Chapter 4

Research Methodology

4.1 Introduction

Research in common parlance refers to ‘search for knowledge’. Research can also be defined as a scientific and systematic search for pertinent information on a specific topic. ‘Research Methodology’ is the process used to collect information and data for decision making purpose. The methodology may include both primary & secondary mode i.e. publication research, interviews, surveys and other research techniques, and could include both present and historical information. The Advanced Learner’s Dictionary of Current English lays down the meaning of research as ‘A careful investigation or inquiry especially through search for new facts in any branch of knowledge.’ Redman and Mory define research as a ‘systematized effort to gain new knowledge.’ Some people consider research as a movement from the known to the unknown. According to Clifford Woody research comprises defining and redefining problems, formulating hypothesis or suggested solutions; collecting, organising and evaluating data; making deductions and reaching conclusions; and at last carefully testing the conclusions to determine whether they fit the formulating hypothesis. D. Slesinger and M. Stephenson in the Encyclopedia of Social Sciences define research as ‘the manipulation of things, concepts or symbols for the purpose of generalising to extend, correct or verify knowledge, whether that knowledge aids in construction of theory or in the practice of an art.’ Research is, thus, an original contribution to the existing knowledge. Research is the backbone of any thesis. Hence ‘Research Methodology’ is a relevant and important chapter because if wrongly formulated, the study will lose its essence.
4.2 Objective of the Study

In the current business and economic scenario, the topic of global outsourcing receives a lot of attention. While lower cost is the primary benefit, other motivating factors include access to foreign markets, diversity of talent and economies of scale. India has emerged as an attractive destination for outsourcing & a huge chunk of its business comes from North America. Despite the boom and support that outsourcing has fetched, there are certain setbacks too. Outsourcing to other countries has generated much debate in the United States and other parts of the globe. By 2015, Forrester predicts a total of around 3.4 million US jobs loss, in line with a similar forecast by the US Bureau of Statistics. US Economy is going through a major economic recession and this is a major threat for the Indian BPO industry. As US is the main market for the Indian BPO industry, there exists a need to identify the alternate outsourcing market opportunities. There is no doubt that Indian globalizers are searching for expansion opportunities to strengthen the offerings in India and abroad.

The researcher has studied various literatures as mentioned in Chapter 3. As per the literature reviews, the offshoring gaps are still present and new ways of bridging is needed. In the light of upcoming offshoring destinations, frameworks are needed to ensure a learning curve from previous destinations towards new destinations. Review of various literatures also reveals the lack of structural framework regarding the important decision making factors / drivers for Indian BPO industry.

The objective of the study is to investigate various decision making drivers & strategic practices followed by Indian BPOs. This study also aims to examine the alternate routes & markets to globalize Indian BPO business. India has spread its reach mainly in the US. As a lot of political, economic & social threats are coming from US, Indian BPO companies need to identify alternate destinations, opportunities and business strategies for its business as well as expansions. A possible outcome might be shifting its base in new geographic region. Major emphasis is placed on studying various strategic practices while choosing outsourcing destinations or setting up
global delivery centres through strategic alliances, collaborations, joint ventures, mergers & acquisitions and exploring various domestic outsourcing opportunities.

The systematic approach concerning generalisation and the formulation of a theory is also research. The term ‘research’ refers to the systematic method consisting of enunciating the problem, formulating a hypothesis, collecting the facts or data, analysing the facts and reaching certain conclusions either in the form of solutions(s) towards the concerned problem or in certain generalisations for some theoretical formulation. Therefore, the same approach has been adopted in this study also. This study has been conducted to answer the following important objectives:

A) EXPLORING THE DRIVERS OF INDIAN BPO INDUSTRY: To identify the important decision making factors / drivers for Indian BPO industry

B) EXPLORING INDIAN FOOTPRINT ON GLOBAL PLATFORM
 a) To examine India’s leadership position in ‘Global Services Attractiveness Index’
 b) To understand the scope & scale of Global Services Providers
 c) To study alternate market opportunities for Indian service providers as North America caught in ‘perfect storm’
 d) To study various driving trends to expand local & global footprint
    i. Various local expansion strategies adopted by Indian service providers
    ii. Various global expansion strategies adopted by Indian service providers

