EMERGENT CULTURE IN

GLOBAL IS/IT OUTSOURCING

A thesis submitted for the degree of Doctor of Philosophy

by

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PHD ABSTRACT

The research addresses the emergent nature of culture in global Information Systems / Information Technology (IS/IT) outsourcing relationships. Considering the broadly recognized role of culture in Global Outsourcing (GLOS), it builds on existing literature and it identifies three research issues that support the need to address culture in a global IS/IT relationship as emergent. These issues involve: a. A literature "gap" and low research granularity of existing research, b. The tendency to examine culture in IS/IT as either national or organizational, with no adequate research examining the dynamic nature of culture in GLOS collaboration, and c. The unique nature of GLOS culture, which is not stable but emergent. In order to address emergence, the thesis applies a cultural systems perspective, which is used to describe the emergent GLOS culture as related to a GLOS cultural system. An initial model is thus developed, according to which GLOS culture emerges from a GLOS cultural system, and the GLOS cultural system results from the combination of cultural characteristics of separate organizations within the GLOS context. This GLOS cultural system is related to Attitudes and Behaviors (A&B), the Environment, Interactivity, and Control. Using the philosophical perspective of interpretivism and a qualitative methodology, two pilot studies and a series of case studies were conducted. Due to its increasing reliance on outsourcing strategies, the automotive industry was used as the industry-based setting of the research and, more specifically, the phases related to the production of Electronic System (ES) of coaches and buses. Each phase involves the relationship between the client (AC) and one of its three suppliers (AS1, AS2, AS3), all residing in different countries (three across Europe and one in Asia). The analysis of the two pilot cases (GC, DS) helped finalize the interview agenda, which was then used in the four in-depth case studies that describe the relationship between AC and each individual supplier (AC-AS1, AC-AS2, AC-AS3). A thematic analysis was applied to the interview data, leading to an extended version of the initial model. According to the new extended model, the GLOS cultural system, through Mechanisms and Processes, expresses an emergent GLOS culture, which is related to extended versions of the concepts discussed in the initial model. More specifically, in the extended model, emergent GLOS culture is related to Attitudes, Behaviors, and Cognition (ABC), Context, Interactivity, and Regulation. The extended model also extends the concept of the initial model, further reflecting the emergent nature of emergence

of the GLOS culture. Therefore, it associates Attitudes, Behaviors, and Cognition (ABC) with the dimensions of we-they and abstract-expressed, Context with the dimensions of environment and definition, Interactivity with the dimensions of relationship and exchange, and Regulation with the dimensions of control and feedback. The contribution of the extended model is demonstrated through validation by professionals and original participants in the study. The model also expresses the uniqueness of each GLOS collaboration and analyzes emergent GLOS culture in terms of specific cultural attributes, as they emerge within the GLOS relationship. Furthermore, it provides an in-depth description of the nature of emergent culture in global collaboration, and its contribution is discussed from a theoretical, practical, and methodological perspective. The thesis also addresses lessons learned, research limitations, and proposals for further research. Overall, the thesis offers an in-depth approach to understanding culture in GLOS relationships. Building on the concept of emergence, as addressed in existing literature, the study extends the discussion of culture beyond the national – organizational level and it offers a list of cultural attributes (themes) related to emergence. Using empirical industry-based evidence from countries selected across various economic and sociopolitical level, and an industry (automotive) that demonstrates a growing interest in outsourcing strategies, it discusses an emergent approach to culture, focusing exclusively on IS/IT GLOS. The emergent GLOS culture extends beyond mere summation of cultural characteristics of collaborating organizations. It allows for dynamism and adjustability, and, at the same time, it offers a new way of capturing, addressing, and explaining the uniqueness of the culture of every GLOS relationship.

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DEDICATION

This PhD is for my Mother and my brother…

DECLARATION

This thesis is based on ideas and previous research by Danai Tsotra in the field of outsourcing and culture, as related to various IS/IT areas.

Conference papers & Publications

Tsotra, D., Brooks, L. & Fitzgerald, G. (2011). Emergent global outsourcing culture: Mechanisms and processes of change. Fifth Global Sourcing Workshop, Courchevel, France (accepted for presentation)

Tsotra, D. & Fitzgerald, G. (2007).The role of culture in global IS/IT outsourcing. Proceedings of the First Global Sourcing Workshop (JIT 06-200), Val d'Isère, France

Tsotra, D. (2005). Applying Habermas' theory of social action in an analytical approach towards IS engineering. First workshop on Ontology, Conceptualizations and Systems Engineering (ONTOSE), online conference, University of Alcalà, Spain

Lytras, M.D., Sicilia, M.A. & **Tsotra, D.** (2005). On the sizing of knowledge management activities and its relationship to supporting technology. Proceedings of the International Conference on Software Engineering Research and Practice (SERP) Volume 2, Las Vegas, NE, USA, p. 483-490

Tsotra, D. & Janson, M. (2004). Hermeneutics, semiotics and eCommerce. Proceedings of the Special Interest Group (SIG) Philosophy, International Conference on Information Systems (ICIS), Washington, DC, USA

Tsotra, D., Janson, M. & Cecez-Kecmanovic, D. (2004). Marketing on the Internet: A semiotic analysis. Proceedings of the Tenth Americas Conference on Information Systems (AMCIS), New York, NY, USA, p. 4210-4220

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GLOSSARY & ABBREVIATIONS

AC	(Automotive) Client (case study)
AS1	(Automotive) Supplier 1 (case study)
AS2	(Automotive) Supplier 2 (case study)
AS3	(Automotive) Supplier 3 (case study)
Cultural emergence	The process through which GLOS culture becomes visible and realizable, based on interactions among the original (before the initiation of the GLOS relationship) cultural characteristics of the collaborating organizations. Through emergence, a new set of characteristics 'emerges', which is the basis for a new, unique GLOS-specific culture: the emergent GLOS culture.
DS	Delta Supplier (pilot case 2)
ES	Electric System
GC	Gamma Customer (pilot case 1)
GLOS	A general term that includes global, farshore, offshore, and nearshore outsourcing.
GLOS relationship	The collaboration and interactions that occur between two or more organizations, within the context of nearshore, offshore and farshore outsourcing.
IS/IT	Information Systems / Information Technology
Service recipient	Also referred to as buyer, customer, or client
Service supplier	Also referred to as provider or vendor

CHAPTER 1

INTRODUCTION

1. Introduction to chapter 1

Chapter 1 consists of an introduction to the topic of outsourcing and global outsourcing. It defines the area and discusses its evolution as a result of the changing business and organizational environment. In addition, it briefly discusses different types of outsourcing, along with the role of culture in global outsourcing relationships. The research problem, the significance, the aim, and the research questions of the study are also discussed. The chapter concludes with the presentation of the research process and the thesis overview.

1.1 Outsourcing

Outsourcing of Information Systems and Information Technology (IS/IT) describes the practice of transferring assets, leases, staff, and management responsibility for delivery of services, from internal IS/IT functions to external vendors (Grover et al., 1996; Hirschheim & Lacity, 2000; Kern & Willcocks, 2002). It involves third party providers that supply to the client organization resources associated with the entire IS/IT function or specific components of it (Loh & Venkatraman, 1992). As a practice, it has been used in various organizational areas, examples of which include services, software development, call centers, operations, HR (Carmel & Tjia, 2005).

From its early days of the 1963 EDS deal (Dibbern et al., 2004), a basic characteristic of IS/IT outsourcing is its relatively long low-revenue stream (Beulen & Ribbers, 2003) and its contribution to "redesigning, redefining, reshaping, and energizing of organizations" (Elmuti & Kathawala, 2000). Such a definition is related to the role of global outsourcing in the ways an organization can redefine its functions/goals/operations, redefine its mission statement, reshape its structure, and increase its competitive advantage. Later, in the 1980s, IS/IT outsourcing further evolved as a strategy for achieving lower prices, improved quality, and satisfaction of the needs of both the market and the corporate stakeholders (Heywood, 2001).

Used as a strategy and as a business practice, outsourcing is defined through the difference in the location of the service recipient (also known as buyer, customer, or client) and the service supplier (also known as provider or vendor). Consequently, with respect to geographical distance, the broad term of outsourcing has been divided into further types, as the following list demonstrates (Murthy, 2004; Palvia, 2003; Palvia, 2004):

- Onshore outsourcing (or traditional outsourcing) involves both the customer and the provider being located in the same country.
- Nearshore outsourcing involves outsourcing to countries close to the client company or to countries that are related by the same category of treaties or alliances.
- Offshore outsourcing involves outsourcing to countries or continents not necessarily connected by national boundaries or trade laws but are characterized, instead, by compatibility in culture, economic status, and capabilities.
- Farshore outsourcing involves countries separated by a larger distance than the distance typically encountered in cases of nearshore and offshore outsourcing relationships.

The above distinction in types of outsourcing (also see section 2.1.2) may be useful for definition purposes, yet, its emphasis not only on distance but also on compatibility, economic issues, and sociopolitical concerns can be confusing. In order to reduce ambiguity, the present study uses the term Global Outsourcing (GLOS) to include all the aforementioned types of outsourcing, apart from onshore outsourcing, the study of which is beyond the scope of the present study. In order to further increase clarification concerning the use of terms (Leidner & Kayworth, 2006), the term GLOS relationship is used to also include collaborations, alliances, managerial and financial arrangements, and deals in the context of global outsourcing.

For the purpose of this research, a GLOS relationship is defined as the collaboration and interactions that occur between two or more organizations, within the context of nearshore, offshore and farshore outsourcing alliances, arrangements, and financial deals. It includes the basic characteristics of traditional outsourcing, with additional

emphasis on the differences that arise due to difference in the location of the organizations.

1.2 Global outsourcing

The trend of global outsourcing in the general business field appeared in the 1950s (Clott, 2004) and involved the relocation of business processes from high-cost to lower-cost locations, outside the client's national boundaries (Erber & Sayed-Ahmed, 2005; Heeks et al., 2001). Since then, it has been continuously considered an important aspect of the IS/IT business strategy (Gurung & Prater, 2006) and it has resulted in higher business expectations and new challenges for private and public sector organizations (Cullen et al., 2005). From a managerial perspective, its management has become a "competency" that future managers "*must"* learn (Carmel & Tjia, 2005).

As a result of sharing basic characteristics with traditional outsourcing (Beulen & Ribbers, 2003; Rottman & Lacity, 2008), global outsourcing has been associated with factors that can have both a positive and a negative impact on organizations (Beulen et al., 2006). For example, its main advantage is the reduced cost of the provided services, as a result of:

- Geographical differences affecting prices and salaries
- Increased time and resources allowing for focus on core competencies
- Access to state of the art technology, new skills, and expertise

Additionally, it is also characterized by negative consequences such as:

- Dependency on suppliers
- Loss of knowledge and "know-how"
- Confidentiality risks

Viewing GLOS only as another type of traditional outsourcing does not emphasize, however, the role and the significance of having the outsourced services performed in a geographical location different from the one where the services are eventually used (Beulen et al., 2006; Beulen & Ribbers, 2003; Carmel & Agarwal, 2002). Some of its

advantages and disadvantages are thus related *specifically* to the increased distance between the customer and the supplier (see section 2.1.3).

Apart from the advantages/disadvantages typically associated with traditional outsourcing, cost advantage can be achieved through access to large pools of IS/IT experts and certified processes, especially in the field of application development, while disadvantages may exist as a result of increased coordination costs due to distance and other geopolitical risks (Beulen et al., 2006). Compared to the traditional buyer-supplier outsourcing relationship, other practical considerations prominent in GLOS (also see table 2-2) include the need for control and monitoring of the provider, constant communication, and rigorous definition of requirements (Rottman & Lacity, 2008). It has also been observed that, the larger the distance between the customer and the supplier, the bigger the impact of time difference (Ramarapu et al., 1997; Rottman & Lacity, 2008). Additionally, the bigger the difference in terms of HR and general business issues (legal and sociopolitical), the greater the challenges posed by relying on a GLOS relationship (Rottman & Lacity, 2004).

Moreover, apart from the impact of physical distance as mentioned in the above paragraphs, many researchers emphasize the importance of the psychological or cultural distance (Evans et al., 2000; Gurung & Prater, 2006). According to this type of distance, the degree of cultural similarity is more important than the spatial affinity between the two organizations involved in a GLOS relationship. More specifically, culture has been discussed in the following ways (Evans-Correia, 2006; Overby, 2003):

- A factor that contributes to the success or failure of an outsourcing deal
- A factor with the potential to lead to additional increases in the overall cost of an outsourcing project
- One of the top hidden costs in vendor-management relationships
- A conceptual or behavioral expression at the national or organizational level

Overall, it appears that the modern interconnection of businesses and businesses processes, apart from the exchange of products, is related not only to relocation of services and redistribution of resources, but also on infusion and diffusion of culture

(Leidner, 2010). This can also be explained in relation to the view of society as "in transformation", with new social forms constantly emerging (Parker, 1992).

1.3 Research problem and research significance

Any collaborating organizations are characterized by a degree of cultural compatibility and fit (Piachaud, 2005), while cross-cultural differences influence business alliances (Hofstede, 1980; Sambasivan & Yen, 2010, Trompenaars, 1994). The ability to make cultural assessments has been frequently stressed as deserving serious consideration at the outset of any relationship. In cases when an organization invests early on the necessary resources to understand culture as part of the relationship, the overall outcome tends to be more satisfactory to the various stakeholders (Barthelemy, 2001). Problems can be resolved faster and more effectively, and the potential risk of failure or dissatisfaction can be reduced. Consequently, even though cultural characteristics may continue to evolve *during* the GLOS relationship, familiarity with potential areas of concern from the *onset* of the relationship increases awareness and can help organize in advance proactive mechanisms for dealing with problems (Evans-Correia, 2006; Overby, 2003).

Moreover, compatibility in culture is among the characteristics that play an important role in an outsourcing relationship, helping it move beyond a "narrow" geographical view and satisfaction related predominantly to cost reduction issues (Vestring et al., 2005). Research has shown that the greater the cultural differences between countries, the greater the differences between their corresponding attitudes and practices (Datta & Puia, 1995). In addition, culture and culture-related issues are frequently mentioned as factors that affect GLOS collaboration, being potential indicators of success or failure and of positive or negative relationships (Barthelemy, 2003; Fjermestad & Saitta, 2005; Kliem, 2004; Piachaud, 2005; Rottman & Lacity, 2004).

In terms of significance, researchers consider the effects of cultural differences to be number two (after strategic organizational implication) in a list of the "top 12" offshoring issues (King & Torkzadeh, 2008). Furthermore, culture is regarded as an influential factor in managing outsourcing relationships (Krishna, 2004), while the success of global outsourcing projects often depends on the achievement of sufficient mutual cultural understanding, which can provide further basis for trust, knowledge

sharing, and smooth collaboration (Abbott et al., 2010). Moreover, researchers seem positive that awareness and analysis of the role of culture in GLOS can improve compatibility in cross-cultural GLOS collaboration and create "harmonization" (Krishna et al, 2004).

In this thesis, a model of GLOS culture will be discussed in chapter 3 (see section 3.3) and be extended in chapter 6 (see section 6.3). The significance of this model lies on its focus *exclusively* on the role of culture in IS/IT GLOS projects. Currently, there are only few studies focusing on the role of culture in IS/IT GLOS projects, beyond the use of examples and the brief and repetitious mentioning of cultural characteristics (see section 2.2). The model adds to the body of research on culture in IS/IT GLOS, while it also responds to research calls to address the emergent nature of organizational culture (see section 2.2 and section 2.3). Its importance also lies on the fact that it extends previous research on GLOS projects and cultural issues, which "are not yet fully understood" (King & Torkzadeh, 2008). It emphasizes that the role of people and cultural change required to support strategic implementations in collaborative buyer-supplier relationships and supply-chain decisions has been largely ignored (McIvor & McHugh, 2000; Mello & Stank, 2005; Nicholson & Sahay, 2001). The model builds on such previous research and, by examining the emergent role of GLOS culture, it addresses the limited amount of emphasis that has been placed on the concept of culture as being "dynamically" shaped (Leidner, 2010).

When thinking of an outsourcing relationship, it is important to recognize in advance the possible existence of limits to cultural adaptation and to try to employ ways of recognizing potential problems. One way of doing so is the development of models that can reflect the role of culture in GLOS relationships and cultural interface (Chen & Lin, 1998). The model of emergent GLOS culture of this thesis applies a cultural systems perspective in cultural emergence. The systems perspective has been applied before in organizational studies (see section 3.3.1), yet the *cultural* systems perspective has not been used in studies of IS/IT GLOS relationships. In addition, as will be discussed in chapter 5 (see section 5.5), it focuses on GLOS relationships within the automotive industry, an industry that, in terms of financial benefits, relies considerably on outsourcing for reasons of effectiveness and efficiency.

Overall, by focusing on the development of a model of emergent GLOS culture, this study addresses the role of culture through the combination of cultural characteristics

of collaborating organizations. Therefore, it contributes to the body of research that focuses on cross-cultural issues and their importance in IS/IT projects, expanding on existing work that discusses the effect of culture on managerial issues and on the behavior of organizational actors (Alami et al. 2008; Gurung & Prater, 2006). The study also extends research on globalization. According to D'Mello (2005), as a result of globalization and social changes, temporal and spatial certainties cannot be taken for granted any more (D'Mello, 2005), for example in the implementation of new projects or ventures in foreign/new environments (Sahay & Walsham, 1997).

In the present thesis, the rationale for developing a model that addresses emergent GLOS culture is:

- To examine the nature of culture in the GLOS relationship, which, as will be discussed in section 2.2.3, is unique and under-examined.
- To address culture *exclusively* in relation to IS/IT GLOS, beyond the use of examples or a general discussion on the topic.
- To provide clear cultural themes that can help identify specific dimensions of emergent GLOS culture.
- To provide a list of themes that can function as cultural indicators for companies that consider a GLOS relationship or need to address culture in any phase of the GLOS collaboration, e.g. the transition or the governance phase.
- To demonstrate the applicability of concepts from the cultural systems theory to the study of culture.
- To demonstrate the effectiveness and efficiency of using a thematic network (from a methodological point of view) in order to develop a model of emergent cultural factors based on interview data from an industry-based setting.

It should be noted that the model attempts to compare neither cultural characteristics of specific organization nor cultural characteristics *before* and *after* the GLOS deal. Its role, instead, is to identify influential cultural factors that have the potential to change within a GLOS relationship and to also provide ways of analyzing the emergence process through mechanisms and processes, based on the interviewees' perspective *at the time* of the research.

In addition, as will be discussed in section 2.2, providing a definition of culture has been attempted by many researchers but still, a broadly accepted definition has not been agreed upon in the field. The present study does not aim to provide a concrete definition of emergent GLOS culture but, instead, to describe cultural emergence of GLOS culture. For the purpose of this study, the term cultural emergence is used to describe the process through which GLOS culture becomes visible and realizable, based on interactions among the original (before the initiation of the GLOS relationship) cultural characteristics of the collaborating organizations. Through emergence, a new set of characteristics 'emerges', which is the basis for a new, unique GLOS-specific culture: the emergent GLOS culture.

1.4 Research aim and research questions

As discussed in the previous section (and discussed in section 2.2), culture is an area that, having the potential to play a significant role in a GLOS relationship, can benefit from further, extended research. To examine its role, the aim of this study is to:

Examine the emergence of culture in global IS/IT outsourcing relationships

In order to address the research aim, the study addresses the following research questions:

Research question 1: Are there cultural characteristics that can affect global IS/IT outsourcing and, if so, can they be identified?
Research question 2: If such characteristics can be identified, can a model be developed that represents organizational characteristics into potential cultural themes?
Research question 3: Can such a model help examine the emergent culture in global IS/IT outsourcing?

1.5 Research process

Figure 1-1 discusses the research process of the thesis.

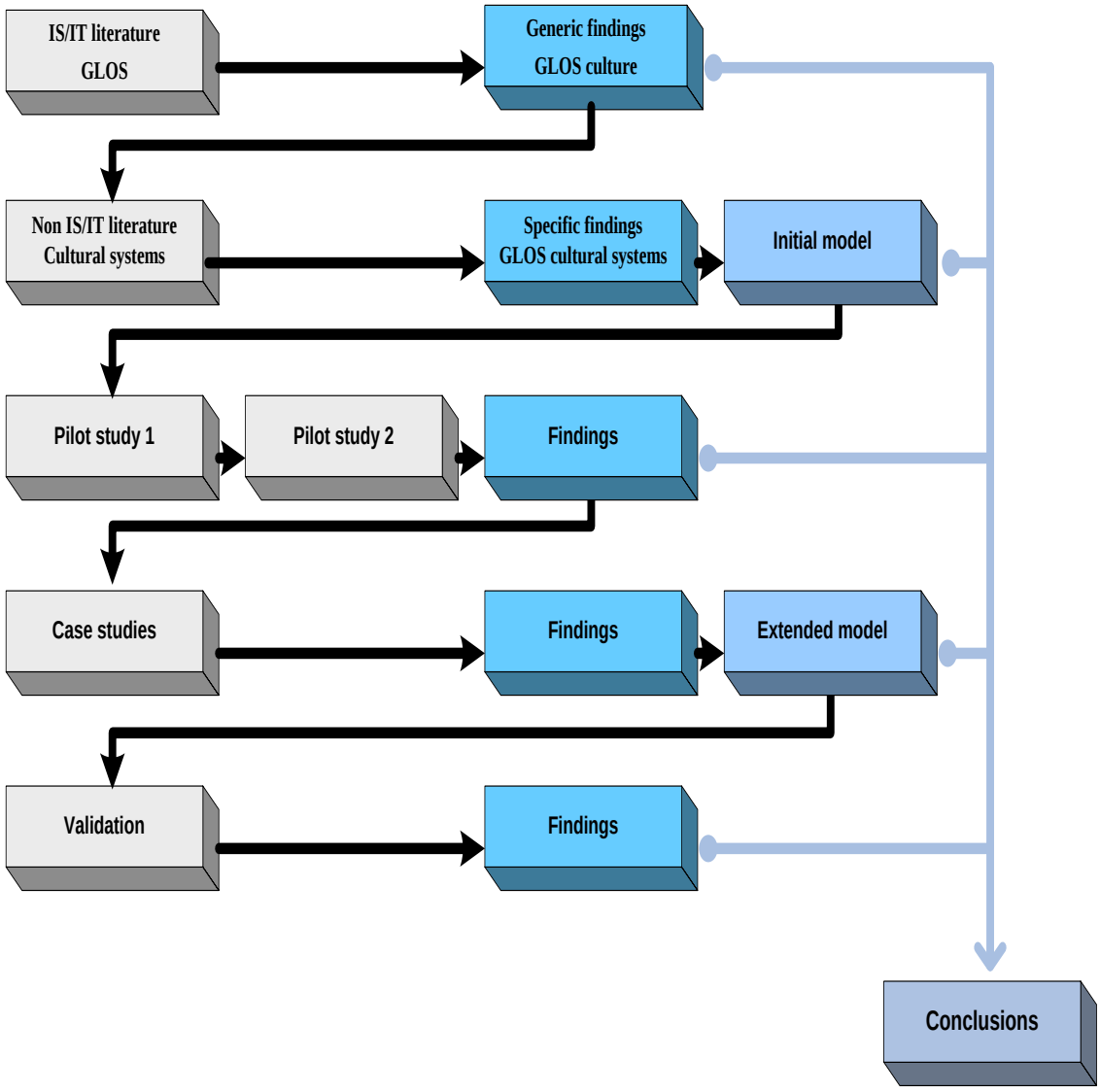

Figure 1-1: Research process

As shown in figure 1-1, the present research starts with the analysis of the IS/IT literature in relation to outsourcing, resulting in generic findings on culture and global outsourcing. A similar procedure is followed with non IS/IT literature, focusing on aspects of the cultural systems theory, from which concepts related to GLOS cultural systems are identified. From the combined findings, the initial model of the study is developed, further evidence on which is acquired through two pilot studies. The findings of the pilot studies, followed by analysis of a series of case studies, lead to an extended model, which is validated through professionals and original participants in the study.

Thereafter, the thesis discusses all different aspects related to the emergent culture in IS/IT GLOS relationships, combining the following:

- Generic findings in the area of GLOS culture (see section 2.2)
- Specific findings in the area of GLOS cultural systems that led to the development of the initial model (as presented in figure 3-4)
- Findings from the two pilot studies and the case studies (as analyzed in chapter 5 and chapter 6) that led to the development of the extended model (as presented in figure 6-2)
- The validation of the research (as explained in section 6.4)

1.6 Thesis overview

The structure of this thesis (see figure 1-2) is based on the proposed structure for theses by Phillips and Pugh (2005). Following the introduction to a thesis in chapter 1, their methodology proposes four "analytical construct elements", presented in figure 1-2 and discussed in the following sections:

- Background theory (section 1.6.1)
- Focal theory (section 1.6.2)
- Data theory (section 1.6.3)
- Contribution (section 6.1.4)

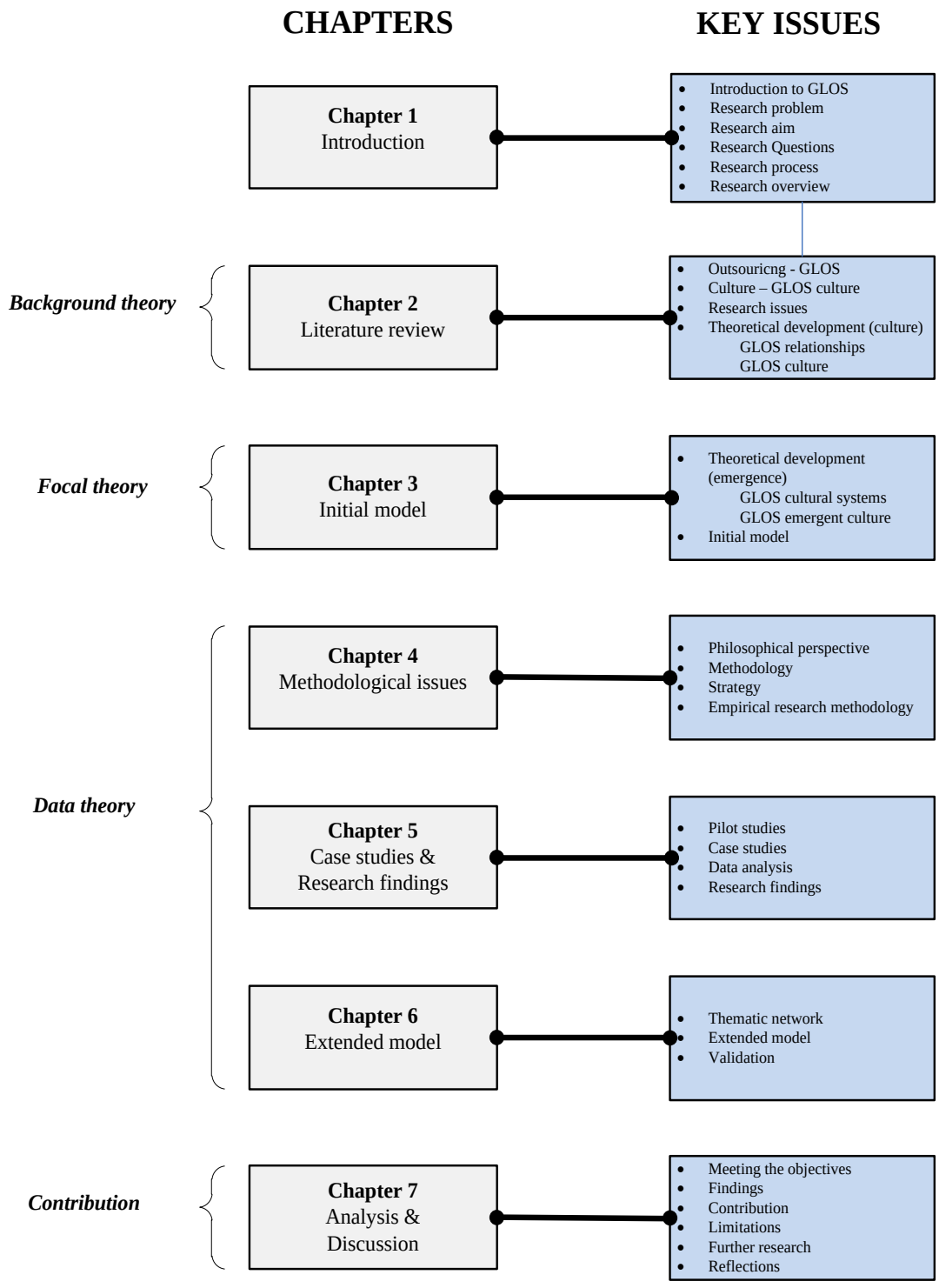

Figure 1-2: Thesis overview

1.6.1 Background theory element (chapter 2)

This element includes a critical review of outsourcing, as the key area of study in the current thesis (section 2.1). By building on existing literature and research on GLOS and culture, it supports the identification of the problem domain. In chapter 2, through the analysis of the existing literature on culture within the IS/IT GLOS context, a list of cultural characteristics and subcharacteristics (section 2.3.1) is identified to be later used in chapters 5 and 6 for the analysis of the data. In addition, analysis of the way that culture has been previously studied in various organizational settings leads to the identification of three research issues (section 2.3). These issues are:

- A literature "gap" and low research granularity of existing research
- The domination of the research dichotomy of national versus organizational culture
- The unique nature of GLOS culture

These three issues provide the foundation for the use of an emergent approach to the study of culture in GLOS relationships. The chapter concludes with a discussion of emergent GLOS culture in GLOS relationships, as affected by the cultural characteristics of the collaborating organizations (section 2.3.3).

1.6.2 Focal theory element (chapter 3)

This element is related to the construction of a theoretical model (this initial model can be seen in figure 3-4). In chapter 3, in order to approach culture in IS/IT GLOS in a new way that addresses the research issues of section 2.3 and examine GLOS cultural emergence, a cultural systems perspective is applied (section 3.1 and section 3.2). The chapter concludes with the development of the initial model of the emergence of GLOS culture (section 3.3, figure 3-4), which presents a GLOS relationship as a cultural system, based on interactions among the original (before the initiation of the GLOS relationship) cultural characteristics of the collaborating organizations. *More* specifically, the GLOS cultural system is related to Attitudes and Behaviors (A&B), the Environment, Interactivity, and Control.

1.6.3 Data theory element (chapters 4, 5, 6)

This section consists of three parts:

First, in chapter 4, the research methodology of the thesis is discussed and the following choices are justified:

- Philosophical perspective: Interpretivism (section 4.1)
- Methodology: Qualitative (section 4.2)
- Strategy: Case study (section 4.3)
- Data generation techniques: Interviews (section 4.4.1)
- Data analysis technique: Thematic analysis (section 4.4.3)

In addition, the empirical research methodology of the study is presented (section 4.4) through four distinct phases (Initiation, Implementation, Analysis, and Conclusion, as shown in table 4-1).

Secondly, in chapter 5, the thesis presents the pilot studies (sections 5.1, 5.2, 5.3), the four case studies (sections 5.6 – 5.10), and the three steps of the data analysis stage (sections 5.11.1, 5.11.2, and 5.12). The three steps include Getting familiar with the data and the findings (section 5.11.1), Generating codes and themes (section 5.11.2), and Developing themes into a thematic network (section 5.12).

Thirdly, chapter 6 concludes the thematic analysis and presents an extended version of the initial model already discusses in chapter 3. The extended model (figure 6-2) reflects the nature of emergence of the GLOS culture. More specifically, it examines the emergent GLOS culture as it 'emerges' from the GLOS cultural system through mechanisms and processes. It also addresses emergent GLOS culture in relation to the cultural themes that were developed in chapter 5, using the methodology presented in chapter 4. The model is validated through opinions of professionals and original participants (section 6.4). The chapter concludes with further discussion on the topic of cultural emergence in a GLOS cultural system (section 6.5 and section 6.6).

1.6.4 Contribution (chapter 7)

In this chapter, the research concludes by discussing the findings in relation to the research questions of section 1.4. It also addresses the overall contribution of the study (section 7.2, section 7.3, and section 7.4), along with research limitations (section 7.5) and proposals for further research (section 7.6). Chapter 7 concludes the thesis with the researcher's reflections (section 7.7).

1.7 Summary of chapter 1

Chapter 1 discussed the overall scope of this study, aspects of which will be further examined in the rest of the thesis. Based on the research problem, aim, and questions as presented in section 1.4, the thesis moves now to chapter 2 to discuss the literature review of the field of outsourcing and of the field of culture, along with research issues related to IS/IT GLOS culture and its the emergent nature.

CHAPTER 2

LITERATURE REVIEW

2 Introduction to chapter 2

Chapter 1 referred to culture in global IS/IT outsourcing and its potential role as a risk factor and/or a hidden cost in an outsourcing relationship. In chapter 2, the theoretical background of culture in relation to IS/IT outsourcing research is presented. In order to achieve this, the chapter starts by discussing important issues in outsourcing, offshoring, and GLOS. The chapter then moves to the issue of culture as studied in relation to IS/IT GLOS. Through the analysis of the literature, the importance of addressing the emergence of culture in GLOS relationships is justified through identification of three research issues:

- A literature "gap" and low research granularity of existing research (section 2.3.1)
- The domination of a research dichotomy (typically expressed in the use of either the national or the organizational type of culture for research purposes)
- A call to address the emergent nature of culture

Overall, the contribution of chapter 2 to the thesis is based on the following:

- It justifies the importance of studying the emergent nature of culture.
- Based on the literature, it identifies cultural characteristics and subcharacteristics to be used in the analysis phase of the study.
- It justifies the need for the analysis of emergent GLOS culture in GLOS relationships as affected by the cultural characteristics of the collaborating organizations.

2.1 Outsourcing

As discussed in chapter 1 (section 1.1), the term outsourcing refers to the use of external agents to perform one or more organizational activities (Dibbern et al., 2004; Nicholson et al., 2006). It is chosen by companies as a business strategy that helps companies focus (or refocus) on core competencies and achieve benefits through cost savings and globalization (Beulen & Ribbers, 2003; Beulen et al., 2006; Lacity et al., 2003). Globalization, in this case, refers to reduction or removal of barriers, in order to facilitate the flow of goods/services across national boundaries (Sambasivan & Yen, 2010). In addition, it also

refers to substitution of production processes, relocation of services, redistribution of resources, and diffusion and infusion of cultural norms, artifacts, values (Leidner, 2010).

In terms of research, many aspects of outsourcing have been examined (Lacity, 2009), with Dibbern et al. (2004) covering the literature until 2000, Fjermestad & Saitta (2005) discussing outsourcing of IS and strategic decision-making, and Mahnke et al. (2005) using a variety of theoretical perspectives (see section 2.1.4). In addition, a number of papers identify "gaps" in the IS/IT outsourcing research and propose agendas for future research (Busi & McIvor, 2008; Oshri et al., 2009).

Regarding the outsourcing relationship, specific contract-related aspects need to be considered, such as uncertainty, risk aversion, programmability, measurability, and length (Grover et al., 1998). In addition, the likelihood of choosing an outsourcing strategy has been related to various factors, such as the distance between existing and desired IS/IT capabilities, the importance of resources, the number of potential suppliers, and the balance between transaction and production costs (Grover et al., 1996). IS/IT activities traditionally benefiting from GLOS include (Carmel & Tjia, 2005):

- Software-related work, e.g. code development and design
- Customer interaction services, e.g. telemarketing, helpdesks, call centers
- Back-office work, e.g. market research, tax preparation, airline and hotel reservations, insurance claims processing, financial research, HR functions
- Professional services, e.g. data and content integration
- Engineering services, e.g. Computer Aided Design (CAD), architectural drawings

2.1.1 Stages and motivation for outsourcing

From a business perspective, outsourcing appears to exist as part of "an international product cycle" (Vernon, 1966), moving through various stages (Carmel & Tjia, 2005). These stages, even though they focus on the outsourcing of products and not services, can still explain the financial rationale for outsourcing:

1. In the first stage, a new product (in the case of IS/IT outsourcing software applications, infrastructure, services, etc.) is developed in "industrialized" nations, occasionally as a result of entrepreneurial initiatives.
2. In the second stage, investments are made to low-wage nations and the offshoring transition begins.
3. In the third stages, the need for standardization arises and, once achieved, the industry is ready for mass production by low-priced and low-skilled labor.

Applying the above stages to both products and services, outsourcing relationships appear to describe a perspective that focuses on financial motivation along the lines of standardization and inexpensive workforce. However, quality and strategic benefits also play a role as motivating factors for offshore relations. As a result, while Vernon's original model focuses primarily on financial aspects, an approach that seems reasonable in a manufacturing industry context, later perspectives on outsourcing focus on achieving additional strategic benefits, beyond cost efficiency (Khan & Fitzgerald, 2004). This is evident in the fourth stage of a model, as proposed by Carmel & Agarwal (2002) to address the maturation phase of offshoring (Carmel & Tjia, 2005).

According to their model (Carmel & Agarwal, 2002), progression and maturation of offshoring can be explained in the following stages (each one requiring completion of the previous ones):

1. In the first stage, an organization is described as an "offshore bystander", observing offshoring activities by other organizations.
2. In the second stage, the company moves into a transitory or "experimental" stage, in which the potential offshoring action is tested to increase organizational learning and reduce potential risks.
3. In the third stage, as part of a cost saving strategy, the offshoring activity expands to include various projects or processes, based on positive measurable outcomes from the previous stage.
4. Finally, in the fourth stage, using its previous experience with offshoring, the organization gains benefits that extend beyond cost savings into strategic areas, e.g. innovation, flexibility, speed, industry-knowledge, competitiveness.

Based on the discussion of the above stages, IS/IT outsourcing appears to be initially driven by lower operational costs and competitive benefits, while it later becomes "a means to an end" (Palvia, 2003) towards achievement of strategic advantages. Such a sequence, however, does not take place automatically. Instead, IS/IT offshoring emerges gradually as a "strategic necessity", resulting from "hyper-competition". According to this business principle, companies have to take maximum advantage of opportunities in order to remain "financially viable and cost competitive" in the business environment (Carmel & Tjia, 2005). In this competitive context, companies tend to rely on two business strategies related to outsourcing (Lacity et al., 1994; Willcocks et al., 2004):

- They tend to outsource activities for which they can rely on the provider's domain expertise and cultural knowledge.
- They tend to keep in-house high-end activities, core competencies, or activities characterized by a high degree of creativity, experience, and research investment.

From the supplier's perspective, the main attraction of outsourcing is the potential long-term revenue stream. This revenue stream is achieved through the long(er)-term approach of an outsourcing contract, as compared to traditional consulting arrangements. This can stabilize the supplier's business volume and revenue, and increase the shareholders' "comfort levels" (Dibbern et al., 2004).

2.1.2 Types of GLOS

Various types of outsourcing have been discussed in the literature. This can be seen in research by Carmel & Tjia (2005), in which the authors, based on secondary resources, provide a list of "marketing-oriented terms for offshore outsourcing". This list includes a number of outsourcing-related terms: onshore, offshore, nearshore, best shore, anyshore, rightshore, farshore, dualshore, offsourcing, offshoring, nearsourcing, nearshoring, multishore.

In terms of differentiation in the types of outsourcing, some of the criteria frequently discussed in the literature are presented in table 2-1 and explained in the following subsections, starting with the geographical distance criterion as also discussed in chapter 1 (see section 1.1). The criteria include:

- Geographical distance (Murthy, 2004; Palvia, 2004)
- Process versus project scope (Carmel & Tjia 2005)
- Retained versus transferred activities (Lacity & Hirschheim 1995)
- General characteristics (Millar, 1994)
- Emerging sourcing arrangements (Willcocks & Lacity, 1998)
- Customer – supplier perspective (Beulen et al., 2006; Rottman & Lacity, 2006)

Such criteria and types are used in chapter 5 (see section 5.6.2) in order to better describe the GLOS profiles of the companies whose outsourcing activities are examined in the case studies of the present research.

Criteria	**Types of outsourcing**
Geographical distance Murthy, 2004; Palvia, 2004	Onshore outsourcing (or traditional outsourcing) Nearshore outsourcing Offshore outsourcing Farshore outsourcing
Process versus project scope Carmel & Tjia, 2005	Traditional outsourcing Project contracting or out-tasking
Retained versus transferred activities Lacity & Hirschheim, 1995	Total outsourcing Total insourcing Selective sourcing
General characteristics Millar, 1994	General outsourcing: Selective, Value adding , Co-operative Transitional outsourcing Business Process Outsourcing (BPO)

Emerging sourcing arrangements Willcocks & Lacity, 1998	Value-added outsourcing Equity holdings Multi-sourcing Co-sourcing Spin-offs Creative contracting
Customer - Supplier perspective Beulen et al., 2006; Rottman & Lacity, 2006	Regular offshore outsourcing Shared service center Joint venture Build, operate, transfer Fee-for-service Captive outsourcing Native service provision Foreign service provision

Table 2-1: Criteria and types of outsourcing

Geographical distance

According to the criterion of geographical distance (also discussed in chapter 1, section 1.1), researchers on outsourcing (Murthy, 2004; Palvia, 2004) differentiate between:

- Onshore outsourcing (or traditional outsourcing): It involves both the customer and the provider being located in the same country.
- Nearshore outsourcing: It involves outsourcing to countries close to the client company or to countries already related by the same type of treaty or alliance.
- Offshore outsourcing: It involves outsourcing to countries or continents not necessarily connected by national boundaries or trade laws but characterized, instead, by compatibility in culture, status, needs, and capabilities.

- Farshore outsourcing: It involves countries separated by a distance larger than the distance typically found in cases of nearshore and offshore outsourcing relationships.

Process versus project scope

According to the scope of outsourcing, Carmel & Tjia (2005) discuss the difference between:

- Traditional outsourcing: The entire process or product is delegated to an external provider.
- Project contracting or out-tasking: The outsourced activity is of the "one-off" type and a specific project is "contracted on a one-by-one basis".

Retained versus transferred activities

According to the numerical percentage of activities retained versus those transferred, Lacity & Hirschheim (1995) differentiate between:

- Total outsourcing: The decision to transfer more than 80% of the service-related budget assets, leases, staff, and managerial responsibility from an internal function to a third party vendor.
- Total insourcing: The decision to retain internally the management and provision of more than 80% of the IS budget.
- Selective sourcing: The decision to outsource selective functions, while retaining 20-80% of the IS budget.

General characteristics

According to general characteristics, Millar (1994) differentiates between:

- General outsourcing, including the following subtypes:
    - Selective outsourcing: One particular function is assigned to a third party. This definition is more general and does not focus on budget like the definition by Lacity & Hirschheim (1995).

    - Value adding outsourcing: A value adding function, which would not be cost-effective if provided internally, is assigned to a third party.
    - Co-operative outsourcing: One or more activities are jointly performed by both a third party provider and the internal department.
- Transitional outsourcing: It involves the migration of one technological platform to another.
- Business Process Outsourcing (BPO): A third party provider is responsible for performing an entire business process for the client.

Emerging sourcing arrangements

Taking into account "emerging sourcing arrangements", Willcocks & Lacity (1998) differentiate between six types of outsourcing:

- Value-added outsourcing: The strengths of both parties are combined to market new services and products (a definition similar to the one by Millar (1994).
- Equity holdings: One party takes an equity position in the other party.
- Multi-sourcing: One contract involves many suppliers.
- Co-sourcing: The vendor's revenue is tied to the performance of the recipient company.
- Spin-offs: The internal department becomes a new entity to enter the market.
- Creative contracting: The outsourcing deal includes special clauses in order to satisfy specific customer needs.

