CHAPTER 3: RESEARCH METHODOLOGY

This chapter presents the methodological elements and the research design of this study. The first section discusses the unit of analysis. The second section describes the stages of the case study. The empirical component of the study forms the third part. Here the research model, data collection process, details of instrument development, the pre-test and the pilot study and operationalization of the research variables is discussed.

3.1. UNIT OF ANALYSIS

This study was conducted in two parts: an exploratory case study followed by an empirical study utilizing a survey based methodology. The objective of the research work was to study the arena of control in business process outsourcing — how it is enforced, why it is enforced the way it is and to investigate the antecedents of success in business process outsourcing from a control theory perspective. Given the nature of the research questions involved the case study methodology was chosen for the first research question and an empirical study for the latter two.

The focus of this study was the outsourcing relationship between a service receiver and a service provider. An individual client-vendor- outsourced function relationship commonly referred to as a ‘queue’ embedded within the
vendor organization was regarded as the unit of analysis. Most of the prior research in outsourcing has used the methodology of collecting data from either the customers or the vendors (Levina and Ross 2003). In this study a more comprehensive and balanced approach was adopted by collecting data from both clients and vendors- this research design significantly reduced the risks of common source bias in this study (Zmud and Boynton 1991).

The cases were of business process outsourcing relationships with durations in excess of one year. Establishing this criterion of duration ensured that the client and vendor had had sufficient opportunity to work with each other and developed a degree of maturity in the relationship reflected in the establishment of the control structures. A degree of outsourcing success was also inherent as contract durations in business process outsourcing relationships are typically of one year, hence a relationship in excess of one year would have witnessed at least one contract renewal / extension.

3.2. **Case Study**

3.2.1 **The Case Study Approach**

The case study is a research strategy which focuses on understanding the dynamics present within single settings. (Eisenhardt, 1989). This research method is preferred “when ‘how’ or ‘why’ questions are being posed, when the
investigator has little control over events, and when the focus is on a contemporary phenomenon within some real-life context" (Yin 1984). The investigation of how clients and vendors control to ensure that business process outsourcing relationships progress in conformance with the business value propositions and proposed schedules and budgets satisfied all of these criteria. The case study method is well established in outsourcing research especially with reference to governance issues (Kirsch, 1997; Kern and Willcocks, 2001).

In the case study approach, researchers have taken three different approaches concerning the use of theories. (1) Theory can be used as an initial guide for research design and data collection (Walsham 1993). (ii) Data collection can be done without any theoretical assumptions, and as data collection progresses, theory is used as part of an iterative process (Orlikowski 1993). (iii) Data can be collected without initial theoretical guidance, and theory can be finally developed as an outcome of the meanings constructed from data (Orlikowski and Robey 1991).

This research took a case study approach while using a theoretical perspective as an initial guide for data collection. The objective of this part of the research was to study control structures and it was necessary to identify and focus on factors that can explain the dynamics of the phenomena. In the grounded theory approach, a priori theoretical assumptions would not be made, and theory would be developed from the collected empirical evidence (Charmaz 2000,
Walsham 1995). The major drawback of such an approach would be a large volume of data because data collection is not constrained by any theoretical focus. Data collection based on guiding theoretical assumption would result in a more manageable set of data while providing more flexibility than basing data collection on theories developed a priori (Jayatilaka, 2001).

3.2.2 CASE-SITE SELECTION

Next cases were selected based on the concept of theoretical sampling to best answer the question posed (Glaser and Strauss 1967). Since the goal was to understand how controls are structured and enforced, cases where a) the vendor provided extensive access to individuals at multiple levels who could describe control practices and how they are enforced; b) the client acknowledged the relationship as successful; c) the client was willing to share perceptions as to efficacy of the control structure; and d) the contract had been active long enough to demonstrate a degree of stability of processes were required. The cases studied satisfied all of these criteria. The case sites presented a rare opportunity for broad access to successful outsourcing engagements. These cases were revelatory (Yin 1984: 48) or exemplar in the sense that there was an opportunity to study something previously not researched, but not unique.