Quantitative research is based on the measurement of quantity or amount. It is applicable to phenomena that can be expressed in terms of quantity. Qualitative research, on the other hand, is concerned with qualitative phenomenon, i.e., phenomena relating to or involving quality or kind. In this study, research was designed to find out how people feel or what they think about Indian BPO industry through both qualitative & qualitative research. In the next section we have shown how the research design has been prepared for this study.
4.3 Research Design

The research design taken for the present study was an exploratory one followed by causal study. The major objective of the study was to explore what is currently happening with respect to strategic management practices of Indian BPOs. The rationale for using exploratory research design is due to the fact that since the industry is new & very competitive, not much data is available on the subject which would have fulfilled the research objectives. A need was felt to collect the first hand information from the BPOs about their practices. A semi-structured questionnaire was developed to understand the strategic practices by the senior management team in different metros in India. This questionnaire seeks to elicit responses from the target respondents who are senior managers of the selected companies from the functional areas of business development, operations & strategic practices. Questionnaire using personal interview technique has been used for data collection. The data collected from the senior managers were analyzed with the help of quantitative analysis tools. The geographical coverage was restricted to major metro cities in India & offshore locations in US.

Before applying this research design, a Pilot Study has been conducted for testing the questionnaire which reveals the weaknesses, if any, of the questionnaire. Pilot study is important to prepare the questionnaire very carefully so that effective collection of relevant information becomes possible.

4.4 Pilot Study

A pilot study was done on senior BPO executives to find out various drivers of outsourcing & strategic decisions taken by the companies. In the first instance, the questionnaire was distributed to 25 senior managers for testing their understanding. A questionnaire which consisted of 5 parameters of personal information (Part A), 17 objective type questions (Part B) & 10 subjective type questions (Part C) was personally administered to 25 respondents. These variables were sourced from various literature reviews & industry reports. Many of the managers could not understand either the items in the questionnaire or the importance of the investigations and therefore responded without an understanding of the same. While the researcher gave them
an understanding of the items, they changed the responses. This led to the decision by filling the entire questionnaire through personal interaction. The researcher has also used her observation of the non-verbal communication like facial expressions of the respondents for interpretation of their statements. They were requested to examine the ease of comprehension, readability and appropriateness of the questionnaire. Interactions were held with senior executives to jot down various drivers, decisions, trends & practices. Based on these interactions, a list of variables were prepared related to their work and business development.

Post collection of pilot study data & after discussion with the research supervisor, several parameters were added, modified & deleted to conduct a meaningful study. In Part A, some more information was necessary for demographic profiling. In Part B, 17 parameters were combined & reduced to 8 parameters. In Part C, the open ended questions were logically clubbed, framed and reduced to 5 questions aligned with objectives of the study. The rework of the questionnaire was done to give a structure to perform some meaningful hypothesis testing in chapter 6. Based on the suggestions & recommendations final questionnaire was formed which was validated by academicians & industry experts. Statistical validations of each group of questions have been performed thru Cronbach’s alpha. (Detailed analysis with all scores & values presented in Chapter 5)

All items under consideration in any area of inquiry constitute a ‘universe’ or ‘population’. It can be presumed that in such an inquiry when all the items are covered, no element of chance is left and highest accuracy is obtained. But in practice this may not be true. Even the slightest element of bias in such an inquiry will get larger and larger as the number of observations increases. Hence it is crucial to decide the method of selecting a sample or what is popularly known as the sample design. In other words, a sample design is a definite plan determined before any data collection for obtaining a sample from a given population. In the next section we will see the sampling methodology chosen for this study.
4.5 Sampling Methodology

The nature of research design is such that Quota based & Judgemental sampling procedures have been followed. The researcher had used two different sampling techniques at two different levels - one at the level of selection of companies (quota based) for the study and second at the level of selecting the senior managers (judgemental) working therein. In all, 66 senior managers of various BPOs were parts of the respondents.

