CHAPTER -III

RESEARCH METHODOLOGY

This chapter describes the methodology used to carry out this research study. It contains research design, source of data and unit of analysis, universe, sampling, sample size, hypothesis, and tool of data collection, pilot study, data collection and statistical tests used in the research study.

3.1. Research Design

Research design is a framework or plan for a researcher to answer research problems that is used to guide the methods and procedures of data collection and analysis (Burns & Bush, 1995; Churchill, 1996; Zikmund, 1997). The research design used in this research study is both correlational survey research design and cross sectional research design.

Correlational field study is a study based on survey data conducted in field, (that is in a non-contrived setting such as an organization) in which the relationship between one or more independent variables and one or more dependent variables are examined (Tharenou, Donohue, & Cooper, 2007). This research study aims to bring out the influence of corporate governance and its dimensions, Trust and Customer loyalty on corporate reputation among banks in Chennai, Tamilnadu state, India. Thus, the design of this research study could be classified as correlational survey research design.

The main characteristic of a cross-sectional research design is that all information pertaining to variables of the research study is collected just once, at a single point in time.
In this research study, data from banking investors, customers and finance professionals are collected only once during the months of April 2015 to June 2015 in Chennai. Hence, the research design for this research study belongs to cross sectional research design. Cross-sectional research design is regarded as being relatively low in cost and time because it only takes a snapshot of an on-going phenomenon (Hussey & Hussey, 1997). The above mentioned reason underlined the choice of such a research design for this research study.

3.2 Source of Data

Source of data refers to the sources of relevant information to be tapped to fulfill the objectives of the research study (Ramachandran, 1993). It may be classified as primary and secondary data. This research study uses both primary and secondary sources of data. Primary data refers to data collected for the first time and are original (Kothari, 2004). Primary data for this research study pertains to data collected from banking investors, customers and finance professionals from Chennai, India. Secondary data pertaining to research study relates to information that is obtained by referring national and international journals, books, websites, etc. This research study uses secondary source of data, as conceptual literature and research studies pertaining to variables of the research study are given by referring information that are given in national and international journals, books, etc. Discussion pertaining to results of previous research studies with respect to findings of this research study is given by using secondary source of data, which is by referring information given in national and international journals.
3.3 Universe

Population (universe) for the research study is a group of units from which a researcher would like to generalize or draw conclusions with regard to the research study (de Vaus, 2002; Babbie, 1986). It is not feasible to involve all members of a population pertaining to the research study. Therefore, population of the research study needs to be defined.

The target population (universe) of this research study are banking investors, customers and finance professionals in Chennai, India in the year 2015.

3.4 Sampling

Sampling is a systematic process of selecting parts of a population to draw conclusions regarding the population of research study (Neuman, 2003; Zikmund, 1997). The best representative sample can be obtained through a probability or random sampling as this technique provides each population member the same chance to be chosen in the sample (de Vaus, 2002; Fink, 2003; Sekaran, 1992). A good random sampling requires a sample frame or a complete list of all population members (Burns & Bush, 1995; Fink, 2003). It is sometimes not practical to implement probability. Hence, non-probability sampling becomes a feasible alternative. This particularly applies when the population is spread out over a wide area or when the sampling frame is unavailable (de Vaus, 2002).

Sampling frame was unable to be developed in this research study due to the non-availability of the lists of respondents (Bank investors) prior to the survey in this research study. Hence, it was not possible to implement probability sampling. Judgement sampling (A type of non - probability sampling) is used in this research study to invite the participation of respondents (Bank investors) from Chennai.
Judgement sampling refers to a sampling technique in which respondents are selected on the basis of some predetermined criterion (de Vaus, 2002; Neuman, 2003). In this type of sampling, researchers or some individuals with considerable knowledge about the population use their judgements to select respondents that they consider a representative sample (Babbie, 1986; Burns & Bush, 1995; Zikmund, 1997; Churchill, 1996; Neuman, 2003). The judgement is often based on the likeliness of the respondents providing information (Churchill, 1996; Shaughnessy & Zechmeister, 1994). In this research study, the researcher used his judgement to select banks and NBFC (Non-Banking finance Companies) in Chennai. From where the researcher could get permission to collect data based on the knowledge about the institutions in the above said areas.

