, and well-known authors within respective area have primarily been chosen. Internet has been useful to find “up to date” information for this study, and also information regarding India as a country. Information from several sources on the Internet is used to minimise a bias view. The dominant keywords have been; outsourcing, offshore outsourcing, knowledge transfer, knowledge sharing, India, communication and culture. However, as raised in the introduction, chapter 1, the author misses research within offshore outsourcing in the context of dynamically changing software development, and how cultural awareness can be a factor to consider in the knowledge transfer.

The primary data is collected through seven personal face-to-face interviews, which gave the opportunity to notice the non-verbal communication as well. The focus has been on a few longer interviews with selected respondents. All interviews have been recorded on mp3 and later transcribed to paper, and in this way ensured that the respondents’ answers are

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2 A database with reviewed scientific articles.
their own expressions (Bryman, 2002). A 1 hour interview took typically 8 hours to transcribe. The author has to greatest extent chosen the respondents on her own, as Bryman (2002:312) refers to as “personal contact persons”. The choice has been based on the respondents’ different positions within the companies, their experience from the organisation’s outsourcing process to India as well as good insight into the organisation, see Table 1. The respondents are also selected due to their different experiences and understanding regarding the subject (Yin, 1994). The respondent from organisation Beta is not referred to title due to protecting the person’s integrity as being the only respondent from the organisation (Patel&Davidson, 2003).

<table>
<thead>
<tr>
<th>Company SwedenAB</th>
<th>Supply and outsourcing strategic</th>
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<tbody>
<tr>
<td>Organisation Alpha</td>
<td>Responsible for all SwedenAB’s agreements with suppliers, of which IndiaAB is one.</td>
</tr>
<tr>
<td>Outsourcing manager (former)</td>
<td>Was responsible for the organisation’s offshore outsourcing to IndiaAB.</td>
</tr>
<tr>
<td>Team leader, Sub system responsible, and software designer</td>
<td>The respondent has different roles and responsibilities: team leader for a team of software designers; responsible for a sub system (such as A in Figure 7) and involved in technical and to great extent strategically decision regarding the sub system, and also software designer for new development. Has been to IndiaAB site several times on shorter visits.</td>
</tr>
<tr>
<td>Sub system responsible, software designer</td>
<td>The respondent has different roles and responsibilities: team leader for a team of software designers; responsible for a sub system (such as B in Figure 7) and involved in technical and to great extent strategically decision regarding the sub system, and also software designer for new development. Has been to IndiaAB site 2 months for knowledge transfer within the sub system.</td>
</tr>
<tr>
<td>System manager, technical coordinator</td>
<td>System manager for activities outsourced to IndiaAB, and technical coordinator for different kind of projects there IndiaAB is involved. Been in India for ½ year acting as an interface between SwedenAB and IndiaAB.</td>
</tr>
<tr>
<td>Organisation Beta</td>
<td>Respondent on higher level within the organisation, well informed in their offshore outsourcing process to IndiaAB.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Company IndiaAB</th>
<th>Regional manager</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regional manager</td>
<td>Country manager for Sweden.</td>
</tr>
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</table>

Table 1. The respondents and their positions.

All respondents have been positive regarding being interviewed and prioritised it in spite of tight work schedules. Two of the interviews were performed in English, of which one person understands Swedish. The remaining of the interviews was performed in Swedish. The translation to English might affect the written empirical understanding, but was considered to be limited.

As the purpose of this study is to describe a deeper context, the strategy for the interviews has been what Lantz (1994) describes as the *open targeted* interview. It is characterised by
questions of a rather open character to get a deeper understanding regarding a phenomena, and also at the same time set the direction during the interview to make sure important and critical questions are asked and not forgotten. Another positive aspect felt during the interview was the possibility to ask more about the questions and get further explanations to the respondent’s answer. In order to avoid influencing the respondent with the author’s own interpretation and pre-understanding, open ended questions and unloaded words were used as far as possible. The interviews were between 45 to 100 minutes long, and before each interview the interview guide were sent out to give the respondent the opportunity to be prepared, see Appendices 1 and 2.

The interview guides are in two versions, Swedish and English. The interview questions are based on the theoretical framework and the author’s own pre-understanding regarding the context. As this study has a descriptive character some questions have a rather wide character while others are directly related to the categories defined in the theoretical framework used in the analysis: character of the knowledge, distances between sending and receiving context and mutual understanding, see chapter 4.3. To make sure the respondents felt comfortable with the interview the author started with small talk, presented herself and the purpose of this study. All respondents approved to be recorded, although one raised the issue that the interview will be more formal if being recorded. Some of the interviews were followed up by a deeper discussion concerning some of the answers.

The interview with the respondent at IndiaAB had a more dialogue character, and the respondent was the only one that changed behaviour when the recorder was on. He adopted a more formal behaviour. The author chooses anyhow to continue the recording to better remember the interview.

2.2.4 Data analysis

According to Merriam (1994) data analysis is an on-going process during the whole study, from the beginning to the end as can be viewed in Figure 2. The collected data must be reviewed properly to be able to draw a conclusion as correct as possible and to make an equitable analyze. During the whole study the author has constantly evaluated, and re-evaluated the importance of including certain data in this study. As new insights of importance got raised, data has been added or removed. This is an important part of the data analysis, referred to as data reduction. Data reduction concerns the process of selecting, focusing, simplifying, abstracting and transforming data to a format that enables the desired analysis (Miles&Huberman, 1994). The collected data must be organized to simplify the process to discover the relevant information (Ibid; Merriam, 1994), and to make this study as understandable as possible the author has continuously experimented with different parameters of importance to make the main thread easy to follow and draw conclusions from. This part is referred to as data display.

As mentioned in the data collection (chapter 2.2.3) a theoretical framework is created based on theory the author evaluated as being most relevant for this study. The framework is divided in two main categories; knowledge transfer and culture. Based on those three categories are defined in relation to the purpose, and these will also set the delimitation of this study as being used as conditions when analyzing the empirical data; character of
knowledge, distances between sending and receiving context (organisational, geographical, knowledge, culture) and mutual understanding. The categories are divided according to Merriam (1994) in clear groups that internally are homogeneous and heterogenic in relevance to other categories, to make the dissimilarities between the categories as different as possible. The categorisation will make it easier to do the analysis and the final conclusion (Ibid).

The empirical data is structured accordingly; presentation of the companies, the product’s complexity, initial transfer of knowledge, manage the offshore outsourcing activities and mutual understanding. The structure is mainly based on the design of the interview guide as the author considers that this outline gives a more presentable picture of the phenomena in comparison to following the defined categories in the theoretical framework.

When analyzing the empirical data the pattern-matching logic strategy according to Yin (1994) is used. This strategy is relevant for a case study of descriptive character as long as the predicted pattern of specific variables is defined prior to the data collection, which is the case in this study. By moving iteratively between the empirical data and the theoretical framework the categories are used in the analysis to search for matching data in the empirical data and analysed it in comparison with the theoretical framework (Yin, 1994). In the conclusion the findings are compared with the research question and the purpose (Merriam, 1994).

2.2.5 Conclusion, verification and trustworthiness of this study

The final part of the data analysis is the phase in which conclusions are drawn and the obtained result verified. In qualitative analysis it is from the beginning possible for the researcher to draw general conclusions on the basis of patterns, regularities etc. However, it is still important to be open for interpretations during the whole analysis to get a deeper understanding (Miles&Huberman, 1994). By following the iterative qualitative process the author has iteratively achieved insights into the “final” conclusions of this study.

• **Validity** represents that what should have been investigated is investigated and not something else. It does not matter how good the measurement is if the intended is not measured (Bryman, 2002).
  • Internal validity – concerns to what extent the obtained result conforms to reality (Merriam, 1994).
  • External validity – i.e. generalisation. Regarding to which extent the achieved result is valid outside the experimental situation (Bryman, 1997).

Internal validity is in focus in a case study, whether the researcher has captured the phenomena to study or something else (Gustavsson (edit.), 2004). In a qualitative study the concept comprises the entire research process, and not only related to the data collection but also related to how the researcher can apply and use its pre-understanding during the entire research process, how to interpret the phenomena and communicate the interpretations so other can understand, i.e. write a readable report (Patel&Davidson, 2003).
As the empirical to greatest extent is based on interviews it is of great importance that the respondent is the right person to answer what should be investigated, to reach internal validity. According to Bryman (1997:137) one seldom asks, “if the respondent really has sufficient knowledge to answer a certain question”. As the author to greatest extent has selected the respondents the author considers them as being the right ones. They are all involved in and have long experience of SwedenAB’s and IndiaAB’s offshore outsourcing activities, which can be considered given them an understanding for the phenomena. The author assumes that the respondents answer the questions as accurate as possible, especially as they brought up negative aspects as well, and not only in favour of the organisation’s reputation. Although the respondents have different assignments and expert knowledge the author decided not to have different interview guides for each interview, to not be too dependent on a single respondent but to rely on other respondents to confirm any insight and also to be able to search for contrary evidence (Yin, 1994). To improve the internal validity three of the respondents gave feedback on the transcripts of their interview (Merriam, 1994), and they all agreed to the written context. It should have been interested to interview more respondents, and even other organisations within SwedenAB and other companies for further data collection. Alternatives have not been missing it was rather the time frame for this thesis that set the limit.

External validity is difficult regarding a single case study, and whether the result is valid in other situations than the studied context depends on the case chosen (Patel&Davidson, 2003). The aim of this study is however not to make any generalizations, but to get a deeper insight regarding a certain context and add empirical data to the area of offshore outsourcing of software development of complex, communication and knowledge intensive products to India. Also according to Merriam (1994) a case study approach is also not chosen when generalisation of the result is wanted. The conclusions are to a great extent matching the theoretical framework, which improves the authentication of this study (Yin, 1994), and this follows that at least some of the findings, such as communication difficulties and mutual adaptation of each others culture, can be useful for other organisations in the same situation.

As other people have read the written report and interested discussions been raised, valuable feedback has been received to improve the report and the author has had the opportunity to increase the validity of this study.

- **Reliability** represents that the measurement has been performed correctly, and to what degree the layout of this study has affected the result. It should be possible for other persons to use the same methods under the same conditions (Bryman, 2002). Then a case study hardly ever is similar to one another is it difficult to achieve this (Gustavsson (edit.), 2004). As the two selected organisations both have great experience of offshore outsourcing it has been possible to get a deeper explanation of the phenomena. The result is however based on the author’s interpretation of how the respondents in their turn interpret the phenomena (Bryman, 1997). Furthermore, this does not guarantee that the next person doing exactly the same investigation will achieve the same conclusions, but the possibility increases if the investigation is performed in near time at the same
company with the same research strategy (Yin, 1994). Also, as the empirical findings are based on interviews, and as interviews collect information about a person’s opinions, the reliability is quite difficult to control. Opinions can change depending on, for example, external factors or the person asking questions. The respondent might be influenced of what he thinks the interviewer wants to know, and answer according to that. By being an active listener the author has tried to avoid this situation, and also let the respondent read the interview (Holme&Solvang, 1991).

- **Objectivity** represents that the research is not affected by non-scientific valuations (Wallen, 1996). This is practically difficult to achieve as each researcher in itself is not set to zero when starting the research, but has earlier experience, understanding etc. Also impressions from the world around are obtained. One old set phase is also "that the research will never ever be entire objective and free from preconceived notions" (Bryman, 1997:94). Since the author has gained personal experience of offshore outsourcing and has previously been introduced to understanding and insights regarding the phenomena it is unavoidable that the author is not absolutely objective. The awareness about the issue and the described line of action of the research will increase the objectivity. The researcher’s own experience should however not only be viewed as negative but also follow in deeper understanding of the respondents’ answers and further questions during the interview (Patel&Davidson, 2003). Also as Bryman (1997) express it; the critical reader must raise the question to itself whether the researcher only has chosen parts of the information that supports the researcher’s own understanding and conclusion.

- **Source criticism.** Collected data is not always reliable. Source criticism is used to determine if the source is valid, important for the problem and free of systematic faults (Eriksson&Wiederheim-Paul, 1997). The author has tried to delimit faults by handling literature and primary data as described in the data collection, see chapter 2.2.3.
India as an offshore outsourcing destination

This chapter gives a short overview background to the economical development that has happened in India the last years, the challenges India is facing, and India as an offshore outsourcing destination. The gathered information is from different articles and reports from economical, socio-demographic and offshore outsourcing perspectives.