4.5.1 Selection of Companies

There are 499 BPOs in India of various sizes i.e. Large, Medium & Small. Because this study is on the strategic practices of Indian BPOs at the global platform, the relevant population considered appropriate for the study was the large BPOs who are holding the majority revenue shares & competing on the global platform with other countries. These are the companies who are the trend setters & leading the BPO industry in India. Hence the target population for the study was the Top 50 BPOs in India. As per NASSCOM (FY2012) the categories are:

- Large BPOs: Companies with gross revenue of over Rs 250 Crores
- Medium BPOs: Companies with gross revenues between Rs 50-250 Crores
- Small BPOs: Companies with gross revenues of less than Rs 50 Crores

Table 4.1: Categories of BPOs

<table>
<thead>
<tr>
<th>Company categories</th>
<th>Large companies</th>
<th>Medium &amp; Small companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue (as of FY2012)</td>
<td>&gt; 250 Crores</td>
<td>&lt; 250 Crores</td>
</tr>
<tr>
<td>Years of operation in India</td>
<td>&gt; 5 years</td>
<td>&gt; 3 years</td>
</tr>
<tr>
<td>(as on 31st March, 2012)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: NASSCOM Annual Report FY12
As mentioned in Table 4.1, the target population for our study was India's Top 50 BPO Companies (as per NASSCOM Top BPO list 2012). The decided sample size was 30 per cent of the population i.e. India’s Top 15 BPOs. While selecting those 15 top BPOs we fixed some parameters and the companies were chosen on the basis of quota sampling.

**Table 4.2: Sampling Methodology for Selection of Companies**

<table>
<thead>
<tr>
<th>Selection parameters</th>
<th>Specifications</th>
<th>Sample Size</th>
<th>Quota</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual Turnover</td>
<td>&gt;250 Crores</td>
<td></td>
<td>All 15 Companies</td>
</tr>
<tr>
<td>Years of operation in India</td>
<td>&gt;5 years</td>
<td>30 per cent of the population i.e. 15 Companies</td>
<td>All 15 Companies</td>
</tr>
<tr>
<td>Global Presence</td>
<td>Offshore locations</td>
<td></td>
<td>All 15 Companies</td>
</tr>
<tr>
<td>Number of employees</td>
<td>&gt;5000</td>
<td></td>
<td>All 15 Companies</td>
</tr>
<tr>
<td>Outsourcing Model</td>
<td>BPO &amp; / or KPO</td>
<td></td>
<td>All 15 Companies</td>
</tr>
</tbody>
</table>

Based on Quota based sampling (as mentioned in Table 4.2) the researcher selected India’s Top 15 BPO Companies for the study.
4.5.2 Selection of Respondents

The target respondents of the study were confined to senior management in the functional area of business development, operations & strategic practices of the selected companies in various Indian metro cities. The researcher targeted on an average top 5 executives from the selected 15 BPOs. Keeping in mind the confidentiality & sharing of trade secrets specially their strategies regarding the different market entry & expansion plans, the researcher used a Judgemental sampling method. Judgement was pertained to the designation of the manager, nature of his/her responsibility i.e. heading the function, experience in BPO industry & decision making capacity.

Table 4.3: Sampling Methodology for Selection of Respondents

<table>
<thead>
<tr>
<th>Parameters for selection</th>
<th>Specifications</th>
<th>Sample Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Designation</td>
<td>Minimum: General Manager / AVP</td>
<td>Targeted 80</td>
</tr>
<tr>
<td></td>
<td>Maximum: Executive Director</td>
<td>Responded 66</td>
</tr>
</tbody>
</table>

Based on Judgemental sampling (as mentioned in Table 4.3), 66 senior managers of 15 various top BPOs were parts of the respondents. List of BPOs & respective details are given in Annexure 2.
Table 4.4: Response Pattern of Respondents

