Chapter 4: **Data Analysis – Case Study**

This chapter presents the steps undertaken to organize, validate and analyze the data obtained in the case study in an attempt to build theory by the comparison of the emergent concepts with extant literature.

4.1. **Data Sources**

The first vendor organization (VO1) was a global leader in IT outsourcing providing services to more than 620 global customers across 53 countries employing 68,000 people from 42 different nations. This organization’s full-service integrated portfolio offered industry focused solutions and spaned across the entire spectrum of IT services – application development and maintenance, business process outsourcing, technology infrastructure, consulting, package implementation, product engineering services, systems integration and R&D.

The second vendor organization (VO2) provided consulting and IT services to clients globally focusing on technology driven business transformation initiatives. With over 80,000 employees worldwide, the company used a low-risk Global Delivery Model (GDM) to accelerate schedules with a high degree of time and cost predictability.
The third vendor organization (VO3) managed business processes for companies around the world. The company combined process expertise, information technology and analytical capabilities with operational insight and experience in diverse industries to provide a wide range of services using its global delivery network of more than 25 locations in nine countries in multiple geographic regions with a headcount of over 29,000.

One of the world's leading financial firms with services including wealth management, global investment banking and securities, asset management, mutual funds and estate planning was the first client organization (CO1). This US$50 billion (approx.) company had offices in some 50 nations and employed over 70,000 people. The company serviced about 3.5 million corporate and about 140,000 corporate clients, as well as 3,000 financial institutions worldwide. The second client organization was one of the world's largest airline by revenue-passenger-miles and total passengers transported. UK's leading internet service provider, with more than 2 million subscribers, including more than 1.4 million on broadband was the third client organization (CO3).

The business processes outsourced included two instances of a financial analytics processes which involved updation of various accounting and financial statements for various companies on the client terminal; adjustments to information received so as to facilitate company comparison; publishing of data for end user reception and error correction of reports as and when required.
A voice queue for customer acquisition and retention and a non-voice queue for billing and technical help for an UK ISP comprised the other outsourced function. The last relationship studied involved the outsourcing of the order processing and related information technology services by an US airlines. The functions outsourced included processing inbound end-user pre-sale and post-sale inquiries and orders and providing and maintaining hardware and software supporting the information systems for these processes.

Table. 4.1. provides a summarized description of the case study sites as described.

<table>
<thead>
<tr>
<th>Vendor</th>
<th>Vendor size</th>
<th>Client</th>
<th>Client industry</th>
<th>Outsourced function type</th>
<th>Outsourced function category</th>
<th>Employee headcount of relationship</th>
<th>Duration of relationship</th>
</tr>
</thead>
<tbody>
<tr>
<td>VO1</td>
<td>Emp- 99,000</td>
<td>C01</td>
<td>Financial services</td>
<td>Financial statements' analytics</td>
<td>Knowledge services</td>
<td>150</td>
<td>2 yrs</td>
</tr>
<tr>
<td>VO1</td>
<td>Emp- 99,000</td>
<td>C03</td>
<td>Internet services provision</td>
<td>Customer retention</td>
<td>Direct customer interaction/ call center</td>
<td>350</td>
<td>4 yrs</td>
</tr>
<tr>
<td>VO2</td>
<td>Emp- 80,000</td>
<td>C01</td>
<td>Financial services</td>
<td>Financial statements' analytics</td>
<td>Knowledge services</td>
<td>90</td>
<td>2 yrs</td>
</tr>
<tr>
<td>VO3</td>
<td>Emp- 29,000</td>
<td>C02</td>
<td>Airlines</td>
<td>Order processing</td>
<td>Direct customer interaction/ call center</td>
<td>200</td>
<td>3 yrs</td>
</tr>
</tbody>
</table>

Table: 4.1: Data Sources for Case Study

(* size depicted in terms of employee strength (Emp) and approx. revenues (Rev) in US$ bn.)
4.2. ADDRESSING QUALITY OF RESEARCH

During data collection, construct validity and reliability issues were addressed. Construct validity, which is concerned with establishing that the correct measures are used, can be increased by using multiple sources of data (Yin 1984). In this research, multiple sources of data were tapped to ensure that responses converged. Inconsistencies were resolved by consulting control related documentation or other individuals for clarification. A typical example of documentation referred to would be a “metrics checklist” used by the process audit/compliance teams in vendor organizations.

