CHAPTER III

DESIGN OF THE STUDY

3.1 Introduction

This chapter describes the various methods used in the study to achieve the research objectives. The study uses multi-method, multi-source approach to achieve its goal and provide validity to the study results. The rationale behind the use of each method as well as the constraints experienced in the course of the research is also brought out. Given the focus on multiple source responses in management research, the present work has collected data from different sources, to provide an objective assessment of different variables and its correlates to access the feasibility, different challenges, growth and sustainability of REITs in India. The process of research is diagrammatically shown in Figure 22. Towards this objective, data on a variety of issues were collected from top management (policy makers), developers and investors. The experts in the area of real estate, with specialization in real estate investment trust were first identified. The Industry experts were identified from the database.

The identified list of 100 investors, 20 developers and 5 policy makers were also selected on the basis of two factors (i) their depth of understanding of the issues involved and (ii) their willingness to be involved in this research process. It was observed that most of the experts were reluctant to be involved in the research either due to paucity of time or due to the fact that their information base was confidential. Policy makers and developers were willing to spare time to make the research more focused and meaningful.

3.2 Definition and Measurement of Constructs

Discussions with the selected 125 experts listed in Table 12 helped in bringing about clarity of the constructs used in the study, viz. “feasibility” and “sustainability”. The first step was to identify various sub-constructs that could be used to measure the constructs. Three main constructs and their sub-constructs (different aspects of sustainability) were identified after an extensive literature survey. Several items were then identified which had the potential of measuring these sub-constructs. These items
were then discussed with the experts to find out the suitability of using the item to measure the sub-constructs. The suitability of each item was decided on the basis of the following steps:

- Whether the majority of the experts agreed that the item chosen to measure the construct was a valid measure.

- In general, several items were selected to measure different aspects of sustainability of Industry.

- Any items which were considered suitable for inclusion by any expert was treated as a new item and circulated to all experts for their rating on the appropriateness of including the new item.

- Care was taken to ensure that each item was simple and easy to understand for the firm’s representative to fill in without an observer being present.

- Care was also taken to avoid any item that would result in faking of answers due to the issue being of a sensitive and confidential nature.

On the basis of the feedback, the lists of items were finalized. This served as the starting point for questionnaire preparation. The definition of each selected sub-construct along with the items used in the industry-level questionnaire to measure these sub-constructs are given in sub-section 3.2.1 and 3.2.3.

### 3.2.1 Sub-constructs for feasibility of the International and Domestic Business Environment

Questions were included in the expert level questionnaire, the industry level questionnaires to find out the perception on: (i) whether the investors and developers following the right business process or it needs any revision; (ii) what are the major constraints to stabilize growth from the demand side; (iii) what was the past experience in the real estate market and how to improve; (iv) whether the Indian Government Policy for the real estate sector is facilitators or not; (vii) whether Government helps to come over from the rigidity and stagnant problem or not; (viii) whether India’s investment system, value addition and quality were on par with other countries or not; (ix) whether the competition in domestic level creates hurdle for
further growth; (x) is there any scope of enhancing the growth through mitigating the risk factor or by addressing the challenges faced by Indian REITs; and (xi) what could be the possible issues for less investment in this sector?

3.2.2 Sub-constructs for Industry level Sustainability

(1) Tax Structure: This refers to the ability of an industry to consistently provide a required level of transparency in the tax structure in the entire real estate sector. The various items chosen to measure in this study are: (a) whether the industry perceives that it offers better transparency than the competitors; (b) whether they have a well formulated tax policy in place; and (c) whether they plan to go for the value addition and growth.

(2) Government policy: This refers to the capability of the industry to do the value addition by a favorable policy of the government.

(3) Faster delivering of projects: This refers to the capability of an industry to deliver the projects undertaken in time or before the time. The parameter used to measure this capability was (a) the responses taken through primary data analysis.