India, the biggest democracy in the world, has since opened up the economy in year 1991 went towards an even stronger economical development. This in combination with its large population of around 1 milliard people has made it attractive for foreign companies to establish on the Indian market. India has also become the most popular country for companies to offshore activities of primary telemarketing, simpler software development, standardised business processes and IT services (Deloitte Research Report, 2004; DiamondCluster, 2006). These activities are mentioned as ITO (Information Technology Outsourcing) and BPO (Business Process Outsourcing), and will in year 2008 constitute of approximately 7% of India’s GDP (Forbes, 2008). India has become an important back-office destination due to the low wages, the English language and the resource pool of engineers. Several articles bring up the stronger competition India is facing from other countries in Asia, South America, South Africa, Eastern Europe, Europe and Canada. More and more companies are outsourcing and even if low cost is still a driving force companies start to look more on other factors such as multi language, geographical and cultural similarity, quality and possible expansion by outsourcing activities higher up in the value chain (OutsourcingJournal-b, 2005; DiamondCluster, 2006).

However, India has some challenges until reaching the higher level. In a report written 2003 by The Boston Consulting Group and All India Management Associations several parameters are identified for action to boost India’s services: develop domain expertise in specific areas; increase base of skilled professionals by reforming the education and training sector; strength connectivity infrastructure such as telecom, IT, airports; form interest groups around opportunities. India must also improve the actions from planning to implementation, “moving from compliance to commitment”, and also move faster from the present image of being low-cost to be strong on other important dimensions of customer satisfaction such as quality and innovation (BCG&AIMA, 2003).

The majority of the skilled resource pool is based in the biggest cities, such as Bangalore, Mumbai and Hyderabad, there offshore outsourcing increased around year 2000. Bangalore had in year 1998 680 IT-companies, and in year 2005 1584 companies of which 622 were multinational corporations. The lucrative market for engineers has caused wage inflation, and especially the international companies have helped to boost the wages. This has also caused an increased attrition rate. Based on this scenario companies are targeting smaller cities such as Chandigarh, Coimbatore and Jaipur were the wages are lower. The companies found, however, that the resource pool is not that skilled (IndiaDaily, 2005; AsiaTimes, 2005; Kripalani, 2005; OutsourcingJournal-a, 2005). The education in India is not considered as matching the requested quality and skills on the work force. The elite universities, such as Indian Institute of Technology (IIT) and National Institute of
Technology (NIT), rival several universities around the world, and the competition is tough to enter these. Less than 100,000 are graduated each year. The rest of the 14 million people who finish high school each year have to apply to low-level universities and vocational training school, which have not adapted to the requirements of India’s changing economy. “India has a vast and young talent pool. The main challenge is to develop and shape the talent” (Kripalani, 2005).

Figure 3. Map over India (SwedishTrade).

In year 2005 McKinsey Global Institute researched the emerging global labour market. It turned out that although the potential supply of talent in low-wage countries is large and growing rapidly, only a fraction was considered as suitable to successfully work at a multinational company. The reasons were: lack of necessary language skills; the low quality of significant portions of the educational system and its limited ability to impart practical skills; and the lack of cultural fit. Lack of cultural fit can be seen in interpersonal skills and attitudes towards teamwork and flexible working hours. Only 25% of the Indian engineers were considered as suitable, to be compared with 50% of engineers in Hungary or Poland. In India the overall quality of the educational system, apart from the top universities, could improve significantly. Practical skills could for example improve when universities coordinate closely with domestic and multinational companies, and study and work abroad programs can help students to gain international experience. The message is that countries that want to play a role on the emerging global labour market should concentrate on improving the quality of their talent, not just the quantity of educated workers (McKinsey Global Institute, 2005).

Activities to outsource become more complex and considered as higher value-added services, such as software development and IT-consultation. These are high-margin business for the outsourcing vendors, who have recognized the need for closer, personal, day-to-day relationship with major customers, and therefore open offices and development centres around the world (King, 2005; OutsourcingJournal-a, 2005). The Indian
outsourcing vendors have been quick to certificate its business with CMMI\(^3\) and other certificates, and several companies have reached the highest level of CMMI5 (Computerworld, 2004; Pfannenstein \textit{et al}, 2004). India’s success within the IT-industry has not reached the society to the same extent. Most tasks are handled manually within for example hospitals and airports, and the infrastructure needs to be extended. India is placed as number 51 of 53 in the Information Society Index, handled by Internal Data Corporation, based on four parameters: Computer, Telecom, Internet, and Social. In comparison with some other countries the rank for Romania (48), Philippines (49), China (44) and Hungary (28) is higher. Vietnam (52) and Indonesia (53) is ranked lower. Sweden is ranked as number two. Denmark is number one (IDC, 2004).

\(^3\) CMMI – Capability Maturity Model Integration is a process improvement approach that provides organisations with essential elements of effective processes.
4 Theoretical Framework

This chapter contributes to pre-understanding of the subject and describes theories related to the research question and the purpose. The theory will later be used in the analysis of the empirical study. The chapter is divided in two parts; in the first part knowledge transfer is described and in the second part additional theory of culture is described.

4.1 Knowledge Transfer

4.1.1 Knowledge

The definition of knowledge is wide in literature and for this thesis Davenport’s & Prusak’s (1998:5) definition is found best suitable:

Knowledge is a fluid mix of framed experience, values, contextual information, and expert insight that provides a framework for evaluating and incorporating new experiences and information. It originates and is applied in the minds of the knowers. In organisations, it often becomes embedded not only in documents or repositories but also in organisational routines, processes, practices, and norms.

Additionally, according to Kalling & Styhre (2003), knowledge is emerged when information is placed in a particular context, and is often associated with a specific person as people’s thoughts and actions are influenced by their values and beliefs. Therefore, individuals with different values and beliefs can see different things in the same situation and organise their knowledge by their values (Davenport & Prusak, 1998).

Knowledge is generally classified into two categories; explicit and tacit knowledge. Their difference is based on whether knowledge can or cannot be codified and transmitted in a formal, systematic language or representation (Kogut & Zander, 2003). “Explicit knowledge can be expressed in words, data, numbers and languages. It can be codified into documents and databases, and shared among individuals relatively easily. It can be used to facilitate the transfer and exchange of explicit or codified knowledge. In contrast, tacit knowledge is personal, context-specific and hard to formalize and to communicate among people. It encompasses two dimensions: cognitive elements, including personal beliefs, values and mental models, and technical elements including skills and know-how. Tacit knowledge often involves activities at individual, group and organisational levels which are often invisible to outsiders of a particular organisational context.” (Assimakopoulos & Yan, 2006:98; Nonaka, 1994).

Tacit knowledge is often connected to an activity and to how a person involves to a certain context (Nonaka, 1994). It is for example difficult for an experienced software designer to explain an action in detail, such as in which order all tasks should be performed, as some knowledge is taken for granted and therefore the designer does not think of explaining everything. As according to Polanyi (1966, in Nonaka 1994); “We can know more than we

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4 The distinction between knowledge and skills is that knowledge is to know what, and skills are to know how. Both consist of explicit and tacit knowledge, and it is in the interaction between them new ideas and concepts will be created (Nonaka, 1994).
can tell”. In practise it might be difficult to know which knowledge that is fully embedded in a process and the tacit, human knowledge that keeps the process going (Davenport&Prusak, 1998).

4.1.2 Knowledge sharing

Knowledge sharing is the process of transferring and disseminating knowledge from one part to another. In day-to-day work, the strategic capability of knowledge sharing is taking place in a multiplicity of different activities within an organisation, such as in meetings, shop-floor and corridor discussions, joint work and they are all aimed at sharing know-how, an insight or an idea. However, even though the idea of knowledge sharing is simple, sharing of knowledge in organisations is not trivial and when sharing knowledge to another company even other aspects will make it more difficult. Knowledge sharing will for example always take place within social communities and can never be fully understood outside of such social relationships (Kalling&Styhre, 2003).

In an organisation, tacit knowledge is embedded not only in individual brains but also organisational routines, cultures and contexts and therefore transfer of tacit and embedded knowledge is often impossible in the absence of the individual employees who possess it, and of the organisational routines and systems (Castro&Neira, 2005). One way to accumulate tacit knowledge is from time-consuming practise and problem-solving experience in a particular context, i.e. learning by doing (Assimakopoulos&Yan, 2006). Also Nonaka&Takeuchi (1995:61-69) accentuate the importance of learning by doing and highlight the value of on-the-job training, “apprentice work with their masters and learn craftsmanship not through language but through observation, imitation and practice.”

Transfer of explicit knowledge does not necessarily require personal contact among the employees of the two companies, and it is sufficient to communicate by, for example, computer conversations, exchange of technical manuals or other kinds of written medium (Castro&Neira, 2005). Davenport&Prusak (1998) stress also the importance that the knowledge transfer methods should suit the organisational and national culture. In Japan for example, as in comparison with USA, face-to-face meeting is far more common than using electronically contact system.

4.1.3 Knowledge transfer model

The objective of any knowledge transfer project is to transfer source knowledge successfully to a recipient. That is however easier said than done. The reason why transfer of technology is so problematic across boarders is because the knowledge of the company is also nested within wider society, related to bounded rationality, politics, power, norms, values, language, attributes, beliefs, and the qualities and preferences of the people involved on either side of a transfer situation (Kalling&Styhre, 2003).

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5 Technology transfer is according to Sunaoshi et al (2005:60), “the transfer of organization-specific embodied knowledge assets such as technology, operating procedures, and the organizational structure.”
It is therefore important to consider certain aspects and in Figure 4 the author has drawn a model based on three broader contexts within the transfer takes place; knowledge context, relational context and recipient context.

![Own model of knowledge transfer](image)

**Figure 4. Own model of knowledge transfer**, partly based on model in Cummings&Teng (2003:40).

**Knowledge context**
As mentioned in previous sections the character of knowledge is an important factor in knowledge transfer; the transferred knowledge’s articulability (i.e. the extent to which knowledge can be verbalized, drawn or otherwise articulated) and embeddedness (i.e. knowledge can be embedded in people, tools, routines and related sub networks among these elements). Knowledge transfer success requires that both source and recipient develop an understanding of where the desired knowledge resides within the source, and that they both participate in the processes by which the knowledge is made accessible (Cummings&Teng, 2003).

When knowledge is costly to acquire, transfer and use in a new location, Szulanski (1996) considers the knowledge as “sticky” and has raised three factors as major barriers to knowledge transfer. Casual ambiguity of the knowledge itself is one of them and is denoting the inability to map relationship between a capability and a performance outcome, and is thus an effect of the characteristic of the knowledge.

**Relational context**
Several knowledge transfer barriers have been defined across-functional, geographical and organisational levels; and regarding the relational context Cummings&Teng (2003) use the following in their study: organisational distance, geographical distance, knowledge distance and cultural distance. These are also by the author considered as relevant in this study.

**Organisational distance** is based on the organisational mode through the source and recipient transfer knowledge, and is related to differences in business practice and institutional heritage. The distance is smallest within intra-firm relationships, and largest between independent firms. The strength of social ties, free-flow of communication,

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6 Distances refer to different relational distances between Source and Recipient.
consistency in administrative controls, and level of trust between source and recipient is
greater when the organisational distance is small (Ibid; Kalling&Styhre, 2003). The second
factor Szulanski (1996) raised as a major barrier to knowledge transfer is relationship
arduous which is an effect of the organisational context. A knowledge transfer, and
especially when consisting of tacit components, may require several individual exchanges.
The success of these exchanges depends to some extent on the ease of communication and
the intimacy of the overall relationship between the source unit and the recipient unit, i.e.
then it is a lack of intimacy the relationship is referred to as arduous (Ibid).

*Geographical distance* refers to the difficulty, time requirement and expense of
communicating and getting face-to-face. In the knowledge transfer frequent
communications, on-site meetings and partner visits are necessary (Collins&Hitt, 2006;
Castro&Neira, 2005), and case studies have shown that face-to-face is the far most efficient
tool for knowledge transfer (Davenport&Prusak, 1998). In order to develop R&D
capability the parties need also to go through iterations of doing and learning, and such
intense interactions demand a close proximity (Cummings&Teng, 2003).

*Knowledge distance* is the degree to which the source and recipient possess similar
knowledge. In case of R&D knowledge transfer, the context of the source and the recipient
can be quite different and learning would be more problematic. In several studies it has
been recognized that shared interpretation of knowledge is essential for collaboration
(Ibid). The people responsible for encoding and decoding the knowledge must therefore
have similar background or operate in similar environment as misunderstanding otherwise
will arise because the implicit assumptions of the decoder will differ from those of the
encoder. Misunderstanding can only be avoided by additional spending on checking. If
companies differ in their codes by which information is transferred, it follows reasonably
that they should differ in their capabilities to understand and apply the knowledge
(Kogut&Zander, 1991). If the knowledge distance is too significant, i.e. too many learning
steps are required, the recipient may be unable to identify the learning steps from its
present knowledge level (Cummings&Teng, 2003).