Reliability is concerned with consistency (Yin 1984): if the study is repeated, would the same results follow? One of the primary means of establishing reliability is to build a case study database in order to be as explicit as possible about the way in which observations were made and recorded (Kirk and Miller 1986, Yin 1984). Several techniques were used in this study to improve reliability. First, all interviews were recorded (by hand) yielding approximately two hundred pages of interview notes. All notes and related documentation were filed by case by individual. Second, the sources of all documents and data were recorded though an assurance of confidentiality was made. Detailed case study write-ups for each relationship were made from these field notes as a next step with the overall objective to become “intimately familiar with each case as a stand alone entity” and accelerate cross case comparison (Eisenhardt 1989).
Finally, data was categorized and tabulated as per various defining characteristics. The purpose of this last step was to reduce the raw data to a more manageable and meaningful structure.

4.3. **DATA ANALYSIS**

The analysis strategy was designed to answer the two research questions: *How* do stakeholders control to manage business process outsourcing relationships, and *why* did the stakeholders build portfolios with specific control practices. First, to discover how control modes were exercised, a matrix was built identifying the mechanisms used to regulate vendor behavior.

As previously discussed, interviewees were asked specific questions to elicit control practices. Data from the field notes describing these incidents were summarized and entered into the matrix if (1) the vendor manager* or operations manager** discussed how a control mechanism was used to regulate the relationship; and (2) the use of the mechanism was confirmed by his counterpart from the other party in the relationship and /or document.

* 'Vendor manager' is the commonly used and accepted designation in the business process outsourcing sector for the on-site manager from the client organization. Most often a single vendor manager is responsible for multiple sites / outsourced processes of a client in a region or country.

** Managers from the vendor organization are commonly referred to as operations managers.
Each entry identified in the matrix was classified as (a) a mechanism used to implement behavior, outcome or clan control; (b) focused on the outsourced process or the vendor employee and (c) a form of contractual or relational governance. The classification process was a crucial step in the analysis and was undertaken in the following manner. Reviewing the characteristics of control practices (described below), it is evident that each practice involves (1) the identification or specification of acceptable behaviors to follow or outcomes to produce, and (2) the evaluation of the controlee’s behaviors or outcomes. This step was aided by noting Jaworski’s (1988) argument that mechanisms used to implement formal and informal control modes can be differentiated on the basis of whether the mechanisms are written (i.e formal documentation of the desired behavior or outcome), and the source of the mechanism (client or vendor initiated).

Data analysis frequently overlapped with data collection. An important means of analysis used by this researcher was the usage of field notes. Van Maanen (1988) described field notes as ‘an ongoing stream-of-consciousness commentary about what is happening in the research, involving both observation and analysis’. This overlap also allowed us to take advantage of flexible data collection. Adjustments to the interview protocol to probe emergent theme to improve resultant theory.
The above steps culminated in Table 4.2