To strengthen the generalizability of this study, to produce enough data to suggest additions to control theories, and to provide "empirical grounding"
four case studies were conducted (Yin 1984, Eisenhardt 1989). Balancing the principles of similarity and variation, four business process outsourcing relationships in three vendor organizations were identified. All three vendor firms were established business process outsourcing firms with dominant positions in this sector on a global basis. Two were the business process outsourcing arms of premier IT companies, with annual revenues in excess of US$ 2 billion and the third was purely into business process outsourcing provision with annual revenues close to US$1 billion. The relationships differed along several dimensions, including outsourced function category, client firm industry and employee headcount. They were however, similar in terms of organization, revenue size and lifetime.

3.2.3. DATA COLLECTION

Data collection was guided with a defined research question: ‘How do stakeholders control to manage business process outsourcing relationships?’ The attempt was “to go into organizations with a well defined focus – to collect specific kinds of data systematically” (Mintzberg 1979)

Data was obtained through semi-structured interviews from the companies that agreed to participate. Completely unstructured interviews would have resulted in responses less biased by the researcher’s questions, however it could have produced a significant amount of irrelevant data. On the other hand, completely
structured interviews would have guaranteed the relevance of the data while the participants may not reveal some context dependant information (Jayatilaka, 2001). Therefore semi structured interviews were used to collect data from the participants.

It was critical, during data collection, to identify and elicit information about particular incidents of control. Consequently, a specific interviewing technique was designed. Recognizing that control is purposive (Green and Welsh 1988), three common goals of outsourced relationships were identified: (1) maximizing speed in which things are done from the customer’s perspective (2) doing things accurately at the first attempt (3) optimizing efficiency and the cost per unit incurred by the vendor (ref.: COPC-2000® CSP Standard, June 2005). A series of interview questions focused on mechanisms controllers used in order to meet each of these three goals. Following earlier literature on outsourcing control (Choudhury and Sabherwal, 2003) focus was directed to unearth information on the structure of:

- mechanisms to explicitly specify desired outcomes
- mechanisms to assess outputs delivered by the vendor
- mechanisms by which the client explicitly specified rules, procedures, or processes for the vendor to follow;
- mechanisms to monitor ongoing work of the vendor
- mechanisms to promote shared goals among client and vendor; and
mechanisms to promote and assess adherence to shared beliefs and values

Information on the stage in the relationship when a control practice was initialized and the precursors to that decision was also sought. Other general set of questions sought to uncover additional critical incidents and how they were handled. To uncover such incidents, respondents were asked “to recall events that caused problems for which the organization had no ready solution, or events that challenged existing norms and solutions ..., or anything interpersonal that was unusual or tension provoking and required some kind of response” (Schein 1987, p.120).

The interviews of the team/group leaders, operations managers and service delivery leaders/ queue heads generally lasted between one and two hours. Following the research of Yin (1994) and Stake (1995), additional sources of data, besides these interviews, were tapped viz.:

- Documents and archival records
- Direct observation and participant-observation

Documents included memoranda, agendas, administrative documents, training material, worksheets and report formats. In the interest of triangulation of evidence, the documents served to corroborate the evidence from other sources.
Data thus collected included both qualitative and quantitative types. This synergistic combination had advantages described by Mintzberg (1979) as: “For while systematic data create the foundation for our theories, it is the anecdotal data that enable us to do the building.....We uncover all kinds of relationships in our hard data, but it is only through the use of this soft data that we are able to explain them”.

3.3. **THE EMPIRICAL STUDY**

3.3.1. **RESEARCH MODEL**

This section presents the research model and develops the arguments for each of the hypothesis in the empirical component of the study. Most of the prior work on outsourcing has looked at either control (Choudhury and Sabherwal 2003, Kirsch et al., 2002) or partnership (Lee and Kim,1999; Grover et al., 1996) in isolation. The conceptual model proposed in this study incorporates a comprehensive perspective which incorporates control and partnership vis-à-vis outsourcing success.