*Cultural distance* is differences in the view of collaboration, and positively associated with
causal ambiguity (Kalling&Styhre, 2003). It is the degree to which knowledge transfer
parties share the same organisational culture and norm and value systems. Early research
on technology transfer has shown that differences in work values and organisational
cultures can significant impair knowledge transfers. Common norms not only provide
predictability and understanding between the parties, but also ensure that a common
approach will be adopted in the transfer process. As such, knowledge is embedded in
cultures and routines and team members draw on their experience with prior routines when
facing new knowledge. Significant disagreement or mistakes between the parties can
indicate that the new knowledge is not being accepted or internalized (Cummings&Teng,
2003). Similarity in cultures of the sending and receiving companies are believed to favour
transfer of tacit and embedded knowledge (Castro&Neira, 2005).
Recipient context
Research has identified several aspects of the recipient context as important to knowledge transfer. The third major barrier to knowledge transfer defined by Szulanski (1996) is lack of absorptive capacity of the recipient. Absorptive capacity is defined as the ability of a recipient to recognize the value of new information, assimilate it with existing knowledge, and apply it to create new capabilities and also the willingness to unlearn to absorb the new knowledge (ibid).

Many researchers have emphasized the need for a culture of learning in an organisation to facilitate organisational learning in general and knowledge transfer specifically. Extensive set of routines and learning competence designed to retain and nurture transferred knowledge may archive greater knowledge transfer (Cummings&Teng, 2003).

4.1.4 Common language and Communication
Another major factor, and as several researches have shown, a common language of the participants is essential in any successful knowledge transfer project. Without it, individuals will neither understand nor trust each other. Effective knowledge transfer is far easier when participants speak the same or a similar language. By language is meant not only “english”, but also “software engineer” context (Davenport&Prusak, 1998; Buckely et al, 2005).

Organisations entering into an inter-organisational relationship have to build a level of mutual understanding, and communication between organisations is a critical factor on enabling sharing partnerships (Sahlin-Andersson & Söderholm, 2002). When establishing a partnership the process of knowledge transfer requires well functional communication between both sender and receiver. However, communication differs on verbal or non-verbal levels, whether it is an intended message, an unintended behaviour, or subconscious behaviour. The sender is both the medium and a message of communication and the way in which one communicates is influenced by our cultural conditioning. The communicator, whether as an individual from a cultural group or as a member of an organisation, exhibits or transmits many kinds of behaviour (Harris&Moran, 1996).

In this study the author has decided to use the Channel-Ratio Model of Intercultural Communication to visualise the complexity of communication, see Figure 5. From now on the model is referred to as the Channel-Ratio model. The communication model is compact and rather compound, specifying the implicit and tacit message which may be sent (Haworth&Savage, 1989). This is a follow up of Shannon and Weaver’s model of communication (1949), also called “Mathematical Theory of communication”, and with the main components for determines the effectiveness of communication attempts: the source, or sender (S), the message (M), the channel (C), and the receiver (R). The Channel-Ration model has also its heritage from David Barlo (1960, in Haworth&Savage, 1989) who, using a psychological perspective recognised that interpersonal communication was complex, mutually interactive and often a subtle process between human beings (Haworth&Savage, 1989). The different parts of the Channel-Ratio model are described as follows.
Figure 5. Channel-Ratio Model of Intercultural Communication (Haworth & Savage, 1989:236).

Sender
The model shows the sender’s coded message, or part of it, in a channel. Senders encode messages verbally or nonverbally using their choice of channels to receivers who decode them. Senders affect the communication process because, among other things, they have different communication skills, come from different cultures, and have different attitudes toward receivers (Kikoski, 1993).

Receiver
Receivers affect the communication process because they have prior information about or attitudes towards senders, different skills, knowledge, social and cultural system. As used in the context “appréhended” means the message is received, interpreted, and assimilated by the receiver. When the message is apprehended in this sense, it influences the receiver’s behaviour. An inferred message is more difficult to apprehend due to the invisible embedded information and the assumptions (Haworth & Savage, 1989).

Channel and Message
Message and channels influence the communication process because senders choose how to encode and send the message (Kikoski, 1993). The message in the channel contains an explicit and an implicit (tacit) component which is shown by the division of the channel. On the receiver’s side, the channel is divided to show one part as implicit message inferred and the other part as explicit message apprehended by the receiver (Haworth & Savage, 1989).
The Phenomenal Field
The phenomenal field is the ongoing combination of conscious and unconscious influences on the individual’s communication behaviour; it provides the broader context for inferring meaning. The field is influenced by the individual’s culturally trained perception of the subject or activity, the situation, and one’s status in the social system (Hall, 1976). Therefore, the influence of culture is a major factor in this model (Haworth & Savage, 1989).

Intersection area
The model shows an overlap between the phenomenal fields of the sender and receiver. This overlap area (intersection area) is intended to show the amount of knowledge common to both sender and receiver (Ibid).

The Channel-Ration model of intercultural communication reinforces the application of the concept of high- and low context cultures (further described in chapter 4.2.4). In a cross-cultural context the model allows for cultural and personal differences in communication behavior. The model may suggest potential problem areas as well as specific behavior which may influence the transfer.

4.2 Culture

4.2.1 Introduction
Values, norms and behaviour that make up a company’s culture are according to Davenport & Prusak (1998) the principal determinants of how successfully important knowledge is transferred, and in an offshore outsourcing situation there are more for a company than just responding to the activities around the transfer itself. The company will also work with partners who possess other models of engagement, technical and professional perspectives, and national cultures. When problems arise it is difficult to know the reason; if the partner failed to deliver on a promise or if national differences in work ethic or a misunderstanding of what a delivery date means. By getting a better understanding why people from different backgrounds act as they do, we can improve how they relate to each other. By focusing on what works in one environment and not in another, we can improve our own cultural intelligence (Early & Mosakowski, 2004). Having a sense of culture and its related skills are unique human attributes, and culture is fundamentally a group-solving tool for coping in a particular environment (Harris & Moran, 1996).

Culture reflects the programming of people about the world around them, “Software of the mind” according to Hofstede (2005). The essence of culture is not what is visible on the surface, but the shared way groups of people understand and interpret the world. These differing interpretations cultures gives to their environment are crucial influence on interactions between people working and managing across cultures. Culture is difficult to measure and to discuss as it involves shared ways of perceiving the world that members of a group take for granted. Culture is learned, and can be considered only relative to other cultures. Although there are different levels of cultural programming, national culture gives
people their basic assumptions and values; their ways of viewing the world. Other levels of programming are more about practises or ways of doing things (Hoecklin, 1995).

The culture in an organisation is dependent on and regulated by larger cultural processes in the surrounding environment. Every organisation shows different aspects of national, regional, industrial, work related and professional cultures that the organisation works through and within. The most obvious source of external influence on the organisational culture is however found within the organisation itself; the personnel as they already are influenced by different cultural institutions such as family, society, nation, state, church, education system and other work related organisations (Hatch, 1997).

According to an investigation Adler (1986) did on some different multinational companies the national culture is stronger than the organisational culture. If a person gets in conflict between the two cultures it acts from the national culture. Working with people whose values, language and custom are different from your own can make for costly misunderstandings and business failures. If the cultural differences are managed, differences in culture can lead to innovative business practices, faster and better learning within the organisation, and sustainable sources of competitive advantage (Hoecklin, 1995; Harris&Moran, 1996). In order to improve cultural awareness in the context of this study the author will apply Hofstede’s studies on national cultures, Fang’s critic to the bi-polar paradigm of national cultures and Hall’s theory of high- and low context language to the theoretical framework.

4.2.2 Hofstede’s cultural dimensions – Cross cultural awareness

Hofstede (2005) did an extensive research covering different national cultures and found highly significant differences in behaviours and attitudes of employees and managers. The research provides an important view when considering the effects of cultural differences on managing cultural differences; understanding how different cultures think of organisations, the mechanisms most suitable to control and coordinate the activities within it, and the roles and relations of its members. He found that the national culture explained more of the differences in work-related values and attitudes than parameters such as position and profession.

Hofstede identified five different culture dimensions: power distance, uncertainty avoidance, individualism/collectivism, masculinity/femininity, and long- and short-term oriented. According to the purpose of this study the author considers power distance, uncertainty avoidance and individualism/collectivism as most relevant as they are related to how different cultures think of organisation and make use of knowledge. According to the dimensions a comparable investigation between Sweden and India is as in Figure 6.

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7 Originally they were four. Long- and short-term oriented was added in a later study, relating to oriental values and the Confucian influence in Asia (Hofstede, 2005).
• Power distance (PDI) is to which extent the employees accept that their boss has more power than themselves, and to which extent they accept that their boss’s opinions and decisions are right because he or she is the boss. India has a higher power distance index compared to Sweden, 77 to 31 points, which follows that the subordinates has more respect and distance to their superiors. This can be expressed in a way that an individual is afraid of saying its own opinion, and also expect to be told what to do. In comparison individuals in Sweden are encouraged to take their own initiatives (Hofstede, 2005).

• Uncertainty avoidance (UAI) is to which extent people feel threatened by and try to avoid ambiguous situations. There is also a need of formal rules. This dimension has the smallest difference between Sweden and India, 29 to 40 points. In Sweden changes are faster accepted and adapted, and situations with uncertainty and several alternatives are accepted. In India law, rules and controls are to a higher extent used to reduce uncertainty (Ibid).

As the two dimensions, PDI and UAI are relevant when asking "who has the power to decide what?" and "what rules or procedures will be followed to attain the desired ends?" they influence how different cultures think of organisations. Employees in cultures with a high power distance index and low uncertainty avoidance (India) think of their organisations as families, and the head of the family, in exchange of unwavering loyalty, is expected to protect family members physically and economically. Control and coordination consists of standardised work procedures with the contents of work specified. In cultures with low power distance index and low uncertainty avoidance (Sweden) the organisational model is viewed as a village market. The employees are not comfortable with strict and formal rules or with what would be perceived as unnecessary layers of hierarchy. Control and coordination tends to take place through mutual adjustment of people through informal communication, and by specifying the desired results (Hoeklin, 1994).

• Individualism (IDV) is to which extent individual or collective performances and relations are encouraged. An individualistic society brings up the individual to be independent of others with the right to have a life of their own, and to have their own opinions. In a collectivistic society the interest of the group is more important. Sweden, as most developed countries, is more

individualistic than India, 71 to 48 points (Ibid). In a collectivistic society personal relations are more important than the task, and should be established first. In individualistic societies the task is more important than personal relations (Hofstede, 2005).

Communication in collective cultures tends to primarily be within the group, whereas in individualistic cultures people communicate more easily both within and across organisational boundaries (Batt&Purchase, 2004).

4.2.3 Critics of Hofstede – Cultural learning and interaction

Hofstede’s research is well recognised but also criticised. Hofstede’s contribution to cultural knowledge can be seen as a snapshot, a static picture of a certain moment. Due to globalisation and the influence of other cultures that follows national culture should rather be seen as changing dynamically. Tony Fang (2006) brings up the issue in his article “From “Onion” to “Ocean” – Paradox and Change in National Cultures”. Fang criticise the bipolar paradigm of analysing national cultures that has been dominated within international cross-cultural management. A national culture that has strong tendency to be ‘individualistic’ can not be excluded to have the tendency to be ‘collectivistic’. Sweden is as an example classified as being an individualistic country that also stress on collectivistic values such as “sameness and consensus seeking in social interaction” (Ibid:8). With the metaphor of an Ocean Fang (Ibid:3&10) “sees each national culture as having a life of its own full of dynamics and paradoxes” and that “national cultures are living organisms, not time-free fossils“.

4.2.4 Communication – The silent language and multiple hidden dimensions

Hall (1976), an American anthropologist stresses the importance of recognising and accepting multiple hidden dimensions of unconscious culture which every culture has its own unique form of. Hall introduced the concept high- and low context language which is to the extent the context must be known to be able to understand the spoken word. Asian, Arabs and Latins are examples of high context cultures, while northern European, North Americans and Australians are examples of low context cultures.

A high-context language is implicit, and the message is either in the physical context or internalised in the person. Only minimal information is directly stated in the message. It is therefore up to the receiver to understand the message. This follows that when a person from a high-context culture speak the person expect a lot from the listener. When for example having a problem the person will talk around and around the point, and almost put all pieces together expect for the crucial one. It is up to the listener to add the last piece. In contrast, a low-context language is explicit, and the sender must therefore add as much information as possible in the message. It is therefore the sender’s responsibility that the listener will understand the message (Ibid).