<table>
<thead>
<tr>
<th>Name of BPO</th>
<th>No of respondents</th>
<th>Percentage of response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Genpact</td>
<td>10</td>
<td>80%</td>
</tr>
<tr>
<td>Aegis Ltd</td>
<td>8</td>
<td>88%</td>
</tr>
<tr>
<td>Cognizant</td>
<td>7</td>
<td>86%</td>
</tr>
<tr>
<td>IBM GPS</td>
<td>7</td>
<td>100%</td>
</tr>
<tr>
<td>First Source</td>
<td>5</td>
<td>100%</td>
</tr>
<tr>
<td>JP Morgan Chase</td>
<td>5</td>
<td>100%</td>
</tr>
<tr>
<td>TCS BPS</td>
<td>5</td>
<td>80%</td>
</tr>
<tr>
<td>HCL Infosystem</td>
<td>4</td>
<td>75%</td>
</tr>
<tr>
<td>HSBC Edpi</td>
<td>4</td>
<td>75%</td>
</tr>
<tr>
<td>Infosys BPO</td>
<td>4</td>
<td>75%</td>
</tr>
<tr>
<td>Tech Mahindra</td>
<td>4</td>
<td>75%</td>
</tr>
<tr>
<td>Wipro IT Services</td>
<td>4</td>
<td>75%</td>
</tr>
<tr>
<td>Aon-Hewitt</td>
<td>6</td>
<td>50%</td>
</tr>
<tr>
<td>L&amp;T InfoTech</td>
<td>4</td>
<td>75%</td>
</tr>
<tr>
<td>PWC Consulting</td>
<td>3</td>
<td>100%</td>
</tr>
<tr>
<td><strong>Overall</strong></td>
<td><strong>80</strong></td>
<td><strong>66</strong></td>
</tr>
</tbody>
</table>

As per Table 4.3, the researcher had approached 80 managers out of which 66 responded i.e. 83 per cent of the target.
In dealing with any problem it is often found that data in hand are inadequate, and hence, it becomes necessary to collect data that are appropriate. There are several ways of collecting the appropriate data which differ considerably in context of cost, time, quality and other resources at the disposal of the researcher. Primary data can be collected either through experiment or through survey. The researcher can examine the truth contained in the hypothesis by observing or collecting quantitative measurement. Data can be collected by observations, through personal interview, through telephone interviews, by mailing of questionnaires, through schedules etc. Hence development of proper instrument is an important step to collect adequate & meaningful data. In the next section, we have discussed the development of data collection instrument.

4.6 Development of Instruments

The purpose of research is to discover answers to questions through the application of scientific procedures. The main aim of research is to find out the truth which is hidden and which has not been discovered as yet. Though each research study has its own specific purpose, our research objectives are falling into the broad groupings of exploratory or formulative research studies & hypothesis-testing research studies. They are described as bellow:

- To gain familiarity with a phenomenon or to achieve new insights into it (studies with this object in view are termed as exploratory or formulative research studies)
- To test a hypothesis of a causal relationship between variables (such studies are known as hypothesis-testing research studies)

Empirical research relies on experience or observation alone, often without due regard for system and theory. It is data-based research, coming up with conclusions which are capable of being verified by observation or experiment. Here the researcher has framed the hypothesis during the design of the instrument. Development of instrument on the basis of pre-defined hypothesis helped in collecting enough facts (data) to prove or disprove the hypothesis.
The instrument for managers attempted to measure the effectiveness of strategic practices used by their respective organizations and the factors influencing their expansion strategies. The following pattern has been adopted for the development of the questionnaire. The questionnaire was divided into three parts as below (Reference Annexure 1):

**Part A** was developed to gather information about the personal profile of the respondent like name, designation, company, address, age, qualifications and professional experience with the present organization.

**Part B:** To study different factors / drivers regarding value propositions, comparative advantages, major risks, selection of destinations & service provider.