The data collected in the case study was additionally analyzed for information related to the timing of the mechanisms used and factors affecting the choice of mechanisms. All stated reasons for implementing particular control practices were extracted and put into a table and assigned conceptual labels. Next dependant on the timing of control practice structuring they were grouped. These steps culminated in a Table 4.3 showing for each control practice the underlying source (labels) of that practice.
<table>
<thead>
<tr>
<th>Question focus of Interview protocol</th>
<th>Control mechanism/s identified</th>
<th>Focus of control</th>
<th>Type of control</th>
<th>Control Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mechanisms to explicitly specify desired outcomes</td>
<td>Performance metrics</td>
<td>Outsourced business process</td>
<td>Contractual</td>
<td>Outcome</td>
</tr>
<tr>
<td>Mechanisms to assess outputs delivered by the vendor</td>
<td>Regular reporting</td>
<td>Outsourced business process</td>
<td>Contractual</td>
<td>Outcome</td>
</tr>
<tr>
<td></td>
<td>Meetings</td>
<td>Outsourced business process / Vendor employees</td>
<td>Contractual</td>
<td>Outcome / Clan</td>
</tr>
<tr>
<td></td>
<td>Site visits</td>
<td>Outsourced business process / Vendor employees</td>
<td>Relational</td>
<td>Outcome / Clan</td>
</tr>
<tr>
<td></td>
<td>Business reviews</td>
<td>Outsourced business process / Vendor employees</td>
<td>Contractual</td>
<td>Outcome / Clan</td>
</tr>
<tr>
<td>Mechanisms by which the client explicitly specified rules, procedures, or processes for the vendor to follow</td>
<td>Task work flow documentation</td>
<td>Outsourced business process</td>
<td>Contractual</td>
<td>Behavior</td>
</tr>
<tr>
<td></td>
<td>Staffing and scheduling</td>
<td>Outsourced business process</td>
<td>Contractual</td>
<td>Behavior</td>
</tr>
<tr>
<td></td>
<td>Data security measures</td>
<td>Outsourced business process</td>
<td>Contractual</td>
<td>Behavior</td>
</tr>
<tr>
<td></td>
<td>Recruitment guidelines</td>
<td>Vendor employees</td>
<td>Contractual</td>
<td>Behavior / Clan</td>
</tr>
<tr>
<td></td>
<td>Training</td>
<td>Vendor employees</td>
<td>Contractual</td>
<td>Behavior / Clan</td>
</tr>
<tr>
<td></td>
<td>Staff testing</td>
<td>Vendor employees</td>
<td>Contractual</td>
<td>Behavior</td>
</tr>
<tr>
<td>Mechanisms to monitor ongoing work of the vendor</td>
<td>Transaction monitoring</td>
<td>Outsourced business process</td>
<td>Contractual</td>
<td>Behavior</td>
</tr>
<tr>
<td></td>
<td>Automated reporting</td>
<td>Outsourced business process</td>
<td>Contractual</td>
<td>Behavior</td>
</tr>
<tr>
<td>Mechanisms to promote shared goals among client and vendor</td>
<td>Financial controls</td>
<td>Pricing structure of business process outsourcing relationship</td>
<td>Contractual</td>
<td>Clan / Outcome</td>
</tr>
<tr>
<td>Mechanisms to promote and assess adherence to shared beliefs and values</td>
<td>Client merchandise and workspace décor</td>
<td>Vendor employees</td>
<td>Relational</td>
<td>Clan</td>
</tr>
<tr>
<td></td>
<td>Special events</td>
<td>Vendor employees</td>
<td>Relational</td>
<td>Clan</td>
</tr>
</tbody>
</table>
Table 4.3: Sources for control portfolio

<table>
<thead>
<tr>
<th><strong>Control Practice</strong></th>
<th><strong>Source</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Automated reporting</td>
<td>Pre-transition process controls</td>
</tr>
<tr>
<td>Business reviews</td>
<td>Industry norm</td>
</tr>
<tr>
<td>Client merchandise and workspace décor</td>
<td>Client organization culture</td>
</tr>
<tr>
<td>Data security measures</td>
<td>Industry norm</td>
</tr>
<tr>
<td>Financial controls</td>
<td>Industry norms</td>
</tr>
<tr>
<td>Meetings</td>
<td>Pre-transition process control / Industry norms</td>
</tr>
<tr>
<td>Performance metrics</td>
<td>Pre-transition process control / Vendor practice</td>
</tr>
<tr>
<td>Recruitment guidelines</td>
<td>Pre-transition process control</td>
</tr>
<tr>
<td>Site visits</td>
<td>Client organization culture</td>
</tr>
<tr>
<td>Special events</td>
<td>Client organization culture</td>
</tr>
<tr>
<td>Staff testing</td>
<td>Pre-transition process control</td>
</tr>
<tr>
<td>Staffing and scheduling</td>
<td>Pre-transition process control</td>
</tr>
<tr>
<td>Task work flow documentation</td>
<td>Pre-transition process control / Vendor practice</td>
</tr>
<tr>
<td>Training</td>
<td>Pre-transition process control</td>
</tr>
<tr>
<td>Transaction monitoring</td>
<td>Pre-transition process control</td>
</tr>
</tbody>
</table>
4.4. **Brief description of observed control practices**

A brief description of each of the observed control practices is given here. Analysis of their foci, motivators and category is presented in the next chapter of findings.

1. Process work-flow documentation

Documented policies and procedures are created by the vendors and subjected to client approval for allocating transactions in the most likely scenarios including:

I. Normal operations with forecasted transaction levels.

II. Abnormal conditions which may arise for a number of reasons including:

- Transaction volumes significantly above or below forecasted levels.
- Site, telecommunications, or system reduced availability/slowness or outage.
- Staffing levels well above or below scheduled levels (e.g., bad weather).

This documentation has three major components: (i) methodology for assessment of business risk impact (ii) back-up and recovery strategies and (iii) key personnel and supplies required.
2. Task work-flow documentation

Variation is controlled within the performance of the individual tasks comprising the outsourced function across all shifts and work teams by the use of diagrammatic flow-charts made during process transition itself and for every change in working made during the outsourcing lifetime detailing each step of the work to be carried out at. Commonly referred to as SIPOC (supplier-input-process-output-customer) charts these are made for various levels of the task thus assuming a tree like structure. These flow-charts may be made by either party but necessarily require sign offs from each and very stringent procedures exist for making any changes in them.