4.3 Conclusion of the Theoretical framework

Based on the theoretical framework three categories have been identified to use as conditions for the further analysis. The reason for choosing these is their distinct
importance regarding knowledge transfer in an offshore outsourcing situation. The categories are summarised as follows:

**Character of knowledge**
The first category; character of knowledge is probably the most important category as it defines how the knowledge transfer needs to be performed, and the expected prerequisites on the source and recipient side such as previous knowledge and experience of the activities. The category is rather wide and consists of theories related to knowledge, source context and recipient context, see chapter 4.1.

**Distances between sending and receiving context**
The second category, distances between sending and receiving context, consists of the four sub categories *organisational*, *geographical*, *knowledge* and *cultural* as categorised in chapter 4.1.3. In a knowledge transfer situation these sub categories may have different values of importance, depending of the distance between source and recipient: organisational mode, geographical distance, different prior requirements regarding knowledge and cultural differences. Theories are used from chapters 4.1 and 4.2.

**Mutual understanding**
The third category, mutual understanding is important as it consists of the foundation for how partners can relate to each other and give value to the knowledge transfer and to the whole offshore outsourcing process. Theories are mainly from the culture chapter 4.2.

The three categories may have different values of importance in a specific knowledge transfer situation.
5 Empirical Study

In this chapter the outcome of the qualitative case study is presented. The structure is accordingly; presentation of the companies and the product, a process description of the initial transfer of the knowledge itself, and finally two chapters focusing on managing the activities and cultural issues.

5.1 Introduction

The case study is based on interviews from two organisations within the Swedish R&D company and the Indian consultancy company. The two companies will remain anonymous and from this point on referred to as SwedenAB and IndiaAB, and the two organisations within SwedenAB referred to as Alpha and Beta. Two different interview guides have been used; Appendices 1 and 2, and a brief presentation of the seven respondents is found in Table 1, chapter 2.2.3.

As this thesis is of descriptive character the interview guides are rather extensive and consists of several more or less open background questions regarding offshore outsourcing, complexity of the product, co-operation between the companies, India, culture etc. The purpose is to get a wider and deeper understanding of the activities and issues concerning knowledge transfer, in order to do the analysis based on the categories defined in the framework and from there draw conclusions.

5.2 Presentation of the companies

5.2.1 The Swedish R&D company - SwedenAB

The company is one of the biggest in Sweden, and within its branch one of the biggest in the world. The transfer to India has been performed in different phases, depending on macro economical situations. It started around year 2000 as it was difficult to find resources in Sweden, due to the “over heated” labour market. There were primarily two countries in focus; India and China. They had low wages and were better at marketing in comparison to countries in Eastern Europe. Russia was considered as being unstable at that time. China was not chosen due to uncertainties regarding the Intelligence Property Rights (IPR). SwedenAB visited a couple of companies in India, and primarily two consultancy companies were chosen and some activities were transferred to India.

During the year 2001 the business climate became tougher in Sweden. Transfer to India was on hold during that time, and started again in year 2004. The focus was to keep low cost and free the company’s own resources from working with maintenance to develop new functionality and new products. SwedenAB see it as a big competitive advantage to be on the growing Indian market. It is also a requirement from customers and the Indian government that the company can create work opportunities in India.

Two R&D organisations, Alpha and Beta have been included in this study. A person from higher strategic level has been interviewed as well to get a high-level overview perspective. Alpha and Beta have outsourced activities to the same Indian consultancy company,
IndiaAB, and the businesses are in the same building in India. Alpha and Beta started with the offshore outsourcing at different times; Alpha mainly in the year 2005 and Beta around the year 2000. Beta’s product was developed some ten years ago or so, and is considered as one of SwedenAB’s most profitable. The product is considered to be a mature product in the decline phase with relative good documentation and work processes. Alpha’s product started to be developed around 11 years ago, and should be considered as a mature product at this time. However, the requirements on the product have all the time been rather high, and documents and work processes have not been developed at the same speed. The reason for including two organisations in this study is due to their similarities regarding product development and therefore two different views on the same subject can be obtained regarding knowledge transfer in the offshore outsourcing process.

Both Alpha’s and Beta’s outsourced activities are closely related to the core competence that gives the activities an important weight in the business and requires a close and good co-operation between the partners. SwedenAB consider their core competence to be development of new products, project management, product responsibility and long-term strategy for product and organisation. The opinion is that they should not deal with activities not belonging to the core competence. SwedenAB keeps product ownership and development of new products and the product is outsourced when it has reached a mature level. The activities that are outsourced are primarily maintenance and further development of the product, including integration and verification. To a minor extent development of new products has been outsourced. Projects and products are for both organisations managed from Sweden.

5.2.2 The Indian consultancy company - IndiaAB
IndiaAB is a part of one of India’s biggest companies, and was founded 1968. From the beginning the focus was on the Indian home market, and it has now shifted towards the global market. The company has established offices in for example Sweden, Great Britain, Canada, China, South America, Hungary and Luxemburg, with both local employees and Indian consultants. IndiaAB considers their establishment abroad an advantage since it brings the company closer to its customers, both regarding communication and local knowledge in language and culture. According to the Regional manager, a Swedish company turns to India for outsourcing when high focus on cost efficiency. Hungary is as an example not as cost efficient, but has other advantages such as closer in distance, part of EU, and has in comparison with India a culture that is closer to the Swedish. The respondent continues that IndiaAB notices more and more that when a company is choosing a partner, cost is no longer the primary driver as it was some years back. Companies are now also looking into certain domains, such as the skills the partner bring forward, experience of working in multiple projects, business solutions, process maturities, productivity, tools etc all those things are put together and evaluated.

9 According to Quinn (1999) and Prahalad&Hamel (1990), the core competence does not consist of a product or something a company does very well. It is the collective learning in the organisation, and especially how to coordinate production skills and technology. The coordination requires communication, involvement, commitment to work across boundaries and levels, and this is one of the reasons why core competence is difficult to imitate.
5.3 The product’s complexity

Alpha’s and Beta’s products are basically developed in similar ways, and the following general description is valid for both products and organisations. The product consists of different parts, i.e. sub systems referred to as A, B, C and D, visualised in Figure 7. These are developed to handle different tasks, such as internal communication and operation and maintenance of the product. On top of the product other products developed by SwedenAB can be integrated to extend the functionality, and above these a customer can integrate other products for further development of a specific product. The different users of Alpha’s and Beta’s products are raising requirements on new and updated functionality, and are also reporting errors (i.e. trouble reports) on the product. A reported error is expecting to be answered within a certain time, and depending of severity a correction delivered as soon as possible.

![Figure 7. Schematic picture of the product (own model).](image)

As described, Alpha’s/Beta’s product consists of an integrated structure with internal complex dependencies between the different parts, i.e. when developing functionality several parts in the system are co-operating. Knowledge needed to understand the product is general knowledge in computer science such as programming language, domain specific knowledge such as real time system, and company-specific product knowledge and also knowledge using different software tools.

Both Alpha’s and Beta’s organisations are basically organised into sections following the structure of the product. Each section (i.e. sub system) is responsible for development of new functionality and maintenance of their part of the system, and extensive co-operation and communication is therefore needed between the sub systems due to the internal dependencies. A reported error can for example be spread out over several sub systems, and in that case co-operation is required to solve the problem, both internally within the organisation, within SwedenAB and sometimes also together with the customer. Knowledge regarding the organisation’s work processes is therefore also required, and all parameters regarding the product and work processes are not as predictable as in
standardised activities, as reflected by the respondents. These issues and the internal dependencies between the sub systems raise the respondents as implications to make outsourcing of the product a difficult task.

The product is not suitable for outsourcing. […] If the products had been designed in a modular way, like separate island, it should have been easier to outsource. (Respondent at Beta, SwedenAB)

5.4 Initial transfer of knowledge

When a new assignment is about to be transferred to India a transfer period starts. An assignment can for example involve a product or part of a product. There is a demand that the transfer period should be as short as possible, approximately 4-6 months, as it is a question of cost and an important deal in the contract. Indian consultants are coming to Sweden for the knowledge transfer. In brief, each consultant has got a dedicated task, such as being a software designer within a specific functional area or performing verification of the product. In the beginning of the knowledge transfer they study documentation and participate in internal presentations regarding the product and especially related to their dedicated functional area within at least one Swedish designer act as a mentor. The experience increases gradually by starting with easier tasks, such as analysing a trouble report defined as being non-complicated, and the goal is to later handle all trouble reports within the dedicated functional area. The mentor check the analysis of each trouble report, and if the error needs to be corrected the Indian consultant performs the correction in the code (product), with support from the mentor. Until the experience increases some faults are to be accepted. However, to really learn the product and the system it is a part of, it takes longer than just some months, rather some years and Swedish designers are involved for a longer time than just the transfer period. All respondents at Sweden raise the issue of a transfer period as being far to short, due to the structure of the products with complex internal dependencies and unpredictable situations as is within software development. Also as will be described further, knowledge transfer is not only the transfer of knowledge related to the product itself but also the organisations’ way of working etc. Being in Sweden the transfer works quite well, the problem starts after the transfer to India. This issue will be brought up later in the empirical.

After the assignment has been transferred to India the Indian consultants themselves perform knowledge transfer internally. Sweden designers are also occasionally going down to India for further knowledge transfer. The internal knowledge transfer depends however on the knowledge level within the group, and in the best case it is as according to one respondent at Alpha.

We don’t have to be a part of the training; we just acknowledge a new name in our organisation. (Sub system responsible at Alpha, SwedenAB)

5.4.1 Getting resources

The transfer time depends also on previous knowledge and experience of the recipients, and to get a resource at the Indian market with experience of products similar to Alpha and Beta is almost impossible as the products are company and domain specific; their software, systems and work processes. The respondent at Beta says Indian consultants in general lack
specific domain knowledge but are software designers in general. According to the technical coordinator at Alpha an Indian consultant therefore needs to be considered as a graduated, especially if they are new to a SwedenAB organisation. Experience from another company or other parts of IndiaAB are usually not of so much value. One of the biggest values when a consultant already has been in a SwedenAB organisation is the understanding of expectations, not just regarding technical issues but also regarding cultural adaptation and communication, such as raising problems. They understand what we say, when we have this project to do this and then they know what we say and are more realistic about what they offer. Not just in a technical way, also in cultural adaptation and communication. 

(Industrial coordinator at Alpha, SwedenAB)

It is, however, not only difficult to get resources with experience of Alpha and Beta products; it is difficult to get experienced people at all as raised by the respondents at SwedenAB. Alpha is very active in selecting the needed resources as they have been dissatisfied with earlier resources and has raised the requirements. The reason behind the difficulty to find experienced resources is expressed by one of the respondents as changes in the expectations and the tougher competition in India. The competition today regarding software designers and engineers is much tougher compared with seven years ago and especially if they are skilled.

Before it was easier to recruit experienced people, we were able to pick the kind of cream, now is it so popular, we are competing with everyone else. The market is so competitive there for designers and engineers, and this is important to understand before you get into this. If you have a good software designer that person is likely difficult to keep.  

(Industrial coordinator at Alpha, SwedenAB)

5.4.2 High attrition

The Indian tradition of work rotation and the competition of resources are affecting Alpha’s and Beta’s offshore outsourcing strategies. As raised by the respondents an attrition rate of approximately 20% might not be a problem, rather a normal turnover rate. The problem is rather when people are leaving too early, and in a new assignment with attrition around 20% there will never be time to get any stability, which affects not least the quality of the product that are depending on continuity. The knowledge level is also affected as it does take time to learn the knowledge regarding the system and also regarding projects and management. The attrition rate is high on all levels; designers, team leaders and managers. It follows that the Swedish employees must be involved in the initial transfer even after the transfer time has been completed and should be handled by IndiaAB. This support is necessary as IndiaAB otherwise will face problem meeting a deadline important for SwedenAB towards their customers. This can cause problems, according to respondent at Beta, as the designers often have started to work within a new area as their previous work task has been transferred to IndiaAB. This is also a question of cost, and the bill is so far on SwedenAB.