(4) Easier access to all forms of capital (funding options): This refers to the capability of the industry to create any new promotional activity and assignment to make their trust worthy to their existing customers. To measure this capability parameter used were: (a) whether they are listed by SEBI adhering to legal compliance; (b) whether the industry has its own reserve equity; (c) whether the REITs details are given to the customers or not (d) whether they are mitigating the risk (e) audit compliance (f) whether there are options to invest and exist easily.

3.2.3 Sub-constructs for Inter-Industry Capability

Liquidity: This refers to the capability of the industry to identify, build and sustain financial capital to start and deliver the projects without any hurdle or delay. Liquidity helps them to achieve their goal sooner than it would have been the case had they been operating without this. The items used to measure this capability were: (i) whether the industry plans to disburse with financial stability (a) increasing equity; (b) financial leverage; (c) compliance leverage and (d) marketing leverage; (ii) whether
the industry plans to go for financial liquidity and (iii) whether the industry is planning to form an effective coalition with different organizations and association and the Government to make a joint effort to increase growth.

3.2.4 The Measuring Parameters of Feasibility, Sustainability and Inter-Industry level Awareness

Table 12 Measuring Parameters for Real Estate Investment Trust.

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Question</th>
<th>Q. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>What are the parameters which measures the feasibility of REITs?</td>
<td>4i,7i,8i, 5P</td>
</tr>
<tr>
<td>2</td>
<td>Whether the investors agree to invest in REITs?</td>
<td>1i,2i</td>
</tr>
<tr>
<td>3</td>
<td>Importance /preference of regulatory factors affecting the REITs?</td>
<td>5i,7i, 6i, 8i, 2P</td>
</tr>
<tr>
<td>4</td>
<td>What is the awareness of REITs among investors?</td>
<td>6i, 2P</td>
</tr>
<tr>
<td>5</td>
<td>What are the benefits of investing in REITs?</td>
<td>6i,7i,5i,3d,7P</td>
</tr>
<tr>
<td>6</td>
<td>Whether the Indian Government Policy for the sector is facilitative or not?</td>
<td>4i,5i, 4d, 5d, 1P</td>
</tr>
<tr>
<td>7</td>
<td>What is the legal benefit of investing in REITs?</td>
<td>4i,5i</td>
</tr>
<tr>
<td>8</td>
<td>Importance of different projects for investment in REITs</td>
<td>2d, 6P</td>
</tr>
<tr>
<td>9</td>
<td>Importance of regions according to REITs potential</td>
<td>1d,</td>
</tr>
<tr>
<td>10</td>
<td>What could be the possible factors which effects FDI inflow in this sector and growth of REITs?</td>
<td>3i,5i,7i,3d, 5d, 2</td>
</tr>
<tr>
<td>11</td>
<td>Importance of corporate governance norms</td>
<td>3i, 5d, 4P</td>
</tr>
<tr>
<td>12</td>
<td>The sustainability of REITs depends on</td>
<td>3d,6d, 4i, 5i, 6i, 7P</td>
</tr>
<tr>
<td>13</td>
<td>For controlling the risk factor in REITs</td>
<td>4d, 4P</td>
</tr>
<tr>
<td>14</td>
<td>Preference of factors affecting feasibility of REITs in India</td>
<td>4i,5i, 6i, 1P, 2P, 5d</td>
</tr>
<tr>
<td>15</td>
<td>Importance of factors that leads to FDI inflow for growth of REITs.</td>
<td>5d, 3i</td>
</tr>
</tbody>
</table>
3.2.5 Conceptual Frame-works Applied for the Study

The framework assumes that the variables on which the feasibility and growth is depending, also depending on some sub-variables. The major assumption, which can increase the feasibility and growth are government policy, attracting investment, FDI inflow and challenges of the Indian REITs. The government policies depend on few sub variables which are: tax transparency, liquidity, faster delivering of projects and easier access to all forms of capital. These sub variables are not only correlated to the government policy but also they correlated among themselves as observed from the Fig. 22. Similarly Fig 23 presents the framework of FDI inflow and strategic alliance and its related sub-variables. The main sub-variables on which FDI inflow and strategic alliance depend are: awareness of investor and developer, sector prominence, political impact, economical status and government policy for that sector.