3. Transaction monitoring

A structured approach is used to monitor all types of end-user transactions (e.g., calls, faxes, mail, web-based, e-mail, etc.) wherein all information given and received are monitored. The structure includes:

a. Details of performance attributes to be monitored for both accuracy and quality

b. A monitoring frequency

c. A monitoring method (e.g., side-by-side or remote).
d. Specific performance thresholds and a clear, objective scoring system.

e. A plan for communicating the findings of all transactions monitored to the individuals monitored, including both negative and positive feedback.

4. Staffing and scheduling

Staff capacity is aligned with historical and forecasted future transaction arrival patterns provided by the client. The mechanism used for this is a staffing plan that minimizes variation between arrival patterns and staff capacity made using workflow management (WFM) software such as IEX and Aspect.

5. Data security measures

Protection of patented know-how or end-user details is ensured by (i) having a documented security policy that defines how access enterprise sensitive and proprietary data is to be protected (ii) implementation of a number of mechanisms such as using proprietary lines and encryption to transmit data; making removable computer drives, email capabilities or printers unavailable to non-managerial employees; disallowing visitor tours during working hours and having armed guards to protect the work
area (iii) physical separation of work areas and employees serving different clients and (iv) conducting periodic checks to identify and prevent opportunities for security breaches.

6. Recruitment guidelines

Vendors have clear, written definitions of the minimum skills and knowledge required for customer related jobs, provided by the client. Recruiting and hiring approaches are geared to identify and successfully recruit individuals with these minimum requirements.

7. Training

For all staff, training is provided for all the minimum skills and knowledge defined, unless staff has been hired with these minimum skills and knowledge. The approach to training and development is formally defined and includes a listing of the specific skills and knowledge required for each minimum skill; the personnel authorized to provide the training and a desired or required outcome that can be verified. The document detailing the training approach requires a sign-off by the client before the training schedule can be initiated.
8. Staff testing

The verification process for all staff in customer related jobs includes:

- Objective performance thresholds that are linked to the minimum requirements (including all minimum skills and knowledge) of the position.
- Documentation (e.g., tests, scores, dates) that can be audited.
- Action plans for staffs that fail to demonstrate the required skills and knowledge.
- Annual re-verification of skills and knowledge.
- Re-verification of skills and knowledge following changes in program, procedures, systems, etc.

9. Performance metrics

Categories of metrics with different objectives and target populations included:

a. Responsiveness metrics:
   i. Abandonment Rate (e.g., % of transactions abandoned before being addressed by a vendor employee)
   ii. Backlog (e.g., average cycles late of transactions not processed on time)
   iii. On Time (e.g., on time to process transactions)
iv. Uptime/Accessibility (e.g., percent of time the system is fully functional, percent of time lines are fully available)

b. Quality / Accuracy metrics:
   i. External Accuracy (e.g., value of credits as percent of value invoiced)
   ii. Fatal Error Accuracy (e.g., transaction processing defect rate)
   iii. Internal Accuracy (e.g., error rate found by internal review of invoices)
   iv. Non-Fatal Errors (e.g., accuracy errors that do not make the entire transaction defective, including soft skills, professionalism, and many data input errors)

c. Service metrics:
   i. Volume (e.g., number of transactions ready for processing per period)
   ii. Resolution rate such as:
      • Closure Rate (e.g., percent sales closed, leads to sales ratio, percent pledges redeemed)
      • Completion Success (e.g., sales dollars, number of leads, generated, total pledge value, product value)
      • Call resolved (e.g., percent call queries answered)
d. Other metrics:

i. Compliance Accuracy (e.g., compliance to client requirements regarding federal, state/provincial, local and regulatory laws)

ii. Efficiency (e.g., average processing time per transaction, cost per transaction)

iii. Vendor reporting performance information as required by clients (daily, weekly, or monthly reports)

A key observation here was the level of automation involved. Almost all the regular reports were automatically generated and sent to the client’s email id by the software tools in the information system.

10. Pricing mechanisms

One or more of these financial controls were observed in the cases embedded in the relationships pricing structure:

a) Incentives are given to vendor as a percentage of invoice amount based on volumes handled at pre-specified quality levels

b) A percentage of the savings or revenue improvement based on achieving or exceeding targets is given to the vendor; this is commonly referred to as ‘gain-share’. A variation of this mechanism is the ‘risk/reward’ pricing method wherein the
provider risks losing money if the agreed-on improvements are not achieved.

c) Tying the provider’s revenue to level of improvement of the performance of the outsourced function based on business metrics. Commonly, referred to as ‘value pricing’ or ‘business-benefit pricing’ this arrangement generally involves changing the customer’s business processes.

d) Defining the potential for future business, motivating the provider to maintain a keen performance edge.