For an Indian consultant it is of importance to work abroad; to get a note in their CV and to earn more money. SwedenAB’s way to try to keep the resources is to bring them to

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10 They often start to work with something new in the organisation or other place within SwedenAB.
SwedenAB for some months, often not related to a transfer but to work with the Swedish designers, i.e. they should already have the knowledge. This is an extra cost for SwedenAB, but definitely worth it. The Indian consultants must also sign a paper on not leaving their job within a certain time. IndiaAB tries to handle the situation by giving some of the consultants extra benefits to remain at Alpha and Beta. According to sub system responsible at Alpha this might be a drawback when outsourcing to a low cost consultancy company as IndiaAB; the good and experienced consultants move on to other companies. The situation can be summarized as:

If you can keep the people and build them to understand, working with us, I think it works overall.  
(Technical coordinator at Alpha, SwedenAB)

5.4.3 Long transfer time

Regarding the transfer itself, from SwedenAB’s side, the learning time could be improved and speeded up if there were any courses about the products in the transfer, as is lots of education is needed from their side. Other factors considered that could have made the transfer easier at the start were better work processes and documentation. The general opinion at SwedenAB is that the quality on their product- and work processes is fairly low, and a lot are not documented. In connection with the outsourcing and ongoing process improvements within SwedenAB they are considered as getting better, and especially as it have shown that the Indian consultants gladly follow a work process very strictly. The technical coordinator at Alpha say they are more into processes than the Swedish designers.

If you put a good process in place and get this daily way of working when they gladly follow it very strictly. Improvements and changes they like to make them, but unlike to sort of feed that into the formal process, with review and so on. This is different to the way we might work I think. I think it is more resistance to work with processes here. Yes, I think that is a cultural issue.  
(Technical coordinator at Alpha, SwedenAB)

According to Regional Manager at IndiaAB one contributing factor to a less successful outsourcing is that the outsourcing company does not have the right (work) processes to execute from another place. It is important for a company to understand and realize that when transferring activities to a place that is several thousand kilometres away it inevitable will be a communication gap. This gap must be compensated with very clear and detailed work processes, such as how to document things and how to share knowledge across. The respondent continues with irrespective of what a person should perform, the instructions must be very specific so the person easy can understand and perform the task. IndiaAB notice that companies in general seldom document to that great extent, and therefore often inform them that the project needs to designate persons to interact with the consultants offshore. The respondent also stresses the importance of complete documentation when the Indian consultant comes on-site to learn, to transfer the right knowledge.

He is new in this domain, he comes here specifically to know from you, what it is that you are doing, how you want us to maintain. If that process is compromised by one way or the other, when we will have some issues.  
(Regional manager at IndiaAB)

According to technical coordinator at Alpha, with activities that are more routine-based, such as verification, the Indian consultants can do without any significant assistance and therefore possible to save a lot in time and cost. The need for a longer transfer time is also
viewed as according to the two sub system responsible at Alpha\textsuperscript{11}. They do not really feel confident with the Indian consultants as it is difficult to understand what they really know. Sometimes the delivered result can be of very good quality and in the next delivery completely wrong. There have been too many simple mistakes and therefore the respondents find a need to control how and what the consultants have done. To get the expected results the respondents stress the need for a detailed description of what to do, following with a rather extensive follow-up and review of the result. A set deadline is also important as a delivery otherwise more likely will drag in time. The Indian consultants correct the delivery according to the review, and the second delivery use to be of good quality. Sometimes the respondents feel as they could do the tasks themselves, but it works following the three mentioned moments: detailed description, follow-up and review. The situation can be expressed as by one of the respondents:

As an example they sometimes completely misunderstand something they seemed to have understood two months earlier. That gives definitely no confidence and creates an uncertainty regarding how much they actually know and really can do. Sometimes I have to point with “the whole hand” as they [the Indian consultants] are “working frenetic in the wrong direction”. (Sub system responsible at Alpha, SwedenAB)

5.5 Manage the offshore outsourcing activities

The Sourcing manager at SwedenAB stress that outsourcing is not as easy as wanted. In a technical company it might be easy to see the product as something “mathematic and square” and considered as easy to transfer based on low cost decisions. Soft issues such as culture are often underestimated, and it is these issues that often make the outsourcing complicated. The craft of engineering is often the same, but people think and act in different ways.

When you do not understand, do you ask questions? Are you proactive? Are you taking own initiatives? In Sweden, when most people do not understand they go and ask, and if you have a good solution you propose it. In other countries you do not act like that. First an order from the manager should be received, and if you do not get any order you do nothing. (Sourcing manager at SwedenAB)

It is often not the technical details that are difficult to transfer, the respondent continues, but the management parts; to get the person to take responsibility and raise problem. It should not be the case that SwedenAB is informed about a late delivery when asking on that particular date. This raises also high requirements on SwedenAB to be specific about the tasks, how it should be, how it should be solved, and the instructions must be correct, according to the respondent. If a requirement specification is faulty the Indian consultants are anyhow working according to the specification and the requested result will not be met. As they have got more experience of offshore outsourcing, SwedenAB has improved the communication around the activity and for example realized that they must back-up with own resources to get the expected result. On-site at IndiaAB Alpha and Beta each has a person to act as an interface towards Sweden for supporting the transferred activities, to facilitate coordination and communication between SwedenAB and IndiaAB, to control the activities, make sure the right people talk to each other, and to handle the infrastructure at IndiaAB. This is an extra cost but necessary to get the expected result.

\textsuperscript{11} One of the sub systems started the transfer in the year 2001 and the other started in the year 2002.
There are also issues regarding the receiving organisation. The purpose with partnership is that the offshore outsourcing company itself does not need to establish the partner’s organisation, according the Sourcing manager. It should be enough to transfer the activities and the partner should be able to organise the work. This has however not been the case with IndiaAB. Technical coordinator at Alpha who has spend more than a year on-site in India says with this type of partner and program there is a need to transfer an organisational structure and set up things right as the partner does not have the knowledge. There is a need to control everything, the respondent continues, as the expectations have been wrong in the cultural differences.

There has been this extra amount of control from here, getting the extra communication, setting up the organisation, the way it is. More pro-activity and status monitoring needed compared with other partners.

   (Technical coordinator at Alpha, SwedenAB)

The respondent continues with that the offshore outsourcing strategies are bound to fail if a company thinks that it can send a large requirement specification and assume that the Indian company should estimate it in time and cost, and manage the activity. Even if a company transfers an activity to a fixed cost the probability is big that it drag on time, and ends with the own company using its own resources to fulfill the activity. During the time in India the respondent met several other companies in that situation, and that was tough. The respondent presumes one reason is that they [Indian consultancy companies] are relatively new, but also due to being a different company with its own goals and aspirations, which are not necessarily aligned with the offshore outsourcing company’s. Alpha and Beta have in that way succeeded quite well by not going in that direction, but to build up their own organisations at IndiaAB, define how to work and successively escalate the business. The difference between the companies is also reflected by the respondent at Beta:

I think that they are inexperienced. Sometimes I feel that we have to teach them how to build a company. It is not only that they have to learn how to handle the product. We also teach them how to run project and to set up a line organisation. I don’t experience that they have that knowledge, or it might be that I can’t see it due to cultural differences. This is probably the case when a country is young within a branch. Technical competence is one issue, but to manage large projects requires something more than ordinary.

   (Respondent at Beta, SwedenAB)

IndiaAB is basically only offering the cables to the office building; to get the infrastructure and the development environment up and running have to greatest extent been SwedenAB’s responsibility. Regarding the infrastructure there is still major problems, which has a great impact on the transferred activities as they are performed in a distributed way and therefore depending on fast communication between the companies. E-mail is normally no problem, telephone lines and video conference systems are sometimes really bad, but the biggest problem is to send great amount of data, which is an important part of the daily work. The problem with the infrastructure has escalated, and is difficult to solve due to high investment cost. The problem has been solved in small steps, but is far from the needed and wanted level.

It [the infrastructure] has been the biggest challenge that we unfortunately have to solve ad-hoc. That should have been sorted out before starting the outsourcing.

   (Outsourcing manager at Alpha, SwedenAB)
In the co-operation the daily communication is described by the respondents as a must, due to the shared tasks between the companies and also for managing the transfer. At Alpha they currently have daily regular meetings, real time chat “same time”, 5 weekly, monthly and quarterly meetings. This is largely driven from Alpha’s side, and absolutely necessary to give IndiaAB the right information and for Alpha to know what they are doing. One respondent assumes that IndiaAB does not realise how important it is to share the information across.

We put a lot of efforts here, we have meetings all time. Why would it suddenly change when you move it to the other side of the world? They [IndiaAB] has their own meetings as well, but as we are doing common work we have to have it across the organisations. (Technical coordinator at Alpha, SwedenAB)

In the co-operation and communication time difference is not considered as such a big problem. Depending on summer or winter time the difference is only 3-4 hours. The geographical distance caused by sitting far from each other is considered as a bigger problem as raised by one of the sub systems responsible at Alpha. The respondent spend two months in India as a part of the Indian consultants training process, and felt very isolated from what was going on in Stockholm as E-mail and telephone were the only communication. The informal communication that exists in the corridors was missing, and the respondent continues with the opinion that it unfortunately is a drawback to transfer activities to a partner that is not sitting here as several problems got solved through discussions in the corridor.

5.6 Cultural issues

My picture of India has changed definitely after being there. You go from the TV picture to the actual reality so definitely. And culture is an important part of it. I think everyone involved has underestimated the importance of this knowledge. I don’t think you can set the expectations right without that knowledge; How quick they learn and the differences in their way of working, the infrastructure and all of these things. In everything you have to adjust the expectations, mostly downwards. We expect to pick up the phone and make a call and it works, or the video conference. I don’t think you can have a realistic guess about how much importance it is in that, without having been to India or done those things before.

(technical coordinator at Alpha, SwedenAB)

This reflects the importance of understanding each others cultures and according to the respondent at Beta there is a need to get an understanding and learn about the cultural differences, which is not always easy. Beta tries to educate its employees about the people in India, for example that it is a must to “point with the whole hand”. This can be difficult for Swedish people and considered as a drawback when working with such cultures, the respondent continues. Beta has to support their employees to become tougher. Their interface on-site at IndiaAB is very important, as an “extended arm”, and Beta wins a lot of control through him. He has a tough personality and knows what is going on, which is a prerequisite for the offshore outsourcing strategy. Beta has also noticed that:

When we persuade people to go down there it use to be a change in attitude. I think it is of value to go to India. I think it goes easier afterwards. (Respondent at Beta, SwedenAB)
The positive change in attitude within the Swedish designer reflects the future co-operation, and increases the understanding for Indian culture. According to the Regional manager at IndiaAB culture is a soft aspect and not really related to the capability of software development. Everything in addition is culture, such as how to behave and talk, and it will always be a cultural gap. IndiaAB has two ways to bridge the cultural gap. The first step is to learn the Indian consultants about the local culture before being sent to an on-site project. The second step is to inform the client about the Indian culture, how an Indian behave, what values that are important to an Indian such as family, how they shake their heads to say yes etc. The respondent stresses that cultural training is something required from both parts. IndiaAB try for example to remove the Indian culture in the body language, but as culture is something deeply rooted in a person the respondent says it is not that easy.

Organisational and cultural differences are shown in the “daily work”, in both positive and negative aspects such as a “double-edge sword”. Benefits in their culture and work are according to the technical coordinator at Alpha flexibility and demand. It is possible to put unrealistic demand on them and they will do everything they can to meet those, with varying result. The varying result is due to the negative side about raising problems and dealing with inefficiency. Some will rather sit and design in an inefficient way for a long time than do something about it. They expect a top-down approach to that. It might happen that they can come and suggest something else, and the longer they stay within SwedenAB the better it gets.

But definitely it will take initially and people come in from other parts or are new, they might just sit there; “this isn’t working, I can’t do this, what do I do, and then do nothing”. This isn’t entirely different from here either but it is more obvious. We are allowed to say; “I don’t know what to do”. (Technical coordinator at Alpha, SwedenAB)

The majority of the respondents raise the issue that the combination communication and culture is difficult concerning India. An Indian says for example never “no”, does not tell or acknowledge when they have a problem, and always say that they can handle an issue which is not always the case. This can lead the Swedish employees to frustration who thinks they have understood, and later does not get any delivery due to that they did not understood or it can also be the case that something else is delivered. The way to go around is to learn that questions have to be asked from several angles to understand what the Indian consultants do not understand and what they have performed.