The researcher also used his judgement to select respondents by interacting with them on the area of research and based on the interest shown by the respondents to help him in filling up the questionnaire. The employees of banks and NBFC (Non-banking finance companies) are considered as more aware about the corporate governance practices and reputation value for the banks. The researchers has selected the private banks and NBFC’s respondents for the data as the corporate reputation is important role in their business growth. questionnaire are distributed to only at the level of assistant manager & above level employees

3.5 Sample Size

The size of a sample refers to “the number of units that need to be surveyed in order for the findings to be precise and reliable” (Fink, 2003). The general rule for samples is the bigger the better (Allison, 1999).
The researcher had distributed 700 questionnaires to Banking Investors, Customers and Finance professionals in Chennai city in Tamil Nadu state, India. The questionnaire was sent to mail I’d of investors (investors mails Id’s are gathered from the broking firm in Chennai) and Physical questionnaire was handed over to 3 Banks and 6 NBFC’s (Non-Banking finance Companies). The employees of banks and NBFC are considered as more aware about the corporate governance practices and reputation value for the banks. Further Selection of banks and NBFC’s are purely based on their market presence and their reputation. The Questionnaire was distributed to only at the level of assistant manager & above employees.

The researcher got back 157 fully filled questionnaires from mail respondents in Chennai, 136 filled questionnaire from 3 different bank employees and 261 filled questionnaire from five different NBFC’s in Chennai. Partially filled questionnaires are rejected by the researcher as it may affect the outcome of the results, and close to 40 questionnaires are not considered due to partially filled and 16 questionnaire from email respondents are rejected due to corrupted files from the respondent. 76 questionnaire are returned back without answering and 14 questionnaire are not returned by the respondents. 700 questionnaires were distributed to banking investors, customer in Chennai for this research study. It is evident from the above table that only 554 fully filled in questionnaires (N = 554) was got from banks investors and Customers in Chennai, Tamil Nadu state, India. The response rate for this research study is 79.14% (554/700 *100 = 79 %).
Netemeyer, Bearden and Sharma (2003), suggested that the ratio of cases (respondents) to variables (i.e. questionnaire items) should be ranging from 5:1 to 10:1. In this research study, total number of items in the questionnaire is 67 items. Netemeyer et al. (2003), 67 items in the ratio of 5 respondents per item, the sample size should be 335. Sample size for this research study is 554 which are above the minimal sample size of 335 as suggested by Netemeyer, et al. (2003); Blaikie (2003) have stated a sample of at least 300 respondents will usually provide a reliable result. Garver and Mentzer (1999) suggested a sample size of 200 to provide sufficient statistical power for data analysis. The sample size of this research study also satisfies the guidelines mentioned by Blaikie (2003); Garver and Mentzer (1999).

3.6 Hypotheses

Hypothesis is a conjectural statement of the relation between two or more variables (Kerlinger, 1986). The following hypotheses (Hn) have been framed for statistical testing:

3.6.1. Corporate Governance:

Corporate governance is defined as “the relationship among various participants in determining the direction and performance of corporations” (Monks and Minow, 2004). Concerning the good corporate governance, the review of the definitions shows that there is “no precise oriented definition of what constitutes Good corporate governance” (Fox, 2006). The banks has a better corporate governance practice can reassure the stakeholders regarding the protection of their interests. The presence of discipline, transparency, fairness, Independence, accountability, responsibility and social awareness ensure to develop the company resources and their reputation.
The existence of well-defined and clear rules of corporate governance ensure to improve their corporate reputation. Therefore, we can formulate the following Hypothesis.

**H1. Corporate governance and its dimension will have a significant effect on the Corporate Reputation.**

### 3.6.2. Discipline:

The board manages strategically the company to identify growth opportunities and make good strategic choices that enable the company to develop a sustainable competitive advantage.

According to cognitive theories, the directors’ role is to help the manager to define his vision and to build growth opportunities (Charreaux, 2000). Cortada and Woods (2000) consider that the existence of a clear strategic direction allows investor’s confidence and improve their corporate reputation. Investors and customer will be satisfied if they are dealing with a company whose board is pursuing a clear vision allowing him to grasp opportunities and to maximize value creation. Therefore, we can formulate the following hypothesis.

**H1 (a): The Discipline will have a significant effect on the Corporate Reputation.**

### 3.6.3. Independence:

Masulis and Mobbs (2014) document that reputation incentives positively affect independent directors’ board meeting attendance, their involvement on time intensive committees and their decisions to remain on the board during difficult periods of poor performance.
This evidence is consistent with reputation incentives having a tangible effect on independent director expenditures of effort on their board duties. Lastly, they show that these reputation incentives are positively related to better firm performance and value. Therefore, we can advance the following hypothesis.

\textit{H1 (b): The Independence will have a significant effect on the Corporate Reputation}

\textbf{3.6.4. Responsibility:}

Responsibility refers to the recognition of all stakeholder’s rights such as provided by law and the promotion of active cooperation between the company and main stakeholders to create wealth and sustainable enterprises (Sudarsono et al, 2006). In addition, responsibility implies that the board ensures corporate compliance with laws and regulations that reflect the values of the society (OECD, 2004). The responsibility is practiced participation and the involvement of the stakeholders in strategic decision-making. The responsibility to the stakeholder’s and customers enables the company to improve their reputation. Therefore, we can formulate the following hypothesis.