Figure 22 Conceptual Frameworks for Feasibility of REITs

Figure 23 Conceptual Frameworks for Attracting Investment for Sustainability of REITs
Figure 24 Conceptual Frameworks for Awareness on REITs

Figure 25 Conceptual Frameworks for FDI Inflow and Growth of REITs
3.3 Hypothesis

The following hypotheses were tested using relevant statistical tests (appendix 3.1).

H1: There is a positive and significant relationship between feasibility of REITs and:

- Tax Structure
- Better return
- Effective Regulation
- Awareness for Investment in REITs
- Government Policy

The correlation and multiple regression analysis is used for H1 analysis.

H2: There is a positive and significant relationship between effective regulations for sustainability of REITs and:

- Easy Investment
- Liquidity
- Easy Exit
- Continuous flow of Income through dividend
- Legal compliance of project assured by SEBI

The multiple regression and correlation analysis is used for H2 analysis.

H3: There is a positive and significant relationship between awareness of benefits of REITs (in comparison with other investment plans) and:

- No brokerage cost in entry and exit
- No Registration Cost
- No Maintenance Cost
- Legal compliance of project assured –Hence No legal Cost
- Hassle Free in Transfer
- Tax Efficient
The multiple regression and correlation analysis is used for H3 analysis.

H4: there is a positive relationship between growth of Indian REITs and

- Corporate Governance
- Audit Compliance
- Adhering to Legal Compliance
- Risk Mitigation
- Tax Transparency
- The government policy

The multiple regression and correlation method was used to test H4 hypothesis.

**3.4 Flow Diagram of Research**

Figure 26 provides the path of the research study. A four pronged approach was followed in the research process: (1) The secondary data on strength and weakness of REITs with special reference to India were first analyzed; (2) Experts were then asked their views through a structured questionnaire on critical issues which are likely to affect the feasibility and growth of the Indian real estate investment trust; (3) Primary data was also collected from investors, developers and policy makers and (4) two internal case studies were made to justify this study. The detailed methodology is provided in section 3.5-3.9.
Figure 26 Flow Diagram of Research

LITERATURE REVIEW AND DISCUSSIONS WITH EXPERTS

FORMULATIONS OF OBJECTIVES AND FIRMING UP METHODOLOGY

COLLECTION OF SECONDARY DATA

PREPARATION & ADMINISTRATION OF EXPERT LEVEL QUESTIONNAIRE

PILOT STUDY

TEST FOR RELIABILITY & VALIDITY

ADMINISTRATION OF FINAL INDUSTRY LEVEL QUESTIONNAIRE

CASE STUDIES

INTRA-COUNTRY LEVEL ANALYSIS

COUNTRY LEVEL ANALYSIS

DETERMINANTS OF GROWTH AND SUSTAINABILITY OF INDIAN REITs
3.5 Analyses of Secondary Data

The following techniques of data collection and analysis were selected to achieve the research objectives.

3.6 Collection of Primary Data

In this study, primary data has been collected from three sets of respondents, as given in sub-section 3.7.1, 3.7.2 and 3.7.3.

3.6.1 Collection of Data for Policy Recommendations

Profile of Experts

The profile of the selected experts has been given in Table 13. There were five Institutional experts (top decision makers from various concerned departments of the Central Government and Government recognized/sponsored Institutions).

Table 13 Profile of Experts

<table>
<thead>
<tr>
<th>S. No</th>
<th>Category</th>
<th>Number</th>
<th>Expert</th>
</tr>
</thead>
<tbody>
<tr>
<td>I.</td>
<td>Institutional</td>
<td>5</td>
<td>• Joint Secretary, Ministry of Commerce, New Delhi</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Ministry of Housing and Urban development, New Delhi</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Under Secretary, Ministry of Finance, New Delhi</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• General Manager, DIPP, New Delhi</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Advisor, SEBI, Mumbai</td>
</tr>
</tbody>
</table>

3.6.2 Collection of Data for Industry Level Analysis

3.6.3 Method of Collecting the Experts level Data

Besides the quantitative questionnaires there was an open ended questionnaire constructed for the experts. The responses of experts were contributing to organize the policy related issues of FDI inflow in this sector as well as gave an idea to the developers and investors about the government subsidies and marketing and value addition facilities provided by the authorities (Annexure- 3.1). The responses of
developers and investors were contributing to get the knowledge about the customers demand.