Customer - Supplier perspective

Depending on the perspective, an outsourcing arrangement can be one of the following types (Beulen et al., 2006; Rottman & Lacity, 2006):

- Regular outsourcing: When both the service provider and the recipient belong to different companies and have customer-supplier relationships.
- Shared service center: When the provider is part of the same legal entity as the recipient and has been set up by its parent organization for the specific purpose.
- Joint venture: When the customer and the supplier share ownership of offshore operations.

- Build, operate, transfer: When the supplier owns, builds, staffs, and operates the facility on behalf of the customer, and the ownership and the employees are transferred to the customer after completion of the prearranged deal.
- Fee-for-service: When the customer signs a contract for services in exchange for a fee paid to the supplier.
- Captive outsourcing: When the recipient's parent company owns the provider and builds, staffs and operates the offshore facility (a pattern common with multinational companies).
- Native outsourcing: When the provider is a subsidiary of a company headquartered in the same region as their client.
- Foreign outsourcing: When the provider operates from the developing country and has a customer interface subsidiary in the developed country, functioning mainly as a sales office.

To further explain the last two arrangements, in native outsourcing, the relationship is managed through the global office on the supplier's side (which is a customer-specific unit responsible for service delivery to the client, running of the local interfaces, and coordination) and through the information office on the recipient's organization. The global office and the information office are responsible for the tactical level of the outsourcing relationship. As a result of their cooperation, risks are reduced or absorbed by the provider, and companies with limited international experience can gain an advantage. The difference between native service provision and foreign service provision is that, in foreign outsourcing, the head office and the global office of the provider are located in a part of the world different from where the recipient is located. As a result, the role of the global office is reduced mainly to coordination of the service delivery.

2.1.3 Challenges of GLOS

This section discusses costs and risks related to GLOS. The topics and examples mentioned in the following table (table 2-2) are based on current research (Beulen et al. 2006, Carmel and Tjia, 2005; Lacity et al., 2009; Rottman & Lacity, 2004) and are used in order to provide general background and understanding of the topic. Their in-depth presentation is beyond the focus of the present research.

Category	Examples of challenges
Changes in the home country	Company's reputation, public image, illegal/unethical offshore operations, criminal convictions of employees, embargoes
Contract management	Handling of invoices and payments
Contractual	Dispute resolution, corruption of the legal system, provider's legal standing in the customer country
Country	Distance, business continuation, political stability, financial uncertainty, terrorism, wars, currency risks
Data security	Privacy concerns, misuse of sensitive data, lack of secure technologies, encryption, firewalls and anti-virus programs
Efficiency	Productivity ratio, measurability, efficiency, effectiveness
Governance	New communication posts, monitoring
Infrastructure	Technology, connectivity, secure communication links
Intellectual property	Trade secrets, project ownership, intellectual rights
Knowledge transfer	Skills, rules, specifications, knowledge transfer , expertise, 'know-how'
Mitigating risks	Disaster recovery, backup
Overhead allocation	Accounting issues
Proprietary knowledge	Knowledge leakage
Restructuring	Layoffs, severance pay, retention costs
Search and contract	Research, consulting fees, legal fees, contracting, travel
System security	Malicious code, open vulnerability
Travel	Onsite work, long stay visits, opportunity costs, actual travel

Table 2-2: Categories and challenges of outsourcing

In addition, the client organization, before initiating a GLOS relationship and in order to better estimate in advance the impact of the outsourcing relationship (Modarress & Ansari, 2007), needs to be aware of certain categories of costs, such as transaction costs, extra offshore costs, or hidden costs (Carmel & Agarwal, 2002; Overby, 2003). Some of the costs and risks mentioned already appear to exist in traditional outsourcing (as also discussed in section 1.2). However, they pose a greater threat and uncertainty risk in cases of offshore or global outsourcing (Carmel & Tjia, 2005; Heeks et al., 2001; Rottman & Lacity, 2006),

mainly due to the geographical distance factor. The risks associated with this factor are so important that sometimes a company will choose a nearshore location, instead of a country further away, despite the advantages of the farshore location (Carmel & Abbott, 2007).

2.1.4 Theories applied to outsourcing

During the last 50 years, many theories have explained outsourcing, from both an academic and a practitioners' perspective. A summary of the theories and corresponding researchers is presented in table 2-3, based on the work by Lacity (2009) and Lacity et al. (2009). A complete list focusing on the authors of each theoretical perspective can be found in Appendix E.

The list in table 2-3 shows that empirical work on IS/IT outsourcing has been affected by theoretical perspectives from various disciplines, including economics, strategy, sociology, systems science. Even though an in-depth analysis of the theoretical background is not the focus of this thesis, it is important to understand the variability of the theoretical perspectives before focusing on systems science as the theoretical perspective of the present research. More specifically, in the next chapter, the focus will turn to systems theory, aspects of which are used for the development of the model of this study (see section 3.2). Part of the general systems theory (von Bertallanfy, 1968) is the cultural systems perspective, which is the focal theory element of this research (see section 1.6.2) and is applied in the model development and the analysis stage of the thesis.

Theories from economics Organizations outsource decisions and engage in contracts to minimize total costs and mitigate risks such as opportunistic behaviors.
Transaction Cost Economics Authors: Ang & Straub, 1998; Barney, 1999; Dibbern et al., 2008; Ghosal & Morgan, 1996; Lacity & Willcocks, 1995; Poppo & Zenger, 1998; Williamson, 1991; Williamson, 2005 **Agency theory** Authors: Eisenhardt, 1989a; Gopal et al., 2003; Hall & Liedtka, 2005; Sharma, 1997 **Contracting theories** Authors: Gopal et al., 2003 ; MacNeil, 1980

Theories from strategy Organizations build or acquire resources to execute strategies that lead to winning.
Resource-based view Authors: Barney, 1991; Michalisin, 1997; Teng et al., 1995 **Resource Dependency theory** Authors: Davis & Cobb, 2009; Hillman et al., 2009 **Game theory / Auction theory** Authors: Nash, 1951; Nash, 1953 **Theories of firm strategy** Authors: Grover et al., 1994; McLellan et al. 1995; Miles & Snow, 1978; Slaughter & Ang; 1996
Theories from sociology Emphasis is placed on relationships among agents, including trust, power, feelings of mutual obligation, and social norms.
Social/Relational Exchange theory Authors: Ang & Slaughter, 2001; Carmel & Tjia, 2005; Goo et al., 2009; Grover et al., 1996; Lee & Kim, 1999; Poppo & Zenger, 2002; Whitten & Leidner, 2006 **Social Capital theory** Authors: Nahapiet & Ghosal, 1998 **Institutionalism** Authors: Ang & Cummings, 1997; DiMaggio & Powell, 1991; Miranda & Kim, 2006 **Power theories** Authors: Lacity & Hirschheim, 1993; Pfeffer, 1994 **Innovation Diffusion** Authors: Hu et al., 1997 **Social Cognition** Authors: Fiske & Taylor, 1991
Systems sciences Organizations are viewed as organisms that exchange resources across organizational boundaries and learn through the feedback they (the organizations) receive.

General Systems Theory Authors: Marcolin & Ross, 2005; von Bertalanffy, 1968 **Systems Dynamics** Authors: Dutta & Roy, 2005 **Modular Systems Theory** Authors: Tanriverdi et al., 2007

Table 2-3: Theories applied to IS/IT outsourcing (Lacity, 2009; Lacity et al.,2009)

Of particular interest to the present research are the sociological and organizational theories used to examine outsourcing relationships (Dibbern et al., 2004Lacity, 2009; Lacity et al., 2009), mainly because elements of them can be applied to the cultural and relationship elements of GLOS. These theories and their main constructs are partly replicated below, in table 2-4.

Theories from sociology Emphasis is placed on relationships among agents, including trust, power, feelings of mutual obligation, and social norms.
Social/Relational Exchange theory Major Constructs: Trust, Culture, Personal Satisfaction, Gain, Psychological obligations, Social exchange Authors: Ang & Slaughter, 2001; Carmel & Tjia, 2005; Goo et al., 2009; Grover et al., 1996; Lee & Kim, 1999; Poppo & Zenger, 2002; Whitten & Leidner, 2006 **Social Capital theory** Major Constructs:: Structural, Cognitive, Relational dimensions of social capital Authors: Nahapiet & Ghosal, 1998 **Institutionalism** Major Constructs: Mechanisms of isomorphic change: Coercive, Mimetic, Normative Authors: Ang & Cummings, 1997; DiMaggio & Powell, 1991; Miranda & Kim, 2006

Power theories

Major Constructs: Sources of power; Political tactics

Authors: Lacity & Hirschheim, 1993; Pfeffer, 1994

Innovation Diffusion

Major Constructs: Innovation, Individual, Organizational and environmental characteristics, S-shaped adoption curve, Social norms

Authors: Hu et al., 1997

Social Cognition

Major Constructs: Persistent expectations, Schemas, Scripts, Frames, Decision-making, Causal Analysis

Authors: Fiske & Taylor, 1991

Table 2-4: Social / Organizational theories applied to IS/IT outsourcing (Dibbern et al., 2004; Lacity, 2009; Lacity et al., 2009)

Overall, the theories of table 2-3 and table 2-4 are used in order to provide theoretical background to the present study. In addition, the theories and their constructs demonstrate the role of cultural, social, and organizational attributes in the study of outsourcing relationships and change, topics that are also addressed in the present thesis, in relation to the emergent nature of culture in a GLOS relationship.

2.2 Culture

Culture, being frequently considered as "a matter of dispute" (von Bertalanffy, 1968), is a topic that has attracted attention by many researchers over the years. This could explain the reason why, almost 60 years ago, Kroeber & Kluckhohn (1952) accumulated and discussed about 160 different definitions of culture. Since then, culture has been described in the following ways:

- It includes both subjective and objective elements (Triandis, 1994).

- It is a set of different types of reinforcement (Skinner, 1981).
- It is composed of pattern ways of thinking (Kluckhohn, 1954).
- It is a set of unstated standards, operating procedures, or ways of doing things (Triandis, 1994).
- It is a set of shared, taken-for granted implicit assumptions, used to guide a group's reaction to the environment (Schein, 1993).
- It is the human-made part of the organization (Herskovits, 1995).
- It is a cue for values, norms, beliefs, and customs, available in studies of cultural anthropology (Allaire & Fisirotou, 1984).

The following sections address research on culture, along with a call for change in the way culture is approached in research. In addition, theories and different types of culture are discussed, including types that focus on the emergent nature of culture. More specifically:

- Section 2.2.1 discusses research on culture from a general perspective, incorporating ethnicity and identity issues.
- Section 2.2.2 addresses reasons why, recently, there has been a call to approach the topic of culture in new ways.
- Section 2.2.3, discusses culture *specifically* in relation to GLOS.
- Section 2.2.4 discusses culture in an organizational/managerial context, along with two theories that dominate the field, i.e. the national and the organizational culture.
- Section 2.2.5 discusses the emergent nature of culture, building on two subtypes of organizational theory, the situating and the negotiated culture, both of which provide the basis for the concept of emergent GLOS culture as explored in the present research.

2.2.1 Research on culture

Culture is a topic studied in relation to various business and organizational issues, and the importance of culture and cultural differences can be seen in the increasing amount of research on the topic (Myers & Tan, 2002; Nisbett et al., 2001). In addition, it has also been emphasized from an anthropological perspective, through studies of ethnicity and identity

(D'Mello, 2005; D'Mello & Sahay, 2007; D' Mello & Eriksen, 2010, Efferin & Hopper, 2007; Eriksen, 2004).

Approaching culture from an ethnicity perspective, culture (through the concept of ethnicity) attributes "characteristics to the focal group of an organizational actor", defining the concept of self through the relation to others and acknowledging multiculturalism through history, politics, and ethnic conflict (Efferin & Hopper, 2007). Hannerz (1996) also argues about the existence of cosmopolitanism, according to which individuals are searching not for contrasts but for identifying uniformity, being willing to engage with what they would normally perceive as different. In doing so, and in recognizing the existence of cultural differences, individuals can function in two ways (Hannerz, 1996). One way involves their decision to integrate into their own culture only the pieces of the other culture that they find suitable, thus constructing their idiosyncratic perspective through a collection of different external experiences. The other way involves acceptance of every available aspect of the other culture, without denying specific cultural attributes.

Moreover, Eriksen (2004), building on concepts originally developed by Smith (1986; 1989), uses the concept of "ethnie" to describe the emergence of a national identity. More specifically, he uses the following dimensions to describe national identity and collectivities:

- A collective name
- A common myth of descent
- A shared history
- A distinctive shared culture
- An association with a specific territory
- A sense of solidarity
- Interpersonal networks
- Contrasting between a particular identity and what is considered and enemy identity

An "ethnie" is also connected to the concept of "peoplehood" through historical and cultural continuity (Fenton, 1999), conceptualizing ancestry as a dimension of ethnicity. This view is opposed with the more modern approach to culture, which emphasizes how modern states create the nations that encompass the community within the state's boundaries. According to this argument, nations do not create states (or nation-/states, as will be further discussed

in relation to Hofstede's theory in section 2.2.4). Instead, states give rise to nations, promoting a common culture that, according to Fenton (1999), is required for the development of "nationhood".

Culture and identity processes also seem to develop in inter-cultural global collaborations that are characterized by various kinds of co-existing cultures, thus challenging pre-established, taken-for-granted notions of culture (D'Mello & Eriksen, 2010). The same can also take place when taking under consideration the role of the national origin of an organization versus the importance of local circumstances in the particular economy in which they are professionally engaged (Westrup & Liu, 2008).

Overall, it appears that according to the role of individuals and organizations, the construction of identity has become a challenging project (D'Mello & Sahay, 2007), which allows culture to be addressed as "in flux", through various "agents and products" of cultural mixing. Despite some attempts to imply "cultural forms" through concepts such as bricolage, creolization, and hybridity (Hannerz, 1997), these topics have not, until recently, been part of the field of cultural anthropology (Hannerz, 1997).

2.2.2 Culture: A call for change

An increase can be observed in the number of studies that call for a change in the way culture is approached. Among the reasons for such a call is the belief that, in the contemporary modern environment, the cultural concepts discussed in the past as part of anthropological and sociological theories and studies are not capable any more of reflecting the "connectivities" and the "networks of the global economy" (Barham & Heimer, 1998). This is mostly because, due to their focus on stability and inability, some of the original theories appear incapable of adjusting to the demands of the modern global environment (Myers & Tan, 2002).

In order to address the lack of stability of the modern global environment, conceptual development has focused on discussing an approach to culture that emphasizes its nature as ongoing, contextual, temporal, and emergent, based on the individuals' reaction to the contemporary dynamic environment (Efferin & Hopper, 2007; Weisinger & Trauth, 2002; Weisinger & Trauth, 2003).

Furthermore, anthropologically-derived concepts of culture, as studied in the past, are not always suitable to address the responses of modern organizations to a broader international environment (Hendry, 1999) and to the changing nature of competition, as discussed in section 2.1.1 and also addressed by Westrup and Liu (2008). The authors (Westrup & Liu, 2008) claim a "neo-liberal" argument according to which the role of nation states, as in Hofstede's (1980) approach to culture (see section 2.2.4), is getting reduced in favor of "homogenous global" systems; especially when considering the role of IS in adopting a global way to work practices, which can help achieve successful business exchanges in diverse places (Westrup & Liu, 2008).

2.2.3 Culture in GLOS

The importance of culture in GLOS has been cited by many researchers in the IS/IT field (Gurung & Prater, 2006; Khan & Fitzgerald, 2004). Following the ideas of postmodernity, the focus is not necessarily on the *organization* of production but on the *production* of the organization, (Cooper & Burrell, 1988). Culture can then be expressed as an unavoidable part of any organizational environment, characterized by a cumulative set of attitudes and behaviors, resulting from the cultural exchange of experiences and expressions among its members (Brannen & Salk, 2000). After all,

In such a context, the present study adopts the view that the interaction between GLOS collaborating organizations is related to the expression and exchange of cultural characteristics of the two organizations' unique sets of cultural characteristics (also see section 2.2.5 on the emergent nature of culture). This results in the development of a new set of cultural characteristics. This new set (after the initiation of the collaboration) is different from the one that characterized exclusively one or the other organization in the period *before* the GLOS relationship and is expressed through different degrees of cultural compatibility (Goles & Chin, 2005; Piachaud, 20005).

Cultural compatibility (as also discussed in section 1.3) is among the key issues to be addressed when considering the cultural relationship that develops as part of a GLOS project (Piachaud, 2005). As a result, while moving away from the focus on pre-existing organization-specific culture, it is important to examine the role of culture in the

relationship between two or more cultural groups, once some GLSO collaboration has been initiated. This is expressed through the degree of the cultural compatibility and similarity in the GLOS relationship (Goles & Chin, 2005; Kern & Willcocks, 2002; Lee & Kim, 1999).

Trying to achieve a high level of cultural compatibility or fit while working across cultures is not a trouble-free process (Krishna et al, 2004). Different societies have different ways of working and are characterized by different expressions of their working environment. As a result, when attempting cross-border collaboration (Walsham, 2002), many aspects of the collaboration may end up being problematic because of lack of cultural adaptation or compatibility.

As also discussed in section 1.3, investing resources to examine cultural characteristics and develop cultural models can help account for potential cultural problems (Chen & Lin, 1998). Such GLOS-related problems include negative client-supplier and employer-employee relationships, wrong evaluations, assignment of employees to the wrong tasks, seniority and authority issues, misaligned social principles, and inefficient contact between local employees and foreign employers (Chen & Lin, 1998). Yet, despite the level of risk involved, researchers seem positive that awareness and analysis of the role of culture in GLOS can help reduce culture-related risks, improve the compatibility of cross-cultural GLOS relationships, and create "harmonization" between client and provider (Krishna et al, 2004).

In the IS/IT literature and, more specifically, in IS/IT GLOS research, the cultural element is evident through discussion of various strategic and business issues and it has been examined from many perspectives. More specifically (also see section 1.3), in relation to IS/IT outsourcing, culture has been studied as:

- Number two (after strategic organizational implication) among the "top 12" offshoring issues (King & Torkzadeh, 2008)
- A part of success factors models for IT outsourcing (Aubert et al., 2005; Fjermestad & Saitta, 2005)
- Guidelines for effective and strategic sourcing partnerships (Piachaud, 2005)
- A set of criteria for choosing successfully a provider (Barthelemy, 2003)
- A risk category (Davison, 2003; Rottman & Lacity, 2004)
- A hidden cost (Barthelemy, 2003) or "a trap to avoid" (Power et al., 2004)

- A way of managing the risks of offshore IT development projects (Kliem, 2004)

Moreover, as also discussed in section 1.3, in relation to the research problem of this thesis, culture and cultural characteristics have been identified as a reason for project failure, resulting in escalation of workforce and social risks (Rottman & Lacity, 2004), overlooking of personnel issues (Barthelemy, 2001; Barthelemy, 2003), and ineffective relationships (Oza et al. 2004; Oza & Hall, 2005; Stringfellow et al., 2008). In addition, they are also related to behavioral issues, e.g. psychological contracts, power issues, and trust (Parker & Russell, 2004), and to inefficiency expressed through low productivity, poor commitment, ineffective communication, and lack of expertise and readiness (Niccolai, 2005). Focusing on the vendor side, cultural clashes are also discussed in terms of reluctance to admit accountability for mistakes (Alami et al., 2008).

2.2.4 Culture in an organizational/managerial context

Culture has been an important topic in the study of organizations (Walsham, 1993). Regarding organizational culture, two schools of thought exist. On one hand, Morgan (1986) perceives organizations as able to create and recreate cultural phenomena because culture is a living phenomenon, not a set of static variables possessed by the society in which people live. On the other hand, researchers such as Peters & Waterman (1982) and Allaire & Firsirotou (1994) focus on developing models of culture and presenting culture as something that an organization "has", as opposed to Morgan's (1986) concept of culture as something that an organization "is". In other words, researchers have analyzed culture in organizations as a root metaphor i.e. organizations as expressive forms of patterns of symbolic action (Smircich, 1983) or as an attribute, i.e. possessed by an organization, observable and analyzable through criteria (Allaire & Firsirotu, 1984).

Following Allaire & Firsirotu's (1984) thinking, in organizational theory, as related to culture, culture can be expressed as "ideational systems", in which cultural and social norms are different but still related, and as "sociocultural systems", according to which culture is manifested as everyday behavior and also as a product of behaviors (Allaire & Firsirotou, 1984). Even though it is not a "catch-all" construct, there is still popularity in the relation between organizational culture and meanings, values, beliefs, rituals, and ceremonies (Allaire & Firsirotu, 1984).

Furthermore, in global sourcing and inter-cultural collaboration, it is also important to address the role of globalization and interconnectivity through the use of information and technology or, as Leidner (2010) describes it, "the global interconnection of business processes", in which Information and Communication Technologies (ICT) play an important role, e.g. in global supply chains. Considering the role of ICT, Hannerz (1996) claims that the modern type of media technology is able to deal with symbolic modes of culture, moving cultural boundaries beyond their previous confinement to face-to-face communication, where language was functioning as the main platform for cultural interaction. This new type of information and communication interactivity and interconnectivity conceptualizes globalization through the existence of a "global village" and "globally interconnected lives"; both terms enhancing "cultural convergence among businesses" (Leidner, 2010).

Moving from "cultural convergence" to cultural emergence, before elaborating on the development of a unique emergent GLOS culture between the GLOS collaborating organizations, this section discusses the two main cultural theories traditionally applied to organizational and IS/IT GLOS research (Karahanna et al., 2005), in order to establish the theoretical foundation on which emergent GLOS culture is further discussed in section 2.3.3.

Traditionally, cultural theories applied to organizations have been of two types (Leidner & Kayworth, 2006). The first type is national culture and the second type is organizational culture, aspects of which (organizational culture) can also be found in situating culture and negotiated culture. The following sections discuss these cultural types.

National culture

National culture has been studied as the effect of "conditioning by similar background, education, and life experiences" (Cannon et al., 1999) and is perceived through understanding of dominant social codes (Berger & Luckmann, 1991). Analyzed through various taxonomies and lists of corresponding characteristics, as discussed in the following paragraph, it claims that a certain set of characteristics appears across countries or nations. Depending on the geographical region or national borders, the magnitude of the

characteristics varies (Leidner & Kayworth, 2006), shaping the behavior of individuals and the society.

The most popular conceptualization of national culture is Hofstede's taxonomy (Hofstede 1980), being applied to more than 50% of the articles that examine culture at the national level (Leidner & Kayworth, 2006). Hofstede's approach uses the nation/state as a unit of analysis, assuming that each nation/state has its own distinct culture (Myers & Tan, 2002). This taxonomy treats the term culture as synonymous to "national culture" (Hofstede, 1980), manifested through five bipolar characteristics: Power distance, uncertainty avoidance, masculinity-femininity, collectivism-individualism, and long-time versus short-time orientation.

Apart from Hofstede's taxonomy, other characteristics have also been used to describe national culture (Leidner & Kayworth, 2006; Myers & Tan, 2002). For example, national culture has been conceptualized through Confucian dynamism (Hofstede & Bond, 1988), achieved versus ascribed status (Trompenaars & Hampden-Turner, 1994), objective-emotional dimension (Newman, 1977), low-versus high context culture (Hall, 1981).

Despite its original popularity, Hofstede's theory has faced a lot of criticism (Baskerville, 2003; Baskerville-Morley, 2005; Hendry, 1999; McSweeney, 2002; Myers & Tan, 2002), mainly because of its conceptualization of nations versus cultures (Baskerville, 2003). More specifically, in relation to the need for a paradigmatic shift in the way culture is studied (as discussed in section 2.2.2), the original theoretical background on national culture has been often criticized as weak to address this need for change. The main reason is the stability of the theory regarding the existence of national characteristics within a specific nation/state and the inability of such characteristics to adjust and change (Heales et al., 2010).

Moreover, Hofstede's dimensions cannot distinguish between individuals, since they can only be aggregated to the group level. As a result, the notion of national culture becomes "oversimplistic" and weak in the use of the nation/state as the unit of analysis (Myers & Tan, 2002). As a result, the concept cannot address the lack of homogeneity of cultural identity in modern nations/states (Fukuyama, 1995; Groeschl & Doherty, 2000). This results in an oversimplification that "appears static, objectivist, and essentialist" (D'Mello & Eriksen, 2010).

Furthermore, Efferin & Hopper (2007), refer to the theory's problematic concepts and research instruments, while Eriksen (2004) discussed the replacement of the concept of a pre-existing nation with the concept of an imagined community that is based on "shared futures and multiple pasts". In addition, other researchers have identified cultural dimensions that do not necessarily match the cultural dimension of the organization, especially when concepts formulated in different parts of the world (e.g. what is typically considered the West) attempt to explain cultural dimensions in a non-Western organization (D'Mello & Eriksen, 2010). This is also in accordance with Hannerz (1996), who argues that in a "global eucumene", sometimes it is hard to ponder the diversity and the uniqueness of those who inhabit only marginally the West.

A more inclusive critique of Hofstede is found in research by Baskervielle-Morley (2005), in which the author summarizes critiques by Myers & Tan (2002), Baskerville (2003), and McSweeney (2002). A summary of the common points found in these three critiques, based on Baskerville-Morley (2005), is presented in the next table.

Criticism	**Authors**
The data which formed the basis for Hofstede's analysis were not representative of people in the countries where they were collected.	Baskerville, 2003 Myers & Tan, 2002
The problem with the unit of the analysis is that it is a territorially unique nation-state.	Baskerville, 2003 McSweeney, 2002 Myers & Tan, 2002
Nation states are a relatively recent phenomenon.	Myers & Tan, 2002
National states are dynamic; older states have major changes in population and ethnic composition.	McSweeney, 2002 Myers & Tan, 2002
Nation states do not each have their own single and distinct culture; many nation states have multiple ethnicities.	Baskerville, 2003 Myers & Tan, 2002
Hofstede's view of culture is not supported by current anthropological perspectives; its foundations are no longer mainstream anthropology.	Baskerville, 2003 Myers & Tan, 2002
Regarding the relationship between national cultural values and culturally-influenced work-related values, Hofstede credits national cultures with strong, or even absolute, causality.	Baskerville, 2003 Myers & Tan, 2002

The simple model presented by Hofstede does not allow for complex relationships between culture and economic indicators.	Baskerville, 2003 Myers & Tan, 2002
The claim of an immutability of cultures, according to which each culture has a discrete unique nucleus or core, is not valid.	Baskerville, 2003 McSweeney, 2002
National cultural 'sharedness' between individuals cannot be derived from a statistical averaging of heterogeneous components or a national norm.	MsSweeney, 2002
The sample was only from employees from one organization, with a single uniform organizational culture.	Baskerville, 2003 McSweeney, 2002 Myers & Tan, 2002
Hofstede had to assume a national uniformity of culture in order to find it.	McSweeney, 2002

Table 2-5: Critique of Hofstede's national culture (Baskerville-Morley, 2005)

Using Efferin and Hopper's (2007) discussion on cultural contingency studies, some of their arguments can also be applied in the present research to contradict the theory of national culture:

- Analyses should not be assumed to be generalizable, assuming homogeneity within and across a particular nation.
- A static perspective (similar to Hofstede-like cultural approaches that use the state/nation as the unit of analysis) may not be the correct research approach.
- There is always the impact of historical and external organizational factors to be considered.
- Cultural values are developed through socialization on the family context, through educational experiences, and through socialization both within and outside the workplace.

Organizational culture

Apart from the national culture, another type of culture frequently mentioned in relation to an organizational environment is organizational culture, related to shared values, beliefs and assumptions that shape and guide social systems, group relations, and communication processes (Allaire & Firsirotu,1984; Iivari & Huisman, 2007; Schein, 1985). In addition, it

is related to an organization's ability and tendency towards other organizations (Beugelsdijk et al., 2006).

This type of culture differentiates between organizations according to the dominant behaviors expressed in the organizational context (Leidner & Kayworth, 2006). In this context, organizational culture is perceived as a system of interrelated understandings developed through the shared history and the expectations of organizational actors (Veiga et al., 2000). Its existence is based on relationship exchange (Beugelsdijk et al., 2006; Sambasivan & Yen, 2010) and communication of values, artifacts, behaviors, and experiences (Ogbonna & Harris, 2006). Its emergence appears to lie on its unconscious nature (Schein, 1999), operating in "hidden, dynamic layers" (Schein, 1993).

Agreeing on a generally accepted definition of organizational culture is not easy (Ogbonna & Harris, 2006), due to the "multifaceted nature" of organizational culture, as perceived by organizational members and researchers (Martin, 2002) and explained by Schein's multilevel approach (Schein, 1985). According to this view (Schein, 1985), organizational culture operates at three levels: artifacts, values, and assumptions, with emphasis not only on the existence of the components themselves but also on the *interaction* among them (Hatch, 1993).

Comparing the national and the organizational culture

As discussed in the previous section, on one hand, national culture is fixed, immutable, and holistic, affected by the country boundaries within which the group members are raised, educated, and form their experience and value system (Tsotra & Fitzgerald, 2007). Hofstede believes that national culture is stable and it can be defined as "the collective programming of the mind" (Hofstede, 1980; Hofstede & Bond, 1988).

On the other hand, organizational culture is evident in the organizational context, without necessary representing the culture of the country of origin of the individuals. Instead, it can exist independently and can emerge and evolve under organizational influences, individual interactions, and the context in which organizational actors operate and create "mental maps" (Argyris & Schon, 1974).

When comparing the two types, it appears that, in the organizational view of culture, culture represents permeability, fluidity, and a contentious "in-making" (Weisinger & Trauth, 2002). It is "fragmented, variable, historically situated" (Brightman, 1995) and, compared to national culture, it does not exist only in the minds of people but, also, in their behavior. After all, according to Weisinger & Trauth (2002) "culture is what culture does".

Compared to the stability of national culture, as evident in Hofstede's taxonomy, organizational culture is characterized by instability through communication and interaction. As a result, it is mostly expressed as an evolving product of the organizational environment, according to which organizational actors are considered capable to adjust by setting aside aspects of their primary cultural experience and by embracing cultural aspects normalized within the specific organizational context (Tsotra & Fitzgerald, 2007).

2.2.5 The emergent nature of culture

In the present study, the concept of emergence in relation to culture adopts the general concept of organizational culture, according to which culture is expressed as emergent, dynamic, unstable, and mutable. According to Efferin and Hopper (2007), culture is "neither totalizing nor deterministic", allowing instead organizational members to act in ways not expected if they were to focus on nation-specific cultural beliefs. Culture is the product of specific historical events and time, expressed through dynamic processes and interactions in an organizational group or subgroup (Schein, 1985). Consequently, it is characterized by variation and dynamism (Brannen, 1998; Brannen & Salk, 2000), as opposed to stability and resistance.

This emphasis on emergence and dynamism becomes more evident in the discussion of two theoretical, not mutually exclusive, subtypes of the organizational culture. These subtypes, the situating and the negotiated culture, even though, at the moment, appear to lack adequate empirical support, demonstrate the emergent nature of culture in a way similar to the one adopted and studied in the present thesis.

These two theories of culture, the situating and the negotiated, are discussed in order to provide some background on the idea of cultural emergence. Based on them, the emergent

nature of culture is explored, leading to the idea of emergent GLOS culture as discussed in the present thesis.

Situating culture

Situating culture is based on a socio-cultural perspective and involves the way multiple cultural contexts interact in order to influence social behavior in the organizational environment (Weisinger & Trauth, 2002). This subtype of organizational culture extends the theoretical foundation of organizational culture to include the interplay between the individual's cultural background, context, and behavior. By not focusing exclusively on abstract values or assumptions, it implies that what is *behaviorally* evident (not functioning in unconscious levels, as Schein (1993;1999) suggests) is what is shared among organizational actors and influences them (Weisinger & Salipante, 2000; Weisinger & Trauth, 2002).

According to research (Weisinger & Salipante, 2000; Weisinger & Trauth, Weisinger & Trauth, 2003), situating culture addresses culture as:

- Locally situated within a specific context: The interaction of group members, who may come from different cultures, is situated in a unique organizational context, such as the GLOS context of the present research.
- Dynamic: The workplace culture is influenced by the contribution of its stakeholders. By reacting to internal and external influences, the organization becomes dynamic, learning, and able to change and adapt in practical ways.
- Grounded in actual behaviors: By going beneath the surface of shared cognitive schemas and cultural assumptions (the "thinking"), emphasis is placed on the tangible behavior of people (the "doing" aspect of behavior).
- Contextually embedded in everyday, socially negotiated work practices: The development of unique localized cultural processes is a result of locally situated invention, mutual learning, and dynamic movement over time, all of which reflect distinct realities and workplace practices.

Negotiated culture

A subtype of organizational culture, with concepts similar to situating culture, is the negotiated subtype. Its basic difference from situating culture is its emphasis on negotiations and not so much on context. More specifically, it involves negotiations in the following areas (Brannen & Salk, 2000):

- The ways that actors use their various cultural identities and affiliations to participate in new organizational settings.
- The ways that working culture, either at a team or at an organizational level, emerges in settings characterized by multicultural variability.
- The ways that the social and work environment influences the identity management and the creation of a unique working culture within the specific organizational context.

Emergent GLOS culture

Concluding this section on the emergent nature of culture and building on the ideas of situating and negotiated culture, GLOS culture appears to be:

- Predominantly behaviorally manifested in the interactions, the planning, and the collaboration of members of the collaborating organizations in the GLOS relationship.
- Locally situated in the GLOS context of the relationship.
- Embedded in everyday socially negotiated work practices that are expressed as behaviors in the relationship.

After a period of interaction, individuals tend to develop common sets of procedures and experiences and end up with a context-specific and localized working culture. While globalization increases and the collaboration between organizations becomes multi-cultural the boundaries between companies in a network blend, especially for individuals who, due to their professional role in the organization need to interact and adjust to different work, social, and technical contexts (D'Mello, 2005). As a result of this involvement,

"transnational" cultures are developed, in which business people are systematically and directly involved with multiple cultures (Hannerz, 1996).

Moreover, as also discussed in section 2.2.3, regarding the present study, the interaction between GLOS collaborating organizations is related to the expression and exchange of the organizations' unique sets of cultural characteristics and results in the development of a new, unique set of cultural characteristics. In this way, culture is expressed through various context-specific characteristics in the organizational environment and it becomes an organizational resource initially produced and later reproduced.

In other words, within the specific GLOS cultural context of a GLOS relationship, culture emerges and has the potential to change and adjust through the interaction of certain characteristics and the negotiation of identities, settings, and context (also see section 2.3.3).

2.3 Research issues in IS/IT GLOS culture

In this section, research issues related to the topic of IS/IT GLOS culture are discussed, starting with a brief literature review in order to provide basic understanding of the state of research on the topic. Based on this review, the following three research issues surfaced and are explored in the following sections:

- Existence of a literature "gap" and low research granularity (section 2.3.1)
- Domination of a research dichotomy, as evident in the majority of research in the IS/IT field, which focuses on the choice of either the national or the organizational type of culture (section 2.3.2)
- The need to address GLOS culture as emergent (section 2.3.3)

These three research issues are addressed in the following sections. Section 2.3.1 starts by briefly reviewing the state of literature on IS/IT GLOS culture, in order to facilitate understanding of the topic of culture in IS/IT GLOS. It also points to the existence of a diffused and low granularity level of analysis, which is currently demonstrated through repetition of examples and a generic level of analysis of the topic. At the same time, it appears that in the *specific* field of IS/IT sourcing, the topic of culture, in terms of its nature, has not been properly addressed. The importance of identifying such a "gap" in the

literature, where, according to research a more thorough analysis would be expected (Busi & McIvor, 2008; King & Torkzadeh, 2008), is related to the contribution and the significance of the present research as discussed in section 1.3. In other words:

- Culture has been described as playing an important role in sourcing arrangements, especially inter-cultural collaboration. However, its role has not been yet "fully understood" (King & Torkzadeh, 2008).
- Culture and cultural issues are among the top risk/success factors in inter-cultural collaborations (section 2.2.3) and therefore their role is of importance (Abbott et al., 2010; King & Torkzadeh, 2008)
- There is a call to address culture in new ways, focusing on its nature beyond the distinction between the national - organizational level (section 2.2).

2.3.1 Literature "gap" and low research granularity

In section 2.2.4 and section 2.2.5, culture has been examined in order to establish its nature in relation to the organizational environment and its emergent nature in GLOS relationships. In this section, in order to understand the ways culture is manifested within the IS/IT GLOS context, a brief review of the IS/IT sourcing literature in relation to culture is presented, intended for understanding the state of research on the topic.

The review draws on recognized academic sources. It does not aspire to be all-inclusive and is limited in terms of time scale, since after a certain point the effect of saturation (Eisenhardt, 1989a) in the findings led to repetition of the same cultural characteristics. In addition, it is important to emphasize that outsourcing is examined *exclusively* within the global IS/IT context. This has been done in order to attain to the *specific* aim and research questions of the *present* research, and to examine the level of detail and in-depth analysis of the research, without addressing issues *beyond* the scope of the study.

In the articles examined, the issue of culture as related to IS/IT outsourcing, has been analyzed mostly as part of a broader research or theoretical framework. In addition, some papers tend to analyze culture in a diffused way, not as culture by itself but through culture-related issues, e.g. social, workforce, compatibility, distance. Such articles have been considered for analysis in order to support a level of open-mindness towards the topic,

accounting for potentially useful insights. Emphasis has been given to articles that mention, identify, and discuss cultural characteristics and also extend their analysis to cultural subcharacteristics. For example, culture can be the name of a category that includes areas such as cultural readiness, trade policies, tax, etc. (Fjermestad & Saitta, 2005), in which case it is considered at the characteristic level, or culture can included in a group with a more generic title, e.g. "psychic distance" (Evans et al., 2000), in which case, in terms of hierarchy, it is considered at the subcharacteristic level.

After examining the articles, it seems that on certain occasions, depending on the author, the *same* subcharacteristics refer to *different* cultural characteristics. For example, in terms of language, language is a subcharacteristic related to the characteristics of cultural readiness (Delmonte & McCarthy, 2003), cultural difficulties (Chen et al., 2002), communication barriers (Chen et al., 2002), psychic distance (Evans-Correia, 2006), behavioral risks (Kliem, 2004), human expertise and resources (Zatolyuk & Allgood, 2004). However, in other studies, language (Baker, 2000) and language differences (Gurung & Prater, 2006) are separate characteristics on their own or the term language is replaced by the term "written communication" used as a subcharacteristic (Fjermestad & Saitta, 2005).

On other occasions, what constitutes a subcharacteristic in one study is a characteristic in another. For example, cultural readiness is a subcharacteristic of culture in Fjermestad & Saitta (2005) but in other papers (Delmonte & McCarthy, 2003) it appears to be a characteristic. In addition, sometimes, the subcharacteristics mentioned are in reality only examples of culture, e.g. tax and licenses (Fjermestad & Saitta, 2005), knowledge of Western Business Practices (Zatolyuk & Allgood, 2004).

For the present research, having examined the state of literature on IS/IT GLOS culture in terms of characteristics and subcharacteristics, there appears to be no point in differentiating between characteristics and subcharacteristics, and all of them are examined as characteristics (disregarding any differences in the level of hierarchy.

This has been decided for the following reasons:

- Repetition of the same term in both levels increases research ambiguity.
- Analysis of the reasons for this hierarchy is beyond the scope of this study.

- There is not enough evidence to justify such an attempt, since it appears to be based mostly on the researchers' assumptions and specific research findings.

A similar approach to the one used in this research (using theory to obtain characteristics and concepts) has also been employed by Dibbern et al. (2004) and Leidner & Kayworth (2006). In the first paper, the focus is on the literature on IS outsourcing and the authors, among other issues, discuss the determinants and attributes of relationships that form a "partnership-style cooperation" at the firm level. In the second paper, Leidner & Kayworth (2006) review the topic of culture in IS research and identify a list of value characteristics.

Later in the research process, the list of cultural characteristics, as presented in Appendix A1a, will be combined with cultural systems characteristics (as they are discussed in the normative literature on cultural systems, section 3.2.2). Their combination will contribute to the development of the initial model (section 3.3). The empirical research methodology (section 4.4) regarding the analysis of the data (section 4.4.3) will be executed in Chapter 5 and Chapter 6 (see figure 5-2).

Overall, the current literature on culture in IS/IT GLOS appears to treat culture at a generic level, mostly through demonstrations of cultural attributes and replication of terms. In addition, as a result of this diffused research approach, the current state of the literature points to a level of analysis that is characterized by low granularity and ambiguity, as to *which* cultural aspects constitute cultural characteristic or subcharacteristics. Even though the present research addresses the issue by treating all the characteristics and subcharacteristics at the characteristic level, other empirical studies do not address hierarchy levels or examine the circumstances under which a term is treated as a cultural characteristic or subcharacteristic.

Moreover, regarding the acknowledged importance of the role of culture in GLOS, it is surprising to identify a "gap" where research supports the need for more in-depth analysis of culture in relation to GLOS; especially considering that the number of studies that focus *exclusively* on the study of culture in relation to IS/IT GLOS (e.g., Abbott, 2010; Krishna, 2004) is still relatively small compared to the emphasized (in the literature) significance of culture in the IS/IT GLOS field and the calls for more research on the topic (section 1.3).

Concluding this section, the observations from the literature on IS/IT GLOS and culture and the call for a change in the way culture is addressed (see section 2.2.1) suggest that research on culture is characterized by unclear conclusions as to its nature in IS/IT GLOS relationships. Moreover, a "gap" appears to exist regarding a solid theoretical framework on which to base research on cultural aspects, focusing *exclusively* on an IS/IT GLOS context.

2.3.2 Domination of research dichotomy

In terms of the application of cultural perspectives in the field of IS/IT, the dichotomy between national and organizational culture seems to dominate the field (Karahanna et al., 2005), with Hofstede's taxonomy being the one most frequently used, according Leidner and Kayworth (2006) and Leidner (2010). In their study (Leidner & Kayworth, 2006), 51 of the 82 articles reviewed examine culture at the national level and 31 at the organizational or subunit level, with more than 60% using one or more of Hofstede's dimensions.

This insistence on the national versus organizational culture dichotomy (reflecting a research tendency to choose between either one or the other) is more noteworthy when viewed in relation to the call for change raised and agreed upon by many researchers (see section 2.2.2). Even though the concepts of culture as situating and negotiated are promising, yet they have not been followed by attempts to examine them in an empirical setting. Moreover, even though there have been attempts to examine culture beyond the dichotomy perspective, e.g. Walsham (2002) used structuration theory to examine cross cultural software production, IS/IT might benefit even more from other researchers expanding their theoretical bases and applying other approaches to the study of culture (beyond the national and the organizational).

2.3.3 The unique nature of emergent GLOS culture

One criticism against Hofstede's theory is related to the stability of culture and its conceptualization as being slow to change (see section 2.2.4). However, in the context of situating and negotiated cultural types, after culture has emerged, it can be produced and reproduced, combined or modified through interactions among the organizational members in a specific context. Viewing culture as not persistent over time (Leidner, 2010; Schein,

1999), culture is created and recreated through exchanges, while, at the same time it expresses a level of dynamism that does not addresses culture as a "given" (Ali & Brooks, 2009).