You can not ask yes or no questions. You have to discuss around, to make sure you understand that they do not understand. You have to spend extra time on the questions. You can not just ask if they have understood. You have to ask questions from 17 different angles to understand where they are. I think this is one of the difficulties in this. (Respondent at Beta, SwedenAB)

The majority of the respondents mention that when the Indian consultants are in Sweden on the job training, the communication and co-operation often works quite well. In Sweden the manager does not control as much as the employees are allowed to take own initiatives and do not get abused if the decisions are not the best. The Indian consultants see that and learn when being in Sweden; start to take own initiatives and be “almost as half-Swedes” as expressed by the Sourcing manager at SwedenAB. However, back in India it is not the
same acceptance. In their hierarchy they comply with the manager being an authority, which leads to that they sit there quite to not show that they do not understand etc. According to respondent at Alpha the Indian consultants themselves says that they want to be controlled, and that can be noticed as they hardly ever take own initiatives. SwedenAB try to keep up “the Swedish way” through the Indian team leaders at IndiaAB.

Initiative, this is an interested one, it need to be taught. One thing regarding own initiative is: when they come here, on-site, their initiatives comes up very quickly. When they return it drops straight back down, and from there you have to build it up again. You get the sort of confidence and trust in their team leaders, and then you have to drive them and push it up on anyone else. (Technical coordinator at Alpha, SwedenAB)

Two of the respondents at Alpha say that it is not any special with the culture, that has more to do with the individual and on that level there are no cultural influences. At Alpha there has not been any special cultural training, apart from a power point kit informing about difference between Indian and American way of working.
6 Analysis

In this chapter the empirical data is analysed in relation to the theoretical framework, focused to the three categories as described in the conclusion in chapter 4.3. The purpose with this chapter is to highlight aspects as being most influential on knowledge transfer related to software development in a cross cultural context. The chapter references refer to this thesis.

6.1 Introduction

The R&D company in the case study has mostly transferred software maintenance which includes trouble shooting, fault correction, integration and verification. The transferred activities have an important part in the business as being closely related to the core competence and the activities also have a time critical character as the customer demands an answer on the reported fault and a correction within a certain time. The author therefore considers it reasonable to presume the outsourced activities to be knowledge intensive and thus high requirements on experience and knowledge needs therefore to be set on the receiving company.

6.2 Character of the knowledge – a fundamental factor

When setting up an offshore outsourcing process both the empirical findings and the theoretical framework indicate that the character of knowledge is a fundamental factor to consider. Knowledge is considered as “sticky”, as Szulanski (1996, chapter 4.1.3) express it, when it is expensive to acquire, transfer and use in a new location, and of the three factors Szulanski (1996) raised as major barriers to knowledge transfer, the author considers all three factors as being of high value based on the empirical context.

- **High casual ambiguity** due to difficulties mapping capability and performance outcome, further analysed in chapters 6.3.1, 6.3.3 and 6.3.4.
- **Lack of absorptive capacity** of the recipient due to the difficulty in getting experienced resources on the Indian market, further analysed in this chapter and in chapter 6.3.3.
- **Arduous relationship** due to a large organisational distance, further analysed in chapter 6.3.1.

The transferred activities are in the empirical considered as being complex and knowledge intensive due to aspects the respondents raised such as the products being company and domain specific regarding their software, systems and work processes. Also the integrated structure of the products and the need for extensive co-operation and communication to perform the activities is highlighted in relation to the difficulty to outsource the products. Fallowing Howell (1999, chapter 1.1) all situations in a software development process are not predictable and it differs to specify a standardised task and a process in constant change.

The general opinion at SwedenAB is that the quality on their product- and work processes is fairly low. In connection to the offshore outsourcing process SwedenAB has developed several work processes to specify the co-operation and documents based on previous
informal work procedures. However, still lots of information remains in the employees' head and in informal work processes, i.e. embedded in organisational routines. As all knowledge needed to perform the activities are not visible, i.e. tacit knowledge, it is not easy to document and specify all knowledge related to an activity, and according to Assimakopoulous&Yan (2006, chapter 4.1.1) and Nonaka (1996, chapter 4.1.1) more difficult to formalise and has to be achieved with experience. The transferred knowledge consists therefore of both tacit and explicit nature. Software designers at SwedenAB are to a large extent involved in the knowledge transfer and as emphasised by Castro&Neira (2005, chapter 4.1.2) transfer of tacit and embedded knowledge is often impossible without the individuals who possess it.

In the beginning of a new assignment the Indian consultants spend a couple of months in Sweden in order to learn, and thereafter new consultants are taught internally in India. To let the Swedish and Indian designers meet face-to-face and get to know each other is according to other case studies the far most efficient tool for knowledge transfer (Davenport&Prusak, 1998, chapter 4.1.3). As raised by the respondents, it is not just to learn about the activity itself and the formal way of working, but also the informal way to gain understanding and experience to perform the activity in the right way. The integrated activities related to the products requires, as an example, that the designers work in a co-operative way and take own initiatives to solve a problem, and this knowledge might be difficult to transfer without experience. Davenport&Prusak (1998, chapter 4.1.1) bring up the difficulty to know which knowledge that is embedded in a process and which tacit knowledge that keeps the process going. The majority of the respondents at SwedenAB emphasise that the transfer time is far too short due to the structure of the product, and also depending on the previous experience and knowledge of the recipients. The respondents highlight that the transfer could be improved if there were any courses about the products. To really learn the product and the system it does takes longer time than just some months, rather some years and Swedish designers are involved for a longer time than just the transfer period.

The Regional manager at IndiaAB raise that one contributing factor to a less successful outsourcing is that the outsourcing company does not have the right work processes to execute from another place. Irrespectively of what a person should perform, the instructions must be specific so the person easy can understand and perform the task. As already raised it is not easy to specify the transferred activities to this extent, as needed knowledge to great extent is of tacit nature. The activities that so far have been relatively easy to transfer with a good result, as stressed by the respondents, is verification of the product which is more of a repetitive and routine based activity and therefore easier to learn and make explicit and does not need so much involvement from SwedenAB’s side. This has also been verified in theory by Castro&Neira (2005, chapter 4.1.2) that transferring explicit knowledge does not necessarily require personal contact between source and recipient.

Another issue that is raised by the recipients at SwedenAB is the difficulties to get experienced resources. Szulanski (1996, chapter 4.1.3) states the importance of the recipient to have an absorptive capacity for applying new knowledge and create new
capabilities in an organisational context. Therefore it is important that after an assignment has been transferred to India, and handled internally, the Indian consultants keep the knowledge and necessary skills within their organisation. Fallowing Cummings&Teng (2003, chapter 4.1.3) stating the need for a cultural learning in an organisation to retain and nurture transferred knowledge. Sharing knowledge is not trivial and sharing to another company is difficult as reflected by Kalling&Styhre (2003, chapter 4.1.2).

6.3 Distances in the sending and receiving context

This chapter is divided into the sub categories organisational-, geographical-, knowledge and culture distances as described in chapter 4.3.

6.3.1 Organisational distance

When SwedenAB established their offshore outsourcing process to India, they did not expect it to be this difficult. They consider that it often is not the technical details that are difficult to transfer but the “management parts”. As an example they emphasise the possible need to set up a complete organisational structure at the Indian partner’s site, including the responsibility for setting up the development environment, and also define the way of working in project and line management. One respondent assumes one of the reasons might be that the Indian consultancy companies are relatively new in the area of expertise and also due to being different companies with dissimilar goals and aspirations, i.e. an causal ambiguity according to Szulanski’s (1996, chapter 4.1.3). Due to these differences in business practise and institutional heritage and being independent firms the organisation distance can be considered as large according to Kalling&Styhre (2003, chapter 4.1.3).

As SwedenAB get more experience of the situation they have improved the communication around the activity, and for example realized that they must back-up with own resources to get the expected result. On-site at IndiaAB each organisation has a person to act as an interface towards Sweden for supporting the transferred activities. The respondents highlight the need to control everything to be successful and one of Szulanski’s (1996, chapter 4.1.3) major barriers to knowledge transfer is also relationship arduous that might occur in lack of intimacy in case of large organisational distance.

When enabling a sharing partnership Sahlin-Andersson&Söderholm (2002, chapter 4.1.4) accentuate the importance of communication between the companies. The empirical findings stress also the need for extensive communication in the co-operation, due to the shared tasks and to manage the transfer. Projects and products are for both organisations managed from Sweden. SwedenAB has been the driving force to setting up the organisational communication structure consisting of for instance regular meetings using telephone conferences and occasional on-site meetings. Fallowing Cummings&Teng (2003, chapter 4.1.3) stating when the organisational distance is large the communication is often more difficult. The communication between the companies is also complicated in technical terms as the infrastructure is a major problem, which has a great impact on the transferred activities as they are performed in a distributed way and dependent on fast communication between the companies.
6.3.2 Geographical distance

Due to the character of the transferred activities with shared tasks between the partners there is a need for extensive co-operation and communication to solve the tasks, such as trouble shooting on reported errors, and also to manage the transfer. This underlines the importance of frequent communication as described by the respondents and also emphasised by Cummings&Teng (2003, chapter 4.1.3) as necessary in knowledge transfer. The geographical distance between Sweden and India is therefore considered as a drawback in the co-operation and communication. The informal communication channels, such as corridor discussions disappear and these are considered as being important for solving problems and sharing information. To improve the communication the respondents stress the importance of daily contact using E-mail, chat, telephone and video conference. According to Cummings&Teng (Ibid) the geographical distance is also a drawback as in order to develop R&D capability the partners need to go through iterations of doing and learning, and such intense interactions demand a close proximity. The importance of this proximately is also according to Kalling&Styhre (2003, chapter 4.1.2) for creating new ideas.

As already been highlighted in the analysis, the importance of getting face-to-face is the most efficient tool in knowledge transfer (Davenport&Prusak, 1998, chapter 4.1.3). Due to the geographical distance respondents and theory as Collins&Hitt (2006, chapter 4.1.3) and Cummings&Teng (2003, chapter 4.1.3) raise the need of on-site meetings and partner visits as necessary communication compliments in the knowledge transfer. Time difference is not by the respondents considered a problem in the co-operation due to that the major part of the working day is overlapping.

6.3.3 Knowledge distance

As knowledge according to Davenport&Prusak’s (1998:5, chapter 4.1.1) definition is a mixture of experience, values, contextual information and expert insight the level of knowledge is expected at least in the beginning to differ between the Swedish designers and the Indian consultants. As raised by the respondents, most of the Indian consultants have not in general any earlier experience from similar activities and products, and thus the threshold for learning can be considered as rather high and a great need for specified work processes and time for “on-the-job-training” is required. The importance of apprentice is accentuated by Nonaka&Takeuchi (1995, chapter 4.1.2) as the mere transfer often makes little sense if it is abstracted from the specific context in which the shared experience is embedded. From this follows also that it can be considered as easier to transfer activities when the source and recipient context is as similar as possible and this especially when the knowledge is of tacit and embedded nature (Castro&Neira 2005, chapter 4.1.3).

When encoder and decoder operate in a similar environment and share the same language, as raised by Kogut&Zander (1991, chapter 4.1.3), the author presumes implicit assumptions to be similar and misunderstandings therefore minimal, i.e. adequate absorptive capacity. In this case the environment differ and also the language due to prior experience and knowledge within the expertise, following the definition of language as not only “english” but also regarding the context according to Davenport&Prusak (1998, chapter 4.1.4). Apart from learning knowledge in relation to the product it is of importance
to understand the expectations required when solving the tasks. However, so far, as raised by most of the respondents, the Indian consultants do not have the customs of asking questions and raise a problem and therefore misunderstandings are unavoidable. As contributed by Kogut&Zander (1991, chapter 4.1.3) misunderstandings and problems with meeting deadlines can be avoided by additional spending on checking. The respondents also underline the importance of a detailed description of what to do, following with constant follow-up and review of the results as necessary to get the expected result. A set deadline is also important as a delivery otherwise most likely will drag in time. It is therefore vital to work hard to close the gap, create similar environments and establish a common language, the later stated by Davenport&Prusak (1998, chapter 4.1.4), and Buckely et al (2005, chapter 4.1.4).

The knowledge level is affected as the Indian consultants change work rather often, and this is something the respondents at SwedenAB really want to highlight as having a great impact on the offshore outsourcing situation. It does take time to learn the knowledge regarding the system, projects and management, and the attrition rate is high on all levels. It follows that SwedenAB need to be involved even after the transfer time to support the activities. If the knowledge distance is too significant the recipient may be unable to identify the new knowledge from its present level of knowledge, fallingow Cummings&Teng (2003, chapter 4.1.3). The level of knowledge regarding product and organisation will therefore not increase as raised by one of the respondents. The attrition causes lack of stability in the organisation and a risk of decreased quality of the products.