Since the objective of this study was to investigate the antecedents of success in business process outsourcing from a control theory perspective, this study examined an array of factors that have been noted in prior research as antecedents of either outsourcing success or control in an outsourcing
arrangement. In the area of control, researchers have suggested that transaction attributes of task programmability, asset specificity and output measurability are key factors that influence the choice of control modes (Kirsch et al., 2002; Spekle, 2001). Further, studies in the area of outsourcing have established both control (Sabherwal 1999, Marcolin & McLellan 1998, Rustagi 2004) and partnership quality (Grover et al. 1996, Lee & Kim 1999) as critical success factors of outsourcing success. The model in this study draws upon these two research streams to examine the impact of transaction attributes on the structure of the control portfolio and to investigate the impact of the interaction between degree of control and partnership quality on outsourcing success.

Specifically the research questions addressed in this part are:

1. What factors influence the predominance of certain control modes over others in a business process outsourcing control portfolio?

2. How the degree of control exercised interact with the quality of the client-vendor partnership to impact success?

3.3.2. HYPOTHESIS FORMULATION

A common framework for viewing the choice of governance structures in inter-firm relationships is transaction cost economics (Langfield-smith and Smith, 2003). TCE is based on the notion that firms choose efficient organizational forms or governance structures based on the transactional dimensions: (1)
uncertainty, or the extent to which the activities and desired contributions are amenable to ex ante programming; (2) the degree of asset specificity and (3) the intensity of ex post information asymmetry (Speklé, 2001)

3.3.2.1. Antecedents of control: Asset specificity

Asset specificity is the degree to which an asset can be redeployed to alternative use without sacrifice of productive value. It is the opportunity loss associated with the early termination of a relationship (Speklé, 2001). Asset specificity can arise in six ways: site specificity, physical assets specificity, human assets specificity, brand name capital, dedicated assets and temporal specificity (Williamson, 1991). Of these this study focuses on two.

As discussed in the literature review relationship specific assets of either type create an obstacle to the formation of an alliance, as neither party wants to expose itself to their inherent risks. Firms must therefore structure their relationship in order to mitigate these risks (Hoetker and Mellewigt, 2004). A common approach to do so in the context of alliances, is the use of control mechanisms.

In the outsourcing context, parties can specify concrete performance criteria that a physical asset being supplied by one party must meet. It is much harder to develop concrete criteria for knowledge that one party is to supply. Further, the
transfer of knowledge requires effort on the part of both the provider and receiver (Cohen and Levinthal 1990). However, the quality of effort put forth by each party is difficult or impossible to verify quantitatively. For all of these reasons, formal modes of control are likely to be a suboptimal response to transactions involving extensive knowledge assets. Informal control modes provide a more flexible means of addressing this problem (Hoetker and Mellewigt, 2004).

Beyond the mitigation of potential opportunism, a successful inter-firm relationship requires coordination of productive efforts and assets across firms. In addition to their role in governance, the activities associated with informal controls also support this coordination in a way that formal control mechanisms do not. Knowledge assets are particularly difficult to coordinate across firms because they tend to be embedded in the routines and culture of the originating firm, composed largely of tacit knowledge. The repeated interaction across partners that accompanies the use of clan control mechanisms helps overcome these problems through the development of coordinating routines. Because informal control modes such as clan control offer advantages over formal control modes in governing and coordinating the use of knowledge assets, it is expected to observe more use of informal control mechanisms when substantial knowledge assets are involved in an alliance (Hoetker and Mellewigt, 2004).