As discussed in section 2.2.4, in relation to the situating and negotiated types of culture (with the former emphasizing the context and the later negotiations), the interactions and cultural negotiations of members in an organizational setting give rise to emergent sets of cultural characteristics. For example, the GLOS relationship may start with groups of one organization exhibiting cultural characteristics closer to characteristics associated with their national culture of origin. Later, having such characteristics as a starting point, culture moves towards development of new values, meanings, and norms in bi/multicultural organizations or groups (Brannen & Salk, 2000; Tsotra & Fitzgerald, 2007).

When considering the nature of culture in GLOS relationships, individuals coming from a certain national culture often work in a country characterized by a different national culture. Furthermore, employees' character develops through a combination of characteristics of their national culture and the expression of characteristics associated with the organizational culture in which they have to function every day (Tsotra & Fitzgerald, 2007). In the context of the GLOS relationship, negotiated sets of characteristics, meanings, and patterns, resulting from interactions within a unique organizational context (Brannen, 1994), become the basis for the development of a new context-specific culture.

Based on such interactions and exchanges in a GLOS relationship, this thesis adopts the view that, when one cultural group interacts with another cultural group, a GLOS relationship is formed, within which interactions lead to an emergent GLOS culture. Accepting the emergent nature of the new culture, as also discussed in section 2.2.5, the research focuses on examining a GLOS relationship as a network of cultural characteristics, and studies the GLOS relationship as a system of dynamic interactions among the cultural characteristics of the collaborating organizations 1, 2, …, n (figure 2-1, Appendix A1).

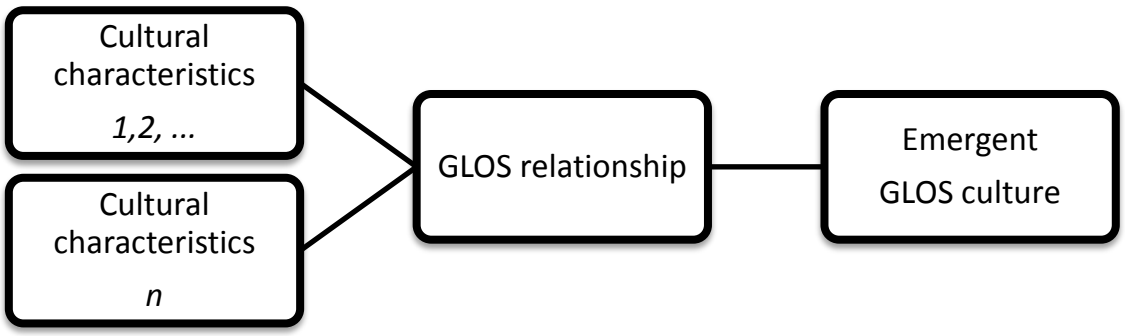

Figure 2-1: Emergent GLOS culture in a GLOS relationship

2.4 Conclusions from chapter 2

The present chapter explored the area of the research problem (as identified in section 1.3) by building on the literature on outsourcing and culture. By using the current research as a starting point, it analyzed the nature of culture in IS/IT GLOS relationships and, using research issues as identified in this chapter, it examined culture in terms of its emergent role in GLOS relationships.

The contribution of chapter 2 to the overall thesis is based on the following:

- It conducted a literature review of the core issues in relation to outsourcing, and more specifically IS/IT GLOS.
- It related GLOS to culture, within the IS/IT field.
- It discussed literature on IS/IT GLOS and identified cultural characteristics discussed in the literature.
- Summarizing the literature, it identified three research issues that are of importance to the aim of the present research and discussed their significance for IS/IT GLOS.
- It justified the importance of studying the unique nature of the emergent GLOS culture.
- It examined emergent GLOS culture in GLOS relationships as affected by the cultural characteristics of collaborating organizations.

In the next chapter, the thesis examines emergence, dynamism, and interaction, by building on the theory of cultural systems. In addition, the new cultural systems perspective on emergence will lead to the development of the initial model of the emergence of GLOS culture in a GLOS cultural system.

CHAPTER 3

INITIAL MODEL

3 Introduction to chapter 3

Chapter 2 discussed the role of culture in relation to IS/IT GLOS and, through the literature, it identified cultural characteristics that have been related to IS/IT GLOS and have the potential to play a role in the study of the emergent nature of culture in IS/IT GLOS relationships. In addition, it also identified the following research issues in relation to IS/IT GLOS and culture:

1. Culture, has been studied from a low granularity perspective and a "gap" appears to exist in the current literature, regarding lack of in-depth work in identifying culture in GLOS beyond the use of examples and descriptions. As discussed in section 2.3.1, this occurs despite the call for a change in the approach towards culture in IS/IT intercultural projects and also despite the importance of culture in GLOS projects.
2. There is a dichotomy that dominates IS/IT GLOS cultural research, evident in the choice of either national or organizational culture. Keeping in line with the research call for change in the way culture is examined, the present thesis supports the need for adopting a research perspective that moves beyond the perspective of either national or organizational culture.
3. Considering the specific context of GLOS relationships and the uniqueness of culture developed through interactions between collaborating organizations, and in order to move beyond a diffused approach to culture, the present study supports the concept of an emergent nature of the GLOS culture.

Concluding from the previous chapter, the present research focuses on examining a GLOS relationship as a system of dynamic interactions among the cultural characteristics of the collaborating organizations (see figure 2-1). As was also emphasized in section 1.3, the study does not attempt to compare cultural characteristics of specific organization or cultural characteristics *before* and *after* the GLOS collaboration but to examine cultural factors are related to the emergence of GOS culture.

In this chapter, interactions in the GLOS relationship are viewed through a cultural systems perspective, which addresses the concept of emergence and interaction. It is thus used to

further examine the emergence of GLOS culture and leads to the development of the initial model of the thesis (see figure 3-4), which demonstrates the relation between GLOS cultural systems and emergence of the GLOS culture. The model adds on the research on culture in relation to IS/IT GLOS, while it also reflects research calls to address the *emergent* nature of organizational culture (see section 2.2 and section 2.3) and the proposition that culture is "*dynamically*" shaped (Leidner 2010).

3.1 Viewing a GLOS relationship as a system

In order to better understand IS/IT GLOS cultural collaboration, the present thesis adopts a cultural systems perspective. According to this perspective, a cultural system is a type of system that exhibits the basic characteristics of a system, with the addition of the cultural element (see section 3.2).

A systems perspective has been applied to prior outsourcing research and systems theories were briefly discussed in relation to outsourcing in section 2.1.4 (see table 2-4). Examples of such studies involve the choice of sourcing mechanisms (Tanriverdi et al., 2007), a dynamic causal model of counteracting forces (Dutta & Roy, 2005), and complexities in IS sourcing (Marcolin & Ross, 2005).

Through the systems lens, as applied in the present study, the relationship between the collaborating organizations is examined from a systems perspective and, more specifically, the perspective of one particular type of systems, that of cultural systems. The reason is that, as will be discussed in the following sections, systems (and among them cultural systems), are characterized by emergence, dynamism, interaction, and evolution. In section 2.3.3, such concepts were 'set' to be used in order to address the emergent role of GLOS culture and the need for culture to be perceived beyond a static and stable nature.

Using the normative literature on systems and culture, the perception of GLOS *relationship* (see section 2.3.3, figure 2-1) extends to GLOS perceived as a *cultural system* (see figure 3-1).

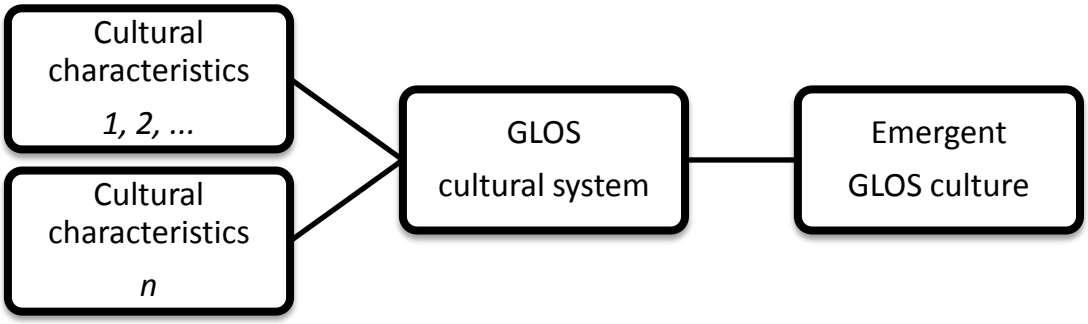

Figure 3-1: Emergent GLOS culture in a GLOS cultural system

Before incorporating the concepts of cultural systems into the initial model of the thesis, a brief discussion on the topic of systems and cultural systems follows. As was also the case with the literature review of culture in relation to IS/IT GLOS, a detailed presentation of the systems theory literature is beyond the scope of this research. Instead, systems theory characteristics and related concepts are used to provide a more solid background to the analysis of the emergent role of culture in GLOS.

3.2 Systems

The basic theory of systems is known as the General Systems Theory (GST), defined as "a general science of wholes and wholeness" (von Bertalanffy, 1968). The theory defines and explains all the phenomena through common systems characteristics (McLeod, 1995), which appear in all systems, even if the systems themselves consist of different components (von Bertalanffy, 1968).

Systems consist of "a set of interrelated elements" (Ackoff, 1971) or multiple component parts connected together to form a "whole" that exhibits properties of the "whole", rather than properties of its component parts (von Bertalanffy, 1968). In a definition offered by Vaccari & Delaney (1999), a system is "a set of components or subsystems which are interrelated, so that they can be perceived as a unit within its environment". Such systems components are also characterized by measurable attributes, which permit the distinction between different systems (Vaccari & Delaney, 1999).

In terms of the role that systems components play, von Bertalanffy (1968) explicitly acknowledges the role of interactions among components in the production of "organized complexity". By acknowledging such a role, he views a system as a set of "complex interacting elements", standing in "interrelations", "greater than the sum of its parts". Furthermore, by recognizing a degree of "irreducibility" of the interdependence that exists as a result of component interactions, von Bertalanffy (1968) gives ontological status to the "wholeness" of systems. He also extends the concept of systems to an epistemological perspective, according to which a system can be viewed beyond its inherent complexity and component interrelations, as a representation of forms different from the original ones.

With respect to the ontology of systems, various systems exist in the real world, distinguished by different levels of complexity (von Bertalanffy, 1968), as seen in examples of nine levels of systems (see figure 3-2) according to Boulding (1956). As seen in the pyramid form of figure 3.2, static structures are found at the low end and symbolic systems operate at the high end. Sociocultural systems, aspects of which are discussed in the present study, tend to be one level below the symbolic systems and they represent groups of organisms, including humans, in which culture emerges by symbol-determined communities of people.

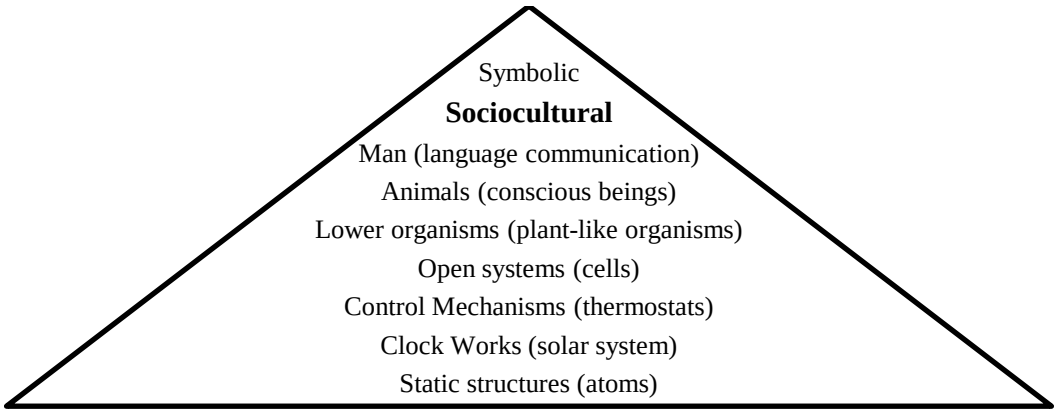

Figure 3-2 Levels of systems complexity

Sociocultural systems, of a complex-adaptive category, are also presented in table 3-1, showing Buckley's categorization of systems, according to which sociocultural systems are complex adaptive systems (Buckley, 1968). The characteristics of the complex adaptive systems, examples of which are the cultural systems of the present thesis are discussed in section 3.2.1 and 3.2.2.

Equilibrial systems	**Homeostatic systems**	**Complex adaptive systems** **Examples:** **Species (biology, anthropology)** **Psychological, sociocultural systems**
Closed	Open	Open (internally and externally)
Loose structure	Maintenance of system's structure	Changes in components nature Interchanges among the components
No internal or endogenous source of change	Regulation	Regulation and self-direction Adaptation to changing environment Change and structural elaboration as a condition of survival or viability
Energy interexchange	Information and energy interchanges	Internal and external interchanges mediated by information flows
No feedback loops	Feedback loops	Feedback control loops Systematic self-regulating Adaptive capabilities

Table 3-1: Categories of systems complexity

Sociocultural systems are also discussed through the functional and functional-structuralist schools, discussing the role of culture in particular points in space and time. The first school addresses need-satisfaction in order to deal with specific problems while, in the latest, culture is viewed as an adaptive mechanism that provides communal order in a particular environment. Furthermore, the ecological-adaptationist school relates society to ecological and contextual settings and the historical-diffusionist school views culture as temporal and interactive (Allaire & Fisirotou, 1984). In addition, the view of organizations as sociocultural systems discusses systems' components being integrated, synchronized, and in accordance with any symbolism within the organization (Allaire & Fisirotou, 1984).

As presented in table 3-1, different categories of systems complexities are related to various degrees of "systemness" in terms of structure, nature of the components, regulation, interchanges, and capabilities. Such characteristics of the "whole" are better understood through "unorganized aggregation" or, in simpler terms, through the sum of the system's components (and not their numerical addition) (von Bertalanffy, 1968).

To conclude this section, using the concepts of component interactivity, complexity, and "systemness" discussed in the normative literature on general systems, the perspective of this thesis is extended beyond the relationship perspective discussed in chapter 2 (see section 2.3.3). The present research approach, assuming first the perspective of a system as a set of interrelated components, focuses then on cultural systems of a sociocultural level and, more specifically, GLOS cultural systems that exist within a specific GLOS setting.

3.2.1 Cultural systems

Cultural systems are defined as coherent sets of values, concepts, beliefs, rules, learned behaviors, expressed symbols, and ideals (Parsons, 1991). They help distinguish a particular society by guiding and rationalizing people's behavior, as it emerges through decision-making, past accumulation of resources and action-based decisions (Ember et al., 2002). The content or the components of a cultural system also include the ways people organize their world experience, their scheme of cause-effect relationships, the hierarchy of their preferences, and the recurring processes used for achieving desired features (Chesebro & Bertelsen, 1998). Viewed as an entity, a cultural system functions as an active symbolic system of socialization that creates, reinforces, and alters individual, social, and enculturation processes, also facilitating attribution of meaning (Chesebro, 1984).

Within a broad context such as an organizational setting, a cultural system is created and reshaped by organizational actors within a specific setting. The group members, by gradually revealing and sharing their original national culture and experience, contribute towards a common shared culture. Yet, despite the locality and the specificity of the context, a common culture is not always easy to be shared by all the group members, because of the blend of "publics" and subpublics" of the modern society (Boyd, 1989), all of which are characterized by their own values, norms and expectations. However, even in cases when there are not sufficient shared characteristics, the group still tends to work on developing its own emergent cultural system, a phenomenon observed frequently in context-specific international and managerial groups (Boyd, 1989).

In terms of emergence, a specific cultural system develops and changes as a result of the inherent interaction and contribution of its elements. Using the example of international or

managerial groups (Boyd, 1989), a specific cultural system makes its own demands felt in the life of the group (Erickson, 1996). For example, attempts by group members high in hierarchy (e.g. managers) to relate the group to a larger scheme outside the group (e.g. a well-established outsourcing client) help members associate and participate in the group, as a result of which a particular cultural system emerges. From a philosophical perspective, such efforts are sometimes perceived as attempts to establish "cosmic order" to the "chaos and psychological anxieties" that tend to exist in the system (Neumann, 1960).

Overall, in an organizational context, the cultural system refers to the cultural elements that are expressed and experienced by organizational actors. Such elements include traditions, values, concepts, beliefs, rules, learned behaviors, feelings, conduct, ideals, rewards, expectations. Through interactions, interrelations, and interdependence of such elements, the cultural system evolves and has the ability to continue doing so and change. Thus, the emergent culture of a system, within a specific context (in the present study, a GLOS cultural system within a GLOS-specific context) can be examined in terms of the ways that various components of the cultural system contradict, complement, or coexist with each other. In doing so, they rely on various methods, such as socialization, feedback, transmission of cultural characteristics, interaction, and collaboration (Archer, 1996).

3.2.2 Characteristics of cultural systems

Viewing organizations as sociocultural systems (as discussed in section 3.2), their components develop in accordance with the social and structural context in which they operate (Allaire & Fisirotou, 1984). For example:

A system's hierarchy refers to the existence of multi-level layers of components (von Bertalanffy, 1968), according to which every system can be perceived as part of a higher-level system (Sirgy, 1988) or suprasystem (Kast & Rosenzweig, 1972). In other words, a system can be incorporated in the system immediately above or below, while deciding which components are perceived at the level of system or subsystem depends on the observer (Checkland, 1999). In the present study, the hierarchical relationships surrounding a GLOS cultural system are shown in the framework of figure 3-3, according to which the larger environment (or suprasystem) is the external organizational or business environment, within which the GLOS context operates (further within which the GLOS cultural system

expresses an emergent GLOS culture). This environment also includes various forms of institutions with which the organizational members familiarize themselves at various stages in their life, e.g. family, religion, politics, social, and educational institutions (Hofstede, 2003)

Moreover, since the GLOS cultural system (see figure 3-3) can be seen as a sociocultural adaptive type (see section 3.2), it is open internally and externally (see table 3-1), and communication and interaction can take place between the levels of hierarchy, as a result of a certain level (or lack) of information flow.

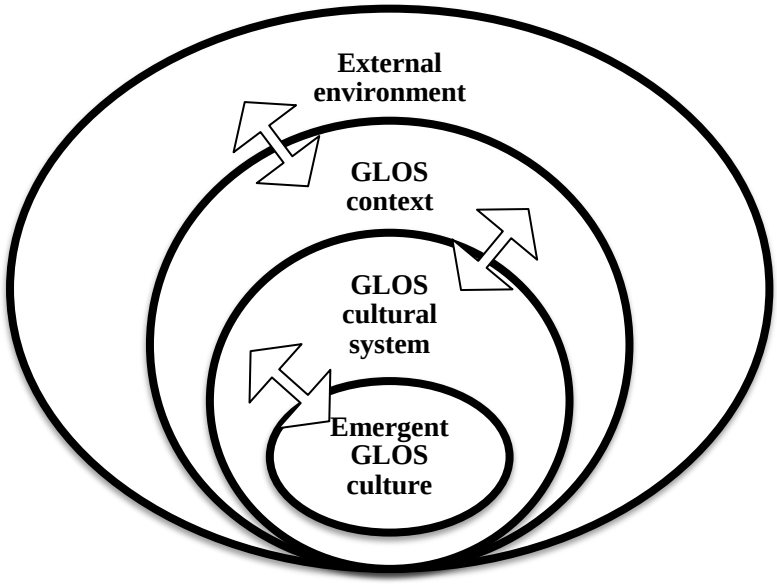

Figure 3-3: Hierarchy and flow within a GLOS cultural system

In the case of the GLOS cultural system of figure 3-3, information flow refers to the resulting amount of randomness and lack of pattern or structure within and around the system. The more information a system acquires, the more freedom and flexibility it has in terms of possible choices and potential for emergence and change (Doktor et al., 1991).

Apart from flow, emergence of culture in a cultural system is also related to interactions and interdependencies within the system and between the system and the environment that exists around its boundaries (Mora et al., 2007; Allaire & Fisirotou, 1984). Through emergence, as discussed in section 3.2, the system develops unique actions and/or properties, expressed

not by the individual elements of the system, but by the "whole" existence of the system, as explained by the system's "unitary functional view" (Mora et al., 2007).

Further related to cultural systems' interactions is the concept of regulation and control. Depending on its relation to the external environment, a system may be closed and isolated from its environment and, since there is no import or export of material, its final state is determined by its initial conditions, manifested as cultural stability and lack of emergence. In contrast, an open system exchanges "material" and information with the environment, resulting in interaction at the component level and in the emergence of a non-random organized arrangement of the system's components (Mora et al., 2007).

Moreover, as the open system regulates itself in order to move towards its goals, it tries, through feedback mechanisms, to attain compatibility with environmental goals and avoid friction (Martins, 2003). Therefore, a system's goal state refers to the extent that a system has predefined goals and a set of intentional behaviors to reach its targets (Mora et al., 2007), through exchange and flow of the component material (Johnson et al., 1995).

Having explained cultural systems characteristics and related concepts, the next section will group these characteristics into conceptual categories used in the development for the initial model of the thesis.

3.3 Initial model

The initial model proposed in the present study is shown in figure 3-4 and is explained in the remaining chapter.

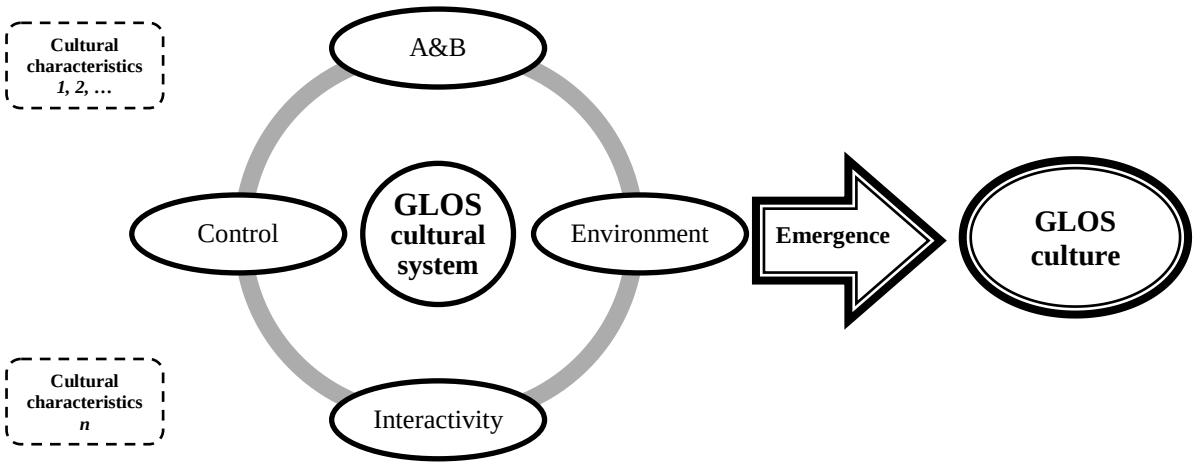

Figure 3-4: The initial model

According to the initial model, GLOS culture emerges from a GLOS cultural system, as it (the GLOS cultural system) results from the *combination* of cultural characteristics of separate organizations involved in the GLOS relationship (see Appendix A1a for characteristics discussed in the literature on culture and IS/IT GLOS and Appendix A1b for characteristics developed from the analysis of the interview data).

In the model of figure 3-4, the cultural characteristics of separate organizations are depicted as cultural characteristics 1, 2, …, n, implying that the number of organizations that are part of the GLOS collaboration or the GLOS cultural system (as presented in the present model) is not restricted to two. The GLOS cultural system (as it results from the *combination* of cultural characteristics of separate organizations involved in the GLOS relationship) is related to attitudes and behaviors (A&B), the environment, interactivity, and control. These four groups are based on the discussion on the characteristics of cultural systems (section 3.2.2) and are further defined and related to previous research in table 3-2.

The focus of the model is the GLOS cultural system and the emergence of GLOS culture (from the GLOS cultural system). The four groups (A&B, the environment, interactivity, and control) will be further analyzed through interview data (in chapter 5) in order to identify specific cultural attributes (related to these four groups) that play a role in the 'emergence of the emergent GLOS culture'. In table 3-2, the conceptual groups are presented, consisting of cultural systems characteristics related to the topic of emergence.

These conceptual groups are also expected to appear as literature-based themes in the data analysis phase. The synthesis of cultural characteristics with cultural systems characteristics is explored in chapter 5 (see figure 5-2).

Cultural systems characteristics	**Description**	**Main theorists / Literature**
A&B (Attitudes & Behaviors)	A – Attitudes: abstract, tacit and internalized representations of the world, such as beliefs, concepts, ideals, values, norms, traditions, thoughts B – Behaviors: expressed, empirical, and externalized activities related to attitudes	Allen et al., 2002 Parsons, 1991
Environment	This category represents the business setting, within which the specific GLOS relationship operates, and the existence and role of hierarchical boundaries. It also represents institutions that function outside the organizational context but influence the organizational members (e.g. religious, educational, social, political).	Checkland, 1999 Hofstede, 2003 Kast & Rosenzweig, 1972 Sirgy, 1988 von Bertalanffy, 1968
Interactivity	This category includes interrelationships within the systems and exchanges, both within the cultural system and between the system and the surrounding levels.	Ackoff, 1971 Allaire & Fisirotou, 1984 Martins, 2003 Mora et al., 2007 von Bertalanffy, 1968
Control	This category involves issues related to power and efforts to use power to achieve certain goals. It is different from the interactivity category because it can play an instructive and directive role towards the system's functionality and goal orientation.	Buckley, 1968 Ember et al., 2002 Mora et al., 2007
Emergence	This category describes the evolution of a GLOS	Boyd, 1989

	culture and the potential for enculturation and adaption, as the GLOS relationship gradually expresses a GLOS emergent culture.	Ember et al., 2002 Erickson, 1996 Mora et al., 2007

Table 3-2: Cultural systems characteristics and concepts of the initial model

3.3.1 Use of cultural systems perspective in the initial model

The tradition of viewing organizations as systems has had a long history in organizational theory (Ashby, 1962; Katz & Kahn, 1966) and the present study follows and expands on such an intellectual basis. By using cultural systems to model a GLOS relationship, the GLOS relationship becomes a dynamic system of adaptation and evolution, containing elements that interact with one another and with(in) the environment. This results in an emergent GLOS culture.

In examining GLOS relationships under a cultural systems perspective, the present study is able to examine specific systems-related characteristics that are of importance to an organizational context. Adapted from McLeod (1995), this study, through the use of the cultural systems perspective, is able to:

- Examine the existence of a GLOS-specific multi-characteristic environment, subject to influences from a broader external environment.
- Through the use of cultural systems characteristics, identify factors that play a role and ensure that the GLOS relationship moves intentionally and strategically towards an emergent state of culture.

In addition, the general systems perspective is appropriate in this study because the collaborating organizations enter a new stage, after the outsourcing deal is signed by the collaborating parties and the terms of the relationship are agreed. The companies, then, merge into a new system. This GLOS system functions within its specific (GLOS) context and, through the interaction of its components interactions expresses an emergent GLOS culture.

Overall, the cultural systems perspective, in order to describe the emergent GLOS culture, is using cultural systems concepts, as they are discussed by systems researchers and applied in the organizational field (Checkland, 1994; McLeod, 1995). In other words, in one hand, the focus of the cultural systems perspective on emergence, interaction, and change is among the concepts already addressed by research and theory. GLOS, on the other hand, as discussed in chapter 2 (see section 2.2.5) in relation to the unique and emergent nature of its culture, exemplifies such systems characteristics. Consequently, the cultural systems perspective is a promising perspective in terms of its ability to provide theoretical background to the emergent nature of the GLOS culture (see section 3.3). It also contributes to the development of the initial model of the thesis (see section 3.3), the development of the interview agenda (see section 4.4.1), and the development of literature-based themes for data analysis (see section 4.4.3).

Other issues that are based on the systems literature and point to the appropriateness of viewing a GLOS relationship as a GLOS cultural system include the following:

- GLOS is part of a multilayered environment and functions as an open system subject to information exchange and flow.
- GLOS relationships include various interactions (e.g. collaboration among group members at the inter-organizational and intra-organizational level, interaction with the government, dependency on the tax system) and regulatory activities (e.g. controlling the relationships among the organizational members, establishing hierarchy, defining boundaries, adopting laws and regulations) in order for the GLOS cultural system to attain its goals.
- A GLOS-specific culture emerges eventually through regular interaction and interdependence of the integrated components of the GLOS cultural system.
- The business environment, the GLOS context, and various managerial, supervisory, and group activities provide regulation and feedback to a GLOS relationship.
- Management and supervision serve as control mechanisms to ensure the objectives of the GLOS cultural system are met.
- In order to survive or maintain equilibrium with respect to the environment and its goals, a GLOS cultural system moves towards change, adaptation, and adjustment.

In addition, the model, by building on the combination of cultural characteristics of separate organizations links the existence of a specific set of characteristics to a GLOS cultural system and the emergence of a GLOS culture.

3.3.2 The concept of GLOS emergent culture

As also discussed in section 2.2.4, national culture, with characteristics that appear to be the same for every nation/state, expresses cultural stability. If national culture is applied to an organizational level, it could be beneficial only to small and highly exclusive organizations, with cultural homogeneity in terms of individuals and ideas. Yet, globalization, technology, and modern telecommunication systems, broke the border of the nation-specific cultural characteristics (Tsotra & Fitzgerald, 2007). With the use of information and technology exchange, business processes within and across organizations become interconnected and globalization includes only the exchange of finished goods but also the diffusion and infusion of cultural norms (Leidner & Kayworth, 2006).

Furthermore, the information era and the everyday stimuli of the modern society affect individuality in terms of experience, ideas, values, knowledge, and perspectives. When individuals become members of an organization of any type, they carry with them and transfer their own actuality while, in addition, they encounter some of the characteristics that compose the culture of the people around them (Tsotra & Fitzgerald 2007). Different characteristics interact as a result of interchanges, conflicts, and compromises. Through a kind of organizational metamorphosis, a context-specific culture emerges, operates, and functions dynamically in the specific organizational context, to adapt again later, according to the changing environment and the system's goals.

GLOS culture, through control and interaction of attitudes and behavior in the specific environment, represents a set of combined characteristics that further interact with the external environment to provide adaptation, differentiation and integration (Allen et al., 2002). Development of the emergent GLOS culture results from the actors being expected to be and behave as active participants (i.e. by following and actively constructing and contributing to the organizational culture) and also from its functioning at the unconscious level (Salk & Brannen, 2000; Schein, 1993, Schein 1999).

Using the conceptual aspects of the situating and negotiating culture (see section 2.2.4), the present thesis also adopts the view that, in the emergent GLOS culture, emphasis is on the context (i.e. the environment, the economic climate, the workplace, the stakeholders, the work practices). In addition, it also focuses on the methods through which interactions and negotiations take place and lead to the emergence of the GLOS culture.

3.4 Conclusions from chapter 3

The contribution of chapter 3 involved the following:

1. It extended the study of GLOS as a relationship to the study of GLOS as a cultural system, using the focus of the systems theories on emergence.
2. Its grouping of cultural systems characteristics and concepts led to the development of potential literature-based themes to be used for the collection and the analysis of the data, in a similar way that identification of cultural characteristics in chapter 2 led to the development of potential literature-based codes.
3. It presented an initial model that is treating a GLOS relationship as a cultural system, using cultural systems characteristics to analyze emergence.

The GLOS cultural system, as discussed in the model, is related to four groups of cultural systems characteristics (namely, attitudes and behaviors (A&B), the environment, interactivity, and control) and, through emergence, the GLOS cultural system moves towards expression of a GLOS culture. Through this theoretical model, this research considers the relationship between organizations as a starting point from which a GLOS cultural system emerges and expresses an emergent GLOS culture.

More specifically, the model focuses on the GLOS cultural system and the emergence of GLOS culture (from the GLOS cultural system). GLOS culture emerges from a GLOS cultural system, as it (the GLOS cultural system) results from the *combination* of cultural characteristics of separate organizations involved in the GLOS relationship. The four groups (attitudes and behaviors (A&B), the environment, interactivity, and control) have been developed through the discussion on the characteristics of cultural systems (section 3.2.2) and they will be further analyzed through interview data (in chapter 5), in order to identify specific cultural attributes (related to these four groups) that play a role in the 'emergence'

of the emergent GLOS culture. These conceptual groups are also expected to appear as potential literature-based themes in the data analysis phase.

The next chapter presents the methodological issues related to the study of the emergent role of culture on GLOS IS/IT relationships. Among other issues, it discusses the study in terms of philosophical perspective, methodology, strategy, data generation techniques, data analysis, and the empirical research methodology.

CHAPTER 4

METHODOLOGICAL ISSUES

4 Introduction to chapter 4

Considering the availability and the variety of research approaches, choosing an appropriate methodology can be a challenging task for the researcher (Galliers, 1992; Patton, 2002; Yin, 2009). In this chapter, building on the literature review, the research issues, and the concepts of the initial model, as discussed in the previous chapters, specific methodological aspects are discussed. In addition, aspects of the normative literature on research methodologies are reviewed, along with arguments supporting the selection of a suitable research methodology. The chapter concludes with the empirical research methodology of the thesis.

4.1 Philosophical perspective

Choosing among a variety of epistemological paradigms, the role of the appropriate philosophical perspective in research is to provide guidance and help address epistemological issues. Epistemology consists of assumptions about the nature of knowledge and the ways knowledge is acquired (Cavaye, 1996; Oates, 2006). Even though philosophical epistemologies appear to be distinct in theory (as will be discussed in the following sections), the distinction among them is not always clear in practice, with different philosophical stances being related to the same strategy. For example, positivist, interpretive, and critical studies can all be related to case study (Cavaye, 1996; Myers & Avison, 2002).

In the general field of philosophy, various approaches to epistemological taxonomies have been used, based on the following distinctions:

- The distinction among positivism, post-positivism, critical theory, constructivism, and participatory stance (Guba & Lincoln, 1994).
- The choice of interpretivism, hermeneutics, or social constructivism (Schwandt, 2000).
- The option of objectivism, constructivism, or subjectivism (Crotty, 1998; Guba & Lincoln, 1994; Myers & Avison, 2002).

In the more specific field of philosophy applied to IS, there are three perspectives that have dominated the field (Myers & Tan, 2002; Orlikowski & Baroudi, 1991):

- Positivism
- Interpretivism
- Critical research

Among them, the positivist stance appears to be the dominant one (Galliers, 1992; Yin, 2009), even though many researchers comment on the growing number of studies that use different perspectives. The three approaches, as applied to the IS research, are discussed in the following paragraphs.

4.1.1 Positivist research

According to the positivist perspective, the main research objective is to generate results that will stand independently of the research setting, the researcher and the instruments used (Silverman, 2001). In other words, a basic assumption of positivism is that reality is objective and, as a result, the observation of phenomena occurs in an objective and rigorous way that aims towards understanding the components of any social setting (Cavaye, 1996).

In IS, research is considered positivist if there is evidence of formal propositions, quantifiable measures of variables, and hypothesis testing (Orlikowski & Baroudi, 1991), and the observations are controlled, replicable, generalizable, and apply "formal logic" (Cavaye, 1996). Overall, positivist research contributes to the examination of a real world with verifiable patterns, where understanding is predictive, not descriptive (Walsham, 1995a; Walsham, 1995b), and inferences from the phenomenon under study can be generalized to the population (Galliers, 1992; Galliers, 1994).

4.1.2 Interpretivism

Interpretivism assumes that access to reality occurs through social constructions such as language, consciousness, and shared meanings (Myers & Avison, 2002). If employing theory aspects during its early stages, it can also create some theoretical basis for the topic of the study (Walsham, 2006). However, applying theory can also lead to the researcher becoming rigid and unresponsive to potential new issues that may arise during the data collection and analysis phases. This is the reason why Walsham (2006), supports being open-minded to the field data and willing to alter original theoretical aspects and assumptions.

The final product of interpretivism may include concepts, conceptual frameworks, propositions, or theory (Eisenhardt, 1989b). Constructs are allowed to emerge during investigation of the context of the phenomenon under study (Walsham, 1993), under the influence of external influences to the creation of meaning (Oates, 2006) or by the researcher, who is responsible for accessing multiple interpretations from other people and filter them through his/her individual thinking processes (Walsham, 2006).

Compared to the objectivity of positivism, the epistemological assumption of interpretivism is subjectivity in the collection and analysis of the data (Walsham, 2006). Reality consists of multiple interpretations and is related to the specific context of the study, a type of influence known as “localization” (Cavaye, 1996).

4.1.3 Critical research

Critical research treats reality as being historically constructed, produced and later reproduced by individuals (Myers & Avison, 2002). Like interpretivist research, critical research shares the view that social reality is created by people, but it does not perceive reality as having only subjective characteristics. Instead, critical research proposes that reality also contains objective characteristics, which dominate everyday experience through systems of “economic, political, and cultural authority” (Oates, 2006). In addition, it focuses on social critique through the study of social opposition, conflict, and contradiction. It aims towards emancipation, through reduction of

alienation, domination, and the power of the social and economic status quo (Orlikowski & Baroudi, 1991).

4.1.4 Use of interpretivism in the current study

Continuing from section 4.1.2, the aim of interpretivism is in-depth understanding of context, discovering how individuals understand the uniqueness of their world. It focuses on understanding how perceptions change from one group to the other, leading to different groups of people perceiving the world in different ways.

Using an example within a context similar to that of the present study, employees from different countries or employees belonging to different functional groups can perceive cultural factors differently. For example, it would be possible for cultural groups at the company or the country level to develop a common intragroup understanding, different from the shared understanding at the intergroup level.

The interaction among different cultural characteristics within a GLOS-specific context also results in the expression of multiple subjective realities and interpretations, as also discussed in relation to interpretivism (Myers & Avison, 2002; Oates, 2006). An example demonstrating subjective reality can be found in the emergence of common work practices as part of expressed behaviors of the GLOS cultural system in a GLOS relationship. For example, a group's perception of the "right" way to perform job duties according to company expectations differs from that of another group.

In addition, in terms of "localization", as discussed by Cavaye (1996), the concept of emergent GLOS culture as context-specific, situated, and localized further supports the appropriateness of applying interpretivism in the study of a GLOS-specific context.

Furthermore, in terms of common practices as developed within a unique cultural context, since GLOS involves collaboration and interactions, development of methods and practices for transmitting information and skills play a role in the emergence of GLOS culture. An example involves the type of formal documentation in IS/IT design

and development, or the standardization required for the coordination of the design of the electric system of a vehicle in one country and its production in another (as will be discussed in section 5.6, in relation to the case studies analyzed in the present research). The need for interaction and interchange is associated with social constructions such as language, shared meanings, and understanding, all of which are in accordance with the dynamic and socially constructed meaning of social reality as discussed in interpretivism (Oates, 2006).

Finally, the development of the models (as depicted in figure 3-4 and figure 6-2) and the analysis of the interview data (to take place in section 4.4.3) are based on multiple interpretations (interviews with 41 participants, using the same interview agenda, table 4-2, Appendix B), another characteristic discussed in relation to interpretivism (Cavaye, 1996). As a result of multiple initial interpretations, a number of conclusions on cultural collaboration and emergence can be reached at a time. These initial conclusions can then lead to the development of a new set of concepts, which, in the present study, evolve to become the extended model of emergent GLOS culture (figure 6-2).

Comparing the interpretivist perspective to the other perspectives, while a positivist approach can lead to rigorous and objective observations and quantification of data, the present research does not rely on quantifiable measures of variables or on quantitative data (as will be discussed in section 4.2.3). In addition, there are neither hypotheses nor independent facts and values. As a result, using the positivist approach in this thesis could be problematic, while the examination of employees' emancipation, through the use of critical research, is beyond the scope of the study.

According to Gibbon (1987) interpretivism can "explain why people act the way they do". In order to achieve this, the study is using interpretivism to analyze the phenomenon of interest through the assigned meanings created by the organizational actors. A similar approach has also been adopted by d'Mello & Eriksen (2010) when, by using a cultural lens to focus on subjective interpretive aspects of organizations, they were able to address issues of context and meaning and bring to the surface underlying values.

Finally, in the present context, GLOS, in terms of the existence of cultural differences and cultural collaboration, cannot be analyzed without analyzing the context and shared meanings, especially because the study approaches GLOS through (GLOS) relationships.

4.2 Methodology

After having justified the use of interpretivism as the philosophical perspective adopted in the study, the focus of this section involves the appropriate use of a research methodology. The two types of methodology most commonly applied to research are quantitative and qualitative, with quantitative been based on numerical data and qualitative on verbal. Both of them are discussed in the following sections.

4.2.1 Quantitative

Quantitative methods are directed towards the development of hypotheses that can be tested and theories that can be generalized across various settings. The data gathered are usually numerical and, in terms of quantification, this type of methodology facilitates comparison and statistical aggregation of the data (Patton, 1987; Patton, 2002). Quantitative data analysis methods have been mostly associated with positivism and are used to look for patterns in the data, summarized in tables, graphs or charts (Oates, 2006).

4.2.2 Qualitative

Qualitative data analysis methods are designed to help researchers understand people and the social/ cultural contexts of their everyday life (Myers & Avison, 2002). They are based on converting data into findings, usually using large amounts of data and large datasets (Patton, 2002). Qualitative methodology is based on text and words, and it involves observations and processing of data that have been collected through qualitative instruments, such as interviews, observations, fieldwork, and documentation (Huberman & Miles, 1994; Miles & Huberman, 1994). Qualitative

methods also depend on understanding of the unique context within which they examine in depth the effect of the phenomenon under study (Cavaye, 1996).

4.2.3 Use of qualitative methodology in the current study

According to Cavaye (1996), nothing in the use of either a quantitative or a qualitative study is considered by default problematic. Actually, both methodologies can be combined effectively, for example by applying qualitative methods in the initial, formulating stage of a research, and then using quantitative methods in order to test the original results. In this study, because the concept of cultural emergence in GLOS, along with the emergent perception of culture, is at a formulating level, a qualitative research methodology is considered appropriate.

In addition, the issues and the data analyzed are idiosyncratic and subjective, representing circumstances of specific organizations. In such cases, qualitative methods are considered a more suitable option for promoting in-depth analysis of rich information (Patton, 2002). In addition, qualitative research is considered appropriate because the present research studies the phenomenon in its real setting (a customer-supplier network of IS/IT GLOS relationships in the automotive industry). Finally, the study aims to capture the interviewees' perspective on the topic of emergent culture, without being restricted by standardized measures and predetermined sets of responses, instruments that would point to a quantitative methodology (Patton, 1987).

4.3 Strategy

After justifying the use of a qualitative research methodology, this section focuses on the strategy used in the thesis and the reasons it was chosen over other options.

As will be discussed in the following sections, various research strategies can be employed in the study of research phenomena (Myers & Avison, 2002; Oates, 2006), including surveys, experiments, action research, ethnography and case studies. Within

the specific study, only case studies are used. The other methods, briefly defined in the following paragraphs, are not chosen for the following reasons:

- Surveys, defined as asking fixed-choice questions to a large group of individuals (Silverman, 2001) in order to identify patterns in the data, are not considered appropriate because, through the focus on patterns, they usually point towards directional conclusions (Oates, 2006). This is not intended to be part of the focus of the present study.

- Experiments as a strategy option are also excluded because the study does not attempt to involve proving/disproving of hypotheses or the use of independent/dependent variables in order to examine cause-effect relationships, all of them characteristics of experiments (Oates, 2006).