6.3.4 Culture distance

In the source and recipient context Hofstede’s quote “Software of the mind” (chapter 4.2.1) is adequate regarding culture reflecting the programming of people and the world around them. The majority of the respondents at SwedenAB has emphasised that the Indian consultants have shown a tendency to be bound to work processes and are reluctant to take any own initiatives. The respondents assume from their own experience and while talking to other companies that Indian companies as more hierarchical in the way that employees are expecting a top-down approach from higher managers; to get orders, to be controlled and not to ask questions to the same extent as in Sweden. This can be applied to Hofstede’s (2005) high power distance dimension and low uncertainty avoidance dimension (chapter 4.2.2) where control and coordination consist of standardised work procedures with the contents of work specified. In comparison, Sweden is classified as having low power dimension and high uncertainty avoidance (Ibid). However, the transferred activities are not of the character to be performed by standardised work processes and difficult to specify to a greater extent. In order to respond to the top-down approach Beta supports their employees to become tougher, to “point with the whole hand”. Their interface on-site at IndiaAB is very important, as an “extended arm”, and Beta wins a lot of control through him.

An interesting aspect raised by the respondents at SwedenAB, is the way the Indian consultants changes when they are in Sweden, that they become almost as “half-Swedes”, and start to be pro-active and take own initiatives and when back in India and their original organisational culture, fall back to the their “Indian behaviour”, and expect a top-down
approach. This is related to Fang’s theory (2006, chapter 4.2.3) and also highlighted by some of the respondents: it is possible to change the national culture. However, as the Indian consultants fall back to their presumably deeply grounded behaviour based on their national culture, Hoecklin’s viewpoint (1995, chapter 4.2.1) is another angle to analyse from; the national culture gives people their basic assumptions and values, other levels of programming are more about practices and ways of doing things. Additionally, according to Adler (1986, chapter 4.2.1), “if a person gets in conflict between the two cultures of organisation and nature, it acts from the national culture”. Though, new behaviour can be viewed as learnt and programmed on a level above the national culture.

The combination communication and culture has in the empirical study been identified as being difficult concerning India; an Indian consultant never says “no”, and is reluctant to raise a problem on ask a question. According to Hall (1981, chapter 4.2.4) Sweden belongs to the group that appreciates a direct language, while India belongs to the group that appreciates a more indirect and “talk-around” language. This goes with what the majority of the respondents at SwedenAB have raised, that cultural communication needs to be learned in order to improve the co-operation. Questions need to be asked from different angles until you know if the person has understood. Otherwise this will lead to frustration as the Swedish employees thinks the person has understood, and later does not get any delivery due to that the person did not understood or it can be the case that something else is delivered. Following Cummings&Teng (2003, chapter 4.1.3) significant disagreements or mistakes between the parties can indicate that the new knowledge is not being accepted or internalized. Several respondents have raised the need of strict control, review and follow up as an issue in the co-operation. When a person does not ask direct questions or does not raise a problem the only way to understand the work process is by checking. This follows also Kogut&Zander (1991, chapter 4.1.2) that to avoid misunderstanding additional spending on checking is needed.

The technical coordinator added that the Indian consultants are flexible, have no problem to deal with demands and does everything they can to meet those. These could all be considered as positive aspects. However, the combination of having that attitude to work and not comprehend the work task will leads to inefficiency and demands fulfilled with varying result. This is reflected by Cummings&Teng (2003, chapter 4.1.3) stating that differences in work values and organisational cultures can significant impair knowledge transfer. In a collectivistic society, India according to Hofstede, the interest of the group is more important than the individualistic society. Sweden, as most developed countries, is considered as being an individualistic society (Hofstede, 2005, chapter 4.2.2). Batt&Purchase (2004, chapter 4.2.2) state that individualistic cultures communicate more easily both within and across organisational boundaries whereas collectivistic cultures rely on their group and their personal relations. This is ineffective for the Indian consultants since it is unavoidable to seek information outside the group to be able to transfer any knowledge and also because of the distributed way the activities are performed.

6.4 Mutual understanding

When dealing with different cultures it is unavoidable to be confronted with dissimilarities on work basis and in private life. According to the Regional manager at IndiaAB “culture is
a soft aspect and not really related to the capability of software development. Everything in addition is culture, such as how to behave and talk, and it will always be a cultural gap”.

By focusing on what works in one environment and not in another, we can progress our own cultural intelligence, as described by Earley&Mosakowski (2004, chapter 4.2.1), and in that way improve how we should relate to each other. Although SwedenAB has a great influence when recruiting consultants and defining organisational structure for the transfer at IndiaAB based in India, the site is anyhow owned by another company with other values and expectations. SwedenAB continues to teach the Indian consultants to take own initiative through the Indian team leaders and through the Swedish designers based in India. In a group sharing the same view of the world the essence of culture is taken for granted and not often visible to the group itself (Hoecklin, 1995, chapter 4.2.2), and cultural adaptation can be viewed as being a continuous process. Both Alpha and Beta notice a difference in Swedish designers after being in India and Indian consultants after being in Sweden. The positive change in attitude reflects the future co-operation, and increases the understanding for each others culture. From this it follows that it is reasonable to presume that being in each others cultural and organisational context a deeper understanding creates for how cultural differences can be managed, which is considered as a prerequisite for faster and better learning within organisations (Hoecklin, 1995, chapter 4.2.2).

One of the respondents at SwedenAB claims that there are no cultural differences; is has more to do with the individual and on that level there are no cultural influence. It might be the case, but according to the theory, having a sense of culture and its related skills are unique human attributes, and culture is fundamentally a group-solving tool for coping in a particular environment (Harris&Morran, 1996, chapter 4.2.1)

6.4.1 Concluding example

It is useful to apply the Channel-Ration model of intercultural communication in the analysis, see Figure 6 (chapter 4.1.4) as the empirical findings emphasise the needs for extensive co-operation and communication regarding the transferred activities. The model explains to what extent the transfer is influenced by conscious and unconscious behaviours and why misinterpretations may occur.

The transfer begins with the sender and the message that is intended to reach the receiver. As mentioned in the empirical study the product has a complex character including mainly tacit and embedded knowledge. Therefore, in this example, when the message is entering the second division, the channel, the amount of implicit information is relative large in relation to the explicit information. In the phenomena field the message is influenced by the senders’ individual communication behavior, such as previous experiences, cultural background, norms and values. Continuing the transfer, when passing the intersection area the amount of knowledge common to both sender and receiver is established. If sender and receiver have similar backgrounds and operate in comparable environment, the risk of misunderstandings will decrease (Kogut&Zander, 1991, chapter 4.1.3). Depending on the character of knowledge and the influence from the intersection area the amount of apprehended message and inferred message will vary. In this example the message is
implicit (tacit) and the amount of inferred information is therefore larger than the apprehended information. The reason is that an inferred message to a larger extent is depending on the receiver’s personal experiences, values and culture background. If the message is not absorbed in an accurate way, the sender will face problems to understand whether the receiver has comprehended the message or not. For instance errors may occur when the receiver is new within the task and reluctant to ask questions. However, if the receiver apprehends the message, the chances of a successful transfer are increasing and the receiver can contribute to the process.
7 Conclusions

This chapter is based on the purpose of this thesis, the research question and the most important issues from the analysis, in order to tie this report together.

7.1 Purpose and research question discussion

Character of knowledge
One of the conclusions is that the character of knowledge, related to the activities to transfer, is an important factor and has a great impact on how the transfer should be set up between sender and receiver. This is regarding knowledge not only related to the product itself, but also embedded in organisational routines, processes, practices and norms. The influencing character of knowledge in this case study is to greatest extent tacit and embedded, considered as being “sticky”. The author founds that the knowledge can be considered as difficult to transform to explicit and requires therefore that people at the sending company spend a lot of time in the knowledge transfer; teach the activities, control and review the result etc. Extensive on-the-job training is needed as well as it is easier to transfer knowledge in the context of origin. This puts requirements on the sending company to find acceptance and motivate its employees to support the transfer.

The author considers it reasonable to presume that a company needs to spend a lot of effort in finding a partner with matching prerequisites in order to transfer knowledge considered to be sticky, and this especially when deciding to outsource the product even though the product as raised by respondents can be considered as not suitable for outsourcing.

Distances between sender and receiver

Organisational distance
Another conclusion is that the sending company needs to be aware of transfer not only knowledge related to the activities but also to be aware of the fact that it might have to transfer knowledge related to the organisational structure to manage the activities, such as steering projects and how to set up an organisation. The author considers that differences in the organisational context are presumable to be wide at start, and the sending company needs therefore to be prepared to be very active in the transfer and not just send an assignment and expect the receiving company to solve the task. IndiaAB can be considered as not yet having the organisational principals in place to manage a complex activity in a multi project. When the organisational distance is large, it is assumable even more difficult to overlap the cultural dissimilarities.

Geographical distance
Regarding geographical distance the author came to the conclusion that extensive communication and co-operation is a must especially as the product is handled in a distributed way and knowledge related to the activities is difficult to decode into documents, i.e. tacit and embedded knowledge. The author views that the missing face-to-face contact needs to be compensated with intensive interaction between the companies using for example E-mail, chat, video conference, visits etc.
**Knowledge distance**

A conclusion regarding knowledge distance is that the receiver needs to reach a certain knowledge level until being able to handle the activity. This is knowledge not only related to technical issues regarding the product but also to softer issues such as asking questions, taking own initiatives, raising problems, and fulfilling a task etc. To reach this knowledge level at the receiving company as a whole, it is required that people at the receiving company work with the activities for a longer period of time and that knowledge within the company is shared. As it is getting more difficult to keep a skilled Indian consultant it is reasonable to presume that the knowledge level at the receiving company will either decrease or remain. Therefore the author considers it of great importance for the offshore outsourcing strategy to handle the attrition rate in a pro-active way to keep the resources for at least some years.

**Culture distance**

Differences between the companies are shown in several ways of which communication can be viewed as of a major concern is another conclusion. As the Swedish way of communication is in a direct way where the message is in the words (low context) and Indian way of communication is more of “talk around” character with the message in the context (high context) there are bound to be differences in the way of understanding the communicated language. This in combination with the cultural differences of acceptance in the organisations, such as asking questions and raising problems, makes communication as the biggest concern to actively work on to get the expected result in the transfer. The author found that the transferred activities require that own initiatives are taken to a larger extent than the Indian consultants are used to, and a top-down approach by managers is not to be expected. It is presumable to consider this as being in relation to the need of strict control, review and follow-up that several respondents raised as an issue in the co-operation. When a person does not ask direct questions or does not raise a problem the only way to understand the work progress is by checking.

**Mutual understanding**

The author came to the conclusion that when two different cultural contexts are involved in knowledge transfer several issues need to be taken in consideration. Individuals with different values and beliefs see different things and organise their knowledge by their values. Both partners need to understand each others culture, and mutual adaptation is needed to get the best possible out of the relation. The author found that one valuable way to improve the understanding for each others culture is that people from both sides meet in person in the context of both cultures to get a better understanding of the differences and from there work together.

The conclusions are to a great extent matching the theoretical framework. What differs mainly is the context the theories are used within. A software development process consists of more unpredictable situations and judgment based work compared to manufacturing, simpler software development and services. Knowledge transfer differs also when the transfer is within the same company compared to between two different companies and especially when organisational, knowledge and cultural distances are large. In this case it has been this extra demand on involvement of the sending company’s employees for a
rather long time, and still the knowledge level is far from satisfaction. Especially cultural awareness has been raised in this study; and the author starts to wonder if it might be the case that some cultures and organisational modes are more suitable for some activities than others, due to differences in organisational and national cultures. This at least until relevant competences has been built up. As an example, one of the respondents at SwedenAB claims that there are no cultural differences; is has more to do with the individual and on that level there are no cultural influence. It might be the case, but one of the reasons, as the author sees it, could reasonable be the respondent’s military background, and a military organisation is often considered as being hierarchical with straight control, clear work processes and own initiatives are rare. Therefore, the difference in that case might not be too big in comparison to the Indian way of working.

It is important to understand that knowledge transfer is a learning process and at early stages the knowledge level is mainly explicit; tacit knowledge will be accepted and used only as receivers build the capacity for it. Regarding the criticism towards Hofstede’s (2005) cultural dimensions as being a static picture of a certain moment, the author considers the used dimensions (i.e. power distance, uncertainty avoidance and individualism/collectivism) as highly relevant in the context of this study.
8 Discussion and proposition for further research

The thesis ends with an open final discussion, primarily related to the Background in chapter 1.1 and India as an offshore outsourcing destination in chapter 3, and some suggestions on further research are made.