3.6.4 Method of Collecting the Industry level Data

After construct validation (already discussed in section 3.2.1 to 3.2.3), a questionnaire was formulated in such a way that all relevant dimensions of the construct of “Feasibility” were included and the questions were framed in such a way that bias would be eliminated. The questionnaire contains four sections. The questionnaire for developers (Q.1 to Q.7) contains the information on the dependent variable and independent variables based on factual information (name, company name, age, position at work). Questionnaire for investors included 8 questions which sought perceptions of the respondents (on the basis of a Likert scale ranging from 1(for strongly disagree) to 5 (for strongly agree) and few are in 1(for least important) to 5 (for very important)) on the feasibility and sustainability they considered important for their present level of performance. Questionnaire for policy makers included seven questions to elicit information on regulation and what technical standards required for policy. While others were open ended questions seeking specific suggestions on areas that require immediate attention by the Indian government. Pilot study (content validation) of the questionnaire was done for 20 respondents (5 from Delhi, 5 from Kolkata and 10 from Mumbai) and it was found that the respondents had no difficulty in answering most of the questions. Where necessary, modifications were made to the final questionnaire. The questionnaires were then administered by mail to CEOs of industries. Field visits were made and with the support of stakeholders, Delhi, Mumbai, Calcutta and Chennai data was collected within a 10 months period (September 2011 to June 2012).

3.6.5 Sampling Plan

To determine whether there are certain industry level capabilities which drives the feasibility and growth, a sample of industry are required, where all types (according to the turn over) of developers & investors were considered to do the comparative analysis. There are at present around 100 real estate funds operating. Of these, not all of them are active members- there are many that have only a nominal presence on the records but have not undertaken any investment in the recent years. Some of them
completely changed their product basket and also stopped investing due to the high competition, price fluctuation and under evaluation of the cost of the project. An effort was made to find out the investors and developers; those are dealing with REITs and consider that as valid response. Their turnover and capacity of investment in quantity were taken directly from their website or from CMIE data base.

### 3.6.6 Research Site

The study covers the major real estate investment centers in India-viz. Mumbai, Delhi, Chennai and Kolkata. These centers accounted for the maximum number of real estate sector from India.

### 3.6.7 Sample Size

The sample size included 100 investors, 20 developers and 5 policy makers from industries in all. These firms were listed in CMIE as well as the prominent trade directories/national registered websites also deals with real estate investment trust. The responses has taken by the personal field visits of the level managers of the Industry and through the questionnaires, mailed to the top level managers with the active help of the respondents. Responses were elicited from 100 investors as indicated in Table- 14.

**Table 14 Sample Size for Investor**

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Centres</th>
<th>No. of Valid Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Delhi</td>
<td>40</td>
</tr>
<tr>
<td>3</td>
<td>Chennai</td>
<td>10</td>
</tr>
<tr>
<td>4</td>
<td>Kolkata</td>
<td>10</td>
</tr>
<tr>
<td>5</td>
<td>Mumbai</td>
<td>40</td>
</tr>
<tr>
<td>6</td>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>
3.6.8 Scope of the Industry Level Study

In consultation with the experts, it was decided to limit the scope of this study to the current capabilities and future vision of the real estate investment trust in the country; the consensus was that it is most likely that these will be the industries, who have the potential to grow into major global players in the coming years and this trust is one of important trust of Indian real estate sector. The findings of the study would therefore be representative of all real estate investment trust.

3.7. Analysis of Industry Level Data

The methods of data analysis and statistical analysis that were carried out are listed in the Table 16.