- Action research is also excluded because, even though the present study attempts to apply social scientific knowledge and add knowledge to the social science community (Myers & Avison, 2002), the researcher does not intent to initiate, change, or play an active part in the resolution of problems in the situation under study (Cavaye, 1996; Oates, 2006).

- Ethnography is also excluded as a research strategy because, even though the researcher spent some time attending company events in a detached non-participatory way, data were not gathered through a longitudinal approach (Oates, 2006). In addition, no attempt was made to immerse the researcher's life in the lives of organizational stakeholders or identify with them (Patton, 2002).

Consequently, having excluded the use of surveys, experiments, action research, and ethnography, the research strategy of choice is a case-based strategy, using a qualitative research approach. The combination of the specific strategy and methodology supports the investigation of a phenomenon not yet well known since, as discussed in section 2.3, the emergent nature of culture in IS/IT GLOS has not been adequately analyzed.

4.3.1 Case study

Case study research, according to Yin (2009), is the investigation of a real-life phenomenon within its real-life context, in order to understand "the dynamic present within single settings" (Eisenhardt, 1989b), when "the boundaries between phenomenon and context are not clearly evident" (Yin, 2009). In addition, it does not attempt to control or manipulate variables, or define a priori constructs and relationships. Instead, it examines a phenomenon in its natural setting (Yin, 2009), through systematic data gathering and analysis techniques, normally in a small number of sites (Yin, 2009).

Case studies are characterized by realism that results from the natural context of the phenomenon and offer the possibility of "juxtaposition" or "reframing the empirical perceptions into new gestalts" (Eisenhardt, 1989b). They are also characterized by focus on depth, rather than breadth. The researcher focuses on the complexity of situations and their interconnections, rather than identification of isolated factors (Oates, 2006). In addition, they attempt to relate findings to generalizable theories, provide description and refinement, and test or generate a theory (Eisenhardt, 1989b), while the researcher is an observer with no intention to manipulate or control (Cavaye, 1996).

Overall, a case study, as a research strategy, is characterized by richness and applicability to various research settings (Cavaye, 1996). For example, as also discussed in section 4.1, a case study as a research strategy can be used in positivism, interpretivism, and critical research, depending on the researcher's assumptions on the nature of knowledge (Cavaye, 1996; Myers & Avison, 2002; Oates, 2006).

It should also be noted that the term "case study" can have two meanings: It can describe a research method or it can represent a unit of analysis, e.g. as a case study of an organization or a series of two or more case studies (Myers & Avison, 2002). In this research, depending in the context, the term is used in both ways, as also discussed in section 4.3.2.

4.3.2 Types and applications of case studies

From the literature, there are two ways of categorizing case studies, based on their nature and on the number of cases.

According to Yin (2009), case studies can be:

- Exploratory ones that focus on "what" is happening by raising proper questions.
- Descriptive ones that are based on a-priori development of theory and on "how" a phenomenon takes places.
- Explanatory ones that explain the "why" type of questions about the phenomenon investigated.

Another form of categorization involves the use of either a single or a multiple case study strategy (Cavaye, 1996; Yin, 2009).

- A single case study should be used when the case falls into one or more of the following categories: critical, longitudinal, representative, typical, extreme, unique, or based on a well formulated theory (Yin 2009). Typically, a single case study design can provide in-depth understanding and closeness to the phenomenon under study (Cavaye, 1996). It can also be used for theoretical development and conceptual refinement (Cavaye, 1996).
- The use of multiple case studies is considered ideal when the researcher is interested in robust results and there is availability of resources and time (Yin, 2009). One of its advantages, compared to a single case study strategy, is that the researcher avoids results that depend on the idiosyncrasy of the research setting (Eisenhardt 1989b).

Regarding the number of cases in multiple case studies, approaches differ as to the ideal number. Eisenhardt (1989b) suggests conducting no less than four and no more than ten, while other researchers suggest up to five companies (Gable, 1994). Yin (2009), suggests two or three replications when the theory is "straightforward" and there is no demand for an "excessive degree of certainty", while, when the theory is

subtle or in order to increase certainty, the number of replications can increase to "five, six, or more".

4.3.3 Use of case study in the current study

In terms of research strategy, a case study is considered appropriate to study the role of IS/IT GLOS in the automotive industry, because it is based on examination of the phenomenon in its natural setting. In addition, the fact that the study relies on a qualitative methodology to achieve in-depth analysis of cultural aspects as they emerge over time, and not according to their frequency, supports the use of a case study as the strategy of choice (Benbasat et al., 1987).

Moreover, the present study applies a descriptive case study, focusing on questions of the "how" type, i.e. how GLOS culture emerges over time in a GLOS cultural system. In addition, the descriptive case study offers the ability to develop and refine concepts of prior research, such as the cultural systems concepts of the initial model. Furthermore, a multiple case study strategy was chosen in order to enhance robustness (Herriot & Firestone, 1983) and facilitate cross-checking of the results (Benbasat et al., 1987).

To summarize, a descriptive multiple case research strategy in this research is used to further develop and examine the initial model, aspiring for the thesis to provide deeper insights as "new lines of thinking will emerge" (Cavaye, 1996).

4.4 Empirical research methodology

In the previous sections, the focus has been on developing and justifying the theoretical aspects involved in research methodology, resulting in the choice of interpretivism as a philosophical perspective, the use of qualitative methods as research methodology, and the use of case study as a research strategy. In this section, the focus turns to the empirical methodology of the study, which provides a roadmap for conducting the research, and is shown in table 4-1.

Regarding the analysis phase, the present chapter focuses on methodological and theoretical issues. The actual analysis of the interview data will take place in section 5.11.1 and section 5.12.2, based on issues discussed in this section (section 4.4)

PHASES	STAGES
A. Initiation phase	Establishing the research foundation (A1) Conducting a literature review (A2) Developing an initial model (A3) Addressing methodological questions (A4) Selecting cases (A5) Deciding on data generation techniques (A6)
B. Implementation phase	Conducting pilot studies (B1) Conducting the case studies (B2)
C. Analysis phase	Deciding on the type of data analysis (C1) Conducting the data analysis (C2) • Step 1: Getting familiar with data and findings • Step 2: Generating codes and themes • Step 3: Developing themes into a thematic network
D. Conclusion phase	Extracting a model (D1) Producing the report (D2)

Table 4-1: Phases and stages of the empirical research methodology

Based on similar work by Eisenhardt (1989b), four phases (initiation, implementation, analysis, and conclusion) and a number of stages constitute the empirical methodology of the study, as shown in table 4-1.. Some of the phases/stages have already been developed and some will be developed in the rest of the thesis, as explained in the following sections.

4.4.1 Phase A: Initiation phase

This section discusses theoretical aspects of the empirical research methodology regarding the following areas (also consult table 4-1):

- Establishing the research foundation (A1)
- Conducting a literature review (A2)
- Developing an initial model (A3)
- Addressing methodological questions (A4)
- Selecting cases (A5)
    - Pilot cases
    - Case studies
    - Deciding on appropriate data generation techniques
    - Interviews
    - Use of interview in the current study
    - Access
    - Use of other data generation techniques in the current study

Establishing the research foundation (A1)

This stage is related to the identification of the research problem, the research aim, and the research questions, as discussed in chapter 1. More specifically:

- The research problem (see section 1.3) involves the inadequate and diffused research on the nature of culture in IS/IT GLOS, despite the significance assigned to it by researchers in relation to GLOS relationships.
- The aim of this study (see section 1-4) is to examine the emergence of culture in global IS/IT outsourcing relationships
- In order to address the research aim, the research questions of the study can be identified as:

  Research question 1: Are there cultural characteristics that can affect global IS/IT outsourcing and, if so, can they be identified?

  Research question 2: If such characteristics can be identified, can a model be developed that represents organizational characteristics into potential cultural themes?

Research question 3: Can such a model help examine the emergent culture in global IS/IT outsourcing?

Conducting a literature review (A2)

Following the specification of the research problem, aim, and research questions, a review of the literature was conducted in chapter 2 and chapter 3, which contributes towards understanding the following:

- Aspects of the problem inadequately addressed within the literature and research (section 2.3)
- Cultural characteristics related to GLOS cultural relationships (section 2.3.1)
- Research issues related to the importance of studying the unique nature of emergent GLOS culture (section 2.3.3)
- Concepts of cultural systems related to the emergence of a GLOS culture (section 3.3)
- Conceptualization of a GLOS relationship as a cultural system (section 3.3)

More specifically, chapter 2 has examined the emergent GLOS culture in a GLOS relationship (see figure 2-1). This perspective is further examined in chapter 3 using a cultural systems perspective to examine the emergent GLOS culture in a GLOS cultural system. Furthermore, the cultural systems perspective provides the theoretical background to the emergent nature of the GLOS culture and contributes to the development of the initial model of the thesis (section 3.3), the development of the interview agenda, and the development of literature-based themes for the data analysis, as will be discussed in the following sections.

Developing an initial model (A3)

Using the literature on outsourcing and culture from chapter 2 and the cultural systems perspective from chapter 3, the initial model is developed in section 3.3, figure 3-4. The model presents a GLOS cultural system related to four groups of cultural systems characteristics: A&B (attitudes and behavior), Environment, Interactivity, and Control

(discussed in table 3-2). Through emergence, the GLOS cultural system moves towards a GLOS (emergent) culture.

Addressing methodological questions (A4)

As part of this fourth stage of the first phase, the multiplicity of various methodological issues has been examined at the beginning of the present chapter. Considering the research problem, aim, and research questions, appropriate decisions have been made concerning the philosophical perspective (see section 4.1), the methodology (see section 4.2), and the strategy (see section 4.3). A decision has been reached according to which using the philosophical perspective of interpretivism and a qualitative methodology, a series of case studies will be analyzed in chapter 5.

Selecting cases (A5)

In order to select cases, it is important to specify the population and decide about the criteria that can affect the choice of cases, aiming for theoretical and not statistical sampling (Eisenhardt, 1989b). Following Eisenhardt's recommendations (Eisenhardt, 1989b), cases have not been chosen to replicate previous cases and their selection was not random (another pitfall against which Eisenhardt warns). The following sections describe the decisions involved in the choice of the companies for the pilot and the case studies.

Pilot studies

A pilot study is described as a feasibility study or a small-scale trial version conducted in preparation for a major study, used as the pre-testing or "trying out" of a research instrument (Baker & Risley, 1994).

Yin (2009) strongly recommends a pilot study as the final step to be taken in the preparation for the primary data collection, due to its ability to provide conceptual clarification of the research design. Moreover, because it is based on a broader inquiry

and is less focused than the main data collection stage, it can help with the "final articulation of the study's theoretical propositions" (Yin 2009). In addition, he even observes that developments that result from a pilot study can be more significant than the collection of data from the actual cases (Yin 2009).

The pilot studies are discussed in chapter 5 (see section 5.2 and section 5.3) and their contribution to the present research is discussed in section 5.4. They involve one supplier (see section 5.2) and one customer (see section 5.3) perspective. The focus of both is IS/IT GLOS. Bothe GLOS relationships exists between USA and Asia, with each country being in one study the supplier's and in the other study the customer's location (also see section 5.1).

Case studies

In the present study, the population includes the automotive industry. The companies selected are interrelated in a customer-supplier network and they are characterized by variability in terms of cultural, economic, and sociopolitical background, as will be discussed in more details in chapter 5. For example, the client company is based on a country where the specific industry sector is still developing (see section 5.7). In terms of the suppliers, one country is well known for its technical skills (see section 5.8), another is in the process of emerging economically within the EU (see section 5.9), and the third has a particular interest in developing positive outsourcing relationships with EU-based countries because it aspires to enter EU (see section 5.10).

In addition, the specific network has been chosen because it focuses on an industry (the automotive industry) that is supportive of GLOS and it also allows for examination of all different phases related to the electric systems of buses and coaches: from design to industrialization and back to client for sale in the market (see section 5.6.1).

A major issue that appeared in relation to the case studies was the issue of anonymity and confidentiality. The companies were reluctant to disclose information, even for the sole purpose of academic/PhD research, afraid of identification, industrial espionage, and information leakage in the industry. This also extended to giving

permission to mention revenues and reveal specific cultural characteristics, fearing that it could affect their public image (e.g., in the case of the client, regarding the use of offshore suppliers instead of domestic ones) and disclose their sourcing strategies to competition. However, every attempt was made to acquire permission to publish interview extracts and interviewees' job titles (see section 5.7 – 5.12), along with some geographical information about the country and the company. This permission was granted, provided that the companies or the individuals would not be identified (as also discussed in section 4.4.1, on Interviews).

Deciding on appropriate data generation techniques (A6)

In this stage, various data generation techniques can be applied. This is in accordance with Yin (2009), according to whom data can be collected through documentation, archival records, interviews, direct observations, participant observation, archival records, and physical artifacts. However, Walsham (2006) argues that in the case of interpretive case studies, interviews are the primary data source, since they allow access to the participants' interpretations, views, and aspirations.

In the present study, a series of interviews comprise the basic technique for data gathering. Even though some non-participatory observations took place, they were mostly used for the researcher to gather context-rich information in support for the analysis phase. In addition, informal observations and participation to organizational events helped the interviewees relax in the presence of the researcher and boost their comfort level regarding communication in a language that was not necessarily their mother language. .

In addition, because the data generation stage would take place in an organizational setting, attention had to be paid to properly designed data collection techniques, taking into account security, confidentiality, availability, and other restrictions. On this issue, Yin (2009) also recommends taking into account the schedule and (un)availability of the interviewees, the possibility of respondents dropping out, and possible interruptions of interviews. Details regarding the interviews are presented in table 5-4, table 5-6, table 5-8, table 5-10, Appendix B, and Appendix C.

Interviews

The purpose of an interview is to allow the researcher to understand the other person's perspective (Patton 2002) and achieve verbal confirmation or disconfirmation of an observation, based on formal, informal, or causal answers to interview questions (Lee, 1991). Yet, interviews can be a source of bias (either response bias or bias due to poorly constructed questions), inaccuracies, and reflexivity from the part of the interviewees. However, when they are well targeted and insightful, they can lead to useful information from key informants about the topic under investigation and to insightful communication with various stakeholders, by providing access to the participants' interpretations of events (Walsham, 1995a; Walsham, 1995b).

Denzin and Lincoln (1994) identified three types of interviews, namely structured, semi-structured, and unstructured. Other types also include informal conversational interviews, interviews based on interview guides, standardized open-ended interviews, and closed fixed-ended interviews (Patton, 2002).

Use of interviews in the current study

In the context of this research, semi-structured interviews were used in both the pilot studies and the case studies. In both cases, an interview agenda was developed to ensure that appropriate information and data were collected (Yin 2009).

Regarding the interview agendas for the pilot and the studies, every effort was made to control against passivity and over-direction (Walsham, 2006), ensuring that the questions would offer general directions to the topic of couture in GLOS, without restricting the participants from expressing spontaneous thoughts.

More specifically, the interview agenda for the pilot studies included 15 questions and was used as a tool for supporting the theoretical concepts of the initial model (also see section 5.4 on the contribution of the pilot studies to this research). Based on the list of questions listed in Appendix B1, they aimed to satisfy two goals:

1. Examine the nature of culture in global IS/IT outsourcing relationships and the relevance of the concepts of the initial model.
2. Examine the methodological aspects of the research in terms of using a case study descriptive perspective.

The interview agenda for the case studies is presented in table 4-2 and the full agenda in Appendix B2.

Section	**Information**
Introduction to the interview	Purpose, confidentiality issues, questions
A: Interviewee information	Name and contact information Information regarding interviewees role, years in the company, age, gender, country of origin, educational background, and optional comments
B: Company information	Name of the company, address, business/industry, number of employees, country(ies) of origin of the employees, language(s) of communication
C: GLOS cultural issues (general)	Understanding, opinions, attitudes, reasons, criteria, motivation, perception of the GLOS relationship, cultural characteristics, country/organizational cultural characteristics, problems and importance of culture
D: GLOS cultural emergence	Emergence of cultural characteristics, examples, mechanisms and processes
E: GLOS cultural issues (specific)	Perception, role, examples, importance, mechanisms and processes

Table 4-2: Overview of the interview agenda

Information on the interviews on the pilot studies are presented in section 5.2.2 and table 5-1 (regarding the first pilot study), and section 5.3.2 and table 5-2 (regarding the second pilot study). Regarding the case studies, summarized information of the

interviewees, reflecting their background, can be found in table 5-4, table 5-6, table 5-8, table 5-10, and Appendix C.

The interviews took place in the interviewees' offices or on the phone. A total of 41 organizational members from four companies, one client and three suppliers in a GLOS automotive network. All interviews were conducted individually, tape-recorded, and transcribed as soon as possible after each individual interview. The duration of the interviews was not pre-specified, allowing for sensitivity and adjustment to the interviewees' schedule and time pressure (as advised by Walsham, 1995; Yin, 2009). All interviewees gave the researcher permission to tape-record the interviews, after the researcher explained confidentiality and anonymity issues and explained to the participants that no information that could lead to identification of the individual or the company would be revealed. Tape-recording supported the author in collecting accurate data for the analysis stage, since note taking would be time consuming and it could affect the comfort level and the level of social interaction typically expected in social cases of interpersonal communication (Walsham, 2006). In addition, tape-recording helped increase the level of accuracy of the transcribed text. After the transcription, the transcribed text was shown to the respective interviewees to ensure accuracy and validity in terms of both content and language. Most interviews were conducted in English and, on certain occasions, the presence of a colleague was required in order to ensure further accuracy, especially in cases when terminology had to be translated, the interviewee was not familiar with a term in English, or English was not the interviewees' mother language.

As shown in Appendix C, the interviews took place face-to-face (f2f) and over the telephone, while further issues were addressed through email (for further clarification regarding specific details and terminology). On other occasions, additional interviews were conducted face-to face or over the telephone, as follow-up interviews.

Access

The focus on the automotive industry was a result of the researcher's personal interest and the emphasis on outsourcing that dominates the automotive industry, according to industrial and consulting reports (see section 5.5). Access was orchestrated through

the client company, with which the researcher had previous familiarity at a professional level. The main point of contact was the technical director of AC, who was willing to guide the researcher in the facilities of AC and agree to reveal information on the specific project and the GLOS network.

Even though confidentiality issues allowed only for job titles and roles in the companies to be revealed, the technical director was very willing to help with interview arrangements, introduce the researcher to other members of the group responsible for the project, and also arrange for direct contact with the CEO. After some initial contacts in the client company, the researcher was provided with a list of contact employees in the supplier sites. Even though on-site visits were arranged with two of the supplier companies, where most of the face-to-face interviews took place, other interviews were conducted on the clients' site, on occasions when the project team from the supplier site would visit. All of the interviewees expressed availability for follow-ups over the phone or through email. Follow-up interviews were used for further clarification, accuracy, and validity of the interview transcripts.

Use of other data generation techniques in the current study

In addition to the interviews, data were also collected through observations. Observations were chosen because they cover events in real time and are contextual, insightful, especially in the case of participant observation, and can help capture how individuals react in a real situation (Patton, 2002).

In the present study, the researcher attended meetings with various individuals and board meetings, but always in a non-participatory manner as requested by the attendees. As was discussed in relation to stage A6 of the initiation phase, they were mostly used for the researcher to achieve context-rich information in support for the analysis phase and to increase the participants' level of comfort. The information gathered was mostly used as additional supportive material.

Documentation and archival records, even though they are generally considered stable sources of data and can provide coverage and precise background information (Oates, 2006), were not used due to privacy and confidentiality reasons raised by the organizational stakeholders.

4.4.2 Phase B: Implementation phase

This phase involves the actual research regarding the topic of the study. Two pilot studies and four case studies were conducted in a real industry-based context (stage B1: Conducting pilot studies and stage B2: Conducting the case studies of phase B of the empirical research methodology as shown in table 4-1). Both stages are discussed in chapter 5. More specifically, pilot studies 1 and 2 are discussed in section 5.2 and 5.3, with section 5.4 discussing the contribution of the pilot studies to the present study. The four case studies are discussed in sections 5.7, 5.8, 5.9, and 5.10.

4.4.3 Phase C: Analysis phase

The analysis phase focuses on understanding the phenomenon under study and refers to reducing large qualitative datasets into meaningful patterns or themes in order to identify consistencies and meanings. When applied to the data, it provides explanation, understanding, and interpretation. The aim of this phase is to find order across cases and search for relationships behind cases, e.g. differences, similarities, new themes, unexpected results (Eisenhardt 1989b).

Usually, ideas for possible analysis, patterns, and themes emerge first from the literature review and pilot studies and, then, from the data generation and the analysis phase of the data (Patton, 2002). Throughout this process, the researcher attempts to extract meaning from the data, make comparisons, and use theoretical frameworks for interpretations and conclusions; maybe, when applicable, even generate a theory from the overall data analysis. Furthermore, during this stage, the researcher looks for two types of homogeneity (Oates, 2006):

- Internal homogeneity, when data of a certain category are related.
- External heterogeneity, when there are clear differences among different data categories.

The present section discusses theoretical aspects of data analysis. The actual analysis of the interview data will take place in sections 5.11, 5.12, and 5.13. More specifically, the following topics are discussed (also consult table 4-1):

- Deciding on the type of data analysis (C1)
- Thematic analysis
- Conducting the data analysis (C2)
- Codes & Themes
- Thematic networks

Deciding on the type of data analysis (C1)

Various types of qualitative data analysis have been discussed in research and applied across various research fields (Braun & Clarke, 2006). The two most frequently used for the analysis, classification, and coding of qualitative data are content and thematic analysis, both used to produce a framework for organizing and describing information collected in the fieldwork (Patton 2002).

Overall, thematic analysis has a qualitative perspective, as opposed to the quantitative nature of the content analysis. More specifically, the main difference between the two types of analysis can be described as:

- Content analysis attempts to compress many words of text into a smaller number of content categories, by searching the text for patterns of recurring words or word frequencies.
- Thematic analysis involves attempts to organize data into themes according to similarity in expression of ideas.

In this study, the analytical stage uses thematic analysis. As an analytical technique, it helps transform qualitative data into more insightful themes, by "identifying, analyzing, and reporting themes within data" (Braun & Clarke, 2006). It is further discussed in stage C2 of the empirical research methodology (see table 4-1).

Before moving to a more detailed description of the thematic analysis, the concept of the saturation point, as will be applied to the following sections, needs to be

mentioned again (Eisenhardt, 1989b). According to this concept, as also discussed in section 2.3.1), the analysis of the data in *any* study is carried out evaluating the degree to which the results can add to the already existing body of knowledge. The point when no additional contribution can be made and further analysis does not lead to any new themes is the point of theoretical saturation, after which there is no added advantage in continuing the analysis. According to Eisenhardt (1989b), realizing when the saturation point occurs is important because it increases validity, results in wider generalizability, and leads to a high conceptual level.

Conducting the data analysis (C2)

Lists of steps or stages to be followed while conducting thematic analysis of qualitative data have been suggested by many researchers (Attride-Stirling, 2001; Braun & Clarke, 2006; Fereday & Muir-Cochrane, 2006). As each researcher adapts the steps to the specific needs of his/her own research, a certain degree of flexibility is expected. Having read studies that include detailed descriptions of thematic analyses, four steps were considered appropriate for the present research, following mostly the steps of Braun & Clarke (2006). As also discussed in section 4.4, these steps are discussed in the present chapter from a theoretical/methodological perspective, while actual interview data are analyzed in chapter 5 (see section 5.11 - 5.13).

1. Getting familiar with data and findings (section 5.11.1)
2. Generating codes and themes (section 5.11.2 and section 5.12)
3. Developing themes into a thematic network (section 5.13)

In the next section, the important components of a thematic analysis are discussed, namely the codes, the themes, and the thematic network. These components, discussed here from a theoretical perspective, are practically applied in the analysis of the case study data (see sections 5.11 – 5.13).

Codes & Themes

A code is the "most basic segment" of the raw data, regarding information on the phenomenon under study that can be assessed in a meaningful way (Boyatzis, 1998). Coding involves the identification of text segments and the applications of labels to them to indicate that they are examples of one or more specific ideas. Overall, the development of a set of codes on which to map the data serves as a "data management tool" that organizes similar segments of the text and improves the overall credibility of the study (Fereday & Muir-Cochrane, 2006).

After the codes are identified (also see figure 4-2), they can be grouped as themes to be interpreted in a theoretical context or a conceptual framework. A theme is defined as grouping of codes that represent data segments referring to similar concepts, and it represents an important idea that arises from the data, relevant to the research question (Braun & Clarke, 2006). Once the themes are identified for the first time, the text is re-read to identify themes previously not identified or misidentified.

Coding is further discussed in section 5.11 and 5.12.

Inductive versus Deductive coding

In a thematic analysis, the process of finding the codes and themes can follow one of the two approaches: it can be either inductive or deductive (Martin & Turner, 1986).

- The deductive approach uses a priori templates of codes, usually derived from the existing literature and the theory used in the study (Braun & Clarke, 2006; Mayring, 2000).

- In the inductive approach, the coding is data-driven (Fereday & Muir-Cochrane, 2006). A "criterion of definition" is formulated and the material is examined to identify tentative categories, gradually reducing the number of the categories as the data is read and reread (Braun & Clarke, 2006; Mayring, 2000).

In this study, as figure 4-1 shows, development of codes and themes follows initially a deductive approach: The codes emerge from the literature on culture (as discussed in section 2.3.1 and shown in Appendix A1a) and the themes from the literature on cultural systems (as discussed in section 3.2.2, section 3.3, and Appendix A1b). Later, in the data analysis of chapter 5 and chapter 6, an inductive approach allows the identification of new codes and themes from the interview data. The combination of both these approaches is considered a "hybrid model" of qualitative thematic analysis, as discussed by Fereday & Muir-Cochrane (2006).

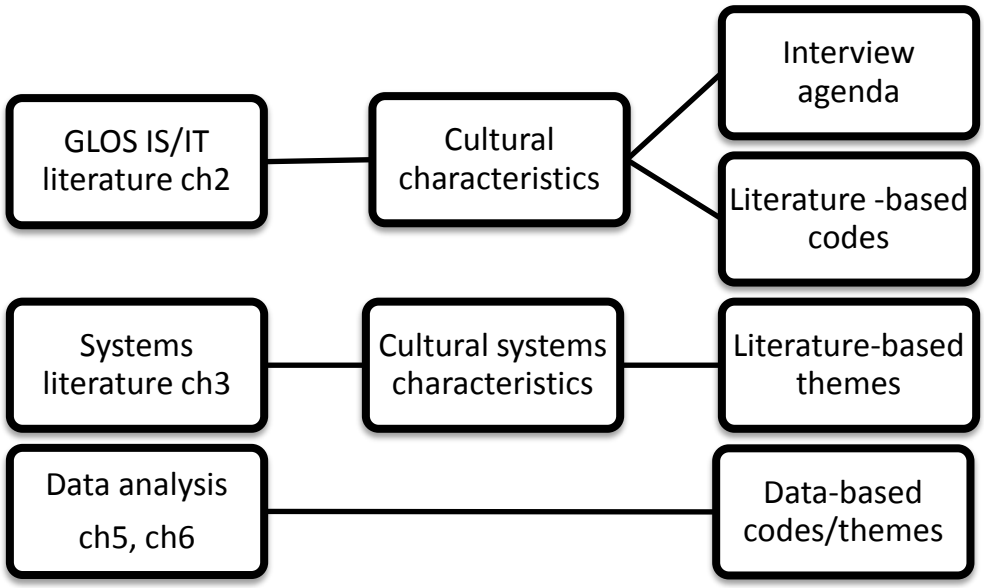

Figure 4-1: Development of codes and themes

Thematic networks

A non-mandatory stage of a thematic analysis, relying on hierarchical grouping of themes, includes the use of thematic networks (Attride-Stirling, 2001; Elo & Kyngas, 2008). In the following figure (figure 4-2), it is visually represented as a pyramid, with different levels of themes.

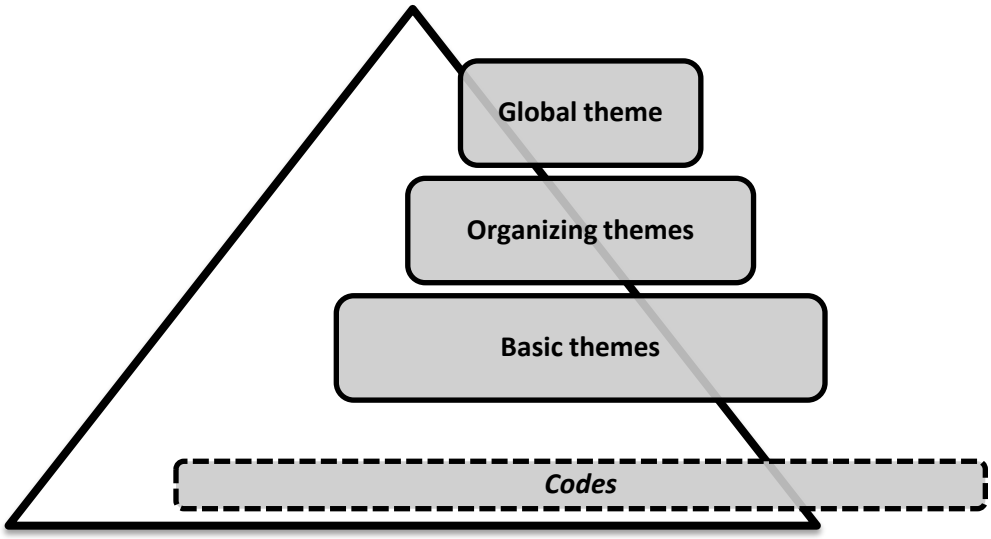

Figure 4-2: Hierarchical representation of themes

The three types of themes are described as following:

1. Basic themes are derived directly from the data through coding. Due to their low order, they cannot describe or reflect adequately the data as a whole, but need to be read within the context of the other categories of themes.
2. Organizing themes are of middle order and represent clusters of basic themes according to similarity. They are more abstract than the basic themes and express broader meanings.
3. Global themes are "super-ordinate" themes. They conclude the analysis in a macro level and help summarize and understand the lower-order themes. Depending on data complexity and the aims of the analysis, the dataset can have more than one global theme.

Overall, the number of organizing themes is expected to be smaller than the number of the global themes and larger than the number of the basic themes.

Finally, it should be mentioned that the use of a thematic network in the present study does not represent directional relationships or cause-and-effect relationships. It rather shows relatedness, grouping, and hierarchy, through the analysis of themes that contribute towards in-depth analysis of the phenomenon-under-study.

The development of themes for the thematic network of the present study takes place in section 5.13.

4.4.4 Phase D: Conclusion phase

After the analysis of the data and the organization of the themes into a thematic network, a model is extracted (Stage D1 of the conclusion phase) in section 6.2 (figure 6-2), while stage D2 (Producing the report) is empirically demonstrated by writing the thesis.

4.5 Conclusions from chapter 4

The aim of this chapter was to discuss the methodological issues according to which the research presented in this thesis was conducted. It resulted in a discussion concerning the use of interpretivism as the philosophical perspective adopted, the choice of a qualitative methodology, and the use of a descriptive multiple-case research strategy.

It presented the empirical research methodology (table 4-1), involving phases (initiation, implementation, analysis, and conclusion) and a number of stages, some of them already completed and some of them to be completed in the following chapters. Overall, the empirical research methodology provided the theoretical background and the discussion of aspects of the analysis. The actual analysis will take place in chapter 5 (sections 5.11, 5.12, and 5.13), after discussing the case studies.

CHAPTER 5

CASE STUDIES AND RESEARCH FINDINGS

5 Introduction to chapter 5

So far, in chapter 2, the literature on outsourcing and culture was reviewed (section 2.2 and section 2.3) followed, in chapter 3, by the literature on cultural systems (section 3.2) and an initial model regarding the emergence of GLOS culture (figure 3-4). Then, in chapter 4, methodological issues of the present study were analyzed, concluding with the use of interpretivism as the philosophical perspective adopted, the choice of a qualitative methodology, and the use of a descriptive multiple-case research strategy. Overall, chapter 4 focused on methodological and theoretical issues, while discussion of the industry-based cases and the analysis of the interview data will take place in the present chapter.

Two pilot studies and four case studies are discussed. For each company, its organizational profile, along with information on its GLOS activities and interviewees is presented.

Regarding the data analysis phase (C, see table 4-1), the theoretical aspects of stage C1 (Deciding on the type of data analysis) were presented in the previous chapter (section 4.4.3), while stage C2 (Conducting the data analysis) take place in the present chapter. In addition, this chapter also discusses the three steps (Getting familiar with the data, Generating codes and themes, and Developing themes into a thematic network).

5.1 Pilot studies

As discussed in section 4.4.1, pilot studies are used in the present study as preparation for the collection of data from the in-depth case studies. They involve one supplier (BS) and one customer company (GC). They are both involved in IS/IT projects and the GLOS relationship in both studies involves collaboration between USA and Asia (in reverse roles). They were chosen due to access availability and a-priori familiarity with key employees, issues that were considered important by the researcher in terms

of preparation for the case studies and in preparation of primary data collection as a "try-out" (see section 4.4.1 on Pilot studies).

The pilot studies are discussed in the following sections (5.2 and 5.3) and their overall contribution to the present research is discussed in section 5.4

5.2 Pilot study 1 – BettaSupplier (BS)

As was also discussed in section 4.4.1(on Case studies), confidentiality and anonymity issues prevent the researcher from revealing specific company names in the pilot and the case studies. The name BettaSupplier (BS) is used to identify the company of the first pilot study.

5.2.1 Organizational profile – BS

BS is a provider of information technology services to Fortune 1000 and mid-sized organizations of various sectors, e.g. software development, banking, financial services etc. It relies on both onshore and offshore models of outsourcing provision. Its services include application development, support and maintenance, enterprise application implementation, integration, infrastructure management, quality assurance, and testing. Its delivery processes involve digitized project management methodologies, certification practices, and secure services frameworks.

Headquartered in Asia, it has more than 4,000 employees across USA, Europe, Asia, and Australia. In the country of its headquarters, it has divisions in five different cities and has been rated among the country's top 40 companies. The division examined for the purpose of the present study consists of 70 employees, with 58 of them specializing in IT and the rest occupying various administrative positions.

5.2.2 Background to GLOS activities - BS

The project that was discussed involves the design and development of a financial application software by BS (see table 5-1). The software, the customer for which is a USA-based company, focuses on:

- Data maintenance of information required for evaluation of the financial deals in the program's database
- Decision-making processes for the appraisal of new deals

In order to enter into the specific GLOS relationship, the USA-based client company had to follow specific pre-defined procedures, asking for bids only from specific companies that satisfied criteria for being Global Development Centers (GDC). The client, after taking into account the specific criteria of the project and security considerations, asked only qualified companies to bid. Then, after evaluating the previous experience of BS in similar projects and the overall expected cost, the customer chose BS and established a partnership with it for the duration of the specific project and also for potential future outsourcing deals.

In the 6-month long project examined in relation to the thesis, 14 people were involved. Interviews were conducted with the team leader and one software engineer, both of them from BS and with experience in similar projects. The interviews were conducted over the phone with the team leader and face-to-face with the software engineer in UK. In addition, follow-up information was provided through emails (with the team leader) and face-to-face with the software engineer (in UK).

Country of customer	USA
Country of supplier	Asia
Number of employees in the company	Total 78 58 in IT 12 in administrative positions
GLOS project description	Design & development of financial software application
Duration of GLOS project	6 months

Number of people involved in GLOS project	14
Interviewees	Software engineer Team leader

Table 5-1: Pilot study 1 – BetaSupplier (BS)

5.3 Pilot study 2 – GammaCustomer (GC)

As was also the case with BS, due to confidentiality reasons, the name of the company has been changed to GammaCustomer (GC).

5.3.1 Organizational profile – GC

The company was founded in the early 90s in a Midwest USA state and has an established presence around the world, being one of the leading software providers of engine simulation. GC provides complete software solutions for the simulation of engines and engine-related functions, and its customers include major automotive, engine design, and production companies. Its position in the market is a result of the development and commercial licensing of a suite of Computer-Aided Engineering (CAE) engine simulations, based on what is described in the company's public profile as "innovative software architecture". More specifically, instead of implementing all the different aspects of the engine function into one software package, the users of the software can develop their own specialized simulation tools by combining different sub-modules and by using graphical interface tools and drag-and-drop functions. The assimilation of the sub-modules to the physical modeling level is then accomplished by the software, resulting in synchronized capabilities and streamlined data sharing. GC has more than 400 employees, with approximately 250 of them specializing in IT.

5.3.2 Background to GLOS activities - GC

The project studied in relation to the present study involved the design of software tools for vehicle dynamic simulations (see table 5-2). Using aspects of engine and vehicle dynamics, the software focuses on the development of sub-modules that simulate automotive subsystems. Options for model construction include sub-modules such as chassis, suspensions, tyres, etc. and the engineer can decide whether to include them or not in the simulation application.

The project involved the following features:

- Launching codes from a common graphical interface, also used for pre and post processing
- Creation of an object-oriented data structure
- Creation of a built-in control object library

In relation to the third feature, interviewees discussed the design of image library modules, from which an engineer would be able to choose the components of his/her choice. Then, through drag-and-drop functions, he/she could use them to build the vehicle model and visualize the simulation results in a 3-D environment.

The specific project involved 8 people and its duration was 1.5 years, based on a contract of a more than 1 million dollars in value. Interviews were conducted with the CEO of GC and the senior software engineer, responsible for coordinating and supervising the GLOS deal. The interviews were conducted over the phone with the CEO and face-to-face with the software engineer. In addition, there were face-to-face follow up interviews with the software engineer.

Country of customer	USA
Country of supplier	Asia
Number of employees in the company	Total 400 250 in IT
GLOS project description	Design of software tools for vehicle dynamic simulation
Duration of GLOS project	1.5 years

Number of people involved in the GLOS project	8
Interviewees	CEO Senior software engineer

Table 5-2: Pilot study 2 - GammaCustomer (GC)

5.4 Contribution of the pilot studies to the present study

In the present study, the pilot studies were conducted in order to provide support to the theoretical concepts of the initial model, by focusing on two goals:

- Examine the nature of culture in global IS/IT outsourcing relationships and the relevance of the concepts of the initial model to the emergence of GLOS culture.
- Examine the methodological aspects of the research regarding the use of a descriptive case study.

With respect to the first goal, the nature of culture (in general) and specific cultural characteristics was discussed, allowing the interviewees to broadly express their views. The emergent nature of GLOS culture, in terms of its uniqueness and ability to change, was identified by the interviewees to be of importance and to play a significant role in the GLOS relationship.

With respect to the second goal, using the pilot studies as mini case studies demonstrated that a case study strategy can provide information relevant to the topic. In addition, the use of semi-structured questions (as discussed in section 4.4.1) offered insights on the nature of culture and contributed to refinement of the interview agenda.

More specifically, through the questions listed in Appendix B, the pilot studies provided an opportunity to explore the topic of emergence of GLOS culture through discussion of the following topics:

- The specific (and other) GLOS project(s) (questions 1 and 2)

- Problems encountered (question 3)
- Business, logistical, legal problems (question 4)
- Problems related to individuals as a group (question 5)
- Problems related to workforce, culture or social issues (question 6)
- Cultural problems (question 7)
- Perceptions of culture (question 8)
- Organizational culture (question 9)
- National culture (question 10)
- Specific characteristics/instances (question 11)
- Issues related to cultural differences (question 12)
- Emergent cultural characteristics (question 13)
- Cultural emergence (question 14)
- Lessons learnt and strategies used (question 15)

In terms of the design of the interview agenda, the opportunity to discuss emergence from a general theoretical and practical perspective contributed to the decision to use open-ended semi-structured questions for the case studies. Consequently, in order to better address the topic of emergent culture in IS/IT GLOS relationships, the interview agenda was developed, as discussed in section 4.4.1(Use of interviews in the present study) and presented in Appendix B.

5.5 Outsourcing in the automotive industry

Before presenting the case studies, this section discusses outsourcing in the automotive industry, in terms of its role, benefits, and trends. This is done in order to demonstrate the importance of outsourcing in the automotive industry and provide the background to understand its role. It also shows that since automotive companies rely increasingly in outsourcing, they are bound to suffer from the risks and the challenges that characterize GLOS relationships in general (see sections 1.3, 2.1.3, and 2.2.3). Among such risks and challenges, culture plays one of the top influential roles (as discussed in section 1.3 and section 2.2.3).

Automotive firms have worked with suppliers for decades to achieve various business outcomes, such as customized design and manufacturing, IT management skills, Original Equipment Manufacturing (OEM) capabilities. (Accenture, 2004; Capgemini, 2008a; Jensen, 2004). Consequently, outsourcing is not a new concept in the automotive industry (Capgemini, 2005; IBM, 2004) and, in the last decades, a large number of automotive firms have been increasingly relying on it (Calabrese & Erbetta, 2006). As a result, many researchers refer to “a continuous trend” in the industry (Kimberley, 2005), which contributes to increased control over core capabilities and strategy development.

According to industry surveys (Accenture, 2004, Capgemini, 2005), one of the basic reasons why automotive firms choose to outsource is the achievement of tactical and strategic benefits, access to innovations, and ongoing process improvements. Moreover, the percentage of business conducted with foreign auto manufacturers can enhance a company’s stock value (Capgemini, 2005).

Outsourcing can also be a solution to the increasing customer demand, with the automotive companies trying to retain their customers, acquire new ones, and build long-lasting loyalty in the market (Capgemini, 2005). In the same context, the role of the domestic market becomes more important and the industry has to adapt its products and services to the local marketplace. In this growing need for product refinement, the need for synchronization between business and technology processes of customers and suppliers leads the suppliers to focus on specialization and integration, and to team with automakers in order to:

- Share the responsibility for efficiency and innovation
- Proactively collaborate and contribute to product development and engineering
- Introduce new technologies to the marketplace

In the last years, an outsourcing trend in the automotive industry is the progress from traditional Business Process Outsourcing (BPO) to Business Process Transformation (BPT) (IBM, 2004). While BPO is a tactical tool that involves a third-party provider taking over simple components of a business process, BPT has a broader scope and includes large-scale process reengineering and technology as a "transformational"

component of the outsourcing relationship. It functions as a tool for achieving radical process transformation and strategic initiatives.

Moreover, a growing number of companies operate in outsourcing relationships with suppliers in more than one part of the world. This, along with the role of suppliers in the vehicle value, has driven the industry towards a multisourcing model (Capgemini, 2008a) that involves collaboration with multiple suppliers. Its main advantage is that suppliers are selected based on their adding-value functions and their core competencies, not on their generic capabilities. Suppliers can also be tiered according to their role and objectives, resulting in specific benefits delivered by each supplier function (Capgemini, 2008b).

The multisourcing model is more complex than having one supplier, since it requires the management to be in a position to manage all suppliers effectively. Its success is dependent on two key factors: The maturity of the client's supplier management practice and the ability to ensure that suppliers work together collaboratively. Collaboration among suppliers can increase innovation, provide access to top-tier suppliers and market-leading solutions, and offer access to a wide spectrum of niche suppliers. In addition, it has the additional advantage of supporting and encouraging small companies that may have unique expertise to offer (Capgemini, 2008b).

Overall, the role of outsourcing in the automotive industry is important. Through development of new trends, such as OEM, BPO, BPT, and multisourcing, automotive companies can experience growth, improved performance, timely response to the market demands, and development of new capabilities.