In an offshore outsourcing situation the choice of partner has shown to be of outmost importance to be able to set a realistic expectation and to achieve the wanted result. The sending company needs also to be well prepared before the transfer and put lots of effort during the whole transfer.

As said in chapter 1.1 offshore outsourcing are getting more complex and require certain skills, domain knowledge and experience. From that perspective the expectation should not be set too high on the Indian partner, and also India as a country, see chapter 3. Indian companies still have great experience of activities within Information Technology Outsourcing (ITO) such as IT-services and within Business Process Outsourcing (BPO) such as simpler software development and standardized business processes, which differ in managing of knowledge and communication intensive activities as in Knowledge Process Outsourcing (KPO). Those activities require another kind of organisational structure, control of project and higher demand of supporting infrastructure. The offshore outsourcing company needs therefore to be prepared that it might need to transfer a complete organisational structure, project knowledge and be active in raising improvements regarding the infrastructure as well.

These are not issues the author considers have been raised in the read articles and literatures (e.g. Alpman, 2005; Lundbäck, 2005; Computerworld, 2004). The Indian consultant companies have rather been raised as having great experience of driving projects, as an example. Neither has the infrastructure been raised as such a big problem. This is probably due to the case that it depends of the transferred activities, and the need of communication between the countries. It is as an example a big difference between setting up a call centre activity or a standardised business process such as billing in comparison with a complex communication intensive activity in a multi project. This follows also that the resource pool are more used with these activities and also reflected in the empirical findings as the regional manager at IndiaAB considers it important that work instructions are very specific. This is however difficult when the activities to greater extent consists of tacit and embedded knowledge and previous knowledge and experience of the activities are important, as in KPO.

When selecting a partner the character of the activities should therefore be set in focus, such as the needed knowledge in competence, experience, and values, and the need for training, co-operation and communication to be able to handle the activities. What the partner can add to the relationship in terms of knowledge and effort needs also be taking in consideration. One alternative can be to start the partnership in a small scale, with a delimited product, and from there support and evaluate the progress to either expand into a long-term partnership or change to another partner before to much effort has been spent.
Another aspect of outsourcing a delimited product is that it is reasonable to think that the activities are easier to learn and to manage as the needed knowledge is delimited to one area, and most of the communication and knowledge sharing is in one place, at the receiving company. It is also reasonable to think that a delimited product might give an increased feeling of responsibility and creativity at the receiving company. In the studied case due to the distributed way of working at two locations geographically far off, the dynamic innovation and creativity that exists in the daily contact decreases, and might even diminish.

The author has her own experience of working with offshore outsourcing. Apart from being involved at Alpha with the transfer to IndiaAB, another experience has been transfer of similar activities but another product to a SwedenAB company based in Eastern Europe. The offshore outsourcing processes differ a lot and several of the findings in this thesis did not happen in the transfer to Eastern Europe, such as the long learning time and involvement of setting up an organisation. The author considers it therefore as being of outmost importance that a company thinking of offshore outsourcing really takes several aspects in consideration and not just copy-cats another company’s strategy.

What the author noticed in this study is a rather negative approach concerning offshore outsourcing to India of high value-added activities. According to the case study several daily issues regarding the transfer has been raised by the respondents and these can not be ignored.

8.1 Proposition for further research

During writing of this thesis, and not least during the interviews, several interesting questions and aspects appeared.

- Some of the respondent at SwedenAB raised the issue that the company culture differs between the Indian consultancy companies. IndiaAB is considered to be a company with an Indian impression, and another company is considered to be of American impression with high focus on quarter reports. Their differences have influenced the choice of partner within SwedenAB. A further research on the different Indian companies culture should be interesting, and also a deeper comparison between SwedenAB’s company culture (or rather one of the organisations at SwedenAB as it differs internally, comment by us) and an Indian consultancy company.
- Research further how Indian try to understand the western culture, and what kind of cultural adaptations they do due to the global competition.
- Research further how the Indian Universities teach regarding software programming. In Sweden for example the students get partly tasks that should be solved independently and others that should be solved together in a group as a project with activities such as planning, documentation, presentation etc.
- Research further how the high turnover rate among the Indian consultants could be handled. What can be the driving forces to keep them at the company; wages, tasks, the company, environment, travel abroad, benefit, rewards etc.?
Bibliography

This chapter lists all references primarily used for the written report. Many more books and not least articles have been read for pre-understanding and to create a picture of what previous sources have written about outsourcing, offshore outsourcing, knowledge transfer, cultural differences, communication and India. Everything is not listed here, only what is relevant for the written report.

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**Interviews**

*Company Sweden AB*

*Overall level*

Supply and outsourcing strategic, personal interview, 8th of May, 2008.

*Organisation Alpha*

(Former) Outsourcing manager, personal interview, 12th of May, 2008.  
Team leader, Sub system responsible, software designer, personal interview, 12th of May, 2008.  
Sub system responsible, software designer, personal interview, 8th of May, 2008.  
System manager, technical coordinator, personal interview, 12th of May, 2008.

*Organisation Beta*

Respondent on higher level, personal interview, 16th of May, 2008.

*Company India AB*

Regional manager, personal interview, 5th of May, 2008.

**Contact information**

If you have any questions or want to discuss this thesis don’t hesitate to contact the author: karin_almstedt@hotmail.com
Appendices
Appendix 1: Interview guide: The Swedish R&D company

Swedish version

Inledande frågor
- Vad är er nuvarande roll i företaget?
  - Hur länge har du varit i den rollen?

Offshore Outsourcing
- När började ni med offshore outsourcing till det indiska företaget?
- Vilka var de främsta anledningarna bakom beslutet?
  - Kostnadsbesparingar
  - Frigöra resurser
  - Fokusera på kärnkompetensen
  - Kvalitetstänkande
  - Kompetens
  - Flexibilitet
  - Omvärldsfaktorer
  - Annat skäl
- Vilka aktiviteter har ni outsourcat?
- Vilken vikt har de outsourcades aktiviteterna i er verksamhet?
- Fanns det några betänkligheter att flytta en del av verksamheten till Indien?// Vad är din erfarenhet av att ha verksamhet i Indien?
  - Kommunikation
  - Kultur
  - Få tag på resurser med avseende på utbildning och erfarenhet
  - Tidsskillnad
  - Erfarenhet hos det indiska konsultföretaget
- Vad har du för syn på offshore outsourcing?

Kunskapsöverföring
- Hur komplexa är aktiviteterna?
  - Behov av förkunskaper
  - Behov av utbildning; akademisk, speciell kurs, arbetsträning
  - Behov av samarbete och kommunikation för att utföra aktiviteten
  - Hur specialiserad och unik är er produkt?
- Vilken mognadsgrad har aktiviteten/produkten?
  - Hur specificerad är den? Finns tillräcklig dokumentation?
  - Finns tydlig processbeskrivning?
- Vilken mognadsgrad har den egna organisationen?
  - Finns tydliga arbetsprocesser?
  - Finns tydliga roll- och ansvarsbeskrivningar?
• Hur har ni fört över kunskap/lärt upp partner om aktiviteterna?
• Hur ser samarbetet ut med den indiska partnern?
  o Kommunikation - Hur, hur ofta?
  o Organisation - Hur ser verksamheten ut i Indien?
  o Resurser – Hur har det gått att hitta matchande resurser? Har det varit stor personalomsättning?
  o Kunskapsmässigt

Kultur
• Vad är er bild av Indien?
• Anser ni att kunskap om partners kultur är en viktig del för samarbetet?
  o Vilken kulturell utbildning har getts inom det egna företaget?
  o Vilken kulturell utbildning har det indiska företaget fått?
  o Har många på det egna företaget varit nere i Indien?
  o Har många av indierna varit i Sverige?
• Har eventuella kulturskillnader påverkat samarbetet?
  o Om, vilka har varit de största, vanligaste? Hur har ni lösts dem?
  o Har en del av ert arbetssätt behövt förändras?
• Finns det några ”arbetsmässiga” skillnader mellan indierna och svenskarna?
  o Ta egna initiativ, vana vid arbetsprocesser etc

Reflektioner (främst med avseende på kunskapsöverföring)
• Vilka lärdomar kan ni dra utifrån outsourcingen?
  o Fick outsourcingen några önskade eller oönskade bieffekter ni inte hade räknat med?
  o Vad har varit de största utmaningarna med outsourcingen?
    ▪ Hur har ni löst de utmaningarna?
• Vilka faktorer skulle kunna ligga bakom att en outsourcing går mindre bra/misslyckas?
• Skulle ni ha lagt upp outsourcingen på annat sätt om ni gjorde den idag?

• Några tillägg ni vill göra till intervjun?

English version

Opening questions
• What is your current position at the company and for how long have you held that position?

Offshore Outsourcing
• When did you start the offshore outsourcing to the Indian company?
• What were the main reasons behind the decision?
  o Cost reduction
  o Free resources
  o Focus on the core competence
Focus on quality
Competence
Flexibility
Globalization
Other

- What activities have been outsourced?
- How important are the outsourced activities in your business?
- Did you have any misgivings concerning the movement of activities to India? // What is your personal experience of doing business in India?
  - Communication
  - Culture
  - Finding human resources, concerning education and experience
  - Time difference
  - The experience within the Indian consultancy company
- What is your view of offshore outsourcing?

Knowledge transfer
- How complex are the activities?
  - Need of previous knowledge
  - Need of education, academic or on-the-job-training
  - The amount of co-operation and communication needed in order to perform the activity
  - How specialized and unique is your product?
- How mature is your product?
  - How specified is it? Is there sufficient documentation?
  - Are the descriptions of processes clear?
- How mature is your organisation?
  - Are there clear work processes?
  - Are the work roles and responsibilities clear?
- How have you transferred knowledge/educated partners about the activities?
- What is the outline of your co-operation with the Indian company?
  - Communication – By what means, how frequent?
  - Organisation – How are your activities organised in India?
  - Resources – Have you been able to find matching resources? Has the attrition rate been high?
  - In terms of knowledge

Culture
- What is your view on India?
- Do you consider knowledge of a partners culture an important part of the co-operation?
  - What cultural education has been given within your own company?
  - What cultural education has been given to the Indian company?
  - How many from your company have been to India?
  - How many from the Indian partner have been to Sweden?
- In case of cultural differences, has this had an effect on the co-operation?
If yes, what have been the largest, most common effects? How have these issues been solved?
Have there been parts of the co-operation that have been in need of change?
• Are there any differences between Indian and Swedish employees when it comes to work?
  o Ability to take own initiative, experience of work processes etc.?

**Reflections mainly based on knowledge transfer**
• What have you learned in the process of outsourcing?
  o Did the outsourcing bring any positive or negative side effects you had not foreseen?
  o What have been the biggest challenges you have faced in the outsourcing process?
    ▪ How have you solved these issues?
• What could be the underlying factors of a failed/less successful outsourcing?
• Knowing what you know today, would you do anything different in the outline of the outsourcing process?
• Do you wish to add anything to the interview?
Appendix 2: Interview guide: The Indian consultancy company

English version

Opening questions
• What is your current position at the company and for how long have you held that position?
• How long have you been in Sweden?
• How long has your company been working with outsourcing?

Outsourcing
• What do you consider important factors when choosing a partner?
  o What should the customer take into account when choosing an Indian company?
• What could be the underlying factors of a failed/less successful outsourcing?
• What are your selection criteria upon hiring new employees?
  o Is it easy to find the desired competence?
• How do you manage the fact that the attrition rate is often quite high in an outsourcing company?

Culture
• Do you consider knowledge of a partners culture an important part of the co-operation?
  o What cultural education has been given within your own company?
• In case of cultural differences, has this had an effect on the co-operation?
• Do you which to add anything to the interview?

Swedish version

Inledande frågor
• Vad är er nuvarande roll i företaget?
  o Hur länge har du varit i den rollen?
  o Hur länge har du varit i Sverige?
• Hur länge har ert företag jobbat med outsourcing?

Outsourcing
• Vilka faktorer anser ni vara viktiga för en kund då de väljer partner?
  o Vad ska kunden tänka på angående val av ett indiskt företag?
• Vilka faktorer skulle kunna ligga bakom att en outsourcing går mindre bra/misslyckas?
• Utifrån vilka kriterier anställer ni era medarbetare?
  o Är det lätt att hitta den kompetens ni söker?
• Personalomsättningen är ofta ganska hög på outsourcingföretag. Hur hanterar ni det?
Kultur

- Anser ni att kunskap om partners kultur är en viktig del för samarbetet?
  - Vilken kulturell utbildning ges inom företaget?
- Påverkar eventuella kulturskillnaderna samarbetet?

Några tillägg ni vill göra till intervjun?