Thus it is posited that:
HI (a): For a given level of asset specificity in a relationship, the more knowledge assets involved in the alliance, the higher will be the degree of informal control mechanisms

Just as informal control mechanisms are particularly effective in addressing asset specificity generated by knowledge assets, it is inappropriate as a response to asset-specificity generated predominantly by physical assets. Controls based on frequent interaction take on some aspects of internal supply that diminish incentives, such as second chances being given more frequently, an expectation of due process before termination, and greater willingness to negotiate unexpected cost increases (Hoetker and Mellewigt, 2004). Therefore, the expectation is for firms to bring formal control mechanisms to bear when considerable physical assets are involved, since they provide effective and efficient governance and coordination of these assets.

Thus it is posited that:

HI (b): For a given level of asset specificity in a relationship, the more physical assets involved in the alliance, the higher will be the degree of formal control mechanisms

3.3.2.2. Antecedents of control: Task programmability

Programmable activities are those for which the organization possesses sufficient knowledge and information to decide in advance on the way in which
they are to be executed in order to achieve success i.e. activities for which the outcomes that may realistically be expected to result from them can be defined ex ante. Thus the availability of norms and standards for these activities permits a fairly comprehensive ex ante articulation of the characteristics of the contribution that is required from the members of the organization, and control, therefore, can be prescriptive or authoritative in nature, featuring rules of behavior, specific instructions, and relatively rigid performance targets, and focusing on assuring compliance to these pre-imposed norms (Spekle 2002).

Thus it is posited that:

*H2: High levels of task programmability will be associated with the exercise of formal controls*

3.3.2.3. Antecedents of control: Output measurability

The third variable is the level of ex post information asymmetry, i.e. the extent to which the organization is able to observe and to assess perceptively the true quality of actually delivered contributions. In transactions with high output measurability there exist standards that are shared (or at least known) by those involved in the process allowing the organization to ‘recognize the quality of performance when it sees it’ (Spekle, 2002) indicating the use of outcome controls. Previous research has also found outcome measurability to have a positive relationship with outcome control (Eisenhardt 1985, Snell 1992, Kirsch
1996). Also, when one is able to specify what one expects from the activity, one will usually have at least some notion as to the behaviors that may actually result in those expectations. Thus, the aim of control is both the ensuring of desired contributions as well as the prevention of unwanted actions or behaviors indicating the use of behavior control mechanisms (Spekle, 2001).

Thus:

**H3: The greater the output measurability of the outsourced function, the higher will be the degree of formal control used**

3.3.2.4. Control, Partnership Quality and Outsourcing Success

Both control (Sabherwal 1999, Marcolin & McLellan 1998, Rustagi 2004) and partnership quality (Grover et al. 1996, Lee & Kim 1999) have been established as antecedents of outsourcing success by earlier researches. As Clark et al. state “...the truly critical success factors associated with successful outsourcing are those associated with vendor governance” (Clark et al., 1998).

The relationship between control and partnership quality has however seen conflicting views in previous research. Some researchers claim that control mechanisms and partnership quality especially its component of trust can be pursued simultaneously, or are complementary (Zaheer and Venkatraman, 1995; Goold and Campbell, 1987; Das and Teng, 1998), while others argue that
control mechanisms are detrimental to trust (see, for example, Lorange and Roos, 1992). In this study it is proposed that the interaction between degree of control and partnership quality is an antecedent of business process outsourcing success. This view is supported by Marcolin and McLellan (1998) whose research indicated that relationships achieved greater satisfaction through more control and certainty in their relationships, and were better in avoiding conflict, achieving cost reductions, and developing trust.

<table>
<thead>
<tr>
<th>Partnership Quality</th>
<th>Degree of control</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>High</td>
<td>High</td>
<td>High success</td>
</tr>
<tr>
<td>Low</td>
<td>Low</td>
<td>Moderate success</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Moderate success</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Low success</td>
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</tbody>
</table>

Figure 3.1: Control, partnership quality and outsourcing success: The relationship