5.6 Case studies: Introduction

This section discusses the GLOS relationships in a global automotive customer-supplier network. The sections that follow discuss the GLOS activities in the network and the profiles of the network companies, using the types of GLOS from section 2.1.2).

As was also discussed in section 4.4.1 (on Case studies), the company names (both in the pilot studies and the case) cannot be identified because of issues of anonymity and confidentiality. The companies were reluctant to disclose information for fear of espionage, information leakage, and identification by their competitors. This also included discussion of revenues, names of employees, and company-specific information. Permission was granted to publish only a limited selection of raw interview extracts (after careful review of the transcripts by directors or supervisors) and some geographical information about the country and the company, provided that the companies or the individuals could not be identified in any way (as also discussed in section 4.4.1, on Interviews).

5.6.1 GLOS activities – GLOS network

The case studies discussed in the following sections involve a combination of different GLOS relationships related to the Electric Systems (ES) of buses and coaches. ES is the system that, through a wide range of functions, provides vehicle information in terms of efficiency, comfort, and functionality. It operates beyond conventional electronics and it is based on the design and development of compact platform solutions. These solutions, combined with advanced Control Area Networking (CAN) capabilities, reduce cabling requirements and potential sources of faults in cable contacts, relays, and fuses.

The ES normally combines products such as:

- The CBCU (Central Body Control Unit), which contains a powerful microprocessor and functions as a gateway and firewall. It connects and protects sub-networks, offers input and diagnostics, and provides analysis and resolution of active and intermittent faults.
- The CMIC (Customized Modular Instrument Cluster), which displays structured information and communication applications.
- The MCU (Menu Control Unit), which facilitates selection of operations.

The specific project discussed in the present study involves the ES of a modern technologically advanced type of coach responsible for the following functions:

- Safety monitoring functions, e.g. Antiblock Break System (ABS)
- Security control, e.g. locking
- Comfort level of the passengers, e.g. heating, ventilation and air-conditioning (HVAC), infotainment (information and entertainment) system, lights
- Navigation system, e.g. Global Positioning System (GPS)
- Electronic control of mechanical parts

It is composed of approximately 20 interconnected ECUs (Electronic Control Units), including sensors, actuators, data recording systems, and a cable network. A list with a brief description of parts of the ES functioning through the architectural platform of CAN (Control Area Network) is presented in Appendix D.

The complete production of the ES involves three phases (see figure 5-1), involving the client company and three suppliers. For each phase, AutoClient (AC), located in a South European country, is using different supplier companies, in four different countries:

- A Northern European supplier: AutoSupplier1(AS1) for design and development
- A Central European supplier: AutoSupplier2 (AS2) for implementation and production
- An Asian supplier: AutoSupplier3 (AS3) for installation and industrialization

In terms of country details, AC is based on a country where both the automotive and the IS/IT industry are still developing, so there is no competition for AC in the domestic market (see section 5.7). The country of AS1 is well known for its technical skills, with a long and proven tradition in technological advances (see section 5.8). As a result, the availability of skills and professional qualifications in automotive engineering and manufacturing is a strong point of attraction for other countries and companies. AS2 is an example of an emergent European market that tries to establish itself in the field (see section 5.9). AS3 is based on a developing country with a lot of available workers and low wages. The main difference between AS2 and AS3 is that in the country of AS2 it is easy to find scientists and experts specializing in technological jobs without offering the salaries expected in AS1, while AS3 does not demonstrate the same high number of experts, yet it offers abundance of available

workers and low wages. In addition, AS3 has a particular interest in having positive outsourcing relationships with EU-based countries because it aspires to enter EU (see section 5.10).

In the words of the managing director of AC, the choice of the specific suppliers was based on the following:

> *"The reason for choosing AS1 is its level of technological advancement. We felt that AS1 would better suit the need for high-end ES we had in mind and would understand our specifications better than their competitors […] because at the time we had other companies who also wanted to work with us […]. We felt it was the only company we could trust for the production of such a system. We had also cooperated for years with the particular company in the after-sales department and we were very pleased with the quality of the products and their problem-solving attitude […]. We also felt we could trust the country because of the quality associated with the country's level of engineering skills. When you think of the country, you always think technology […]. AS2 was chosen as a production country because the wiring loom is handmade and also a time consuming process. So, we needed a country with minimal working hour cost […]. Moreover, AS2 was also suggested as a supplier by AS1, because of their long-term cooperation […]. AS3 can provide employers that do not demand high salaries and mass volume production ….]. The coaches can stay there until we go and drive them back to AC".*

The GLOS activities of the network are shown in see figure 5-1.

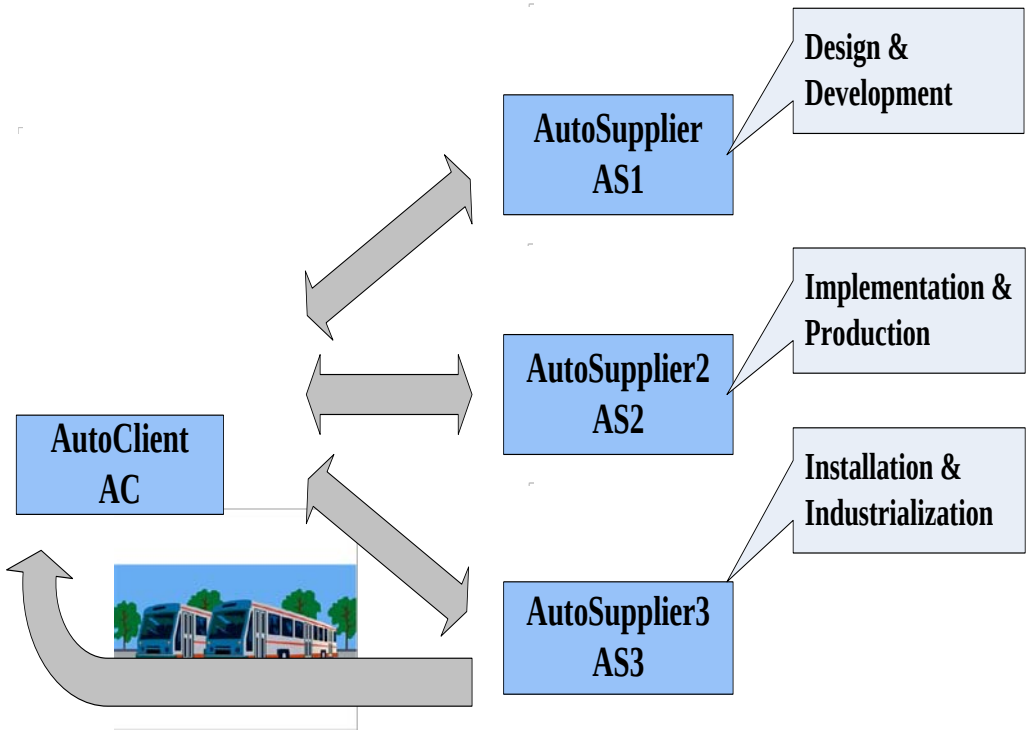

Figure 5-1: GLOS activities – GLOS network

As can be seen in figure 5-1, the specifications are first designed by a group of engineers in AC. Then, the design and the development, a process that lasts approximately 2 years, is outsourced to AS1, a company with advanced technological knowledge and capabilities. AS1 is responsible for creating the ES prototype (which includes writing the programming code and specifying hardware requirements) and carrying out the necessary tests to certify that the ES specifications meet regulatory standards in terms of safety, electromagnetic compatibility, durability, etc. (a process known as homologation). After this phase is completed, the next phase involves the implementation and production of the system. In order to achieve this, AS1 sends to AS2 all the relevant "know-how", including drawings, software etc. Finally, the ES (consisting of all its specialized components, being 2 kilometers long, and weighting about one tonne) is sent to AS3, where the installation of the system and the industrialization take place before the bus is driven back to AC. Industrialization, in the specific engineering context, involves the phase when the production becomes a widespread, accelerated, predictable function with trustworthy productivity rates.

5.6.2 Company GLOS profiles – AC, AS1, AS2, AS3

Using the definitions of GLOS activities provided in section 2.1.2, the client-supplier GLOS network of the present research can be described in the following g ways.

- In terms of geographical distance, AC uses nearshore outsourcing in the case of AS1 and AS2. Even though they are not neighbor countries, they are part of Europe and are further related through the EU economic standards, laws and treaties. The case of AC-AS3 is a case of offshore outsourcing, because, even though the geographical distance is short, there is no common economic status shared by the countries, even though AS3 aspires to become part of EU soon.

- In terms of process versus project type of outsourcing, the outsourcing relationship between AC and the three supplier countries is of the traditional outsourcing type, since the entire process is outsourced on an on-going basis.

- In terms of budget percentage, AC is involved in selective sourcing, because even though it outsources the three phases of the ES, it keeps approximately 60% of the managerial responsibility.

- In terms of general characteristics, AC is involved in selective outsourcing because it outsources different aspects of the process to different suppliers (AS1 for design and development, AS2 for implementation and production, AS3 for implementation and industrialization). Moreover, its relationship with AS3 is of the value-adding category, because industrialization is cost effective when provided by AS3.

- In terms of emerging sourcing arrangements, the case of AC-AS1 involves value adding in terms of marketing to new services and products. In addition, it also involves aspects of creative contracting since, even though AC provides specifications, in order to address the increased market demand for customization and specialized products, it allows for innovation and initiative to take place in AS1 through design and prototyping.

- In terms of customer-supplier perspectives, the whole GLOS network is an example of regular offshore outsourcing, since all the companies are different and have customer-supplier relationships that are not based on shared ownership.

5.7 Case study – AutoClient (AC)

5.7.1 Organizational profile of AC

The company was founded in the early 70s as a transportation service provider. Very early, the management realized that the domestic needs were not satisfied by the buses and coaches imported from other countries and AC started to modify the imported vehicles in order to fulfill more adequately the needs of the local market. This led to increased sales and financial expansion of the company. As a result, AC decided to start producing its own line of buses and coaches and succeeded in becoming one of the top five companies in Europe in terms of sales and market domination.

However, because the country does not have a mature automotive industry, there has always been lack of a domestic supplier network. In addition, technological advances made the production of buses a complicated process, requiring advanced integrated technology and skills. For these reasons, AC decided to outsource the design and the development of the more complex units to countries with well-established automotive industry, such as AS1. Gradually, due to high manufacturing costs and increased demand, the mass volume production was outsourced to AS3, with AS2 being responsible for implementation and production.

AC is the client company and occupies approximately 200 employees, with 30 of them belonging to the IS/IT department and being responsible for specifications, basic design, support of the system, updates, and diagnostics.

Sourcing status	Client
Country	South Europe
Established	Early 1970's
Number of employees in the	Total 200

company	30 in IS/IT
Country of supplier	Northern Europe - AutoSupplier1 (AS1) Central Europe - AutoSupplier2 (AS2) Asia- AutoSupplier3 (AS3)
GLOS project description	Specifications design for the ES of buses and coaches
Duration of GLOS project	Long-term relationship arrangements
Number of people involved in GLOS project	18
Number of interviewees	17 (for details see table 5-4)

Table 5-3: Case study – AutoClient (AC)

5.7.2 Justification for choosing the AC network

As was also discussed in section 4.4.1, regarding the selection of case studies, and in section 5.6.1 regarding the GLOS activities of the GLOS network, the specific network was chosen because it focuses on an industry that is supportive of GLOS (section 5.5). In addition, it follows all the different phases of the ES (Electric System), relying on countries with different economic and sociopolitical backgrounds. Countries vary from those characterized by low wages but no technological expertise (AS3) to countries characterized by technological progress and expensive work force (AS1). As a result, analyzing these companies offers the opportunity to examine many different relationships developed within the broader GLOS context and business environment.

AC operates in a South European country where, not only the automotive but also the IS/IT industry is still developing. As a result, AC has to rely on other countries to increase the availability of resources in terms of expertise, knowledge, and skills, and to achieve economic benefits. Being the only mass volume manufacturing company in the domestic market in the area of buses and coaches, the study of its GLOS relationships can provide lessons for other companies that have not yet entered the market. Even though, at the present time, intra-country comparisons with companies in the same market niche cannot take place, the company's position is among the top

10 in the world market. Besides, based in a country still developing its industry, it is of interest to examine how a small company in a country not technologically advanced manages to have a high position in the European market by making strategic use of outsourcing.

5.7.3 GLOS activities – AC

AC has long-term GLOS arrangements with the provider companies. Within the company, there is a team of 18 employees that are responsible for coordinating and supervising the deal, according to the specific needs that arise in each country. All the employees are expected to be able to handle and coordinate aspects of the GLOS relationship, depending on the circumstances and the expertise/experience required. The 17 interviewees in AC are presented in table 5-4, and in section 5.11.1, while Appendix C presents a complete list of all the interviewees in the network.

Role in AC	Years in AC	Communication *I/view: Interview* *F2f: Face-to- face* *F/up: Follow-up*	Age	Gender *M: Male* *F: Female*	Origin	Educational Background
CEO	25	I/view f2f I/view f2f F/up f2f	60	M	AC	University degree
Managing director	20	I/view f2f F/up f2f F/up emails	52		AC	Technical degree
Technical director	5	I/view f2f I/view f2f I/view f2f I/view telephone F/up f2f F/up emails	33	M	AC	PhD
Engineer 1	8	I/view f2f I/View f2f F/up f2f F/up emails	32	M	AC, US	MSc
Engineer 2	3	I/view f2f F/up f2f	33	F	AC-EU	MSc
Engineer 3	1	I/view f2f F/up emails	42	M	AC, EU	University degree

Engineer 4	5	I/view f2f	26	M	AC	Technical degree
Designer 1	8	I/view f2f F/Up telephone	37	F	AC	MSc
Designer 2	5	I/view f2f F/Up f2f	39	M	AS3	PhD
Team member 1	19	I/view f2f	47	M	AC	Some degree
Team member 2	4	I/view f2f	33	M	AC	Technical degree
Team member 3	4	I/view f2f F/Up f2f F/Up telephone	35	F	AC	MA
Driver 1	12	I/view f2f F/Up f2f	58	M	AC	No degree
Driver 2	17	I/view f2f F/Up emails		M	AS2	Technical degree
Driver 3	9	I/view f2f	40	M	AS1	No degree
PA to CEO	5	I/view f2f	32	F	AC	University degree
AC Lawyer	9	I/view f2f	39	M	AC, AS1	Law degree

Table 5-4: Interviewee information – AutoClient (AC)

5.8 Case study – AutoSupplier1 (AS1)

5.8.1 Organizational profile of AS1

AS1 is among the world's leaders in the design, development, and testing of electrical systems for automotive applications, specializing in electrical systems of large and heavy vehicles, such as trucks, lorries, buses, coaches. The company was founded in the middle 90s when highly skilled engineers and managers of a big multinational company in the country decided to resign and create their own company specializing in the same range of activities they were performing in their previous employment. In order to retain and enhance their advanced technological competencies, they started collaborating with the departments of automotive and electrical engineering of many universities in the southern part of the country, a part of Europe recognized for its

highly developed automotive industry. In addition, in order to enhance its talent pool, AS1 started to offer sponsorships to PhD students and later recruit them.

Initially, the company was a small size organization and was responsible for both design and production. Its customers included small bus companies from the same country and, consequently, the production volume was not high enough to support both an internal R&D (Research & Development) department and a production center. However, as a result of its dedication to continuous improvement, AS1 soon became famous for its technological advancement and started conducting business with well-known international companies. When the volume of the production increased, AS1 decided to focus on an internal R&D department and expand its range of activities. At the same time, it also decided to retain only small-scale production of the ES, and in order to allow its experienced engineers to work in prototyping and respond faster to internal requests from the AS1 designers.

Currently, AS1 provides and develops special OEM (Original Equipment Manufacturing) solutions, and equips on-road, off-road, and special vehicles with software solutions that involve the integration of various different electronic systems into the electric platform of the vehicle. Among other software systems, it provides systems for instrumentation, control, fuel management, audio, and sound, along with a variety of sensors for speed, position, oil pressure, and temperature. The company is flexible enough to design and develop customized solutions and it can offer complete packages that a bus or coach manufacturer can install in the production phase.

The company employs approximately 400 people, of which 100 are engineers working on R&D projects, 100 administrative staff and 200 working in production.

Sourcing status	Supplier
Country	North Europe
Established	Early 1970's
Number of employees in the company	Total 400 100 in R&D 100 administrative staff 200 in production

GLOS project description	Design and development of the ES of buses and coaches
GLOS project duration	Long-term relationship arrangements
Number of people involved in GLOS project	18
Number of interviewees	8 (for details see table 5-6)

Table 5-5: Case study – AutoSupplier1 (AS1)

5.8.2 GLOS activities – AS1

As discussed in section 5.6.1, after a group of engineers and designers in AC decide on specifications for the ES, AS1 carries out the design and the development of the system, applying the advanced technical knowledge and capabilities of its employees. In this phase of the ES production, the company creates the prototype, writes the software, and carries out the necessary tests for homologation. During the period that AS1 was studied, the company created five prototypes that were implemented in five coaches for testing and homologation purposes.

Eight employees of AS1 were interviewed in relation to the specific GLOS project with AC. Information in the interviewees is presented in table 5-6 and discussed in section 5.11.1.

Role in AS1	Years in AS1	Communication *I/view: Interview* *F2f: Face-to- face* *F/up: Follow-up*	Age	Gender *M: Male* *F: Female*	Origin	Educational Background
Project Manager	2	I/View f2f I/view tel I/view tel F/Up emails	33	F	AS3	MSc
Supervisor	6	I/View f2f I/View f2f F/Up emails	50	M	EU	Law degree, MBA

Software engineer 1	5	I/View f2f F/Up emails	34	M	AS1	MSc
Software engineer 2	5	I/view f2f F/Up emails	34	M	AS1	MSc
Team member 1	1	I/view f2f F/Up emails	24	M	Asia	Student
Team member 2	17	I/view f2f I/view f2f	59	M	AS1	University degree
Team member 3	4	I/view f2f	31	M	EU	Technical degree
Administra-tion	2	I/view f2f F/Up emails	22	F	AC	Student

Table 5-6: Interviewee information – AutoSupplier1 (AS1)

5.9 Case study – AutoSupplier2 (AS2)

5.9.1 Organizational profile of AS2

Originally, AS2 started as a state-owned company, producing car components. After the end of the communism era, it closed down for a short period and reopened when the automotive production in Eastern Europe started expanding. At the time, the company expanded radically and attracted customers from other domestic industries. Currently, its client list includes most of the automotive industries of Eastern Europe.

The majority of AS2 employees have been with the company for many years. In addition, when the company started collaborating with other European companies, AS2 invested in a sophisticated educational system for its employees to advance their skills and adjust to the new requirements and standards of the European market. It also built new facilities and acquired new equipment.

In the GLOS relationship between AC and its three suppliers, AS2 is the supplier company that specializes in large-scale production of electric systems for automotive applications, offering AC the advantage of low production cost and experienced employees. In addition, due to the recent investments in technology, it is capable of

satisfying the need for the several man-hours required for the building of more than two kilometers of total length of wires for the ES of each bus/coach. The company employs 1,200 individuals, the majority of them in the production chain.

Sourcing status	Supplier
Country	Central Europe
Established	Mid 1990's
Number of employees in the company	Total 1,200 The majority in production chain
GLOS project description	Implementation and production of the ES of buses and coaches
GLOS project duration	Long-term relationship arrangements
Number of people involved in GLOS project	Varies, depending on specific needs
Number of interviewees	7 (for details see table 5-8)

Table 5-7: Case study – AutoSupplier2 (AS2)

5.9.2 GLOS activities –AS2

In terms of its role in the AC GLOS network, a group of engineers in AS2 is responsible for planning the production chain for the ES, using its own supply chain network. As also discussed in section 5.6.1, AS1 sends in advance all the relevant "know-how" to AS2, including drawings, software, and any prototype-related material. Then, AS2 is responsible for tracing the components in the international market and in its established supply chain. Considering the company's labor-based role in the GLOS network, the company focuses on designing the production line so that there is a fast response rate to the need for production of individual ES components. In addition, it handles quality implementations before sending the ES to AS3. In terms of internal relationships in the AC GLOS network, AS2 also collaborates with AS1 in other projects too.

Seven individuals were interviewed in AS2, with details presented in table 5-8 and discussed in section 5.11.1.

Role in AS2	Years in AS2	Communication *I/view: Interview* *F2f: Face-to- face* *F/up Follow-up*	Age	Gender *M: Male* *F: Female*	Origin	Educational Background
Manager 1	16	I/view f2f I/view f2f F/Up telephone	43	M	EU	University degree
Manager 2	9	I/view f2f F/Up telephone F/Up emails	33	M	AC	MBA
Supervisor	5	I/view f2f I/view f2f	29	M	EU	MBA
Technical director	9	I/view f2f F/Up telephone	25	F	AS2	MSc
Engineer 1	15	I/view f2f I/view telephone	60	M	AS2	Technical degree
Engineer 2	2	I/view f2f	24	F	AS2	University degree
Engineer 3	7	I/view f2f	38	M	AS3	PhD

Table 5-8: Interviewee information – AutoSupplier2 (AS2)

5.10 Case study – AutoSupplier3 (AS3)

5.10.1 Organizational profile of AS3

AS3 is a large-scale bus/coach production company, among the top three biggest production plants in the world, and also manufacturer of coaches for one of the world's leading brands. It was founded in the middle 50s with production of vehicles only for the local market and later, when the economy of the country started developing, the company expanded and was bought in the early 90s by the world leader brand for which it has been manufacturing coaches.

As also discussed in section 5.6.1, AS3 is the site where installation of the ES and industrialization take place. Currently, it employs approximately 3,500 workers, the

majority of them being involved in the production chain. One of the reasons the company employs so many individuals is the size of its domestic market, which is one of the largest in the world. The company is a major local employer, also working closely with local authorities. In addition, because the international market demands have increased in the last years, AS3 has reached the point of being willing to sign subcontracts even with its domestic competitors in order to respond to the demand for quality standards, fast response, and customization of coaches.

Sourcing status	Supplier
Country	Asia
Established	Middle 1950's
Number of employees in the company	Total 3,500 (the majority in production chain)
GLOS project description	Installation & industrialization of the ES of buses and coaches
GLOS project duration	Long-term relationship arrangements
Number of people involved in GLOS project	Varies, depending on specific needs
Number of interviewees	9 (for details see table 5-10)

Table 5-9: Case study – AutoSupplier3 (AS3)

5.10.2 GLOS activities –AS3

In the phase of the ES production that involves AS3, AS2 has already sent the ES to AS3. Since the chassis of the buses/coaches are built in AS3 in an on-going basis, as soon as the company receives the ES from AS2, the workers are ready to install the ES to the chassis and then send the bus or coach to AC by road.

Most of the employees in AS3 that deal with the AS have a hands-on experience with the ES and other types of mechanical systems, and the majority of them is involved in the production line as assemblers. For the purpose of the present research nine employees were interviewed, as presented in table 5-10 and also discussed in section 5.11.1.

Role in AS3	Years in AS3	Communication *I/view: Interview* *F2f: Face-to- face* *F/up: Follow-up*	Age	Gender *M: Male* *F: Female*	Origin	Educational Background
Line manager	13	I/view f2f I/view telephone I/view telephone F/Up emails	60	M	AS2	University degree
Supervisor	5	I/view f2f	32	M	AC	MBA
Engineer	2	I/view f2f	32	F	AS3	MSc
Quality engineer 1	4	I/view f2f I/view f2f	33	M	AS3	MSc
Quality engineer 2	5	I/view telephone	29	M	AS3	University degree
Assembler 1	6	I/view f2f I/view f2f	36	M	AS3	No degree
Assembler 2	6	I/view f2f	38	M	AS3	No degree
Assembler 3	35	I/view f2f	58	M	AS3	No degree
Assembler 4	29	I/view f2f	55	F	AS3	No degree

Table 5-10: Interviewee information – AutoSupplier3 (AS3)

5.11 Data analysis

This section describes the analysis of the data according to the three steps discussed in chapter 4 (table 4-1) and in the introduction of the present chapter.

1. Getting familiar with data and findings (section 5.11.1)
2. Generating codes and themes (section 5.11.2 and 5.12)
3. Developing themes into a thematic network (section 5.13)

5.11.1 Getting familiar with data and findings

This first part of this section involves acquiring familiarity with the background of the interviewees and the company, as examined in section A (Interviewee information) and B (Company information) of the interview agenda for the case studies (see Appendix B). Aspects of these sections have already been discussed in the organizational profile and the GLOS activities of each company. Section C (General GLOS cultural issues), section D (GLOS cultural emergence), and section E (Specific GLOS cultural issues) are presented in section 5.11.2 and section 5.12. Section 5.11.2 includes interview extracts (approved by the companies for publication in the present study) and generation of some codes and themes (for a full list of codes from the interview data see Appendix A1b).

Interviewee and company information

The following table (table 5-11), presents a summary of the information on the interviewees and the four companies of the AC GLOS network.

AC	**Role in the company** AC: CEO, 1 managing director, 4 engineers, 2 designers, 3 team members, 3 drivers, personal assistant to the CEO, 1 company lawyer. AS1: 1 project manager, 1 supervisor, 2 software engineers, 3 team members, 1 administrator AS2: 2 managers, 1 supervisor, 1 technical director, 3 engineers AS3: 1 line manager, 1 supervisor, 1 engineer, 2 quality engineers, 4 assemblers
A2	**Average years in the present position** AC: 9 yrs (min 1 – max 25) AS1: 5 yrs (min 1 – max 17) AS2: 9 yrs (min 2 – max 16) AS3: 11yrs (min 2 – max 35)
A3	**Communication mode** AC: 17 interviewees, 22 interviews, 15 follow-ups AS1: 8 interviewees, 12 interviews, 4 follow-ups

	AS2: 7 interviewees, 10 interviews, 4 follow-ups AS3: 9 interviewees, 13 interviews, 1 follow-ups
A4	**Average age** AC: 38 yrs AS1: 36 yrs AS2: 36 yrs AS3: 41 yrs
A5	**Gender** AC: Male 13, Female 4 AS1: Male 6, Female 2 AS2: Male 5, Female 2 AS3: Male 7, Female 2
A6	Country of origin (identified as the country of AC, of AS1, of AS2, of AS3) AC: 10 from AC, 1 from AS1, 1 from AS2, 1 from AS3, 1 has dual nationality, 3 from AC plus some international experience AS1: 3 from AS1, 1 from AC, 1 from AC3, 2 EU, 1 from Asia AS2: 3 from AS2, 1 from AC, 1 from AS3, 2 from EU AS3: 7 from AS3, 1 from AC, 1 from AS2
A7	Educational background AC: 2 PhD, 3 MSc, 1 MA, 3 university degrees, 1 law degree, 4 technical degrees, 1 degree, 2 no degrees AS1: 3 MSc, 1 MBA / law degree, 1 university degree, 1 technical degree, 2 students AS2: 1 PhD, 1 MSc, 2 MBA, 2 university degrees, 1 technical degree AS3: 2 MSc, 1 MBA, 2 university degrees, 4 no degrees
A8	Optional comment on culture and own cultural experience
B1	Name: AC, AS1, AS2, AS3
B2	Address: Countries of AC, AS1, AS2, AS3
B3	Business/industry AC: Automotive / Transportation AS1: Automotive / Transportation AS2: Automotive / Transportation / Technology AS3: Manufacturing / Production
B4	Number (approx.) of employees in the company

	AC: 200, AS1: 400, AS2: 1,200, AS3: 3,500
B5	Country(ies) of origin of employees The majority in all 4 companies comes from the country of the company.
B6	Formal/preferred language(s) of communication AC: Local language, with the majority having advanced knowledge of English and basic knowledge of AS1 AS1: Local language and English AS2: Local language, with the majority having advanced knowledge of English AS3: Local language, with the majority having basic to intermediate knowledge of English

Table 5-11: Information on interviewees and companies

The table summarizes information on the following types of information:

- Role of the various interviewees (17 in AD, 8 in AS1, 7 in AS2, 9 in AS3).
- Average number of years in the position, which varies from 5 to 12 years.
- Average age, which is approximately 37 years.
- Gender, which is predominantly male.
- Country of origin that tends to be the same with that of the company or one of the other countries in the network.
- Educational background, which varies from no formal education to PhDs.

In most companies, the interviewees were comfortable with using English, and the majority of the interviews was followed by another interview or by a follow-up (F/Up) communication through the telephone, email, or face-to-face (f2f) (sees Appendix C).

As also discussed in section 4.4.1 (Use of interviews in the current study), all the interviewees as summarized in this section (also see Appendix C) and discussed in the next sections correspond to real life individuals encountered by the author. Yet, as is also the case with the companies' and the countries' identities, actual names had to be kept confidential and a promise of anonymity had to be made.

5.11.2 Generating codes and themes

In the present study, a manual approach was used, as opposed to the use of specialized software such as CADQAS (Computer Assisted Qualitative Data Analysis) (Yin, 2009). It included the use of different color highlighters, different folders, and multiple readings of the transcripts, allowing for physical involvement with the printed material provides and for viewing the 'bigger picture, beyond the size restriction of a computer monitor.

As discussed in section 4.4.3, coding refers to relating pieces of raw data to more general concepts, in order to better express and summarize its meaning. For this study, this was achieved by reading the transcripts multiple times to allow for the development of ideas and insights regarding potential codes, and then assigning a code to text segments of the transcribed interview.

Following a hybrid model (Fereday & Muir-Cochrane, 2006), as discussed in section 4.4.3, the generation of codes and themes in the present study combined both the deductive and the inductive approach. As can be seen in figure 5-2 (a replication of figure 4-1), development of codes and themes followed initially a deductive approach (see section 4.4.3). Codes emerged from the literature on culture in relation to outsourcing (as discussed in section 2.3.1 and shown in Appendix A1a) and the themes from the literature on cultural systems (as discussed in section 3.2.2, section 3.3, and shown in table 3-2). In the next sections (sections 5.11.2 and 5.12), further generation of codes takes place in an inductive way, allowed for identification of new codes and themes from the interview data (examples are presented in the next section and the codes are shown in Appendix A1b).

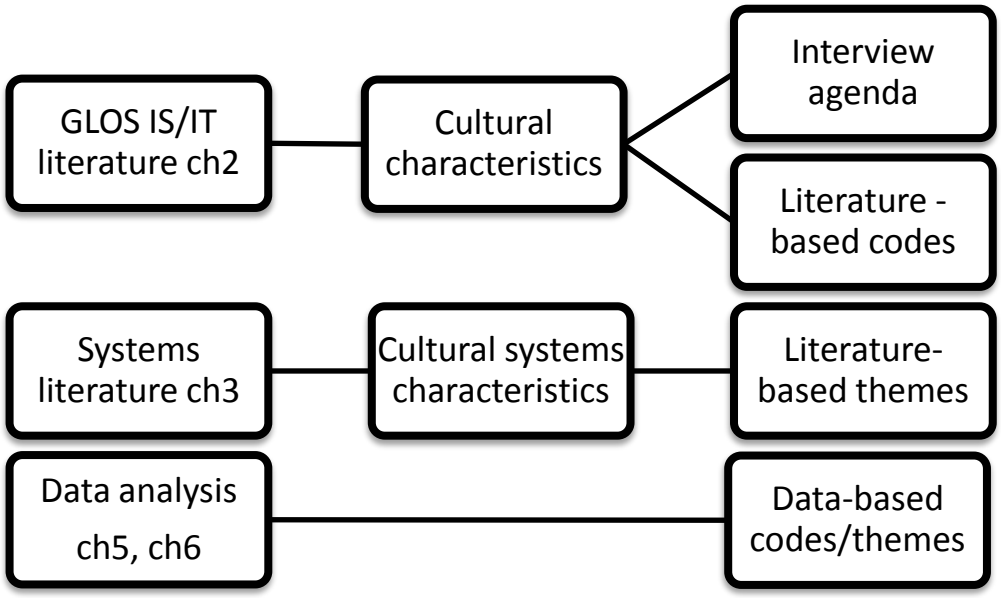

Figure 5-2: Development of codes and themes

In the present analysis, deductive coding offered the advantage of a data management tool at the early stage of the analysis, while inductive coding allowed codes to develop from the data, reducing bias that could result from an a priori coding scheme. In Appendix A1c, codes from the literature (words in bold font) are combined with interview codes (underlined words).

Regarding Appendix A, it should be noted that A1a is a list of cultural characteristics found in the literature that examines specifically the relationship between culture and outsourcing (see section 2.3.1) and A1b is a list of all the codes that emerged from the interview data. The list is not divided in cultural characteristics according to organizations because the scope of the research is *not* to compare and contrast the organizations and the countries but, instead, to use the interview from the participants in order to identify cultural attributes (themes) that are related to emergent GLOS culture (see section 1.3). This is also the reason why in sections 5.7, 5.8, 5.9, and 5.10, no specific characteristic are mentioned with regard to *specific* organizations' background (also see section 5.6). In addition, as also explained in section 1.3, specific

characteristics are not used to compare the before and after the deal cultural characteristics but to analyze the culture as it exists during the *specific* period of the study.

Finally, since the research is based on a thematic and not a content analysis (section 4.4.3), the number of times that a code is used to code different text segments is not important. Along these lines, the codes and, subsequently the themes, cannot be considered more or less representative of a specific organization, depending on how often they are mentioned in the interviews. It should also be mentioned that the codes in Appendix A, on many occasions, seem to describe the same concept (e.g. clan, fellowship, brotherhood) because the interviewee used this specific word.

The next section (section 5.11.2 - Raw interview data – Code development) attempts, through interview quotes, to provide cultural characteristics (which function as interview-based codes) whose role the participants identify of interest or concern. Later, in section 5.12, the combined codes from both the literature and the interviews (see Appendix A1c) is aggregated into groups (see table 5-12 and table 5-13), in order to facilitate understanding and comparison across different basic themes. Codes and their relation to themes are shown in section 5.13.

Raw interview data - Examples of codes

This section presents some research findings from the analysis of the interview data. The issues discussed emerged in the process of getting familiar with the data (see table 4-1) and show the development of codes by the researcher in relation to the topic of the study focusing mostly on demonstrating how codes summarize a text segment. The underlined codes, as appear in the following analysis, are also included in Appendix A1b and A1c).

Among the codes identified, the following are of importance regarding the research: Communication, language and language related problems, communication channels, perception of each other, attitudes to responsibility, verbal and nonverbal communication, interaction, physical proximity, geographical distance, technology, finances, work, esteem, pride, management, trustworthiness, group bonding,

hierarchy, role of managers, work satisfaction, motivation, rewards and managerial appreciation, education, knowledge and skills, harmonization and emergence.

Communication was a topic that appeared in coding and, among other examples, the importance of *"appropriate"*, *"right"*, and *"on-time"* communication was emphasized on multiple occasions.

> *"We arrange a video conference with AC at 09:00. My team is ready 15 minutes in advance and waiting, appropriately attired, to discuss software issues related to technical drawings […]. At 08:58 I checked my Blackberry and there was an email by [PA to the CEO], who explained that the meeting would have to be postponed for 10:00 because [Designer 1] and [Engineer 4] would be late for work. I understand that they might have a very serious reason, yet I would prefer this kind of emergencies not to happen in work exchanges with foreign countries"*. (Supervisor, AS1)

Language was discussed in terms of proficiency, understanding, accent, style, and primary versus secondary language issues.

> *"Sometimes we encounter language problems as English is not a common language in a country like AS2"*. (Team member 2, AC)

Language related problems included communication issues, misunderstandings, documentation, translation, terminology. These types of problems would often appear in relation to technical aspects of the work.

> *"There is also a language issue with the technical manuals. AS2 and AS1 always use the AS1 version of all software manual but in AC we use the English edition because it is much easier to give it to the production people in charge"*. (Engineer 2, AC)

In terms of satisfaction with the existing communication channels, face-to-face communication reflected more accurately the need to communicate tactically, in both formal and informal ways.

> *"Our cooperation seems to get better after having a meeting from time to time between people that are responsible for the production line of the three companies. Personal contact seems to be the only way that you can use to make people from different cultural backgrounds cooperate, work hard, and continue being friends"*. (Driver 1, AC)

In terms of perceptions of the other organization, there appeared to be miscommunication and lack of understanding concerning problematic situations. For example, because AS3 is *"slow to adapt to emerging quality issues in relation to assembly"* (Supervisor, AS3), the company has been accused of product failures in the past. As a result, employees are afraid to reveal quality problems.

In terms of different perceptions in assigning responsibility for a situation, in AS2, according to Software Engineer 2 of AS1, when the documentation and prototyping have been specific, employees deal with the situation successfully. Otherwise, they hesitate to take initiatives and they are unwilling to address and communicate problems, especially when inherited from a previous stage in the GLOS relationship. Interestingly enough, the perception of AS2 is very different. On the same issue, the Project manager of AS2 comments:

> *"Comparing the present situation with a situation when the whole electrical system of the coaches was produced in house […), people tend to throw the responsibility for production problems to the other companies. We would expect workers in the production line in AS3 to correct small design problems without any complaints […]. But now, they believe that since the ES is produced here before sent to them, the product should be perfect and there is no need to try solving small matters. It is a psychological issue. A worker will do nothing to cover for mistakes made from a worker in a country he does not even know exactly where it is on the map"*. (Project manager, AS2)

In addition, in terms of verbal and nonverbal forms, communication was discussed in relation to socialization and social bonds, both as a necessary everyday formal and

informal mode of interaction but also as a process through which employees felt they were able to:

- Familiarize themselves with the *"other culture"* (Assembler 1, AS3)
- Realize that *"we do not have anything to fear from them"* (Assembler 2, AS3)
- Develop a taste for interaction beyond working hours *"because, after all, these people are fun to hang out with"* (PA to CEO, AC)
- Learn new skills related to the project
- Practice their language skills
- Develop an attitude *"I am feeling a citizen of the world"* (Engineer, AS2)
- Gain pride in in their work, their country, and the fact that *"I can tell my kids and my neighbors that their father hangs out with people from country AC"*(Assembler 4, AS3)
- Encourage lowering of gender-related boundaries

Another issue related to communication and interaction was also the issue of physical distance or proximity. In the interviews, proximity was discussed in two ways:

- Physical proximity, i.e. interpersonal distance and comfort levels in everyday interactions

  "Distance plays a role and makes the collaboration easier. A Mediterranean-based collaboration is a lot easier for AC or AS1 and they can understand each other's way of thinking better, compared to working with a Scandinavian company" (Engineer 4, AC).

- Geographical distance: For example, distance was considered a reason for lack of communication. That was discussed regarding the relationship between AC and AS3, due to the geographical distance between these two countries and, at the same time, the need to be in constant and direct communication (a prerequisite not existing in the relationship between AC-AS1 and AC-AS2. In addition, geographical distance was considered an extra burden involving visa status (as required for organizing on site visits) and working permits (if

employees from one country had to be transferred to another country for a long-duration stay.

Technology was also discussed in the interviews, not only as an aspect of an IS/IT project, but also as a generation "gap" and social status quo issue. For example, because AS3 is responsible for industrialization, the site relies on manual work, so advanced technical skills are not considered a prerequisite for hiring an employee. At the same time, older employees and employees coming from financially challenged households are not familiar with the use of modern social media and technologies to communicate, thus preferring to trust their supervisors to communicate any special problems and needs. In addition, the majority of older employees (especially in AC and AS3) feel no need to update their technical knowledge, thinking that there will be no direct reflection on their pay increase.

In terms of attitudes and beliefs, the importance of values was discussed in all the interviews. Two aspects were:

- Monetary-oriented: The importance of financial benefits was expressed through equality in terms of rewards.
- Work-related: The interviewees discussed the motivation behind completion of tasks and the effect of their worklife.
- Esteem-related: The interviewees seemed to put emphasis on specific value systems, i.e. *"I values X", "X is against my values", "If I act in X way, the team will think the worst for me*".

Another form of esteem was also pride.

> *"I believe that people in AS1 come from a country that makes people very proud of their work, especially technological/ engineering works. It is very difficult to persuade them about possible mistakes without being slightly offending towards them. They seem to believe that they are the best in the world market"*. (Team member 1, AC)

In addition, when the concept of esteem (defined for the purpose of the present study as feelings of value and respect towards another party) was discussed, it was often associated with:

- Power of both the organization and also the country. For example, employees in AS1 were proud of the technological advancement of their company and they show it as reflecting the general technological advancement of their country. In AS2, interviewees expressed enthusiasm over the fast pace with which they enter the European industry competition, and in AS3, there were general feelings of optimism for the country regarding their acceptance by EU members.
- Feelings of appreciation by the employee's own group (We) compared to appreciation by the collaborating group (They). For example in AS1, organizational members felt at ease to compare and contrast themselves and their perceived technological superiority with the lower level that characterized for example AS3. On the other hand, individuals in AS3 tended to think that since they are part of the same GLOS project, the 'We' extends to everybody who is part of the relationship.
- Ownership of ideas and initiatives, expressed through the need for responsibility and control. For example, AS1employees were proud of their influential role in the collaboration, feeling that creating the prototype and writing the programming code could put them in an advantageous position compared to countries that would provide the labor aspect of the ES.

Power and esteem also appeared as managerial issues that could enhance internal trust and the reputation of the company.

> *"Management involvement was crucial for effective collaboration. At the beginning, it was really difficult to persuade managers of our company to trust such a complicated project, of such an important role for our company, to companies in other countries. Managers started to support the deal only after they saw the trustworthiness of the product […] but their support helped increase our power in the market. In a way, our market status regarding our product was highly improved after the deal was published to the press. Managerial involvement was also crucial for*

> *the project in terms of making workers believe that outsourcing would not make them lose their jobs"*. (Technical director, AC)

In addition, trust was also discussed at the inter-organizational level as related to fear of competition.

> *"Because of the competition, companies do not trust each other. Instead of exchanging knowledge, IT departments do the same job […] instead of saving time by sharing information and exchanging knowledge. But they do not do it because they are afraid of losing the exclusivity of the knowledge"*. (Quality engineer, AS3)

Moreover, in terms of group bonding, an attitude of comparison appeared on multiple occasions. The countries of both AS1 and AS2 are countries where the team spirit is cultivated and expected as a norm in organizations. As a result, the employees tended to share both accountability for mistakes, and also success, something that would confuse AC, since they tended to look for a specific person to be praised or accept responsibility.

> *"Sometimes there is a matter of who is in charge of the whole project, as AS2 cooperates with AS1 for many years. When we encounter a problem is it easier to persuade the loom producers through AS1, instead of talking directly with them. The road from the drawing board to the production assembly seems to be a lot longer and time consuming"*. (Engineer 1, AC)

In terms of responsibility, this was discussed both as an attitude,

> *"I hate to take the responsibility because I am afraid that they will blame me if something goes badly"*. (Engineer 3, AS2)

but also as a behavior.

> *"It is the project manager's responsibility to arrange a time for a meeting in order to make sure we all agree on what action to follow".* (Administrator, AS1)

In addition, in AS2 and AS3, the employees would feel content to let their supervisors decide on the appropriate course of action, while hierarchy (especially in AS1) was related to esteem and power, both as responsibility and as a factor important for decision-making and for providing structure and planning. Moreover, in AS2 and AS3, even though employees were *"happy"* and felt *"encouraged"* to take initiatives and contribute to the GLOS project, they were satisfied with having intermediaries (in the form of managers or supervisors) playing a role in decision making, while they would tend to accept a decision made at the executive level as final. However, in AC, even though the employees seemed to openly agree with the management, they tended to feel free to take initiatives and they, privately, tended to perceive themselves as powerful and irreplaceable in terms of their overall contribution to the GLOS relationship.