**Objective type questions using Likert Scale** was designed to fulfil the purpose of objective:

EXPLORING THE DRIVERS OF INDIAN BPO INDUSTRY: To identify the important decision making factors / drivers for Indian BPO industry

The following 8 questions were asked giving variables to each set of questions for the respondents to rank them using the Likert Scale Method (1: Strongly Disagree; 5: Strongly Agree)

- Value propositions companies look to achieve from outsourcing activities
- Reasons for Companies to Outsource
- Important factors while choosing outsourcing destinations
- Major risk factors for India as an outsourcing destination
• India’s comparative advantages
• Important factors to select service providers
• Important factors for successful outsourcing
• Three major outsourcing verticals your company work on

Likert scale is a psychometric scale commonly involved in research that employs questionnaires. It is the most widely used approach to scaling responses in survey research. When responding to a Likert questionnaire, respondents specify their level of agreement or disagreement on a symmetric agree - disagree scale for a series of statements. Thus, the range captures the intensity of their feelings for a given item. The format of a typical five-level Likert scale used in this study was: strongly disagree, disagree, neutral (neither agree nor disagree), agree & strongly agree. Likert scaling is a bipolar scaling method which measure either positive or negative response to a statement. The neutral option can be seen as an easy option to take when a respondent is unsure. After the questionnaire is completed, each item was analyzed separately or in some cases item responses have summed up to create a score for a group of items.

Validity tests were done to check for the validity and usability of the instrument. Cronbach’s alpha, KMO measure of adequacy and Bartlett’s test of Sphericity were conducted for each set of questions. Cronbach’s alpha was calculated to measure the internal consistency reliability of the instrument. Kaiser-Meyer-Olkin test was done to measure the homogeneity of variables and Bartlett's test of Sphericity was done to test for the correlation among the variables used. The data collected from this section was tabulated and classified on the basis of independent and dependent variables. The data collected was analysed & tested through various descriptive statistics & factor analysis.
For the primary data analysis, means and standard deviations were calculated for each of the variable. After normalizing the value out of percentage the variables were ranked. Factor analysis was done to extract the most important factors out of various variables which are essentially responsible for various decision making drivers in Indian BPOs. Principal component analysis was used as the method of extraction and varimax was used as the rotation method. Important dimensions of various decision making factors / drivers for Indian BPO industry were extracted through factor analysis. The statistical validation & analysis of the opinions of the respondents have been presented elaborately in Chapter 5.

**Part C: Decision making / strategy based questions** regarding Global Market Attractiveness, competitors of India, different modes of market entries, expansion strategies and local alternatives. **Subjective type** questionnaire was designed to answer the other four objectives of the study. To fulfil each objective, hypothesis was formed during the development of instrument to gather the right kind & quantity of data. Right questions were asked which contributed meaningful contribution to meet the expectation of the study.

**EXPLORING INDIAN FOOTPRINT ON GLOBAL PLATFORM**

a) To examine India’s leadership position in ‘Global Services Attractiveness Index’

b) To understand the scope & scale of Global Services Providers

c) To study alternate market opportunities for Indian service providers as North America caught in ‘perfect storm’

d) To study various driving trends to expand local & global footprint

   i. Various local expansion strategies adopted by Indian service providers

   ii. Various global expansion strategies adopted by Indian service providers
The decision making questions like prospective markets, expansion strategies & future alternatives etc was analysis & tested through various descriptive statistics & hypothesis testing. The data was tabulated and classified on the basis of independent and dependent variables. The analyses of the opinions of the respondents have been presented elaborately in Chapter 6.

We developed the instrument based on the pre-defined hypothesis. After the formulation & validation of the instrument, the next step is to collect data. The researcher has used both secondary & primary data as a procedure for data collection.

### 4.7 Procedure for Data Collection

Data has been collected from both secondary & primary sources, as described in the following:

**Secondary Data Collection:** Identifying variables through secondary data was the beginning of the research study. In order to validate the results and assess them in light of primary data, the secondary research was carried out. Various libraries and published sources have been tapped for gathering secondary data. Data has been collected from books, journals, research papers and academic papers with a view to develop the conceptual framework for the study. The extensive use of internet was of great help to the researcher. The huge amount of matter collected from various websites was sorted out and scrutinized by the researcher as per its relevance to the study. An extensive use has been made of the NASSCOM (The National Association of Software and Services Companies) reports & databases.