11. Regular meetings

Both parties to the outsourcing relationship initiated frequent meetings or conference calls to discuss the performance status, issues and resolutions. Though mostly done following a pre-decided structure and schedule, impromptu meetings to resolve one-off escalations or incidents were not uncommon.

12. Site visits

Both parties made arrangements for team members at the managerial levels to travel to each other’s sites not just for process training or
transition but also to engender camaraderie and cooperation. This was considered a necessity during the initial stage of the relationship and at least annually. As one interviewee observed, “I don’t think there’s any better measure of the relationship than seeing the <org. name withheld> guy and his peer sitting side by side at a meeting. You can tell from their body language that they are two members of the same team.” Besides the client outsourcing manager or vendor manager who is often located at the outsourcing site, other members of the client team responsible for or users of the outcome of the outsourced process also make regular site visits. Often at these visits, client team members walk around the vendor site to informally gather first hand information about the tasks, activities, progress and issues in the outsourcing arrangement.

13. Business reviews

In all four cases this was a quarterly incident. While reviews were done at a weekly/ monthly basis at different hierarchical levels of the client-vendor governance structure a ‘QBR’ (quarterly business review) was the high point of the relationship. Reviewing performance to the required performance targets and plans, discussing anticipated program changes and communicating business strategies were the objectives of this exercise which saw top management representation from both sides.
14. Gifts

Vendor employees receive free client merchandise, and the workspace is decorated with colorful client memorabilia. This mechanism is aimed at creating “belonging” through direct links to an organization’s (client) culture. As a senior manager from the vendor side mentioned “these freebies create a sense of dual citizenship” so that vendor employees remain deeply committed to their new “team.”

15. Special events

Clients regularly fund and/or organize special events to mark important milestones in the organization’s or relationship’s growth where the outsource vendor employees (including the ground level workforce) are given a chance to interact with and understand the employee culture of the client. For instance, an US based ISP in one of the sites of the study organized a five day workshop for the top ten performers of each outsourced process in both it’s captive and outsourced center in Goa.
16. Staff performance management

This is done at two levels:

- Annual performance appraisal

  The vendor employees' performance appraisal includes the findings from skills and knowledge verification and transaction monitoring. Employee evaluations are structured to support the outsourcing relationship's business performance targets.

- Continuous monitoring

  Vendor employees who fail transaction monitoring are:

  - Individually (one-on-one) coached on all transactions that do not meet target.

  - Monitored more frequently in order to determine if their performance is statistically below target.

  - Advised on corrective actions using a structured approach for identifying and resolving the root cause(s) of poor performance.

  This action plan necessarily provides for removing employees who repeatedly perform fatal errors from handling end-user transactions.
17. Process audits

All the four vendor sites studied had a separate (outside the operations set-up) entity variously labeled as 'process excellence'; 'compliance' and 'quality control' in their governance structures which was aimed at taking an unbiased external view of the operational capabilities. A major deliverable of this team was performing a comprehensive annual compliance audit of each process metric's performance relative to each of the requirements in the contract and related documents as well as industry benchmarks. Another objective of this process is the replication of best practices across the organization.

18. Shrinkage management

Shrinkage refers to the amount of scheduled time that is not realized because of absenteeism, sick/late time, training, coaching, team meetings, etc. that are not included in the work schedule. Vendors measure this time by staff category (e.g., by job type, organization level, etc.) at the entity level and at the program level for staff in customer related jobs to estimate the costs and impact of each on service, quality, and end-user satisfaction. The tactical management has targets established for minimizing shrinkage based on an understanding of these implications, other business requirements (e.g., internal transfers),
and labor conditions. Attrition (employees being fired or resigning) levels are also tracked and minimized to ensure consistency in service quality offered to end users.

19. Certifications

The vendors studied had also acquired external quality assurance / performance management certifications such as BS 7799, ISO 9001:2000, COPC and eSCM and used their annual audits as a measure of the efficacy of the control systems set up.

4.5. SUMMARY

This chapter presented the four case sites for the case study component of the study; measures taken to ensure construct validity and reliability and the steps taken to organize the data collected and the resultant tables. Finally the practices identified as constituting the control portfolio were described in brief.