The role of the managers was of importance, both as an attitude (towards responsibility and hierarchy) but also as a method to increase motivation and feelings of appreciation. For example, short congratulatory cards and Christmas presents were considered important in BS, while in AC fairness in the reward system and the opportunity for equal promotions and advancement were considered important.

> *"Management was generally very supportive. Undoubtedly, if they are supportive it facilitates to carry on working. The managers from (company X) were more than supportive. When we finished, we got a certificate from the top bosses. Small prizes, not expensive, they were offered in a meeting. Some chief came and gave us certificates, paper clips… not expensive. It was not the money. A small gift really motivates you. They motivate you not directly with money, you are getting paid, but there are other ways too".* (Software engineer, BS)

Overall, the younger generation, focused more on the issue of work satisfaction and motivation. In AS3, as was also the attitude towards technology, older employees felt no need to either change or adjust their attitude, mainly because they tended to relate a

"good job" with accumulating wealth while younger employees, especially in AS1 and AS2, tended to be satisfied with *"having just enough"*, provided that:

- There is intrinsic satisfaction for performing their job tasks to the maximum of their abilities and
- They are appreciated not only through pay increases but also through other forms of appreciation and expressions of gratitude, e.g. paid overtime, extra leave days, acknowledgement of their work through internal award ceremonies, personalized gifts by their supervisors, thank-you cards.

Reward and appreciation, through the role of management, were also related to encouragement of communication and interaction beyond the company level. In AS1, for example, the role of management was demonstrated through encouragement of employees to attend training seminars, academic conferences, and workshops in order to enhance their skills. Yet, that was not the case in AS3, where, apart from some 1-4 day practical workshops, the employees felt that it was beyond the existing status quo to ask for participation in such events and there was no practical demand to have the same level of work-related education as their counterparts in AS1 and AS2.

Furthermore, in terms of education, education was discussed as an attitude. For example, *"We value education" (Engineer 3, AS2)*, and also as a value.

> *"I am still going to evening classes to learn the language of AS1"*, mentioned by an employee in AC, *"because I feel I cannot contribute enough to the project and I feel I do not have the same opportunities as people who are born and raised in the country of AS1"*. (Team member 3, AC)

Apart from education, skills were discussed, as related to specific versus general knowledge.

> *"AS1 has a very strict organizational structure. Sometimes it is very difficult to find the right person to address your problem. In AC an individual can be responsible and has knowledge of many aspects of the production line". In AS1, every employee has a strictly defined*

> *professional area and almost no knowledge of the other aspects of the work. Sometimes we must actually study the hierarchy chart of AS1 in order to find the appropriate person to whom we can address our particular problem"*. (Engineer 3, AS3).

Trust (defined for the purpose of the present study as reliance on the integrity, ability, or character of another party) was another attitude discussed in length, as the following extracts show.

> *"Our relation with AS1 is very sensitive because their IT department has areas regarding the engineering aspect of the product that are treated as company secrets […] so we feel that they only offer enough information for the collaboration to keep the deal going on, but no more than required. Here in AS2 and I think the same is true for AC, there is a strong feeling that they share only the necessary technical knowledge and in case something goes bad with the deal we might not be able to continue without spending time on redeveloping the system"*. (Project manager, AS2)

> *"We know that AS1 may in the future cooperate with our competitors. In that case, our trade secrets can flow to our competitors. Generally speaking, this is the hardest part of the collaboration between my department and the other countries. You do not know if you can trust people that in a few days may cooperate with another company that happens to be your biggest competitor"*. (Project manager, AS2)

Moreover, a tendency towards harmonization was perceived despite attitudes towards perceived or real threats, and despite feelings of superiority, while, in relation to cultural emergence, as the interviews revealed, employees recognized evidence of an emergent culture. Apart from a few employees who mentioned that they felt they would *"betray"* their country if they would even consider the possibility of allowing themselves to change their cultural attitudes, the majority of the interviewees discussed that a new culture was in action and was progressing and getting "stronger" as the GLOS relationship would continue to develop. Again, as was the case with the

system's tendency to harmonization, they seemed to be unaware of it, unless the issue was raised by the researcher in the interview.

Emergence was also observed in attitudes and beliefs towards pride and group esteem. Feelings of superiority and need for personal/group validation in the relationship changed into what could be described as compassion for the other group's difficulties at work and, once employees from different companies started socializing, for problems manifested as discrepancies in their living conditions and everyday life. As an example of solidarity and camaraderie, a person in AC confessed that he actually discovered and corrected a mistake made by an employee in AS2 because he felt that the other person was at risk of losing his job for lack of good knowledge of English, should the mistake be discovered in a routine test. Such feelings were also identified when the employees discussed feelings of moving from some type of "clan" that would exist in the pre-deal organization, into some type of brotherhood or fellowship to include both countries, despite anticipated opposition by the immediate social network.

5.12 Codes

The previous section (Raw interview data – Code development) provided a sample of the interview codes, based on characteristics that the interviewees identified of importance, in relation to the topic of culture in a GLOS context (the full list can be found in Appendix A1b). In the present section, the combined codes from both the data and the literature are aggregated into 43 groups (see table 5-12 and table 5-13), in order to facilitate understanding and comparison across different basic themes (also see table 5-26).

Repetition of codes within the same groups or repetition of the same group codes within different basic themes occurs when the same code is repeated in different context during the interviews (see tables 5-14, 5-15, 5-17, 5-18, 5-20, 5-21, 5-23, 5-24 for examples of specific issues discussed in the interviews in relation to group codes and codes). Moreover, when the analysis will move from the development of codes to the generation of themes, such repetition will not affect the analysis because, *eventually*, the model focuses on the *concepts* of the thematic network. This is in accordance with section 1.3, where it is mentioned that the role of the model and the

analysis is not to compare characteristics before and after the outsourcing collaboration or characteristics across different organizations but to describe cultural factors (basic and organizing themes) that are related to emergent GLOS culture.

An example of generation of codes and themes is included in Appendix A3.

The next table (table 5-13) groups the codes in order to facilitate understanding. Later, in section 5.13, specific examples of issues discussed in relation to codes are presented. These examples are directly related to group codes for each basic theme.

Code groups	**Codes**
Adaptation	Acceptance Adaptability Adaptation Adjustability
Communication	Communication barriers / differences Communication of problems Communication of skills/techniques Communication style Telecommunication infrastructure
Communication (travelling)	Traveling (expenses, coordination, visas)
Communication compatibility	Compatibility (Date & time format) Language
Communication levels	Line of communication Intermediaries
Communication mode	Communication: Written / Verbal / Nonverbal
Cultural adaptation	Cultural adaptation Cultural emergence
Cultural compatibility	Cultural compatibility, affinity, fit, similarity Cultural differences, difficulties Cultural distance Cultural readiness
Cultural knowledge	Knowledge of culture Knowledge of foreign country
Distinction (inter/intra groups)	Awareness of existence of others Comparison with other company (within group) Perceptions of self- others Pride (in own work) Superiority
Economical / Legal / Political systems	Economic system/development Political situation Economic stability

Education / Skills	Educational system (formal / on-site) Experience & inexperience
Ethics	Ethics: Work/Personal
Evaluation	Appraisal from others Appraisal from management Self-appraisal Esteem
Feelings (negative)	Animosity Fear of "strangers" Fear of losing job Instability Unfairness
Feelings (positive)	Contentment Gratitude Happiness Satisfaction Validation
Interaction	Interaction / interdependencies client vendor (interoganizational level) Interaction / interdependencies within group
Language	Language (proficiency, dialect, accent, vocabulary)
Lifestyle	Lifestyle Living conditions Everyday life Pace of life Way of living Work vs. social life
Management	Management communication Management involvement Managerial support Role of managers
Market	Market / Industry structure
Mindset	Attitude to change, competition, innovation, technology, success, risks Attitude to problems, failure, mistakes (awareness, cover up, facing) Attitude to wealth (accumulation vs. "just enough") Awareness of limits Fear of accountability, responsibility, taking initiatives Fear to offend Gender issues Manners / Politeness

	Perceptions of time (e.g. time delays, wasting time) Perfectionism / Attention to detail Preference for similarity Xenophobia
Motivation	Appraisal Morale Rewards
Organizational	Bureaucracy HR / Personnel issues Workforce Organizational maturity Organizational plan Organizational structure Reputation of organization
Outsourcing specifics	Understanding outsourcing concepts Contract: Flexibility / Reliance Documentation / Certification Intellectual property rights / Ownership
People issues	Concern for people over production People-orientation Work vs. social life
Physical distance	Management of remote teams Geographical distance Physical proximity Travel issues
Power	Authority Control of business decisions Employer-employee relationships Group leadership Hierarchy Intermediaries Seniority
Priorities	Importance of relationships Importance of work Relationships vs. merit
Skills (soft skills)	Communication Enthusiasm Friendliness Language Personal habits Sociability
Skills (work related: business, market, technical)	Ability to explain practical problems Ability to transfer idea/prototype to actual settings

	Ability to visualize the problem/solution Analysis - Integration Difficulties in explaining practical problems Difficulties transferring idea/prototype to actual settings Problem-solving Project management Understanding business Market knowledge
Socialization	Sociability Socialization Social / personal bonds Intergroup exchanges Personal contact Formal vs. informal interactions
Status quo	Status / Status quo Preservation of status quo and ongoing relationships
Support for change	Free expression of feelings/attitudes Managerial support Openness
Team spirit	Bonding Camaraderie Clans Cohesion Cooperation Esprit de corps Friendship Group harmony Harmonization Solidarity
Time/Dates	Time (e.g. perspectives, schedules, differences, zones, format) Dates (e.g. holidays, format)
Tradition	Traditions
Transition period	Transition period
Trust (country)	Trust (country)
Trust (people)	Trust (people)
Values	**Values** Moral obligations Principles
Vision	**Vision** Orientation Shared Goals Vision
Working conditions / Worklife	**Working conditions / Worklife** Collaboration

	Comfort level Commitment Complexity Conflict Consistency Cooperation Coordination Credibility Expectations Fairness Freedom Involvement Knowledge / information sharing Need for instructions/support Politics (organizational) Pride in own work Reciprocity Responsibility Reward / Payment Stability Willingness Working hours / schedule

Table 5-12: Codes & group of codes

The next table (table 5-13) focus only on the group codes, since examples of the issues that were discussed in the interviews are related directly to them, in tables 5-14, 5-15, 5-17, 5-18, 5-20, 5-21, 5-23, 5-24. As was mentioned above, the grouping of codes took place in order to allow for comparison and contrast among the basic themes. Even though identification of codes in relation to basic themes is important for this research, the real focus of the study is the development of the thematic network and its use in the analysis of emergent GLOS culture.

Group codes
Adaptation
Communication , Communication (travelling), Communication compatibility, Communication levels, Communication mode
Cultural adaptation, Cultural compatibility, Cultural knowledge
Distinction (inter/intra groups)
Economical / Legal / Political systems
Education / Skills
Ethics
Evaluation
Feelings (negative), Feelings (positive)
Interaction
Language
Lifestyle
Management
Market
Mindset
Motivation
Organizational
Outsourcing specifics
People issues
Physical distance
Power
Priorities
Skills (soft skills), Skills (work related: business, market, technical)
Socialization
Status quo
Support for change
Team spirit
Time/Dates
Tradition
Transition period
Trust (country)
Trust (people)
Values
Vision
Working conditions / Worklife

Table 5-13: Summary of group codes

5.13 Developing themes for a thematic network

As also discussed in section 5.11.2, since the research is based on a thematic and not a content analysis (section 4.4.3), the number of times that a code is used to code different text segments is not important. Along these lines, the codes and, subsequently the themes, are not considered more or less significant, depending on

their frequency in the original data set. Instead, a theme is identified as a theme according to the interpretation or the role the interviewees assigned to it and its relevance to the topic of the study. Moreover, it is also important to remember (also discussed in section 4.4.3) that a thematic network does not represent directional or cause-and-effect relationships, but it rather shows relatedness and hierarchy of themes.

As discussed in section 4.4.3, a thematic network consists of three categories of themes (see figure 4-2):

- Basic themes, which are derived directly from the data through coding and need to be seen within the specific research (due to their low order).
- Organizing themes, which represent groups of basic themes according to similarity and express broader meaning compared to the basic themes.
- Global themes, which conclude the analysis by summarizing the two other lower-order themes.

In the present research, the thematic network (see figure 6-1) is built around the global theme, which is the GLOS culture (see figure 5-3). The thematic network will be further discussed in chapter 6, in relation to emergence, and will be incorporated in the extended model of the research (section 6.3, figure 6-2).

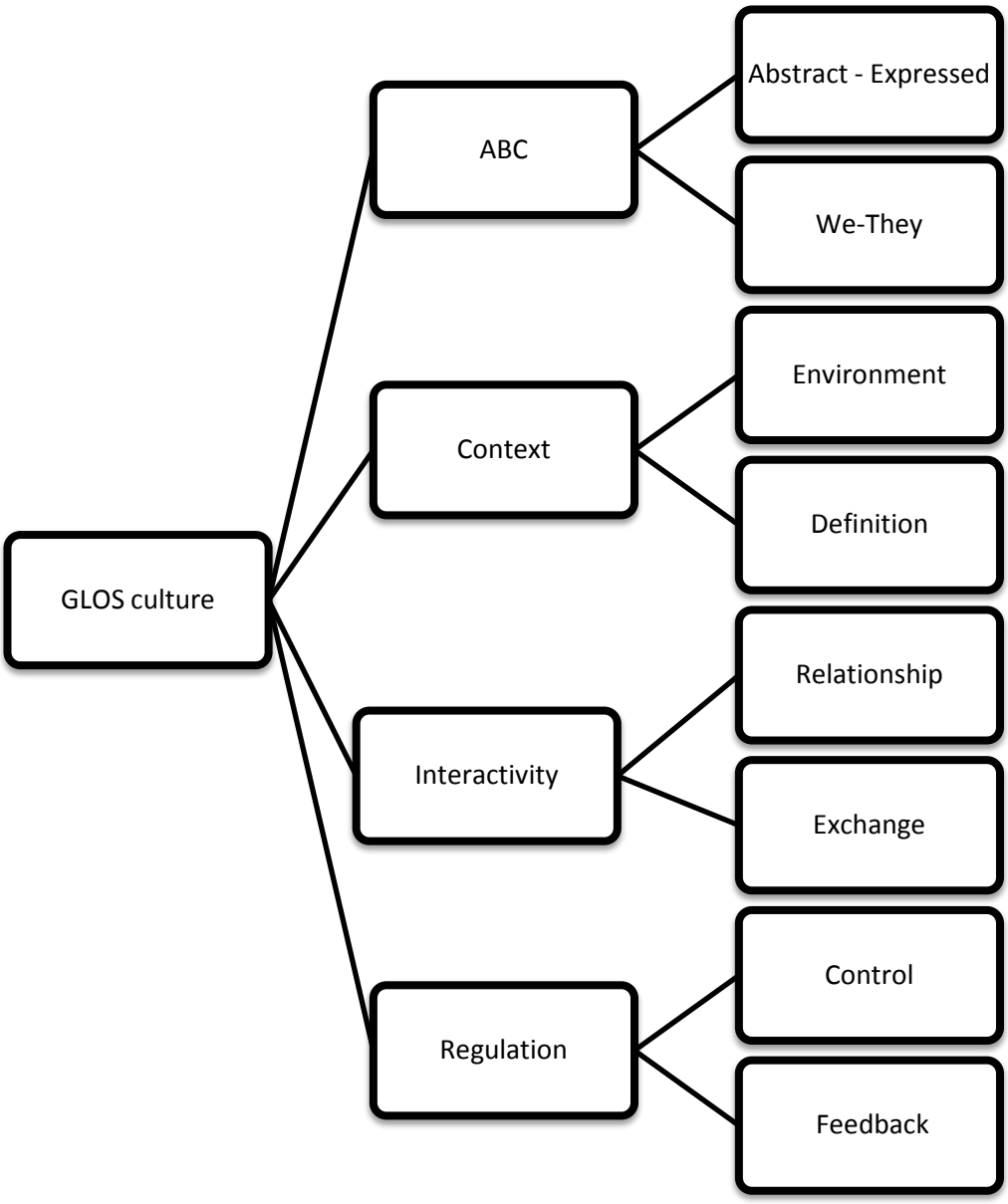

Figure 5-3: Thematic network

In the next sections, the analysis of the concepts as related to themes of the thematic network is organized as following:

Section 5.13.1: ABC (Attitudes, Behaviors, Cognition)
Section 5.13.2: Context
Section 5.13.3: Interactivity
Section 5.13.4: Control

Each section starts with a table that provides the definition of the concept in the original model (figure 3-4) and then describes its new version (as organizing theme) based on its basic themes. The organizing and basic themes are described and defined in the remaining section using interview quotes for clarification and tables that show interview examples for each group code.

5.13.1 ABC (Attitudes, Behaviors, Cognition)

The interview data were initially approached in relation to either attitudes or beliefs, as shown in table 5-12. More specifically, from the interviews, two dimensions emerged and were used as basic themes, one involving a we-they relationship and one expressing "abstract – expressed" characteristics (see table 5-14).

In the initial model: A&B (Attitudes & Behaviors) **Definition in the initial model** A – Attitudes: abstract, tacit, and internalized representations of the world, such as beliefs, concepts, ideals, values, norms, traditions, thoughts B – Behaviors: expressed, empirical, and externalized activities related to attitudes
Extended model **Organizing theme:** ABC (Attitudes, Behavior, Cognition) **Basic themes (dimensions)** • We-they

• Abstract-Expressed

Table 5-14: ABC-related themes

The we-they dimension (table 5.15) describes the way individuals and groups perceive and organize their world experience and eventually become member of cultures and subcultures. By acquiring roles within small or big social groups, they tend to differentiate their attitudes and behavior from those of other groups. In the present study, this dimension is reflected in statements by the individuals that focus on comparisons between the collaborating organizations in the GLOS relationship.

> *"AC people are very high in self-motivation and like to take responsibility for their work. They take much pride on what they produce but their value system does not fit very well with our chain production. They prefer to work on their own. We, on the other hand, take more pride in being members of a company and do not value individual work as much as group work"*. (Software Engineer 1, AS1)

The next table (table 5-13) shows examples of issues discussed in relation to group codes for the basic theme we-they. These examples represent original interview codes (see table 5-13 and Appendix 1b).

Basic theme: We-They **Organizing theme: ABC**	
Group codes	**Examples of issues discussed**
Distinction (inter/intra groups)	Awareness of difference between cultural groups, organizations countries Comparison with other company (within group) Perceptions of self vs. others Pride in own work and critique of the other organization's role in the project Expression of superiority vs. the other company
Economical / Legal / Political systems	Differences between the countries regarding political systems, compensation levels, freedom of experience, reward of initiatives, economic stability
Education / Skills	Comparison and contrast of educational systems,

	regarding appreciation of university education and level of education (mostly for technical and managerial skills) Distinction between acquiring education formally or on the site (hands on) Educational system (formal / on-site)
Ethics	Differences in work and personal ethics
Lifestyle	Differences in living conditions, pace of life Differences in the importance of work life vs. social life Complaints that the individuals from the other company do not take their job seriously and prefer to take advantage of the social scene of the country
Motivation	Differences in the appraisal/reward system and, consequently to the degree that it motivates the individuals
Organizational	Complaints that the other organization can use positively its reputation to excel in the market Differences in organizational structure
Physical distance	Cost differences when considering trips to the country of origin, esp. when the project requires long-stay in the country of the client company
Priorities	Different priorities, no common ground
Skills (work related: business, market, technical)	Differences in ability to explain practical problems, transfer idea/prototype to actual settings Different problem-solving techniques Different methodologies for project management
Socialization	Different perceptions of socialization Pressure for intergroup social exchanges Formal vs. informal interactions
Team spirit	Reluctance to form friendships Lack of understanding of bonding needs, beyond professional relationships Individual vs. group mentality
Trust (people)	Differences in degree of trust Suspicion vs. trust
Values	Differences in value systems
Working conditions / Worklife	Different work expectations, e.g. in terms of collaboration, commitment, cooperation, freedom, instructions/support offered, work schedules

Table 5-15: ABC – We-They (Group codes – Issues discussed)

The "abstract – expressed" dimension (table 5-16) represents, on one side, tacit and intangible characteristics such as concepts, values, norms, beliefs and, on the other

side, empirical behavioral expressions. In the present study, this dimension can be seen in statements regarding theoretical aspects of the employees' way of thinking, for example, when they refer to their opinion towards an issue, which can also be translated into a related action or a workplace practice.

> *"Sometimes it is extremely difficult to explain practical problems we encounter during the fitting of the electrical systems to the production, as the people who are responsible for the wiring looms do not have an actual picture of the coach they can look at […]. We do not see the prototype […]. For example, I can explain in detail how I expect the wiring to be and the wiring may look perfect on the table, but it can still be misfitted to the bus". (Supervisor, AS3)*

Basic theme: Abstract-expressed **Organizing theme: ABC**	
Group codes	**Examples of issues discussed**
Cultural adaptation	Adaptation of thinking patterns and behaviors (both personal and work-related)to new nosiness context How long does it take for a new behavior to be observable?
Ethics	Expression of ethics in the workplace How can someone to behave ethically and act in certain ways? Reputation of someone acting in non-ethical ways outside the workplace. How can this affect his/her work? Should employees' behavior in the workplace be judged as ethical or unethical when it is not directly related to the project?
Feelings (negative)	How to overcome feelings of animosity, fear of change and unknown situations and people Labelling of individuals as "foreigners" or "strangers" Fear of losing a job because of outsourcing and reliance on external contribution for project completion
Feelings (positive)	Externalization of contentment, happiness Satisfaction with the collaboration Feelings of validation over role/importance in the project
Mindset	Attitude to change and competition Attitude to problems, failure, mistakes (cover up vs. facing them)

	Attitude to wealth (accumulation of as much as possible vs. "just enough") Awareness of own and others' limitations Should there be pressure to overachieve? Is overachievement a realistic aspiration? Fear of accountability, responsibility, taking initiatives Fear to offend others as a result of cultural differences Gender issues, as related to expressed behavior Need to always behave politely to avoid offending others, despite the individual's real feelings Perfectionism / Attention to detail Same mentality attraction Xenophobia
Skills (work related: business, market, technical)	Technical skills required to turn ideas into concrete proposals, prototypes, models
Status quo	Preservation of status quo and ongoing relationships vs. change in the workplace, expressed in everyday behaviors Can changes to traditional ways of conducting business jeopardize the project outcome?
Support for change	Openness to change: Change is not supposed to be internalized but reflected in everyday work behaviors Feeling free to ask for change and suggest alternatives
Trust (people)	Is it safe to trust a person from the other organization? Fear of delegation
Values	Surprise over different value systems regarding importance of work Value people over outcome
Vision	Why can't "they" understand "our" company's vision? "Are we not together in this"?
Working conditions / Worklife	Importance of commitment and consistency in attitudes and behaviors

Table 5-16: ABC – Abstract-Expressed (Group codes – Issues discussed)

In addition, from the analysis of the data, a new aspect emerged in relation to the way individuals experience and react to the external environment. This new aspect C (Cognition), was added to the A&B category to represent cognitive processes related to both attitudinal and behavioral issues. The difference between C in relation to A&B is that C captures the process of change, which can be mental (thinking) or practical

(doing). In other words, instead of focusing only on attitudes and behaviors, emphasis is now placed on the cognitive aspect of change.

> *"We have learnt that in order to collaborate with companies of the new European market, with still developing economies, we must first build their trust towards us and make them understand that we are trying to help them be productive […] and not think we will make them lose their jobs. After all, it's time they realized that the cost for us to get another supplier in the middle of the project will cost us much more than spending some time here and there discussing how to correct mistakes".* (Managing director, AC)

Using the concept of motivation as another example of Cognition, motivation was mentioned both as part of the attitudes and behaviors of the employees and also as a cognitive process that, when appropriately influenced, can reflect change and lead gradually to new ways of thinking and behaving (in other words new types of A&B). In such a case, motivation can also be seen as an example of techniques that can play a role in the way GLOS culture emerges (as will be further discussed in section 6.1.1).

In the following quote from a supervisor in AS2, the cognitive aspect of change is shown as changes in attitudes, beliefs, and motivation (i.e. feelings of fear and people-pleasing attitude) through a specific technique (i.e. creation of a new bonus system that encourages taking initiatives and responsibility for an appropriate action).

> *"With our HR people, we had to create a new bonus system on top of salary to encourage people to recognize mistakes and come up with a plan. Mistakes can be corrected, as long as you have studied very carefully the production plan and you are in the position to predict problems or time consuming matters. But when the mistakes come from AS1, we feel that we will offend them by telling them there is a problem. And then nobody wants to correct it because if something goes bad we will be accused by AC and everybody will turn against us. But with the new system, people feel free to speak up and not only see what is wrong but also suggest how it is to be fixed".* (Supervisor, AS2)

5.13.2 Context

The category of environment (table 5-17), in the initial model, described the business setting, within which the specific GLOS relationship operates, under the influence of the existence and role of hierarchical boundaries (as depicted in the framework of figure 3-3). From the data, it was considered more appropriate to use the concept of context to replace the concept of environment. Consequently, in the thematic network, context is the organizing theme and is related to the basic themes of environment and definition.

Initial model: Environment **Definition in the initial model** This category represents the business setting, within which the specific GLOS relationship operates, and the existence and role of hierarchical boundaries. It also represents institutions that function outside the organizational context but influence the organizational members (e.g. religious, educational, social, political).
Extended model **Organizing theme:** Context **Basic themes (dimensions)** • Environment • Definition

Table 5-17: Context-related themes

Regarding the organizing theme Context (also see table 5-18), it functions as an intermediary in the exchanges between the GLOS cultural system and the environment. Environment is thus perceived to represent the external environment in terms of business arrangements and institutions, as it exists beyond the organizational boundaries, while context functions as a set of arrangements that control the interaction of the GLOS system with the external world, e.g. the existence of laws, regulations, and social obligations that need to be satisfied.

> *"The AS2 team comes from an ex-communist country […]. People do not seem to have adjusted to the free economy and the free market and cannot understand the connection between working hard, getting rewarded according to your work, being part of a wealthy firm, and at the same time have high living standards"*. (Designer 2, AC)

Moreover, the existence of this external environment also operates at a cognitive level and affects the individuals' thinking. As can be seen in the following quote from Driver 2 in AC, the economic system of the country affects the compensation levels and, as a result, employees from specific countries tend to feel closer and understand better employees in other countries who face the same financial problems. Together, the countries that can establish such common ground, feel they have something in common against people who, due to a different political/economic situation in their country, enjoy extra financial benefits.

> *"Countries must have the same economical system. People must have a common way of living. For example, our people feel that they have a lot more in common with AS2 than with AS1, because the average salary in AS2 is much closer to the average salary in AC, compared to the much higher income of an AS1 worker"*. (Driver 2, AC)

The external environment, apart from the economical and sociopolitical status, which tends to be stable unless major changes occur (e.g. wars, new laws, governmental changes), also includes concepts for which adjustments can be made through appropriate use of organizational initiative. For example, it is not usually realistic to expect to be able to make specific arrangements at the organizational level to stop a war, reduce taxes, or influence the legal system. Yet, there are problems that are created by the external environment, for which adjustments and choices can be made. For example, as far as language and date/time format are concerned, the issue can be treated as stable (e.g. choosing never to learn another language beyond the mother language or insisting on using the American format for dates/time in a country that uses a different format). However, under appropriate motivation and use of initiatives, adjustments and standardization can be agreed upon at the organizational or the individual level and, as a result, organizational members can agree upon certain measures, e.g. language seminars, standardization of formats, establishing of non-

ambiguous rules regarding acceptable norms within the organization. Such adjustments can also function as techniques that play a role in the way GLOS culture emerges (as will be further discussed in section 6.1.1).

The following quote from the Project manager in AS1 shows how organizing interventions for situations that appear to be stable (i.e. lack of advanced language skills) creates positive outcomes and offers the additional benefit of experiencing feelings of belongingness and recognition within the organization.

> *"Well, I have done some basic [language in AS1] back in school but I cannot say I remember much. When I had the interviews and had to come here, before I was offered the job, I felt relaxed because everybody would understand my English, after all, I have studied in USA, and I know that my English is good. But when I moved here and I started working every day and I realized I had to interact with people in production, my English would just do not work for me. What I really like about AS1 is that they have evening language courses for everybody here. And even though some people think they can avoid them and stay at home every evening, actually you are allowed extra days off work every year if you attend. And you also find out that it is taken seriously under consideration in the next performance evaluation […]. And they are not joking about that. It was one of the reasons why I became a project manager in 2 years, instead of the one it would normally take".*
> (Project manager, AS1)

The following table (table 5-18) shows examples of issues discussed in relation to Environment. Table 5-19 show similar examples for the basic theme definition. For further details, also consult table 5-13 and Appendix 1b.

Basic theme: Environment **Organizing theme: Context**	
Group codes	**Examples of issues discussed**
Communication	Communication barriers due to external circumstances (political situation, inferior telecommunications

	infrastructure, incompatible software)
Communication (travelling)	Traveling is not always an option (expenses, distance, coordination, visas, time difference)
Economical / Legal / Political systems	Economic system Political situation Taxes, laws, regulation, treaties Bribes Fear of terrorist acts (especially when considering flights) Work offers restricted only to the natives of the specific country
Education / Skills	Formal educational system of the country Expected skills (i.e. speaking additional languages, advanced computer skills and Internet knowledge are taken for granted in some countries, despite the age)
Feelings (negative & positive)	Past experience and historical events (e.g. wars, revolutions) can still have an impact in individual's minds
Language	Use of the official language of the country of the organization
Market	Market / Industry structure Monopoly Competition
Outsourcing specifics	Importance of outsourcing for the broader business environment, the market, the country, the economy Laws (e.g. taxes, intellectual property rights, ownership) regarding outsourcing collaboration
Physical distance	Geographical distance between the collaborating organizations/countries may be responsible for inadequate cultural knowledge
Power	Authoritarian government Control of business decisions Support of business initiatives
Status quo	Protection of the national element No need to support employment of foreigners
Support for change	Liberal ideas regarding entrepreneurship "Laissez-faire" management style
Time/Dates	Work schedules, format, meeting times are normally organized according to the client's standards r time zone
Trust (country)	Feelings of patriotism and national pride vs. "the world is a global village" ("melting pot" mentality)
Working conditions / Worklife	Minimum salary and benefits are arranged at the governmental level (yet, bonus systems can increase level of reward) Tax over salary earned in a different country In an outsourcing agreement, is it better for the individual to get paid according to the country of work or according

	to the standards of the company that originally hired him/her?

Table 5-18: Context – Environment (Group codes – Issues discussed)

As discussed above (see table 5-17), apart from the existence of the external environment and the various interactions that take place within and around the GLOS context, another theme that emerged was definition (table 5-19). The concept of definition is defined as the understanding and adjustment of the system and its boundaries in relation to its goals and its needs. Goals and needs help define the GLOS relationship by being related to its initiation, its everyday operations, and its broader functionality.

Basic theme: Definition **Organizing theme: Context**	
Group codes	**Examples of issues discussed**
Communication	Types of communication infrastructure required for the GLOS project? Are they available? Are they trustworthy? Are they synchronous? Is communication direct or indirect? Is informal communication among organizational members encouraged? To what extent does the project depends on independent vs. group contribution? Is the scope, the budget and the timescale of the project well-defined? Is everyone aware of the resources available?
Communication levels	In case of problems, should the supervisor be informed immediately or are organizational members allowed to collaborate and take the initiative/responsibility to solve the problem before communicating first with someone higher in hierarchy? What happens in cases of delays in the line of communication?
Communication mode	Written vs. verbal vs. nonverbal
Ethics	Importance of ethical behavior for successful completion of the project Assuming accountability of mistakes, be trustworthy, and

	responsible
Interaction	Interaction / interdependencies between the client and the suppliers (encouraged vs. required) Interaction / interdependencies within group for successful collaboration
People issues	People-orientation What is more important: The project or the employees? Completion of the project (on time/within budget) vs. keeping the organizational members Living to work or working to live?
Power	Control of business decisions through democratic elements Respect towards everyone's opinion Is the power at the project group level or at the executive level of the organization? Group leadership issues Hierarchy/seniority within the group Hidden agendas Intergroup politics
Priorities	Completion according to quality standards, within the time limits, or within the budget?
Skills (work related: business, market, technical)	Transferring idea/prototype to actual settings (can it happen fast, without mistakes?) Problem-solving: Is it efficient? Project management skills Understanding of project background Knowledge of the target market (especially for demand prediction, demand satisfaction, and customization needs)
Support for change	Managerial support Openness to new ideas, feelings Freedom of speech within the group Encouragement of brainstorming
Transition period	Does it allow for business communication and personal bonding among the group members?
Values	Obligations and responsibilities towards the group, towards the organization, and towards the project.
Vision	Group orientation Shared vision Shared goals regarding the project or hidden agendas?
Working conditions / Worklife	Levels of collaboration and commitment within the group Knowledge / information sharing Availability of instructions/support/resources

Table 5-19: Context – Definition (Group codes – Issues discussed)

Regarding the basic theme of definition, as the following quote from the CEO at AC describes, AC was initially a closed organization regarding its boundaries and its connection to the external environment. Using a cultural systems perspective it seems that, even though AC was working with AS2 and AS3, the two elements (AS2 and AS3) were not interacting beyond a typical functional level, mainly because they would perceive each other as different. As a result, interactions were only basic and the relationship was based more on co-existence and less on actual interaction (a topic that is further discussed in section 5.12.3 on Interactivity). AC members would define the company's boundaries at the country level and they would not be willing to acknowledge the contribution of other parties. However, gradually, the demands of the market and the economy forced AC to reconsider its position in the market and its goals as a system, and expand its boundaries to include its suppliers. If the company wanted to be in a position to achieve its goals, it had to redefine its boundaries and its relationship with the other members of the GLOS network.

> *"At the beginning, it was very hard to persuade some people here, especially people down in the production and the drivers, that we are working with AS2 and AS3 and we need to have a good relationship with them. Every time there is a personnel cut, they tend to accuse our outsourcing strategy and the fact that we employ foreigners to work. Countries and culture have nothing to do with these complaints. After all, even though the design, production, fitting, adjustment and calibration of such a complicated system is complicated by itself and even though the whole process is divided across three companies, people here still believe that they could do the whole job better than the three of them working together […]. But even if that was the case in the past now we have to compete in a new economy and we want to provide modern customized solutions. People need to accept that if we want to keep our position in the market, they need to forget what their neighbors will say every time they travel to AS3 to drive back a bus and they need to accept that things have to be done globally from now on […]. We must learn whatever we can from the experts. We cannot be the experts in everything we do".* (CEO, AC)

5.13.3 Interactivity

In the thematic network, the concept of interactivity of the initial model was retained as an organizing theme and was related to the basic themes of relationship and exchange (table 5-20).

Initial model: Interactivity **Definition in the initial model** This category includes interrelationships within the systems and exchanges, both within the cultural system and between the system and the surrounding levels.
Extended model **Organizing theme:** Interactivity **Basic themes (dimensions)** • Relationship • Exchange

Table 5-20: Interactivity-related themes

Interactivity represents the system's organization and dynamism in terms of its ability and motivation to interact, in terms of its readiness towards change, and, finally, in terms of whether actual change took place and became evident. For example, many interviewees complained that they felt the relationship stood "*no chance*" (Driver 2, AC) to find a common ground for communication, since "from the beginning" everybody *"took it for granted"* (AS1, Administrator) that a successful collaboration could not develop.

In the next two quotes (from Assembler 1 in AS3 and the Technical director of AC), it appears that these two individuals used to accept the situation described as part of an unchangeable status-quo, resulting from environmental/social factors and restrictions. However, they managed to change their perceptions (both cognitively and behaviorally), get out of their original comfort zones, and appreciate each other's differences and the emergence of a new state of affairs.

> *"I am a simple person, from a village nearby. My cousin also works here and we like working in AS3 because it is much better from other jobs you can find in the area […]. I still remember my first week here, when they told me that the son of the CEO and some other people from AC would come to drive back the coaches. And because the technical director was new they wanted us to give them a tour of the plant and have coffee together. I was talking to my cousins and we were wondering what we can talk about with them. They come all the way from AC and I have been only to the capital, and now they want to have coffee with us? But actually, we had a really great time. And even though I can only speak a few words in English, I would ask my cousin to translate, we were laughing at each other's jokes and I felt that they were so much like us. They even have a type of coffee like ours".* (Assembler 1, AS3)

On the same issue, the technical director, remembering his first visit said:

> *"That was one of the most interesting experiences in my life. Being there, in a country away from what I would consider mainstream civilization, enjoying a coffee, sharing our free time, it was what I call being part of a global world. But you should have seen my grandmother's face when I told her where I had been!"* (Technical director, AC)

Interactivity is related to the co-existence of the cultural system's elements. In addition, it refers to the various operations that take place within or around the system, crossing different boundaries of the system's hierarchy. It should be noted that the existence of a relationship does not presuppose exchange, since elements of the cultural systems can work side-by-side (coexist) in a parallel way, without any need for further interaction or any pressure to change as a result of the relationship (as was also discussed in relation to the last interview extract in section 5.12.2 on Context).

The basic theme relationship refers to working together as required by the formal aspects (i.e. the signing of the deal) of the arrangement. Regarding the two basic themes of Relationship and Exchange as presented in table 5-23 and table 5-24,

depending on the relationship, exchange may take place or not. For example, as the following extract from the interview with Engineer 3 from AS2 demonstrates, in terms of ABC, the interviewee is part of the GLOS relationship and is performing his duties. However, he is co-existing with the other organizational members without really interacting with them.

> *"I believe I played an important role in this deal with AC. Due to my educational background, I was able to provide practical evidence of our ability to perform the tasks required for the completion of the project, and my experience was valuable. But, apart from that, I cannot say that this collaboration has played an important role for me. I know it is an important step for AS2 because it shows we can compete in the market, but I only do my job here […] I do not see any reason to extend this into trying to become friends with them. AS1 is so proud of their superiority that I do not see anything we might have in common"*. (Engineer 3, AS2)

To better understand the basic themes that are related to the organizing theme Interactivity, table 5-21 and table 5-22 show examples of issues discussed in relation to each group of codes (for each basic theme). Table 5-21 presents codes for the basic theme Relationship and table 5-22 for the basic theme Exchange. The examples represent original interview codes (see table 5-13 and Appendix A1b).

Basic theme: Relationship **Organizing theme: Interactivity**	
Group codes	**Examples of issues discussed**
Communication (travelling)	Traveling for professional, project-related reasons
Communication levels	Formal line of communications or through assigned intermediaries
Communication mode	Formal communication when explicitly required with full documentation and supporting materials Use of emails and memo is not considered appropriate Informal "catching-up" (e.g. during breaks) is frowned upon

Distinction (inter/intra groups)	Clear distinction regarding roles and responsibilities and encouragement of independency
Management	Formal role of managers/supervisors Clear definitions of roles, duties, responsibilities Formal evaluations
Outsourcing specifics	Contract issues: Flexibility / Reliance Documentation / Certification of every step of the project In-advance agreement on intellectual property rights / ownership
Physical distance	Delays and communication problems due to geographical distance (including different time zones) is not encouraged
Power	Formal authority (at both organizational and group level) Central control of business decisions Formal employer-employee relationships Hierarchy and seniority are respected Power of postgraduate degree holders
Status quo	Preservation of status quo is associated with goal completion and achieving a high status in the market

Table 5-21: Interactivity - Relationship (Group codes – Issues discussed)

The next table (table 5-22) shows group codes and examples of issues discussed in relation to the basic theme Exchange.

Basic theme: Exchange **Organizing theme: Interactivity**	
Group codes	**Examples of issues discussed**
Adaptation	Acceptance, adaptability, adjustability may take place
Communication	Open communication of problems Working together to overcome problems Two-way communication of skills/techniques Reliance on both direct and indirect ways of communication Encouragement to communicate beyond office hours, in cases of emergency Brain storming meetings and encouragement of informal feedback Encouragement of group work or work in pairs Formal and informal communication (i.e. exchange of personal emails and cell phone numbers)
Communication mode	All types: Written / Verbal / Nonverbal

Cultural adaptation	Adaptation to each other's cultural characteristics Cultural emergence Understanding of cultural differences Open-mindness regarding learning new ways of working, behaving Adopting each other's norms and standards in everyday life and in the work place
Feelings (positive)	Contentment Gratitude Happiness Group satisfaction Validation
Interaction	Two-way, open interaction within group Encouragement of collaboration, not necessarily interdependencies Interdependencies do not indicate lack of power or skills
Management	Management involvement in a non-authoritarian way Managerial support and availability even outside work (mostly in the cases of immediate supervisors) "Feel free to call any time" mentality
People issues	Both people and project orientation
Skills (soft skills)	Communication Enthusiasm Friendliness Personal habits Sociability
Socialization	Intergroup exchanges
Team spirit	Feelings of bonding
Trust (people)	Encouragement of reliance and trust among group members
Vision	Group orientation Shared goals regarding the project
Working conditions / Worklife	Collaboration Avoidance of conflict Cooperation / Coordination Involvement Willingness to share knowledge/information

Table 5-22: Interactivity – Exchange (Group codes – Issues discussed)

From the data, socialization was mentioned as important for exchange within the GLOS relationship, also with the potential to be included as an example of the techniques associated with way that GLOS culture emerges (as will be discussed in section 6.1.1).

"I am not the type of person to socialize with people from work. I live with my mother and I have to stay with her most evenings. As long as I do my job everybody is happy with what I am doing, I do not see why we have to spend weekends in the mountains or have karaoke parties to pretend that we are a happy company. That was until I realized that people who organize the Sunday barbeques were not people who had nothing better to do. Actually in the last party even the CEO came wearing a cartoon costume - it was actually a theme party and the AS1 site was like a playground. I found out that these could be the best opportunities to discuss my problems with work in a relaxed way because actually nobody bothers to criticize each other. We are all here to have fun and know each other, but casually mentioning a problem is not bad. After all, work is what connects us. Next day, the same person to whom I mentioned my problem came to my office and brought me a manual from his collection that I did not have, to help me with what I was doing". (Team member 3, AS1)

5.13.4 Control

The concept of control, as part of the initial model, was expressed by the interviewees as an all-inclusive term, related to power relations, politics, and hierarchy. However, because the concept of control seems to imply a tendency for acquisition of power or even manipulation, it was replaced by the concept of regulation (table 5-23). Regulation in this case implies the need for harmonization and relationship building, without one part of the relationship being more powerful than the others are.

Initial model: Control

Definition in the initial model

This category involves issues related to power and efforts to use power to achieve certain goals. It is different from the interactivity category because it can play an instructive and directive role towards the system's functionality and goal orientation.

Extended model **Organizing theme:** Regulation **Basic themes (dimensions)** • Control • Feedback

Table 5-23: Regulation-related themes

In the analysis of the data through the thematic network, control was retained, but as a basic theme (table 5-24). In the analysis of the data, the concept of control was found to exist within the system in two ways:

- A prerequisite for organization and order, often expressed as responsibility and power within the system, caused by both internal and external factors.