As presented in Figure 3.1, a two-by-two matrix is proposed to depict the impact of interaction between degree of control and partnership quality on outsourcing success. A high degree of control along with high partnership quality is proposed to facilitate a high degree of success. A high degree of either control or partnership quality along with low degrees of the other should be associated with moderate degrees of success. On the other hand, the combination of both control and partnership quality should be associated with a lower degree of success in outsourcing.
Thus, an argument is presented that the interaction between the degree of control and partnership quality will have a positive relationship with outsourcing success, hypothesized as:

\[ H4: \text{The degree of control and partnership quality would have a positive interactive association with outsourcing success.} \]

The research model for this study along with the hypotheses developed in this section is presented pictorially in Figure 3.2.
FIGURE 3.2: RESEARCH MODEL
3.3.3. SAMPLE FOR THE STUDY

As a master list of the “List of 50 best-managed global outsourcing vendors, 2006” from The Black Book of Outsourcing survey, conducted by Brown-Wilson Group, a Clearwater, Fla., based consultancy, was taken. This survey ranked outsourcing vendors according to responses by executives and others involved in outsourcing decision-making about their experience and satisfaction with current suppliers and appeared in ‘Sourcing Magazine’ July 2006. The survey has wide acceptance and credibility in the global business process outsourcing sectorii. Of this list permission to interview managerial employees from the tactical and strategic levels from twenty was obtained. The vendor organization management were then requested to solicit the support of their counterpart client teams for this study. The resultant sample had 13 vendor organizations with access to senior managers from both client and vendor sides. Since this process had excluded the captive business process outsourcing centers access was sought and gained to study 2 captive centers as well. This was based on personal and professional acquaintance, hence a convenience sample.

Thus a final sample of thirteen business process outsourcing vendor organizations was taken. These organizations were then requested to identify one or more vendor-client relationships among their ongoing lines of business. The client executives and vendor executives who agreed to participate in the
study were sent an email detailing information about the purpose of the study, the level of participation required and potential benefits. It also stressed the anonymity and confidentiality of the respondents. This was followed by interviews over the period August 06- July 07. In sum, 124 relationships between 103 service receivers and 15 service providers were surveyed through 228 interviews.

3.3.4. QUESTIONNAIRE DEVELOPMENT

A key element of any research is the measurement of constructs that are being examined. Since this part of the study used a survey-based methodology, development of valid and reliable survey instruments (questionnaires) was at the core of research design. Questionnaire development for this study utilized some previously used measures (Lee and Kim 1999, Rustagi 2004) as well as prior research on some constructs on control mechanisms (Kirsch 1997).

Two questionnaires were developed for this study. The first one was used to collect information from the client executive and the other was used with vendor executives for control practices and partnership quality. The questionnaires were administered through interviews which were semi structured and detailed. Interviews were held individually for one to three hours per session.
Prior to questionnaire development, a series of personal interviews with seven BPO professionals were conducted to confirm the external validity of the developed research framework. The interviews confirmed that the proposed research model was suitable for studying real world outsourcing phenomena. A five-point Likert-style questionnaire was then developed based on the literature and the comments gathered from the interviews for control practices.

3.3.4.1. Operationalization of Asset specificity

To generate measures of the knowledge and physical assets involved in the relationship, the relevant literature (Hoetker and Mellewigt 2004, Click and Duening 2005) was analyzed in order to identify strategic resources in outsourcing. The list of resources thus identified was then discussed with bpo practitioners with regard to relevance, completeness, and comprehensibility. This elicited a final list of 9 resources (6 physical and 3 knowledge assets). Asset specificity was measured by adapting a scale from Reuer and Ariño (2002).

3.3.4.2. Operationalization of Task programmability

This construct measured the extent of unpredictability at the localized level of the specific function that was being outsourced. The items for measuring this construct were adapted from Chang et al. (2003) and Withey et al. (1983).
3.3.4.3. Operationalization of Output measurability

The extent to which outcomes of the outsourced function are clearly articulated and accurately measured was the focus of this construct. The items for measuring this construct were adapted from Kirsch et al (2002) and modified based on a study of outsourcing literature.