- **Industry Reports:** NASSCOM, Global Outsourcing Reports, Black Book of Outsourcing, Gartner, Forrester Research, EvalueServe, Capegemini, Deloitte, Aberdeen, Accenture, PWC, AT Kearney, McKinsey & Deloitte


**Primary Data Collection** (Questionnaire using personal interview technique)

The questionnaires for the senior managers of the Indian BPO’s were personally taken to them and they were interviewed with the help of open-ended questions using semi-structured instrument. The managers were interviewed about their profile, the structured items on the rating scale and on the open-ended questions. The respondents were explained the purpose of the data collection. A letter was handed over to each respondent assuring them that the information provided by them will be kept strictly confidential and will be used only for the purpose of analysis in the present study. The data has been collected during the FY12-13 (Apr’12 – Dec’12).

The questionnaires were personally getting filled from 66 senior managers of various companies. Each manager was explained the items and the researcher used the observation too for collecting vital information when the respondents had certain facial expressions regarding their opinion about the company factors.

The process of primary data collection was arduous as the responses were designed to be received only through a personal visit and sometimes the numbers of visits to the respective managers’ residence or offices were involved as many times they did not have time for
answering due to their appointments with their clients. The above mentioned sampling procedure was followed and the responses were taken as data for analysis. The analysis looked at the respondents’ ranking of variables.

### 4.8 Summing Up

In this chapter we have established a need for the research & set clear objectives for the study. The first objective was to explore the drivers of Indian BPO industry & the second objective was to explore Indian footprint on global platform. Based on the objectives, we have developed the research design. The research design taken for the study was an exploratory one followed by causal study. A semi-structured questionnaire was developed to understand the strategic practices by the senior management team in different metros in India. Questionnaire using personal interview technique has been used for data collection. The data collected from the managers were analyzed with the help of quantitative analysis tools. The geographical coverage was restricted to major metro cities in India & offshore locations in US. Before applying this research design, a Pilot Study has been conducted for testing the questionnaire. The nature of research design was such that Quota based & Judgemental sampling procedures have been followed. The researcher had used two different sampling techniques at two different levels - one at the level of selection of companies (quota based) for the study and second at the level of selecting the senior managers (judgemental) working therein. In all, 66 senior managers of various BPOs were parts of the respondents. The questionnaire was divided into three parts: Part A was developed to gather information about the personal profile of the respondents; Part B: Objective type questions using Likert Scale to fulfil the purpose of objective: Exploring the drivers of Indian BPO industry; Part C: Subjective type decision making / strategy based questions to fulfil the purpose of objective: Exploring Indian footprint on global platform. The instrument was developed based on the pre-defined hypothesis. After the formulation & validation of the instrument, collection of data was done through both secondary & primary data collection
method. Identifying variables through secondary data was the beginning of the research study & primary data collection was done through questionnaire using personal interview technique.

For a time bound & systematic project execution, steps should be taken to ensure that the survey is under statistical control so that the collected information is in accordance with the pre-defined standard of accuracy. After the data collection, the analysis of data requires a number of closely related operations such as establishment of categories, the application of these categories to raw data through coding, tabulation and then drawing statistical inferences. Classification of raw data into some purposeful and usable categories is the first step. Analysis of data after tabulation is generally based on the computation of various percentages, coefficients, etc., by applying various well-defined statistical formulae. In the process of analysis, relationships or differences supporting or conflicting with original or new hypotheses should be subjected to tests of significance to determine with what validity data can be said to indicate any conclusion(s). The analysis & interpretation of data for Objective A i.e. Exploring the drivers of Indian BPO industry is presented in Chapter 5 & Objective B i.e. Exploring Indian footprint on global platform is presented in the next chapter i.e. Chapter 6 respectively.
Chapter 5: Analysis of Results – Exploring the drivers for Indian BPO industry

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