  "Here in AS3, there are many assemblers. I cannot really see each one of them personally, when there is a problem, because I do not have the time. This is why they have organized themselves into some type of union. They have elections and there are members who are elected and come and talk to the management about the problem. And we can always go to them and address any issues. They are the ones who know how to make sure that everyone is on the same page and everyone knows when we have to try harder, if our production rates are lower than expected". (Supervisor, AS3)

- A result of information exchange between the system and the external business environment and of the need to follow externally imposed demands and regulations.

  "I need to ensure that everything is done according to the law. Everybody seems to believe that offshore deals involve taking advantage of a low-salary country. This is not the case. I have to ensure that there is transparency and we are all protected in every legal way". (Lawyer, AC)

Basic theme: Control **Organizing theme: Regulation**	
Group codes	**Example of issues discussed**
Communication levels	Limited communication and exchange of information, only of basic information regarding the project vs. unlimited information on the project in order to empower the organizational actors
Communication mode	Strictly written, documented communication vs. encouragement of every type of interaction
Management	Project management from the executive level vs. project management at the group level Frequent updates to the managers and need for approval before new actions
Market	Adherence to laws Economics of regulation
Outsourcing specifics	Type of contract Outsourcing deal is considered a formal business transaction (emphasis on profit and financial benefits)
Power	Control of business decisions Formal group leadership Encouragement of hierarchical distinctions Unionized way of participating in decision-making

Table 5-24: Regulation - Control (Group codes – Issues discussed)

Regarding the second basic theme, feedback emerged as another basic theme to provide regulatory functions and exchange of information (table 5-26). It was also found to exist both as an external and as an internal mechanism. External feedback is based on the interaction of the cultural system with the decision and policy makers at the executive level of the company or on externally imposed conditions, such as laws, policies, treaties, taxes, condition of the market. The internal feedback, on the other hand, would include observations (in AS1 and AS3), 360 degrees feedback (AS1, AS2), intergroup discussions (AC, AS1, AS2, AS3), and meetings (AC, AS1, AS2, AS3).

Basic theme: Feedback **Organizing theme: Regulation**	
Group codes	**Examples of issues discussed**
Communication	Communication of difficulties and problems in meetings that aim to shape goals and strategies, and evaluate outcomes and progress
Communication mode	Written / Verbal / Nonverbal
Ethics	Fair evaluations Lack of favouritism, nepotism
Evaluation	Appraisal from others Appraisal from management Self-appraisal Related to feelings of esteem and pride vs. dissatisfaction and low morale
Motivation	High/Low morale Encouragement vs. dissatisfaction Opportunities vs. setting limitations Rewards Tapping into individual's potential Self-actualization
Working conditions / Worklife	Expectations Fairness: Promotions rewards based on clearly-defined objectives Need for instructions/support Pride in own work Reward / Payment

Table 5-25: Feedback - Control (Group codes – Issues discussed)

Moreover, as was also the case with motivation (section 5.13.1), regulation, apart from expressing organization and information exchange, can exist as part of mechanisms or processes that affect cultural change in a GLOS context (as will be discussed in section 6.1.1). In the following extract, it appears that not only accepting the significance of following EU laws regarding quality but also ensuring that employees are aware of them and of their importance for the company's status within the EU, can affect attitudes and behaviors towards work-related problems.

"Because they belong to the same world group of companies […], they are always afraid that a mistake can cause the loss of their job. This is why when there is a quality problem in the AS3 plant, workers always try to hide it instead of facing it. They are afraid that poor quality can cause them trouble. But we had to explain to them that this is not the case. We are conducting business in EU. We need to be able to provide quality assurance. By hiding problems, they are harming both themselves and the overall relationship". (Technical director, AC)

5.13.5 Comparison of code groups across different basic themes

The following table allows for comparison of groups codes across different basic themes. As mentioned above, in section 5.11.2, groups of codes are repeated in cases when they used in different contexts by the interviewees. Specific examples of each group have already been discussed in sections 5.13.1-5.13.4. The table in section 5.13 discusses specific codes in relation to group codes (representing original codes, as presented in Appendix A1b).

Due to space limitations, the following abbreviations are used: W-T for We-They, A-E for Abstract-Expressed, Env for Environment, Def for definition, Rel for Relationship, Exc for Exchange, Con for Control, and Fdb for Feedback

	ABC		**Context**		**Interactivity**		**Regulation**	
	W-T	**A-E**	**Env**	**Def**	**Rel**	**Exc**	**Con**	**Fdb**
Group code								
Adaptation		X				X		
Communication			X	X		X		X
Communication (travelling)			X		X			
Communication compatibility								
Communication levels				X	X		X	

Communication mode				X	X	X	X	X
Cultural adaptation		X				X		
Cultural compatibility						X		
Cultural knowledge								
Distinction (inter/intra groups)	X				X			
Economical / Legal / Political systems	X		X					
Education / Skills	X		X					
Ethics		X		X				X
Evaluation								X
Feelings (negative)		X	X					
Feelings (positive)		X	X					
Interaction				X		X		
Language			X					
Lifestyle	X							
Management					X	X	X	
Market			X				X	
Mindset		X						
Motivation	X							X
Organizational	X							
Outsourcing specifics			X		X		X	
People issues				X		X		
Physical distance	X		X		X			
Power			X	X	X		X	
Priorities	X			X	X			
Skills (soft skills)	X					X		
Skills (work related: business, market, technical)	X	X		X				
Socialization	X					X		
Status quo		X	X		X			
Support for change		X	X	X				
Team spirit	X					X		

Time/Dates			X					
Tradition		X						
Transition period				X				
Trust (country)			X					
Trust (people)	X	X		X		X		
Values	X	X		X				
Vision		X		X		X		
Working conditions / Worklife	X	X	X	X		X	X	X

Table 5-26: Comparison of group codes across different basic themes

5.14 Conclusions from chapter 5

Chapter 5 presented two pilot studies, along with their contribution to the present research. It also provided information on the organizational profile and the GLOS activities of the client and the three supplier companies of the AC GLOS network, on which the case studies of the thesis were based. In addition, it provided information on the interviewees and the way the interviews were conducted.

The chapter also described the three steps of the analysis of the data:

1. Getting familiar with data and findings (section 5.11.1)
2. Generating codes and themes (section 5.11.2 and 5.12)
3. Developing themes into a thematic network (section 5.13)

The four organizing themes of ABC (Attitudes, Behavior, Cognition), Context, Interactivity, an Control were discussed in terms of their representative basic themes. The codes of the basic themes were also aggregated into 43 group codes, and examples of issues that were discussed in the interviews in relation to each group codes were provided.

In the next chapter, cultural emergence will be discussed as a result of specific mechanisms and processes, as discussed in the interviews and the initial model will be

extended to incorporate the themes form the analysis phase and provide a more-in-depth analysis of cultural emergence in GLOS cultural systems.

CHAPTER 6

EXTENDED MODEL

6 Introduction to chapter 6

As first discussed in the research process in section 1.5 and figure 1-1, the model was built based on the following:

- Generic findings from the GLOS culture (chapter 2)
- Specific findings on GLOS cultural systems (chapter 3)
- The initial model as presented in chapter 3 (figure 3-4)
- The research findings from pilot and case studies (chapter 5), as discussed in the research process in section 1.5 and shown in figure 1-1

Using the literature, in chapter 2, the thesis discussed culture in GLOS and in organizational and managerial contexts, incorporating research not only from culture in IS/IT GLOS but also from anthropology. In addition, by examining, specifically, the literature in IS/IT GLOS, it developed a list of cultural characteristics related to IS/IT GLOS, which were used for as literature-based code. Based on the same literature (on IS/IT GLOS), it also identified three research issues that are of importance to the aim of the present research and clarified their significance. By building on them as evidence of the importance of the present study, the thesis extended previous research attempts to view culture beyond the national-organizational level and addressed GLOS culture as emergent. Furthermore, it presented the emergent GLOS culture in GLOS relationships as affected by the cultural characteristics of collaborating organizations.

In chapter 3, the study used literature from the cultural systems to examine the concept of a GLOS relationship as a GLOS cultural system. Moreover, grouping of cultural systems characteristics and concepts from the literature was developed into literature-based themes that were used for the collection and the analysis of the data. In addition, the initial model was presented, which treats a GLOS relationship as a cultural system.

Based on theoretical and methodological aspects of chapter 4, regarding the research methodology of the study, chapter 5 examined the case studies and completed the 3 steps of the analysis phases: step 1 (Getting familiar with data and findings, section

5.11.1), step 2 (Generating codes, section 5.11.2, section 5.12, and Appendix A), and step 3 (Developing themes into a thematic network (section 5.13). In relation to literature, as discussed in section 5.11.2 (see figure 5-2), development of codes and themes started with a deductive approach. The codes emerged from the literature on culture and the initial themes emerged from the literature on cultural systems, while later an inductive approach allowed for the identification of additional codes (see Appendix A1c).

In the following sections emergence of GLOS culture is addressed through Mechanisms and Processes (M&P), discussed as a theme in the thematic network. The thematic network is discussed in relation to the concepts of the initial model (table 6-2) and is also presented as a diagram (figure 6-1), while the extended version of the initial model is presented in figure 6-2.

6.1 Emergence through Mechanisms & Processes

This section addresses the issue of "how" a new GLOS culture emerges. In the analysis of the data, emergence was examined in relation to statements by the interviewees referring to the categories of the initial model (A&B, environment, interactivity, and control), cultural characteristics, and other cultural issues that changed, or were related to change in the GLOS relationship. In the thematic analysis, emergence was captured through mechanisms and processes (M&P). This theme (M&P), unlike the themes of sections 5.13, will not be incorporated in the revised model as part of the emergent GLOS culture. Instead, because it captures the role of emergence, it will be incorporated in the concept of emergence (as discussed in the initial model) and its role in the extended model will be differentiated from that of the other organizing themes (as will be further discussed in section 6.3).

6.1.1 M&P (Mechanisms & Processes)

Having already discussed the role that motivation (section 5.13.1), adjustments to the external business environment (section 5.13.2), socialization (section 5.13.3) and regulatory activities (section 5.13.4) play in explaining the "how" aspect of the emergence of the GLOS culture, a new theme is discussed in this section, which is

related to mechanisms and processes and addresses specifically the issue of "how" a new GLOS culture emerges. As also discussed in the previous section, from the data, emergence is addressed through mechanisms and processes (M&P). More specifically, it is related to three basic themes, which also help clarify the distinction between mechanisms and processes (see table 6-1).

Initial model: Emergence **Definition in the initial model** This category describes the evolution of a GLOS culture and the potential for enculturation and adaption, as the GLOS relationship gradually expresses a GLOS emergent culture.
Extended model: M&P (Mechanisms & Processes) **Basic themes (dimensions)** • Dynamism • Scale of change • Motivation

Table 6-1: M&P-related themes

More specifically, the difference between mechanisms and processes can be explained as following:

- Mechanisms: This category represents techniques of a short, even spontaneous nature, and refers to everyday work-related behaviors and resolutions of problems that might be solved through relatively small cognitive and behavioral adjustments
- Processes: This category emphasizes techniques of a larger scale, with a long-time perspective, organized and executed at the organizational level, possibly as part of the organization's strategy, and often including multiple phases.

Interview data on the topic of M&P, can be further categorized according to the three following dimensions (or basic themes):

- Dynamism, which describes the time and the duration of either a mechanism or a process.
- Scale, which refers to the expected size of the change
- Motivation, which explains the reasoning and the end result of the cultural emergence.

In order to illustrate the organizing theme of M&P and the three basic themes, the following examples from the interview data are used. Mechanisms such as updating the software would normally take less than a day and offering an extra paid day off on Christmas can appear to be a spontaneous reward. In terms of processes, seminars in language and terminology were expected to last 3 weeks in company AC and AS2, with optional registration to evening classes and with additional seminars to refresh the employees' memory (especially on terminology) throughout the duration of the collaboration. Processes would also be of a strategic planning nature affecting the motivation level (e.g. by changing the reward system from a basic salary to a bonus system) or working closer with the government and the minister of commerce to address the legal aspects involved in AC contacting business with AS1, AS2, and AS3.

Moreover, in terms of emergence through ABC, some of the topics discussed involved time, distance, and regulations. More specifically, time represents an objective understanding of time in terms of time/day/year, distance represents physical distance in terms of measuring standards, and regulations (e.g. rules, taxes, treaties, economy, and market) related to explicit factors, such as the government, the HR employee book, the clauses and the conditions of the contract, etc. More importantly, these three characteristics of the environment, even though they are considered stable enough when examined objectively (e.g. the frequency of tax laws changes, the geographical distance between companies, frequency of videoconferencing, etc.) the perception of them can change through transparency, standardization, and increased awareness. ABC, as part of the new GLOS culture, is another demonstration of the changeability of the GLOS culture under use of appropriate M&P. This was also mentioned in relation to language training in section 5.11.2 (Context), which discussed the stability of some characteristic of the external environment versus the potential for adjustability of others.

Overall, M&P were either formal or naturally occurring, as a form of cognitive change, inherent systems capabilities, and interaction. Examples include the following:

- The majority of M&P involve languages, education, and socialization either predefined by the company or according to the individual's comfort levels and attitudes towards the opposite sex, age gap, social status.
- As a strategy for building core capabilities, mechanisms appear to be important for transference of critical skills, managerial systems, norms, and values.
- For critical concrete forms of skills, e.g. programming skills, individuals tended to rely on formal educational channel, mentoring, and training, associating them with enhanced understanding and reduced misinterpretations.
- When dealing with practical issues, agreeing on common practices helped solve everyday problems (time/date using both the USA and European format).
- Standardization and documentation were business practices that would increase the credibility of the company (especially in the case of AS2) to the global market.

The M&P theme is of importance because it is related to specific ways that the concepts developed originally for the initial model contribute to the emergence of GLOS culture. Therefore, M&P is incorporated in the concept of emergence, as discussed in the following sections.

6.2 Thematic network

Having identified all the themes that emerged from the analysis of the data, the complete version of the thematic network (including M&P) is shown in figure 6-1. As was also mentioned in section 5-13, the use of a thematic network in the present study does not represent directional relationships or cause-and-effect relationships. It rather shows relatedness, grouping, and hierarchy, through the analysis of themes that contribute to the analysis of the phenomenon-under-study.

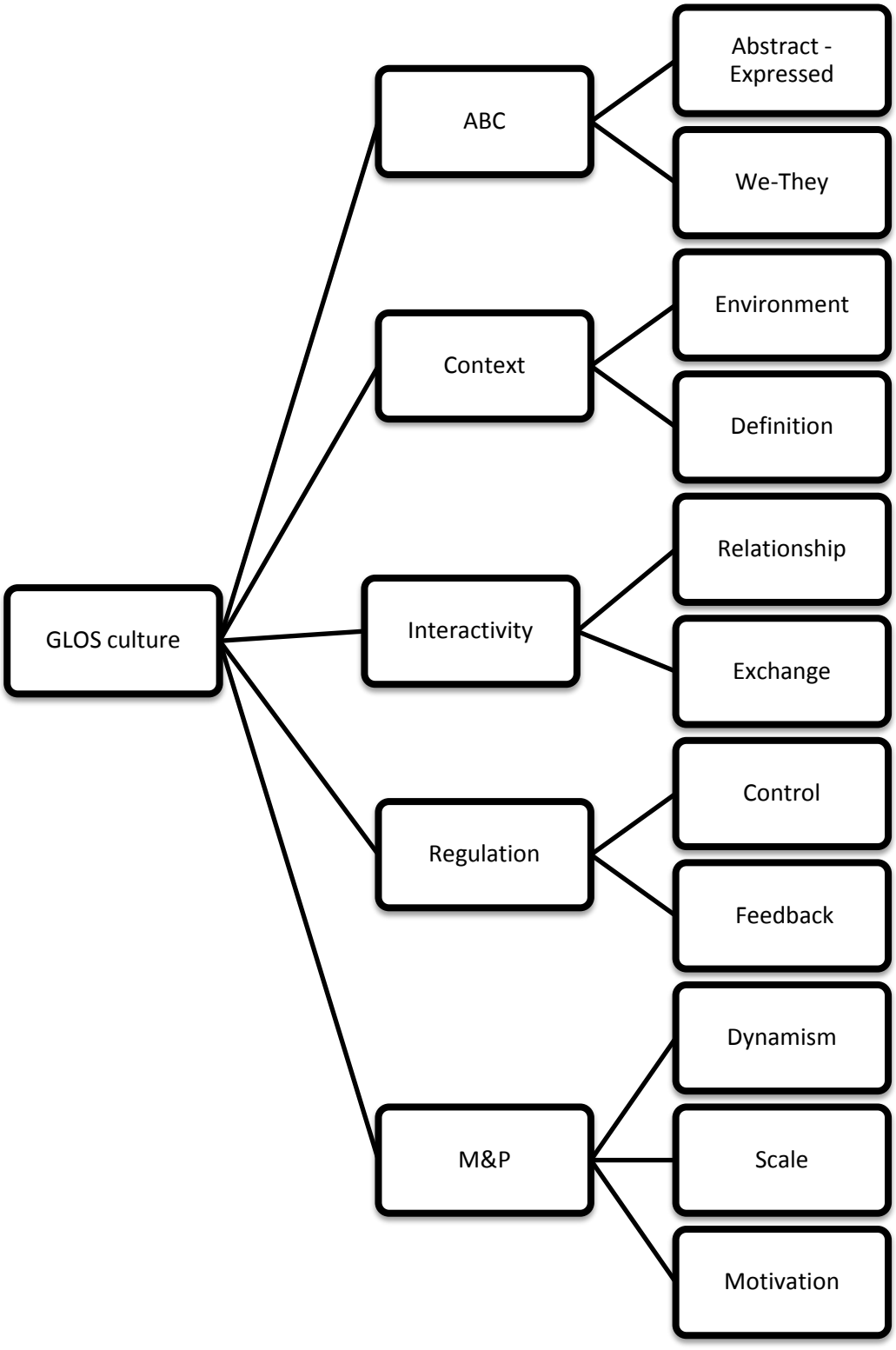

Figure 6-1: Thematic network, including Mechanisms & Processes

Trying to map the themes of the thematic network on the initial model of figure 3-4, the differences are presented in table 6-2, and summarized in the following paragraphs.

Initial model	Organizing & basic themes
A&B	**ABC (Attitudes, Behavior, Cognition)** • Abstract-Expressed • We-they
Environment	**Context** • Environment • Definition
Interactivity	**Interactivity** • Relationship • Exchange
Control	**Regulation** • Control • Feedback
Emergence	**M&P (Mechanisms & Processes)** • Dynamism • Scale of change • Motivation

Table 6-2: Comparison between concepts of the initial and the extended model

In terms of organizing themes, A&B was retained as discussed in the initial model but with some changes to acknowledge cognitive representation as a way of thinking (we - they, abstract - expressed) and motivation. As a result, it was renamed ABC (Attitudes, Behaviors, Cognitions) (section 5.13.1).

The concept of environment changed into context to better account for the open boundaries between the hierarchical levels surrounding a system and in order to better express its role at the intermediary level between the external business environment and the GLOS cultural system (section 5.13.2). This is useful because it allows for the concept of environment to include s cultural characteristics discussed in the literature

and in the interviews, while the concept of context can work as the platform on which the various interactivities among the cultural characteristics can take place. Context is also related to the idea of the system's definition (defined as the understanding and adjustment of the system and its boundaries in relation to its goals and needs), as provided by both the external environment and the system itself.

Interactivity was retained as a theme in the thematic network and it was related to relationship and exchange. As was also mentioned in section 5.13.3, regarding its two basic themes, it assumes coexistence (basic theme interactivity) but not necessarily change and bonding (basic theme exchange).

Regulation was related to control and feedback. While in the initial model the term control was used, in the extended model it was considered important to differentiate between regulation, which exists as a power issue that can affect the relationship and forces the members to follow instructions, and feedback, which is defined as exchange of information with the potential to be informative.

M&P addressed the "how" aspect of the emergence and was related to dynamism (time), scale (expected size of the change), and motivation (reasoning and end result of the cultural emergence).

6.3 Extended model

The extended model of the thesis is a revised and extended version of the initial model (figure 3-4). Its contribution lies on the fact that it expands on the concepts of the initial model, which (the concepts) emerged from the literate on culture and IS/IT GLOS (in order to identify cultural characteristics) and from literature on cultural systems (in order to identify the concepts that are related to the GLOS cultural system). When comparing the two models, the role of the four concepts of the initial model (A&B, Environment, Interactivity, and Control) is not restricted to the GLOS cultural systems (as was the case in the initial mode), but these 4 concept, as a result of emergence through M&P are now (in the extended model) directly related to emergent culture.

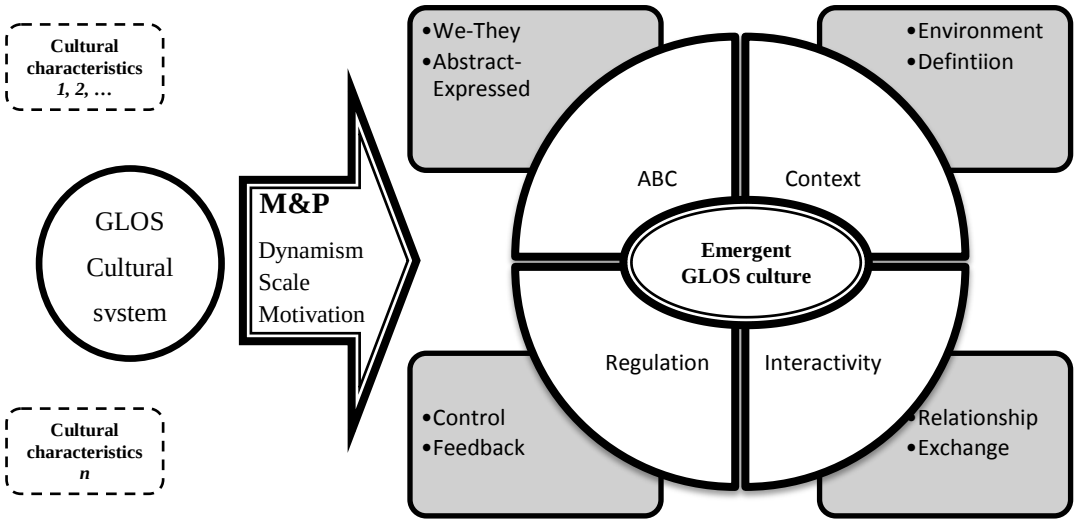

Figure 6-2: Extended model

As can be seen in the extended model, the concepts of the emergent GLOS culture are the organizing and basic themes as presented in table 6-2. In addition, in the extended model, the concept of emergence (also see section 6.5) is incorporated into the concept of GLOS culture and, therefore, the term "emergent GLOS culture" replaces the term "GLOS culture" of the initial model. In addition, as discussed in section 6.1, because the organizing theme M&P captures the concept of emergence, it is used (in the extended model) to explain how emergent GLOS culture 'emerges'.

Each aspect of emergent culture, regarding group codes, codes, and examples has already been analyzed in section 5.13.

6.4 Validation

Having completed the analysis and the development of the extended model, the results and the model were further examined through validation. A summary of the research was presented to professionals not related to the companies used in the case studies and also original participants, focusing on the practical aspects of the research and the potential contribution of the analysis of the GLOS culture as emergent in the outsourcing field. From their comments, it appears that the importance of the concept

of emergent GLOS culture is supported and the role of the model in establishing relationships and in addressing problems is promising.

6.4.1 Validation through professional opinions

An occupational psychologist, with postgraduate qualifications and experience as a practicing organizational consultant, as translated from French, commented:

> *"I think that culture has always been an issue. There are always individuals that consider it to exist as the reason why everything goes wrong. From a practical perspective, the worst scenario occurs after the managers have planned and organized everything and then they bring us in to fix the problem, or what they consider the problem to be, and ensure that everybody is satisfied working with each other. But this is not the case. I like the approach of the culture as emerging and I like specific identification of it through the areas you discuss. I guess we can just try to analyze in advance what your model calls ABC. For me it makes sense to go to the general manager, ask for the kind of ABC they have in mind for an ideal collaboration, test the employees' existing ABC and then design the appropriate intervention".*

A training & development consultant in an automotive company in Germany that specializes in driving safety and vehicle dynamics said:

> *"I particularly like your research approach to motivation and how you discuss M&P. It goes beyond providing cultural awareness workshops and seminars for people to learn German. Obviously learning the language is helpful but, on the other hand, we are a demanding organization and famous for our position in the market. Asking someone to spend three evenings every week to learn the language is a long-term approach and many people react to long-term commitment, especially if they cannot see any immediate benefits. But by trying to address change in ways that have a shorter time approach, without necessarily involving the whole organization, and by having people feel they can identify with the benefits, are issues worth looking at. I will not say that it is*

something that we ignore, but something that we have not examined from the organized perspective you propose, being able to attach specific dynamic, scale and motivation levels to our Learning & Development activities".

A business analyst in a Spanish software development company that is using an India provider said (as translated):

"Some of the areas you identify are really causing us problems. I wish we can somehow be aware of them in advance and manage the relationship proactively, without having wasted all this time and resources understanding that we really have to specify everything and provide constant feedback to the provider […]. If I can have a perspective regarding the problematic areas, I will know how to proceed".

6.4.2 Validation through research participants

Going back to the CEO of AC, chosen specifically because he is in this position for many years and he considers himself as "someone who learnt the job in the company", the following comment was made:

"I am aware of culture and what I understand as organizational culture in our organization. But again it is hard to explain it to someone who comes from a technical engineering background. Most people still believe that organizational culture is how the boss behaves. I like the idea of being able to tell people that everything is interaction and communication, and it is not my fault if the laws change […] and this why things have to change sometimes. It can transfer some responsibility for a successful collaboration to the team members of the project group. Managers can provide the guidelines […] but then it comes down to what everyone contributes to the relationship and the circumstances we face that are beyond our control".

Manager 1, in AS2, also commented:

"At the end, what I care about is the financial benefit of it. I do not want to get personally involved with what contributes to a successful relationship. But I care a lot that my employees do their best and they do not give any reason to have problems with AS1 and AS3. Your model helps me by giving specific instructions to my HR department to examine the areas you suggest and identify what could be the reason why things go wrong. For us, we are in the middle of the network. Missing a couple of days for reasons related to the topics you discussed puts us in a bad position. We still struggle to prove ourselves in the market. What I really like in your model is the fact that I can go and show that I have done my best and addressed all the issues that can be related to culture. Culture is such a huge issue these days. Showing that we care puts us in a position of showing respect to the workplace regulations provided by EU".

6.5 Emergence in a GLOS cultural system

In the thesis, emergence of a GLOS culture is related to interactions among cultural elements of organizations that collaborate in the context of a GLOS relationship. Interactivity within and around the GLOS cultural system leads to the emergence of a new cultural group. As discussed in chapter 3, this new group is "greater than the sum of its parts" and, due to its unique interrelationships, the specific system can be distinguished from other systems.

Moreover, emergence was also related to harmonization (as discussed in the second part of section 5.11.2, in Appendix A1b as a code, and in previous research i.e. Krishna et al. (2004)). In the analysis of the data, it was interesting to observe that emergence could be perceived by the organizational members, without being aware of its developmental phase, but, nonetheless, acknowledging it through results. Even though it was admitted on more than one occasion that it was related to cultural awareness and social events, when presented with the possibility of its emergence, interviewees admitted that yes, indeed, they felt that they ended up becoming "friends", but without realizing the exact point when a change of attitude or behavior took place. From a systems thinking perspective (as discussed in chapter 3), such a finding is not

surprising, since it reflects the emergent and inherent nature of the GLOS cultural system.

Moreover, the tendency towards harmonization was perceived despite attitudes towards perceived or real threat, and despite feelings of superiority, as the cultural system tends to move naturally towards a state of "systemness" and "wholeness". In relation to cultural emergence, as the interviews revealed, employees recognized evidence of it during the collaboration and its persistence beyond the scope of the specific GLOS project.

> *"Something strange happened. I am not sure at the beginning that I had any reason or interest to work in aspects not directly related to the project. But working together with someone, even though he is a stranger at the beginning, from a different country, makes you find out about them and at the end it is the group that becomes more important […]. I know that the company helped us to spend time together and establish work routines that would be beneficial for us […] for our group […] but one day it was just there and I would not even notice the difference in the way of thinking, in their being always 10 minutes late for the meetings, even their accent […] If in the future I have a similar project, I think it would be better to work with the same team instead of starting all over again with a team from AS1"*. (Software engineer 2, AS2)

6.6 GLOS cultural systems

The thesis views the GLOS relationship as a dynamic system of adaptation and evolution that contains multiple components that interact with one another within a GLOS context. In this context, a dynamic extended model has been developed, in which GLOS culture is examined with regard to how it unfolds and emerges over time. During the process of emergence and, in order to survive or maintain equilibrium with respect to its environment, the system must integrate its components and adapt in order to attain its goals.

A general conclusion from this thesis is that cultural attributes interact to create a cultural system. This is in accordance with theoretical aspects of the systems theory

(section 3.2), according to which systems are identified through the interactions and the interdependencies among their components. In systems terms, the GLOS cultural relationship can be viewed as a set of interrelated cultural characteristics connected together to form a "whole". This "whole" is composed by a hierarchical system of themes that exhibit factors that contribute to the emergence of GLOS culture.

After the GLOS relationship has been initiated (section 2.2.3) and the terms of the GLOS relationship have been agreed, organizations enter a new stage. The companies from two separate entities or units become a system that is characterized by the need and the tendency to collaborate in order to achieve results. The cultural system, viewed in a holistic way, evolves as a result of the context in which it operates and the regulations it faces, and gradually evolves, through mechanisms and processes, towards manifestation of its unique emergent culture.

6.7 Conclusions from chapter 6

This chapter concluded the thematic analysis by incorporating the theme of M&P in the thematic network, and then mapping the thematic network on the initial model of the thesis, creating, the new, extended model (figure 6-2). According to the new model the emergent GLOS culture of a GLOS cultural system emerge through mechanisms and processes and is related to ABC (Attitudes, Behaviors, Cognition), context, interactivity, and regulation, each one also related to two further dimensions.

Furthermore, validation supported the rationale of the concept and the role of the model in establishing relationships and addressing problems. Through in-depth identification of themes (an analytical stage that started in chapter 5), the chapter labeled the territory of emergent GLOS culture and further validated the term of GLOS emergent culture as both conceptually and practically relevant to the study of culture within a GLOS IS/IT relationship.

The next chapter will discuss the research in relation to the research questions of the study, its contribution and limitations, and will also provide direction for further research, before concluding with the author's reflections.

CHAPTER 7

ANALYSIS & DISCUSSION

7 Introduction to chapter 7

As discussed in chapter 1, the aim of the present study is to examine the emergence of culture in IS/IT GLOS relationships. In terms of the research area, the study addresses the following issues from the literature and previous research:

- In terms of GLOS, researchers call for attention to the lack of in-depth study of IS/IT GLOS, while challenges of a cultural nature "are not yet fully understood" (section 1.3).
- In terms of GLOS and culture, researchers consider the effects of cultural differences as crucial and under-studied, frequently associated with project failure and additional cost (section 2.2.2).
- In terms of culture in relation to the IS field, there is a call for a different approach to the study of culture (beyond Hofstede-like dimensional approaches to national culture), as a reaction to the dominant IS/IT research dichotomy that tends to focus on the use of either the national or the organizational culture (2.4.2).

The present study builds on the research significance of the above issues and, using existing research, examines the emergent role of culture in IS/IT GLOS relationships. Following the lines of previous conceptual research, it addresses culture in terms of changeability and dynamism (Brannen, 1998; Brannen & Salk, 2000; D'Mello & Sahay, 2007). Viewing culture as emergent, it focuses on the importance of understanding that culture in a GLOS relationship is bound to be different from the culture expressed by the organizations in the pre-relationship period. Based on this, it proceeds to examine factors and cultural characteristics that play a role towards the emergent GLOS culture, by using previous research and theory as starting points and by building on data from industry-based pilot and case studies.

The pilot studies verified the difference that exists between the *pre-relationship* culture and the culture that *eventually* emerges in the GLOS relationship. In order to better examine this new, emergent culture, a cultural systems perspective was

used because of the important role it assigns to change, emergence, and dynamism in the study of systems (Ackoff, 197; Allaire & Fisirotou, 1984; Ember et al., 2002; Erickson, 1996; Mora et al., 2007; von Bertalanffy, 1968). Interview data were then analyzed by focusing on issues that the interviewees related directly or indirectly to the issues of emergence. Following this, the thematic analysis of the data revealed cultural issues associated with the emergence of GLOS culture. These new issues were grouped in terms of attitudes and behavior, context, interaction, and regulation. Moreover, emergence was conceptualized through processes and mechanisms.

The role of this final chapter is to combine the work from all the stages of the research process (see section 1.5 and section 1.6) and discuss the original research questions, the contribution of the study, research limitations, and proposals for further research.

7.1 Addressing the research questions

7.1.1 Research question 1

Are there cultural characteristics that can affect global IS/IT outsourcing and, if so, can they be identified?

In section 2.2, culture was viewed as an area important for outsourcing relationships, while its role was considered even more crucial in the current strategic tendency towards offshoring and global outsourcing. More specifically, in chapter 2, the research examined outsourcing and culture from both a general theoretical perspective and in relation to the IS/IT field. In addition, the thesis identified research issues that support the need to address culture in a global IS/IT relationship as emergent.

The above issues were further explored in section 2.3.1. In this section, cultural characteristics, as described in previous research in the field, were identified. As reported in the same section (section 2.3.1), a brief literature review focused *exclusively* on the topic of culture in relation to IS/IT GLOS, which has not been previously examined in-depth. Instead, it has been examined as part of frameworks

or through the repetitious use of examples. The characteristics from the literature (see Appendix A) were identified and were grouped together to be used as potential codes in the analysis of the data, as shown in figure 5-2.

Considering that the present research deals not only with culture in relation to IS/IT GLOS but also with the *emergent* nature of culture in GLOS relationships, the research also built on the cultural systems perspective, as discussed in chapter 3. In chapter 3, characteristics of systems and cultural systems were identified (see section 3.2 and table 3-2). Table 3.2 provides definitions of the categorization of cultural systems characteristics (as applied to the initial model of figure 3-4), based on concepts of systems and also of cultural systems (the latest being a subcategory of systems).

7.1.2 Research question 2

If such characteristics can be identified, can a model be developed that represents organizational characteristics into potential cultural themes?

The initial model of culture was presented in figure 3-4. According to this model, GLOS culture emerges from a GLOS cultural system. The GLOS cultural system is characterized by a combination of cultural characteristics (as presented in Appendix A, for codes resulting from existing literature) of separate organizations within the GLOS context. It is related to attitudes and behaviors (A&B), the environment, interactivity, and control. Thereafter, the point of the study moved beyond a discussion of cultural characteristics into the emergence of culture, identifying the specific role of attitudes and behaviors (A&B), the environment, interactivity, and control.

In order to examine these four categories, the study used cultural characteristics as codes for the analysis of the data in section 5.11, 5.12, and 5.13). The analysis of the interviews of the two pilot studies (section 5.2 and 5.3) and the four case studies (sections 5.7, 5.8, 5.9, and 5.10) also contributed to additional codes, extending the original literature-based list of codes (see Appendix A and figure 5-2).

As a result of using thematic analysis and a thematic network (figure 6-1), an extended model was presented in figure 6-2. This model was discussed in section 6.3, while its themes were analyzed as basic and organizing themes and presented through codes, group codes, and examples of issues discussed in the interviews in section 5.13 and, more specifically, in sections 5.13.1 (for ABC), 5.13.2 (for Context), 5.13.3 (for Interactivity), and section 5.13.4 (for Control). Emergent GLOS culture was discussed in chapter 6, where emergence (section 6.1) was addressed through M&P (Mechanisms & Processes) that show how emergent GLOS culture 'emerges' (analyzed through the dimensions of time, scale, and motivation, as discussed in section 6.1.1).

7.1.3 Research question 3

Can such a model help examine the emergent culture in global IS/IT outsourcing?

Emergent GLOS culture in the present study was discussed through extending previous theories that address emergence and dynamism in culture, along with analyzing research in the fields of anthropology and organizational studies, which demonstrates a growing tendency to view culture beyond a static concept (section 2.2). Considering the unique nature of GLOS projects being based on cross-border collaboration, the unique nature of emergent GLOS culture was addressed in section 2.3.3.

The study did not attempt to provide explicit descriptions of the pre and post GLOS deal periods of collaboration. The focus has been on emergence as demonstrated in the *specific* time that the companies participated in the study. However, some indicators of how emergence occurred and how culture changed are identified through Mechanisms & Processes (M&P, section 6.1.1), based on the interviewees' perception of culture as changing, and was also discussed in the raw interview data section in the analysis section (5.11.1 and 5.13).

Moreover, validation from professionals related to the outsourcing field (section 6.4.1) and original research participants (section 6.4.2) showed that the concept of emergent GLOS culture is promising and the model can play a role in establishing

and addressing problematic areas in relationship building across inter-cultural collaboration.

Overall, the initial model was developed around the concept of emergence. As was mentioned in section 3.3:

> "According to the initial model, GLOS culture emerges from a GLOS cultural system, as it (the GLOS cultural system) results from the *combination* of cultural characteristics of separate organizations involved in the GLOS relationship".

The extended model of figure 6-2, compared to the initial one, reflected more accurately the nature of emergence of the GLOS culture (through Mechanisms and Processes) and elaborated on the themes that operate in a GLOS cultural system. Moreover, it associated Attitudes, Behaviors, and Cognition (ABC) with the dimensions of we-they and abstract-expressed, Context with the dimensions of environment and definition, Interactivity with the dimensions of relationship and exchange, and Regulation with the dimensions of control and feedback.

7.2 Theoretical contribution

The main theoretical contribution of the present thesis is the use of a cultural systems perspective in the area of outsourcing. Following the application of the cultural systems perspective, the concept of emergent GLOS culture and the development of a model associated with it can explain the GLOS relationship as a dynamic system of adaptation and evolution, containing elements that interact with one another and with(in) the environment.

Even though the tradition of viewing organizations as systems is not new (Ashby, 1962; Katz & Kahn, 1966), the thesis extends such an intellectual basis. More specifically, while a systems perspective has been applied to prior outsourcing research (Dutta & Roy, 2005; Marcolin & Ross, 2005; Tanriverdi et al., 2007), the use of the *cultural systems* perspectives has *not* been applied to the sourcing field.

On one hand, as discussed in section 3.3.1, the focus of the cultural systems perspective on emergence, interaction, and change is among the concepts *already* addressed by research and theory. GLOS, on the other hand, as discussed in chapter 2 (see section 2.3.3) in relation to the unique and emergent nature of its culture, exemplifies such systems characteristics. Consequently, the cultural systems perspective is a promising perspective in terms of its ability to provide a theoretical background to the emergent nature of the GLOS culture (see section 3.3). Viewing this promising ability along with the call for a change in the way culture is addressed (Myers & Tan, 2002), beyond a Hofstede-like national perspective (Baskerville, 2003; Baskerville-Morley, 2005; Efferin & Hopper, 2007; Weisinger & Trauth, 2002; Weisinger & Trauth, 2003), this study offers a model that demonstrates themes that can further analyze the emergent nature of culture, addressing issues of context-specificity, dynamism, and negotiations (Brannen & Salk, 2000; Weisinger & Salipante, 2000; Weisinger & Trauth, 2002).

Moreover, as demonstrated in the work by Allaire & Fisirotou (1984), using a sociocultural perspective in organizations can help interpret organizational attitudes and behaviors through the stages of decay, adaption, and change, expanding on the role of culture in society as context and ecology specific. The latest is emphasized in the present research through the discussion on emergence and interactions among the components of the GLOS cultural systems, in order to achieve integration within the *specific* GLOS context.

In addition, from a cultural anthropological perspective, the research, by discussing dynamism and emergence in culture, and the collaboration in a multi-cultural GLOS project, builds on the ideas of cultural flow as a "polymorphous" and "continuously ongoing" activity (Hennerz, 1997), characterized by mobility (D'Mello & Sahay, 2007), and globalization (section 2.2.3).

Furthermore, the thesis reflects on globalization effects as discussed by Nicholson and Sahay (2001). The global market is not just "out there" in an objective way (Sahay & Walsham, 1997) but it is reflected in the daily life of the organizational actor and his/her perception of self (D'Mello, 2005). Global outsourcing is not an isolated phenomenon but it is affected by external circumstances, such as technological and sociopolitical developments, market trends, the global economy.

Due to its multidimensionality, various business and strategic aspects need to be considered throughout the relationship. Such aspects include the planning, the implementation, and the governance of the relationship, as also mentioned by Sambasivan & Yen (2010), regarding the role of "sociocultural distance" in alliance-formation in manufacturing supply networks.

The present research also builds on the concept of the global village (Leidner, 2010), as discussed in section 2.2.3. As Leidner (2010) mentions, cultural differences exist and, on occasions, they may be out of the control of managers. Even in such cases, this research shows that accepting the inherent tendency of the system towards emergence leads to the expression of a tendency towards harmonization (as the analysis of the data indicated). This harmonization (Krishna et al, 2004) may have started as a management-induced motivation but the exchange and the interaction between the collaborating parties shows that it can also be developed from initiatives directly orchestrated by individuals.

The research also contributes to previous research on identity. For example, D'Mello & Sahay (2007) discuss the topic of "mobility-identity", examining mobility as geographical, social, and existential. The role of mobility in shaping the identity of an IT worker can be also applied in the AC network in the present study, when employees, mainly in managerial and supervisory roles, have to communicate, adjust their behavior, and increase their awareness of the cultural characteristics of the collaborating organizations within the AC network. Using the concept of cosmopolitanism and transnational cultures as described by Hannerz (1996), cultural characteristics and concepts of previously separate units are becoming interrelated.

Finally, the present study, apart from extending the discussion of culture as emergent, it also extends the discussion on the interlinked relationship between identity, ethnicity, and culture (see section 2.2.1), as also addressed by anthropological concepts such as "peoplehood" (Fenton, 1999), "nationhood" (Fenton, 1999), and "cosmopolitanism" (Hannerz, 1996) (see section 2.2.1). More specifically, ethnic identity can be seen as part of an individual's self-concept that is developed through awareness of membership in a specific group and the value attached to such membership. Erisken (2004) used the concept of "ethnie" to describe how national identity emerges. Based on his discussion of ethnic

communities, ethnic identity as part of an individual's self-concept develops from awareness of membership in a specific group and the value attached to such membership. An "ethnie" can be seen as a self-defined group, when the members of an ethnic community have specific concepts of being a human population with collective past, ancestry, shared historical memories, solidarity, and association with a homeland. Regarding the two other concept (ethnicity and culture), ethnicity cannot claim to equal culture or nation. On one hand, as discussed in section 2.2.4 (regarding the critique against Hofstede), a nation refers to cultural communities, under the assumption that nations are or should be associated with a state or state-like political form. Culture, on the other hand, despite its multiple definitions, seems to be a descriptive term of the (cultural experience), operating in multiple levels (Schein 1985; Schein 1993, section 2.2.4 on Organizational culture) and also an interpretive term that helps with meaning creation and organization of the experience from both the external and the idiosyncratic world of an individual. In addition, following the discussion in section 2.2.5 (The emergent nature of culture), culture can be the product of *specific* historical events yet, as addressed in the present research, it is expressed through *interactions, dynamism, and continuing emergence*.