3.3.4.4. Operationalization of Degree of control

This study adopted an approach similar to Tannenbaum’s (1968) and developed the construct of ‘degree of control’ defined as the aggregate of amounts of all outcome, behavior and clan controls that are exercised by the client and self control exercised by the vendor over the performance of the outsourced function in the business process outsourcing relationship. Items for this construct were developed by creating a list of control mechanisms, which was then individually operationalized. Kirsch (1997), Rustagi (2004) and the findings of the case study component of this research work are the sources for this list.

3.3.4.5. Operationalization of Outsourcing success

This construct measured the extent to which the client organization achieved their outsourcing objectives as assessed through economic benefits,
technological benefits and strategic benefits. Items for this construct were adapted from Grover et al. (1996); Lee and Kim (1999) and Rustagi (2004).

3.3.4.6. Operationalization of Partnership quality

In this study, the definition of partnership quality articulated by Lee & Kim (1999) was adopted: "five factors that make up partnership quality (are) trust, business understanding, benefit/risk share, conflict, and commitment" (pg 35). This construct was measured with an adapted version of the instrument used by Lee & Kim (1999) which employs mostly perceptual measures for the constituent variables.

3.3.5. PRE-TEST

A pre-test provides valuable information and feedback about key elements of a questionnaire such as meaning of terms, flow and sequencing of questions, the time required to respond to items, respondents’ interest and attention (Converse and Presser 1986). The pre-test for this study was conducted with seven BPO practitioners. In addition, the questionnaire was reviewed and analyzed by the research guide who provided critical feedback and comments for improving the questionnaires.
All the BPO practitioners were contacted through e-mail and phone to request participation in this pre-test. These BPO professionals were professional acquaintances of the researcher and were selected based on their suitability as well as accessibility. The respondents were sent an email with the questionnaires attached and informing them that one of the key objective of the pre-test was to assess the quality of the questionnaire, thus their feedback and comments would be quite critical in this process. In addition to having their comments at the end of the questionnaire, the respondents were also individually interviewed by the researcher to elicit detailed feedback.

As a result of the feedback from the pre-test, appropriate modifications were made in the instruments such as

1. Abbreviations were removed
2. Some terminology was changed
3. Linguistic corrections and improvements were made

3.3. 6. PILOT STUDY

A pilot study provides valuable information about the research design prior to the major data collection effort. It helps the researcher understand whether data can be collected through the proposed instruments within the framework of the research design (Rustagi 2004).
The business process outsourcing arm of a global information technology (IT) services company belonging to a diversified Indian conglomerate with revenues exceeding USD 1 Billion was selected as the site for the pilot study for this research. The client involved in this outsourcing arrangement was UK’s leading internet service provider, with more than 2 million subscribers, including more than 1.5 million on broadband. The relationship involved multiple functions including voice queue for customer acquisition and retention and non-voice queues for billing and technical help. This relationship was over three years old (started in late 2003) and at the time of the study had an employee headcount of 300.

Respondents in the pilot study were given the questionnaires and asked to fill and return to the researcher. A total of 21 respondents participated in the pilot study, 5 from the client side and 16 from the vendor organization. Extending from the procedures of the pre-test, they were advised in advance that a key objective of this pilot study was to gather their comments and feedback on the research design and instruments. Almost all respondents provided valuable information in the comment section at the end of the questionnaire. Thereafter personal interviews were also conducted with each respondent to further discuss their thoughts and observations. These discussions and comments provided valuable information to the researcher and were utilized for appropriately updating the survey questionnaire.
A summary of the key comments obtained in the pilot study is presented here:

- Clarification of some of the terms used for e.g. “use of financial incentives / penalties” was suggested instead of “use of financial controls”
- Removal of some control mechanisms included because of the rarity of use e.g. site visits
- Confidentiality was the dominant concern of both client and vendor executives

3.4 Summary

In summation, this chapter presented the unit of analysis as the outsourcing relationship between a client and an outsourcing vendor, the data sources selection and data collection methodology followed in both the case study and empirical components of the study. Further, hypotheses were developed from extant literature and operationalized based on earlier scales.