Table 16 Methods of Data Analysis

<table>
<thead>
<tr>
<th>Method of Analysis</th>
<th>Objective</th>
<th>Author</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency Tabulation and Graphs</td>
<td>To categorize the data for further treatment</td>
<td></td>
</tr>
<tr>
<td>Correlation and Regression Analysis</td>
<td>To find out the relationship among the micro variable and impact of the independent variable</td>
<td>Fox, J. 1997; Fotheringham A.S., Brunsdon C. and Charlton M., 2002</td>
</tr>
</tbody>
</table>

Table 15 Sample Size for Developer

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Centers</th>
<th>No. of Valid Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Delhi</td>
<td>5</td>
</tr>
<tr>
<td>3</td>
<td>Chennai</td>
<td>5</td>
</tr>
<tr>
<td>4</td>
<td>Kolkata</td>
<td>5</td>
</tr>
<tr>
<td>5</td>
<td>Mumbai</td>
<td>5</td>
</tr>
<tr>
<td>6</td>
<td>Total</td>
<td>20</td>
</tr>
</tbody>
</table>
3.7.1 Reliability Test

Reliability tests are especially important when derivative variables are intended to be used for subsequent predictive analyses. If the scale shows poor reliability, then individual items within the scale must be re-examined and modified or completely changed as needed. One good method of screening for efficient items is to run an exploratory factor analysis on all the items contained in the survey to weed out those variables that failed to show high correlation (Cronbach, L. J., 1951). It should also be noted that while a high value for Cronbach’s alpha indicates good internal consistency of the items in the scale (George, D., & Mallery, P., 2003). Cronbach's alpha is widely believed to indirectly indicate the degree to which a set of items measures a single one-dimensional latent construct.

This study consisted both dichotomous and multi-point questionnaires (Likert Scale). But only the multi-point questions were summed to arrive at a resultant score associated with a particular respondent to assess and improve upon the reliability of variables derived from scales.

The analysis of this chapter involved the macro variables like, feasibility of REITs, sustainability of REITs, Awareness for REITs, Growth of REITs, Attracting investment and FII and FDI inflow. All the above given variables having micro variables within them. The item no of questionnaire construction has given (Table 12) and the detail finding has given in Appendix III. Items having above 0.5 values were included.

3.7.2 Simple Statistical Tools (Frequency Tabulation and Graphs)

These were used to categorize the data for further treatment. The profile of the responding industry was tabulated and mean value of important variables of different industries (according the size of industry, it is categorized) compared with the corresponding mean value of all other industries. This analysis is done for developers which are described in chapter 4.

3.7.3 Correlation Analysis

Correlation is a quantitative measure of the strength of the relationship that may exist
among certain variables. Correlation refers to the interdependence or co-relationship of variables. The formula used in the study has given in Appendix III.

3.7.4 Regression Analysis

Regression is a statistical analysis of the nature of the relationship between the dependent and the independent variables. Regression analysis is widely used for prediction and forecasting (Fox, 1997; Fotheringham, Brunsdon and Charlton, 2002). The formula used in the study has given in Appendix III.

3.8 Methodology Used for Case Studies

In order to supplement the findings of the desk based research involving secondary data and the primary data based research (finding the expert level and the industry level survey), it is decided to study a few cases to gain insights on whether these cases corroborate or differ from the main findings of the research. It was also decided that cases should be so chosen that strategic management issues, which could not be studied through sample based research could be given emphasis. In consultation with the experts, it was decided to choose national/international relevant cases related to strategy, corporate governance, challenges of REITs, and Tax structure and risk factors.

3.9 Conclusion

This chapter includes the problem conceptualization, selection of methodology, implementation design and development of conceptual framework for feasibility, growth and sustainability, corporate governance and FDI inflow. Based on the literature review, the problem conceptualization has done. Variables affecting feasibility, corporate governance, growth, sustainability, and FDI-inflow in firm are identified through the literature review. Selection of methodology and implementation of design, formulation of constructs and development of conceptual framework for the study are explained. The chapter deals with the formulation of hypotheses to achieve the objective. The implementation of the methodology is discussed in subsequent chapters.