7.3 Practical contribution

The research examines how cultural dynamics are implemented into practice, a topic that has not been adequately examined in previous research beyond the analysis of "macro-level concepts of globalization, modernity, reflexivity, and identity" (D'Mello, 2005). It also extends the research on the concept of "place-based identification", agreeing with D'Mello & Sahay (2007) that the concept of identity based on locality and nationality is both "challenged and persistent".

Because the themes of the study are expressed both conceptually, as well as practically, culture can be approached at a deeper level, where cultural competencies are examined in terms of their emergent nature, and different parties can understand the concept of culture in similar ways. As a result, identification and definition of cultural attributes of a GLOS cultural relationship move beyond mere translation of terms and the subjective understanding of specific organizational actors, both of which have the potential to be problematic on

occasions. This can contribute towards reduction of cultural resistance, since, on many occasions, cultural resistance may occur due to misunderstanding in the translation of the tacit aspects of culturally important concepts. By focusing on the concept, as well as on behavioral examples and performance standards, culture-related ambiguity can be reduced.

The present research can also provide expatriate managers (Westrup & Liu , 2008) with a tool for understanding areas that might be problematic in terms of the development of an emergent culture. This understanding has the potential to ensure effective and efficient collaboration among organizations. The themes that were developed in the thematic analysis can be used as cultural indicators and they can function as a map of aspects of organizational culture that need attention, while analysis of M&P can identify areas of potential failure or success. In addition, the present research can help in providing a way of addressing cross-cultural differences and problems when attempting new ventures in non-domestic environments, as also addressed in the work of Sahay & Walsham (1997) and Walsham (2001).

Consequently, using the concept of M&P and the dimensions discussed in section 6.1.1 (time, scale, and motivation), this research can provide insights into how to manage differences in order to achieve a harmonized emergent GLOS culture that differs from previous non-global structures (Parker, 1992).

Moreover, the role of exchange and relationship-building among the companies in the AC network, as described in the present study, expands on the work by Beugelsdijk et al. (2006), who emphasize relationship aspects (through culture, skills, and outcomes) in association with specific sets of unique internal characteristics of organizations (as discussed in the initial and the extended models of the present thesis). As was the case among the organizations in the AC network, the existence of context-specific organizational culture (or emergent GLOS culture in the present research) can play a role in its relationship with other organizations. This can also affect its performance and its competitive advantage as a result of inter-organizational cooperation; a concept discussed as an inherent tendency towards harmonization and emergence of a GLOS unique culture in the present research.

Considering not only the current business environment but also contemporary strategic business trends, global outsourcing is not only a product/manifestation of the globalization era but also a business tool with which to respond to globalization. Consequently, globalization and further development of interconnected global markets and economies seems inevitable. In this context, the increased use of alternative service and application delivery models, such as offshoring, global sourcing, and outsourcing, is viewed as manifestation of globalization. As a result, a model such as the one developed in the present study can function as a business tool for identifying opportunities for expansion within a GLOS context, beyond the country level. Therefore, from a cross-cultural management perspective, considering the globalization of the current business environment, it is important to view culture as a list of attributes (or themes as depicted in the present study), the accurate identification of which can help organizations make educated decisions on potential collaborations. This can be achieved by viewing culture beyond a general all-inclusive term, through expressions (or lack of) specific cultural attributes. As a result, the concept of 'compatibility in terms of culture' becomes a concept of 'compatibility in terms of cultural attributes of the emergent culture', as identified in the thematic network of chapter 6.

In addition, the study contributes to the body of research on cross-cultural issues and their importance in IS/IT projects, expanding on existing work that emphasizes the effect of culture on managerial issues and project success or failure. For example, the basic theme of "we-they", called "'us' and 'them'" has also been addressed by D'Mello and Eriksen (2010), when the IT workers in their study (as is also explained in the present thesis) realize that some concepts taken for granted in the past are now *compared and contrasted* within the emergent collaborating environment.

Moreover, the extended model can be applied as a way to examine the transition period as the GLOS collaboration moves from the existence of two separate systems into the emergence of a new GLOS cultural system. Through identification of specific cultural attributes, it can contribute towards relationship improvement and it can function as a tool for relationship governance.

From an industry perspective, the study uses the automotive industry, which relies extensively on GLOS as part of its supply network strategy (section 5.5) and, consequently, it is vulnerable to the problems that characterize GLOS projects; one of which, according to both the present and existing research, is culture. By addressing cultural emergence in an industry-based context, it offers a potential tool to other industries that, due to their reliance on GLOS, may want to potentially benefit financially from the reduction of cultural incompatibility in GLOS projects and the benefits achieved through successful sourcing strategies.

Moreover, as was discussed in section 6.1.1, regarding Mechanisms & Processes, the following lessons can benefit other organizations:

- As a strategy for building core capabilities, mechanisms appear to be important for transference of critical skills, managerial systems, norms, and values.
- For critical concrete forms of skills (e.g. programming skills), formal educational channel, mentoring, and training, can offer enhanced understanding and reduce misinterpretations.
- When dealing with practical issues, agreeing on common practices can solve everyday problems.
- Standardization and documentation are business practices that increase the credibility of the company to the global market.

7.4 Methodological contribution & lessons learned

Viewing the research from an academic point of view, it contributes to methodology and, more specifically, to lessons learned in the process of addressing methodological issues as pertaining to a PhD.

Starting from the choice of a specific topic, availability and confidentiality issues can play a role in the choice of specific organizations; a topic that is important when the research focuses on case studies, where access has to be sometimes negotiated over a long period of time. In the specific study, concerns over industrial espionage appeared *after* the majority of the data had been collected. Yet,

the automotive industry was considered an area very promising in terms of outsourcing potential for the researcher to abandon the topic.

In addition, regarding the data analysis and the presentation of the data, confidentiality issues play an important role. Concerns over company identification precluded the researcher from revealing the full range of data gathered and providing full transcripts. Ideally, the ability to fully disclose details on the companies, along with relevant data, would have increased the overall validity of the study.

When faced with such kind of obstacles (i.e. fear of breach of confidentiality, anonymity, and non-disclosure issues), it is an opportunity for the researcher to develop his/her researcher's soft skills. As other researchers have argued in the past (Walsham, 2006), the researcher needs to learn to accept negative answers to his/her requests regarding the research project, appreciate the willingness of the organization to share information, and also to understand that certain boundaries regarding disclosure issues need to be respected.

After specifying the topic of interest, there is a choice between consulting "white papers" and industry reports versus reliance on academic and peer-reviewed work. In the present case, the initial ideas were formulated through industry reports and familiarity with the field, while the specific problem and its significance were further examined through academic work and reviews in the field, an action that helped to establish the research area. Consequently, another lesson from the present study is that industry and academia can complement each other in terms of formulation of initial questions, e.g. with academic work providing insights into the development of the research questions and the methodology of the thesis, and industrial reports offering practical information to help put the concepts under perspective.

In terms of the literature review, initial efforts focused on examining *only* the field of IS/IT outsourcing in terms of cultural studies. Yet, a multidisciplinary approach provided deeper insights in the study. For example, research on ethnicity, identity, cultural anthropology, and supply change management offered new ways to interpret the data and new areas that can benefit from the concept of culture as emergent, as discussed in the present study. Regarding the methodology of the

study, references for thematic networks and thematic analysis also included work from Nursing (Elo & Kyngas, 2008) and Psychology (Brown & Clarke, 2006), respectively.

Finally, the development of a step-by-step guide (figure 4-1), based on previous work by Eisenhardt (1989b), provides an explanation of all the phases and stages of a thematic analysis. In addition, using a thematic network can be an effective way towards the development of a model, since it establishes hierarchies among different themes; an approach more effective than providing a list of characteristics.

7.5 Research limitations

A major research limitation of the thesis is the lack of appropriate permission to discuss in details the specific companies and the countries discussed. Decision-makers and other executives were unwilling to disclose information to anybody else apart from the researcher, even for the sole purpose of academic/PhD research, afraid of identification, industrial espionage, and information leakage in the industry, regarding their sourcing relations. This also extended to mentioning revenues and revealing specific cultural characteristics that they felt could affect their public image. This was treated more seriously in countries where there is only a small number of companies in the specific industry, where the company is the only company in the country operating in the specific field, or in cases when the industry/market is monopolized. However, every attempt was made to acquire permission to publish interview extracts and interviewees' job titles, along with some geographical information on the country and the company. This permission was granted, provided that the companies or the individuals would not be identified.

Even though the study was based on in-depth case studies of the AC customer-supplier GLOS network, there are still aspects related to the topic that have not been captured. For example, it was not possible to interview stakeholders from all the levels of the corporate ladder, there were time limitations regarding the interviews and, on some occasions, strict confidentiality issues restricted the use of information. For example, even though the researcher was an observer in

organizational events, such data were not allowed to be used in the analysis. In addition, the need for the interviews to be contacted or translated into English created additional problems. Yet, every effort was made to interview various stakeholders and the choice of participants reflected the organizational structure as accurately as possible.

In terms of the industry selected, the automotive industry is a promising candidate for outsourcing solution. Other sectors might have revealed different cultural aspects. However, the specific industry was considered a promising industry because the AC network combines companies in different types of outsourcing, while the countries involved are characterized by a variety of sociopolitical and cultural issues.

In terms of validity of the thematic analysis, even though ideally two or more researchers are advised to be involved in the development of the codes/themes in a thematic analysis (Patton, 2002), an effort was made to read the transcripts and study the data more than once. In addition, the data were examined at different time periods, both for potential coding-related mistakes but also to increase reliability, demonstrating that repeating research stages can lead to the same results (Yin, 2009).

Regarding strategy formulation, even though appropriate decision-making regarding supplier countries and prerequisites for a successful GLOS relationship are issues of importance, this research does not claim to be able to provide definite answers to such issues. Instead, it accepts the view that due to lack of absolute measures of compatibility and relationship agreement, the issue of culture in a GLOS context should be examined and managed by taking into account the uniqueness of each relationship. By being able to identify specific cultural attributes that play a role in the emergence of a new GLOS culture, the model can function as a map for identifying areas to be considered before and throughout the GLOS relationship.

The research cannot claim to have provided a concrete definition of emergent GLOS culture but it has provided a model that *describes* emergent culture. As also discussed in section 1.3 and section 7.1.3, such a definition is beyond the scope of the research, yet every effort was made to present cultural themes and dimensions

that can help understand the emergent nature of GLOS culture. It should also be noted again, as was also discussed in section 3, that the concept of emergence accepts the importance of time, but it has not been used to compare a before and after the deal period. Emergent culture is captured at the time of the study, and since the study does not claim to be a longitudinal research, it cannot provide in-depth information about the role of time in the emergence of the GLOS culture.

7.6 Proposals for further research

Starting from the extended model and the thematic network of this research, the analysis of the data could be repeated and benefit from the inherent advantages of software based qualitative analysis or from validating the results through quantitative analysis. Moreover, examining the concept of cultural emergence in a longitudinal study (instead of a case study) could offer more in-depth understanding of the topic, as could also be the case with the use of a quantitative methodology.

Furthermore, accepting that systems are characterized by dynamics with regard to how processes unfold over time, the model of the present study could be further extended to a dynamic operational model that could provide a framework to explain emergence of discreet behaviors. By focusing on the dynamic type of analysis of an organization, the aim could focus on the study of two-way relationships, interdependencies among variables, and feedback loops that take into account the time factor.

Ideally, regarding the nature of such a study, ensuring in advance permission to openly refer to company and country names and identify specific characteristics would enhance understanding of culture. This could also offer a clear way to compare the before and after the GLOS deal culture, identify cultural characteristics of each organization, and discuss specific aspects of emergence and dynamism.

Finally, in terms of generalization, considering the role of global outsourcing in the current economy and the tendency of organizations to increasingly rely on it, the

model of the present study can be validated and normalized in other industries, beyond the automotive.

7.7 Reflections

The thesis emphasized the human element in the study of global IS/IT outsourcing, a business trend that tends to be associated with strategy and financial benefits, frequently ignoring the impact it can have on individuals and the impact individuals can have on it.

Global outsourcing is not only a relationship between two companies and their departments; it is also the relationship of the people who live in them and identify with them. As this study shows, it can be extended beyond mere collaboration, as arranged by laws, strategic planning, and contracts, and become exchange. Success does not have to be always defined according to financial benefits. Different interactions of cultural elements lead to a unique emergent culture in every outsourcing relationship. Being aware of its attributes and their ability to adjust through mechanisms and processes may be a more powerful way of predicting success in the interaction that exists in our global world.

This study offered the researcher a unique opportunity to immerse into the field of global outsourcing and experience globalization in a work setting, beyond theoretical issues and the use of secondary data. Working closely with stakeholders from various levels and various cultures, open-mindness and willingness to learn and adjust seemed to be the best way to observe emergence.

And maybe these are the best M&Ps (Mechanisms & Processes), when we want to emerge as elements of any system in Life.

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Appendix A

Cultural characteristics, Codes & Themes

A1

- **A1a: Cultural characteristics and Potential codes**
- **A1b: Interview codes**
- **A1c: Combination of cultural characteristic from the literature (used as potential codes) and interview codes**

A2: Theme development

A3: Generating codes & Themes

A1a: Cultural characteristics and Potential codes

Cultural characteristics from the literature on culture and IS/IT GLOS (used as potential literature-based codes in the data analysis)

Acceptance (cultural)
Adaptability
Adaptation
Addition of working hours
Affinity (cultural)
Aggression
Assigning tasks
Authority
Availability of skilled resources
Balance
Behavioral risks
Benefits/costs
Bureaucracy
Burnout (supplier employees)
Business: practices
Business: understanding
Change management
Clans
Client and vendor interaction
Client evaluation of relationship
Client's perception of vendor behavior
Client's transferred staff: treatment
Cognitive processes
Cohesion
Collaboration
Commitment
Communication Barriers
Communication: Accents
Communication: Differences
Communication: Preferred language
Communication: Language
Communication: Language proficiency
Communication: Lingo
Communication: of problems
Communication: Skills, techniques
Communication: Written & verbal
Compatibility
Concern for people
Concern for production
Conflict
Consistency
Constructive
Context
Contract: Flexibility
Contract: Reliance
Control
Control: Business decisions
Cooperation
Coordinating meetings
Cultural adaptation
Cultural Compatibility
Cultural differences
Cultural difficulties
Cultural distance
Cultural Fit
Cultural readiness
Cultural similarity as contextual factors
Culture
Customs
Decision-making
Delegation
Differences (cultural)
Domain knowledge
Economic development
Education
Educational System
Employee orientation
Esprit de corps
Ethics: work
Evaluation
Exchange of activities
Expectations: developing
Experience & inexperience
Expertise
Expertise & Resources
Fair bargaining
Hierarchy
Holiday calendar differences
Individualism vs. collectivism
Industry structure
Information sharing
Innovation
Intellectual property rights
Interactions
Involvement
Job assignment factors
Job orientation
Job skills
Judicious exercise of power
Knowledge: culture

Knowledge: Foreign country
Knowledge: Western Business Practices
Licenses
Local values
Logistical
Management communication with truthful and valuable information to the "masses"
Management support
Managerial Risks
Marketing: Infrastructure
Markets
Masculinity-Femininity
Mission
Modes of operation
Monochromism vs. Polychronism
Morale
Norms
Norms: Developing
Openness
Organizational maturity
Organizational politics
Pace of life
Parochial values
Passivity
People-orientation
Personal contact
HR / Personnel issues
Power
Power distance
Power in exchange
Pragmatism
Presence of western business practices
Problem solving techniques
Process
Proficiency
Project management
Psychic distance
Psychological Issues
Readiness (cultural)
Reciprocity
Recognition of limits
Relationships: Employee-employer
Religious calendar differences
Remote teams: Management
Reporting roles /responsibilities
Resistance
Results orientation
Satisfaction
Security: data
Seniority
Shared vision
Sharing: benefits & risks
Skills: Marketing
Sociability
Social and personal bonds
Social differences
Social Issues
Social, legal, political systems
Social/Economic exchanges
Software/Hardware
Solidarity
Strategic Fit
Strengths
Styles
Supportiveness
Tacit epistemologies
Task-orientation
Tax
Teaming
Telecommunications infrastructure
Time differences
Time zone
Trade policies
Training
Travel coordinating
Trust
Turnover (supplier employees)
Uncertainty avoidance
Understanding client's business
Values
Vendor behavior
Visioning
Vocabulary size
Work ethics
Work Style
Workforce

A1b: Interview codes

(in their original form, as they emerged directly from the data)

Ability to explain practical problems
Ability to transfer idea/prototype to actual settings
Ability to visualize the problem/solution
Acceptance
Adaptability
Adaptation
Adjustability
Analysis - Integration
Animosity
Appraisal from management
Appraisal from others
Self-appraisal
Attitude to change, competition, innovation, technology, success, risks
Attitude to problems, failure, mistakes (awareness, cover up, facing)
Attitude to wealth (accumulation vs. "just enough")
Authority
Awareness of existence of others
Awareness of limits
Bonding
Bureaucracy
Camaraderie
Clans
Cohesion Cooperation
Collaboration
Comfort level
Commitment
Communication barriers / differences
Communication of problems
Communication of skills/techniques
Communication style
Communication: Written / Verbal / Nonverbal
Comparison with other company (within group)
Compatibility (Date & time format)
Complexity
Concern for people over production
Conflict
Consistency
Contentment
Contract: Flexibility / Reliance
Control of business decisions
Cooperation
Coordination
Credibility
Cultural adaptation
Cultural affinity, fit, similarity
Cultural compatibility
Cultural differences, difficulties
Cultural distance
Cultural emergence
Cultural readiness
Dates (holidays, format)
Difficulties in explaining practical problems
Difficulties transferring idea/prototype to actual settings
Documentation / Certification
Economic stability
Economic system/development
Educational system (formal / on-site)
Employer-employee relationships
Enthusiasm
Esprit de corps
Esteem
Ethics: Work/Personal
Everyday life
Expectations
Experience & inexperience
Fairness
Fear of "strangers"
Fear of accountability, responsibility, taking initiatives
Fear of losing job
Fear to offend
Formal vs. informal interactions
Free Expression of feelings/attitudes
Freedom
Friendliness
Friendship
Gender issues
Geographical distance
Gratitude

Group harmony
Group leadership
Happiness
Harmonization
Hierarchy
HR / Personnel issues
Importance of relationships
Importance of work
Instability
Intellectual property rights / Ownership
Interaction / interdependencies client vendor (interoganizational level)
Interaction / interdependencies within group
Intergroup exchanges
Intermediaries
Involvement
Knowledge / information sharing
Knowledge of culture
Knowledge of foreign country
Language (proficiency, dialect, accent, vocabulary)
Leadership
Lifestyle
Line of communication
Living conditions
Management communication
Management involvement
Management of remote teams
Management support
Managerial support
Manners / Politeness
Market / Industry structure
Market knowledge
Moral obligations
Morale
Motivation
Need for instructions/support
Openness
Organizational maturity
Organizational plan
Organizational structure
Orientation
Pace of life
People-orientation
Perceptions of self- others
Perceptions of time (e.g. time delays, wasting time)
Perfectionism / Attention to detail
Personal contact
Personal habits
Physical proximity
Political situation
Politics (organizational)
Power
Preference for similarity
Preservation of status quo and ongoing relationships
Pride (in own work)
Pride in own work
Principles
Priorities
Problem-solving
Project management
Reciprocity
Relationships vs. merit
Reputation of organization
Responsibility
Reward / Payment
Rewards
Role of managers
Satisfaction
Seniority
Shared Goals
Sociability
Social / personal bonds
Socialization
Solidarity
Stability
Status / Status quo
Superiority
Team spirit
Telecommunication infrastructure
Time (perspectives, schedules, differences, zones, format)
Tradition
Transition period
Travel issues
Traveling (expenses, coordination, visas)
Trust (country)
Trust (people)
Understanding business
Understanding outsourcing concepts
Unfairness
Validation
Values
Vision
Way of living
Willingness
Work vs. social life
Workforce
Working hours / schedule
Xenophobia

A1c: Combination of cultural characteristic from the literature (used as potential codes) and interview codes

The **bold** terms illustrate literature-based codes and the underlined ones codes that arose from the interviews.

Ability to explain practical problems
Ability to transfer idea/prototype to actual settings
Ability to visualize the problem/solution
Acceptance
Acceptance (cultural)
Adaptability
Adaptability
Adaptation
Adaptation
Addition of working hours
Adjustability
Affinity (cultural)
Aggression
Analysis - Integration
Animosity
Appraisal from management
Appraisal from others
Self-appraisal
Assigning tasks
Attitude to change, competition, innovation, technology, success, risks
Attitude to problems, failure, mistakes (awareness, cover up, facing)
Attitude to wealth (accumulation vs. "just enough")
Authority
Authority
Availability of skilled resources
Awareness of existence of others
Awareness of limits
Balance
Behavioral risks
Benefits/costs
Bonding
Bureaucracy
Bureaucracy
Burnout (supplier employees)
Business: practices
Business: understanding
Camaraderie
Change management
Clans
Clans
Client and vendor interaction
Client evaluation of relationship
Client's perception of vendor behavior
Client's transferred staff: treatment
Cognitive processes
Cohesion
Cohesion Cooperation
Collaboration
Collaboration
Comfort level
Commitment
Commitment
Communication Barriers
Communication barriers / differences
Communication of problems
Communication of skills/techniques
Communication style
Communication: Accents
Communication: Differences
Communication: Language
Communication: Language proficiency
Communication: Lingo
Communication: of problems
Communication: Preferred language
Communication: Skills, techniques
Communication: Written & verbal
Communication: Written / Verbal / Nonverbal
Comparison with other company (within group)
Compatibility
Compatibility (Date & time format)
Complexity
Concern for people

Concern for people over production
Concern for production
Conflict
Conflict
Consistency
Consistency
Constructive
Contentment
Context
Contract: Flexibility
Contract: Flexibility / Reliance
Contract: Reliance
Control
Control of business decisions
Control: Business decisions
Cooperation
Cooperation
Coordinating meetings
Coordination
Credibility
Cultural adaptation
Cultural adaptation
Cultural affinity, fit, similarity
Cultural Compatibility
Cultural compatibility
Cultural differences
Cultural differences, difficulties
Cultural difficulties
Cultural distance
Cultural distance
Cultural emergence
Cultural Fit
Cultural readiness
Cultural readiness
Cultural similarity as contextual factors
Culture
Customs
Dates (holidays, format)
Decision-making
Delegation
Differences (cultural)
Difficulties in explaining practical problems
Difficulties transferring idea/prototype to actual settings
Documentation / Certification
Domain knowledge
Economic development
Economic stability
Economic system/development
Education
Educational System
Educational system (formal / on-site)
Employee orientation
Employer-employee relationships
Enthusiasm
Esprit de corps
Esprit de corps
Esteem
Ethics: work
Ethics: Work/Personal
Evaluation
Everyday life
Exchange of activities
Expectations
Expectations: developing
Experience & inexperience
Experience & inexperience
Expertise
Expertise & Resources
Fair bargaining
Fairness
Fear of "strangers"
Fear of accountability, responsibility, taking initiatives
Fear of losing job
Fear to offend
Formal vs. informal interactions
Free Expression of feelings/attitudes
Freedom
Friendliness
Friendship
Gender issues
Geographical distance
Gratitude
Group harmony
Group leadership
Happiness
Harmonization
Hierarchy
Hierarchy
Holiday calendar differences
HR / Personnel issues
HR / Personnel issues
Importance of relationships
Importance of work
Individualism vs. collectivism
Industry structure
Information sharing
Innovation
Instability
Intellectual property rights
Intellectual property rights / Ownership
Interaction / interdependencies client vendor (interoganizational level)

Interaction / interdependencies within group
Interactions
Intergroup exchanges
Intermediaries
Involvement
Involvement
Job assignment factors
Job orientation
Job skills
Judicious exercise of power
Knowledge / information sharing
Knowledge of culture
Knowledge of foreign country
Knowledge: culture
Knowledge: Foreign country
Knowledge: Western Business Practices
Language (proficiency, dialect, accent, vocabulary)
Leadership
Licenses
Lifestyle
Line of communication
Living conditions
Local values
Logistical
Management communication
Management communication with truthful and valuable information to the "masses"
Management involvement
Management of remote teams
Management support
Management support
Managerial Risks
Managerial support
Manners / Politeness
Market / Industry structure
Market knowledge
Marketing: Infrastructure
Markets
Masculinity-Femininity
Mission
Modes of operation
Monochromism vs. Polychronism
Moral obligations
Morale
Morale
Motivation
Need for instructions/support
Norms
Norms: Developing
Openness
Openness
Organizational maturity
Organizational maturity
Organizational plan
Organizational politics
Organizational structure
Orientation
Pace of life
Pace of life
Parochial values
Passivity
People-orientation
People-orientation
Perceptions of self- others
Perceptions of time (e.g. time delays, wasting time)
Perfectionism / Attention to detail
Personal contact
Personal contact
Personal habits
Physical proximity
Political situation
Politics (organizational)
Power
Power
Power distance
Power in exchange
Pragmatism
Preference for similarity
Presence of western business practices
Preservation of status quo and ongoing relationships
Pride (in own work)
Pride in own work
Principles
Priorities
Problem solving techniques
Problem-solving
Process
Proficiency
Project management
Project management
Psychic distance
Psychological Issues
Readiness (cultural)
Reciprocity
Reciprocity
Recognition of limits
Relationships vs. merit
Relationships: Employee-employer
Religious calendar differences
Remote teams: Management
Reporting roles /responsibilities

Reputation of organization
Resistance
Responsibility
Results orientation
Reward / Payment
Rewards
Role of managers
Satisfaction
Satisfaction
Security: data
Seniority
Seniority
Shared Goals
Shared vision
Sharing: benefits & risks
Skills: Marketing
Sociability
Sociability
Social / personal bonds
Social and personal bonds
Social differences
Social Issues
Social, legal, political systems
Social/Economic exchanges
Socialization
Software/Hardware
Solidarity
Solidarity
Stability
Status / Status quo
Strategic Fit
Strengths
Styles
Superiority
Supportiveness
Tacit epistemologies
Task-orientation
Tax
Team spirit
Teaming
Telecommunication infrastructure
Telecommunications infrastructure
Time (perspectives, schedules, differences, zones, format)
Time differences
Time zone
Trade policies
Tradition
Training
Transition period
Travel coordinating
Travel issues
Traveling (expenses, coordination, visas)
Trust
Trust (country)
Trust (people)
Turnover (supplier employees)
Uncertainty avoidance
Understanding business
Understanding client's business
Understanding outsourcing concepts
Unfairness
Validation
Values
Values
Vendor behavior
Vision
Visioning
Vocabulary size
Way of living
Willingness
Work ethics
Work Style
Work vs. social life
Workforce
Workforce
Working hours / schedule
Xenophobia

A2: Theme development

Characteristics of the cultural systems theory as discussed in the normative literature on cultural systems.

1. Attitudes & Behaviors: Beliefs, Concepts, Ideals, Values, Norms, Traditions, Experience
2. Inherent: Wholeness, Organization, Flexibility, Hierarchy, Rationalization, World representation, Consistency
3. Environment / Context / Boundaries
4. Activity: Interactions, Integration, Interconnectedness, Interdependence, Flow, Exchange of information
5. Regulation: Control / Feedback (circuits)
6. Movement: Emergence, Evolution, Enculturation, Adaptation
7. Mechanisms (control & emergence) & Processes (social)
8. Functionality / Goal attainment / Objectivity & Specificity

Conceptual groups of cultural systems characteristics used in the development of the initial model (figure 3-4), used as potential literature-based themes in the thematic analysis.

Cultural systems characteristics	Description
A&B (Attitudes & Behaviors)	A – Attitudes: abstract, tacit and internalized representations of the world, such as beliefs, concepts, ideals, values, norms, traditions, thoughts B – Behaviors: expressed, empirical, and externalized activities related to attitudes
Environment	This category represents the business setting, within which the specific GLOS relationship operates, and the existence and role of hierarchical boundaries. It also represents institutions that function outside the organizational context but influence the organizational members (e.g. religious, educational, social, political).
Interactivity	This category includes interrelationships within the systems and exchanges, both within the cultural system and between the system and the surrounding levels.
Control	This category involves issues related to power and efforts to use power to achieve certain goals. It is different from the interactivity category because it can play an instructive and directive role towards the system's functionality and goal orientation.
Emergence	This category describes the evolution of a GLOS culture and the potential for enculturation and adaption, as the GLOS relationship gradually expresses a GLOS emergent culture.

A3: Generating codes & themes

Example 1

Engineer 2: 3 years in AC, 33 years old, female, from AC country but has studied in EU, has an MSc in engineering

"There is also a language issue

Code language, included in basic theme external environment and organizing theme M&P

with the technical manuals

Code communication (skills and written), included in basic theme relationship

AS2 and AS1 always use the AS1 version of all software manual

Code: technology, included in basic theme definition

but in AC we

Code perceptions of others, included in basic theme we-they

use the English edition because it is much easier to give it to the production people in charge".

Code solution to problem and communication, both included in basic theme exchange and also organizing theme M&P

Example 2

Driver 1: 12 years in AC, 58 years old, male, from AC country, with no degree

"Our cooperation

Code: cooperation, included in basic theme exchange

seems to get better after having a meeting

Code communication mode and code coordination, both included in basic theme exchange and organizing theme M&P

from time to time

Code time, included in basic theme external environment and basic theme regulation

between

Code communication, included in the basic theme exchange

people that are responsible for the production line of the three companies.

Code responsibility, included in basic theme abstract- expressed

Personal contact seems to be the only way that you can use to make people from different cultural backgrounds cooperate,

Code communication, included in basic theme exchange

work hard,

Code: work ethic, included in basic theme abstract-expressed

and continue being friends".

Code: communication, included in basic theme relationship

Appendix B

Interviews

B1: Interview agenda – Pilot studies

B2: Interview agenda – Case studies

B1: Interview agenda – Pilot studies

1. Describe a GLOS project you are currently involved with. What is the supplier country? Based on what criteria did you choose the company/country? How many people are involved in this project?

2. What are some other GLOS projects you have been involved with in the past?

3. What are some of the problems that you encounter most often?

4. Do you encounter business, logistical, legal problems? Do you consider these problems to be important? To what extent so? Can you give us some examples?

5. If for a moment we forget the existence of business, logistical, legal problems, do you encounter problems related to individuals (as a group)? Do you consider these problems to be important? To what extent so? Can you give us some examples?

6. More specifically, do you encounter problems related to workforce (personnel, HR), culture or social issues? Do you consider these problems to be important? To what extent so?

7. Do you face cultural problems? Can you provide some examples? Which ones of them are more important? What are some reactions to them? Do you get any complains? From your experience, would the reactions be different if the relationship would involve a company in the same country as yours country?

8. What cultural aspects do you perceive to be more important? What does culture mean for you? Do you think the national culture and the culture in the organization can be different? If yes, to what extent can they affect a GLOS relationship? In your organization, do you have people from other nationalities? Do you think that they exhibit different cultural characteristics?

9. If we focus on organizational culture, what aspects do you consider important for the outcome of an offshoring project? In your case, what aspects have you found particularly helpful/frustrating in your relation with the supplier company? Why? In what way? What has been the reaction of your company and of the client/supplier company?

10. If we focus on national culture, what aspects do you consider important for the outcome of an offshoring project? In your case, what aspects have you found particularly helpful/frustrating in your relation with the supplier company? Why? In what way? What has been the reaction of your company and of the client/supplier company?

11. Are there specific characteristics/instances of the above-mentioned type of problems that you have found particularly frustrating or particularly beneficial to the GLOS relationship? Why? In what way? In most cases, were you aware of the possibility of such problems before you got involved with the supplier? When did you realize their existence? If you had known in advance, would that be an important reason to reconsider you choice of the supplier? Do you believe that knowing about such problems in advance can help face them more efficiently or possibly eliminate them completely?

12. So far have you been able to address issues related to cultural differences? In what way? Which one of them are the most difficult to address? Why? Was there any cost for the project? What was that?

13. What is your opinion on a set of cultural characteristics that emerge once the GLOS collaboration has started? Would you think that they are different from the cultural characteristics of an organization in the before-the-deal period? Can they contribute to a better GLOS relationship? In what way?

14. How do you perceive emergence in terms of cultural characteristics? Examples? How do cultural characteristics emerge?

15. If you had to repeat your interaction with the client (or supplier) company, what would you change or what measure would you have taken to ensure a smooth relationship? What lessons have you learnt so far? What strategies you would suggest that could contribute to a better relationship? How do you define a better relationship?

16. Overall, do you consider GLOS to be a positive or a negative business aspect? How do you see the future of it?

B2: Interview agenda – Case studies

Introduction to the interview
Section A: Interviewee information
Section B: Company information
Section C: GLOS cultural issues
Section D: GLOS cultural emergence
Section E: Additional information

Introduction to the interview

Purpose

The purpose of this research is to identify the role of culture in a GLOS relationship and, more specifically, to examine the emergence of certain cultural characteristics in a GLOS relationship.

Confidentiality issues

- Interviews will be tape recorded to ensure accuracy of data collection.
- Only the researcher will have access to the original data.
- To protect the organizations as well as the interviewees, company names, countries and individual identities will remain anonymous, along with any information that may lead to identification.
- Data will be treated as confidential.
- A confidentiality agreement can be signed.

Questions

Section A: Interviewee information

Name & contact information (confidential)

1. Role in the company
2. Years in the present position
3. Communication mode
4. Age
5. Gender
6. Country of origin
7. Educational background
8. Optional comment on culture and own cultural experience

Section B: Company information

1. Name
2. Address
3. Business/industry
4. Number (approx.) of employees in the company
5. Country(ies) of origin of employees
6. Formal/preferred language(s) of communication

Section C: GLOS cultural issues (general)

1. Understanding, opinion of, and overall attitude towards GLOS?
2. Reasons, criteria, perceived motivation for the specific client-supplier network?
3. GLOS relationship (general opinion, culture as understood by the interviewee)
4. Organization A (general opinion, culture as understood by the interviewee)
5. Organization B (general opinion, culture as understood by the interviewee)
6. Cultural issues (general opinion, culture as understood by the interviewee)
7. Existence of cultural characteristics (in the specific relationship) related to country / organization / group(s) of individuals

8. Problems related to culture (also address reasons, solutions, opinions)
9. Importance of culture for a GLOS relationship

Section D: GLOS cultural emergence

1. Emergence of cultural characteristics
   - (Can they change / adapt?
   - If yes, when, in what way and to what degree
   - Risks / Benefits
   - Potential to last
2. Use of examples to demonstrate
3. Mechanisms and processes that led/can lead to development/emergence of the new culture (timeframe, leadership, organization, initiative, motivation)
4. Additional comments on general cultural issues

Section E: GLOS cultural issues (specific)

Perception, role, examples, importance, M&P, as applicable for each category of the initial model

Appendix C

Interviewees

C1: Interviewee information – AC

C2: Interviewee information – AS1

C3: Interviewee information – AS2

C4: Interviewee information – AS3

C1: Interviewee information – AC

AC 17 Interviewees	Years in AC	Communication	Age	Gender	Origin	Educational Background
CEO	25	I/view f2f I/view f2f F/up f2f	60	M	AC	University degree
Managing director	20	I/view f2f F/up f2f F/up emails	52		AC	Technical degree
Technical director	5	I/view f2f I/view f2f I/view f2f I/view tel F/up f2f F/up emails	33	M	AC	PhD
Engineer 1	8	I/view f2f I/View f2f F/up f2f F/up emails	32	M	AC, US	MSc
Engineer 2	3	I/view f2f F/up f2f	33	F	AC-EU	MSc
Engineer 3	1	I/view f2f F/up emails	42	M	AC, EU	University degree
Engineer 4	5	I/view f2f	26	M	AC	Technical degree
Designer 1	8	I/view f2f F/Up tel	37	F	AC	MSc
Designer 2	5	I/view f2f F/Up f2f	39	M	AS3	PhD
Team member 1	19	I/view f2f	47	M	AC	Some degree
Team member 2	4	I/view f2f	33	M	AC	Technical degree
Team member 3	4	I/view f2f F/Up f2f	35	F	AC	MA

		F/Up tel				
Driver 1	12	I/view f2f F/Up f2f	58	M	AC	No degree
Driver 2	17	I/view f2f F/Up emails		M	AS2	Technical degree
Driver 3	9	I/view f2f	40	M	AS1	No degree
PA to CEO	5	I/view f2f	32	F	AC	University degree
AC Lawyer	9	I/view f2f	39	M	AC, AS1	Law degree

C2: Interviewee information – AS1

AS1 8 interviewees	Years in AS1	Communication	Age	Gender	Origin	Educational Background
Project Manager	2	I/View f2f I/view tel I/view tel F/Up emails	33	F	AS3	MSc
Supervisor	6	I/View f2f I/View f2f F/Up emails	50	M	EU	Law degree, MBA
Software engineer 1	5	I/View f2f F/Up emails	34	M	AS1	MSc
Software engineer 2	5	I/view f2f F/Up emails	34	M	AS1	MSc
Team member 1	1	I/view f2f F/Up emails	24	M	Asia	Student
Team member 2	17	I/view f2f I/view f2f	59	M	AS1	University degree
Team member 3	4	I/view f2f	31	M	EU	Technical degree
Administrator	2	I/view f2f F/Up emails	22	F	AC	Student

C3: Interviewee information – AS2

AS2 7 interviewees	Years in AS2	Communication	Age	Gender	Origin	Educational Background
Manager 1	16	I/view f2f I/view f2f F/Up tel	43	M	EU	University degree
Manager 2	9	I/view f2f F/Up tel F/Up emails	33	M	AC	MBA
Supervisor	5	I/view f2f I/view f2f	29	M	EU	MBA
Technical director	9	I/view f2f F/Up tel	25	F	AS2	MSc
Engineer 1	15	I/view f2f I/view tel	60	M	AS2	Technical degree
Engineer 2	2	I/view f2f	24	F	AS2	University degree
Engineer 3	7	I/view f2f	38	M	AS3	PhD

C4: Interviewee information – AS3

AS3 9 interviewees	Years in AS3	Communication	Age	Gender	Origin	Educational Background
Line manager	13	I/view f2f I/view tel I/view tel F/Up emails	60	M	AS2	University degree
Supervisor	5	I/view f2f	32	M	AC	MBA
Engineer	2	I/view f2f	32	F	AS3	MSc
Quality engineer 1	4	I/view f2f I/view f2f	33	M	AS3	MSc
Quality engineer 2	5	I/view tel	29	M	AS3	University degree
Assembler 1	6	I/view f2f I/view f2f	36	M	AS3	No degree
Assembler 2	6	I/view f2f	38	M	AS3	No degree
Assembler 3	35	I/view f2f	58	M	AS3	No degree
Assembler 4	29	I/view f2f	55	F	AS3	No degree

Appendix D

ES in a CAN platform

Components of the ES, realized through the architectural platform of the CAN (Control Area Network).

Some acronyms are directly translated from German manuals, thus the acronyms might not represent the exact definition. .

ABS	AntiBlock Braking System It prevents the wheel from locking when the brakes are used. As a result, the vehicle steerability of the vehicle is maintained, even in critical conditions.
ADM	Accident Data Memory It registers and permanently stores trip data and the controls operated before and after an accident.
BAS	Brake Assistant It is an electronic control unit for boosting the brake power in emergency situations by automatically generating maximum brake pressure.
CAN	Control Area Network It is the architectural platform and it identifies every message to be transmitted by means of a message code.
Cruise Control	It automatically maintains a preset speed, independently from the gradient, so that the accelerator pedal does not have to be depressed.
Easy Start	It prevents the vehicle from rolling back on hills when the driver starts it.
EBS	It increases road safety by shortening eth braking distance and offers increase stability during vehicle maneuvers.
ECAS	Electronically Controlled Air-Suspension System It includes a number of functions, such as increased riding comfort, stable vehicle height independent of load.
FFR	Vehicle Control Computer It processes electronic signals from the engine and the drivetrain.
FSB	Frequent Stop Brake It operates on the same brake circuit as the service brake but at a lower pressure. It is activated for safety reasons when a door opens.
GPS	Global Positioning System It uses audiovisual elements to navigate the driver to a preselected destination using satellite signals, digitalized maps, and measuring the distance travelled.
LGS	Lane Guard System It vibrates the driver's left or right seat pads when the driver leaves the marked lane without actuating the turn signal lamps.
MFD	Multi-Function Display It is a monitor on the instrument panel indicating various operating

	conditions and states and vehicle malfunctions.
MUX	Multiplexer It is an electronic unit that receives, processes, and transmits signals from various control units or buttons and integrates them into the CAN platform.
Reversing System	It prevents people and objects from damage when the doors open or close by causing the door to return to its previous position when the sensor feels increased resistance.
Servocomtronic	It uses control electronics to adjust the steering resistance of the steering wheel, depending on the road speed; the resistance is proportional to the speed.
SMUX	It is a manually operated switch that is integrated into the CAN platform.
TEPS	Twin Electric Platform System It is the architecture of combining two electronic platforms, one for the body and one for the drivetrain, which exchange information.
Xenon	It is a type of light that requires less electrical power than halogen headlamps and produces 2.5 times more light energy. As a result, the road is illuminated with brighter light and a wider beam.

Appendix E

Theories applied to IS/IT outsourcing

Theories applied to IS/IT outsourcing (Lacity, 2009; Lacity et al., 2009)

Theories from economics Organizations outsource decisions and engage in contracts to minimize total costs and mitigate risks such as opportunistic behavior.	
Transaction Cost Economics	Ang& Straub (1998) Barney (1999) Dibbern et al (2008) Ghosal & Morgan (1996) Lacity & Willcocks (1995) Poppo & Zenger (1998) Williamson (1991) Williamson(2005)
Agency theory	Eisenhardt (1989) Gopal et al. (2003) Hall & Liedtka (2005) Sharma (1997)
Contracting theories	Gopal et al. (2003) MacNeil (1980)
Theories from strategy Organizations build or acquire resources to execute strategies that lead to winning.	
Resource-based view	Barney (1991) Michalisin (1997) Teng et al. (1995)
Resource Dependency theory	Davis & Cobb (2009) Hillman et al. (2009)
Game theory/Auction theory	Nash (1951) Nash (1953)
Theories of firm strategy	Grover et al. (1996) McLellan et al. (1995) Miles & Snow (1978) Slaughter & Ang (1996)
Theories from sociology	

Relationships among agents are emphasized, including trust, power, feelings of mutual obligation, and social norms.	
Social/Relational Exchange theory	Ang & Slaughter (2001) Carmel & Tjia (2005) Goo et al. (2009) Grover et al. (1996) Lee & Kim (1999) Poppo & Zenger (2002) Whitten & Leidner (2006)
Social Capital theory	Nahapiet & Ghosal (1998)
Institutionalism	Ang & Cummings (1997) DiMaggio & Powell (1991) Miranda & Kim (2006)
Power theories	Pfeffer (1994) Lacity & Hirschheim (1993)
Innovation Diffusion	Hu et al. (1997)
Social Cognition	Fiske & Taylor (1991)
Systems sciences Organizations are viewed as organisms that exchange resources across organizational boundaries and learn through the feedback they (the organizations) receive.	
General Systems Theory	von Bertalanffy (1968) Marcolin & Ross (2005)
Systems Dynamics	Dutta & Roy (2005)
Modular Systems Theory	Tanriverdi et al. (2007)