\textit{H1(c): The Responsibility will have a significant effect on the Corporate Reputation}

\textbf{3.6.5. Accountability:}

Accountability is defined as the predisposition of an organization to provide explanations and justifications for the key stakeholders, concerned by its judgments, intentions, acts and omissions, if they call to do so (Arjoon, 2005). Indeed, the central issue in accountability is to determine the extent to which stakeholders have access to adequate, accurate, understandable, and up to date information’s, on the basis of which they can act (Shearer, 2002).
The concretization of accountability allows the company to receive a better evaluation from outside and increases the stakeholder’s confidence which can improve the reliability, the credibility and the reputation of the company in its environment (Epstein and Birchard, 1999). Therefore, we can advance the following hypothesis.

**H1 (d): The Accountability will have a significant effect on the Corporate Reputation**

3.6.6. Fairness:

The OECD (2004) considers the fairness through two different perspectives: Protecting all the shareholders’ interests and ensuring equitable treatment of the stakeholders (Sudarsono et al. 2006). In fact, the board must ensure the fairness in the execution of contracts between the company and the resource providers (OECD, 2004). Practicing the fairness in decision-making and in dealing with stakeholders can increase the satisfaction of the latter. The study of Herramann et al. (2007) showed that German customer perception of price fairness is positively correlated with their satisfaction. Strong et al. (2001) suggest that empathy and the willingness of the company to treat fairly their stakeholder’s customer lead to the reputation of the organization. Therefore, we can advance the following hypothesis.

**H1 (e): The Fairness will have a significant effect on the Corporate Reputation**

3.6.7. Social Awareness

Fombrun and Shanley (1990) showed that the greater a firm's contributions to social welfare, the better will be its reputation. Brammer and Pavelin (2006) stated that social performance has an enhancing effect on Corporate Reputation but this effect varies both across sectors and within sectors across the various types of social performance.
In the following years, Fombrun conducts similar studies and finds that enhancing corporate reputation may act as an extrinsic motivation for companies to engage in corporate social responsibility activities and thus, reputation gain should be considered as a relevant outcome of Corporate Social responsibility (Garberg and Fombrun, 2006). Pointing to the strategic use of corporate social responsibility policy. Therefore, we can advance the following hypothesis.

*H1 (f): The Social Awareness will have a significant effect on the Corporate Reputation*

### 3.6.8. Transparency:

Transparency means that the company provides adequate disclosure and timely information to its stakeholders regarding its operations and activities (Pahuja and Bhatia, 2010). These information’s relate to the financial performance, the corporate governance, the ownership structure, the voting rights, the directors profiles, the key executives and their remuneration (OECD, 2004). Gaa (2009) Considered that the disclosure is an important aspect in the sustainability of the relationship between the company and its stakeholders and customer. Transparent organization builds the confident and improve the reputation of the organization. Thus, we can advance the following hypothesis.

*H1 (g): The Transparency will have a significant effect on the Corporate Reputation.*
3.6.9. Trust:

As confidence is an important factor in the creation of relational trust (Morgan & Hunt, 1994), high reputation can strengthen customer's confidence and reduce risk perceptions when they make judgment on organizational performance and quality of products or services. Thus customers are more likely to perceive companies with highly favorable reputations as trustworthy. Customers are more likely to perceive companies with good reputations by several interrelated features—credibility, reliability, responsibility, and trustworthiness (Fombrun, 1996), during the initial stages of the relationship when there has been no previous transaction between both parties, a good reputation signals the seller's competence and/or goodwill (Campbell, 1999). As a result, buyers may base their trust on the seller's reputation to evaluate the cost and benefit of transacting with this seller (Barone, Manning, & Miniard, 2004). Doney and Cannon (1997) find that confidence in the supplier's reputation is one of the important cognitive processes through which industrial buyers develop trust in a supplier firm. Therefore, we can propose the following thesis.

H2: Trust will have a significant effect on the Corporate Reputation.

3.6.10. Customer Loyalty:

Oliver (1999) defined customer loyalty as a deeply held commitment to repurchase or re-patronage a preferred product/service consistently in the future, thereby causing repetitive same-brand or same brand-set purchasing, despite situational influences and marketing efforts having the potential to cause switching behavior (Leverin and Liljander, 2006). Intentional loyalty is individual’s predicted behavior to repurchase and to reuse services. Prior studies also reveal that loyal customers possess more experience with and knowledge of the provider than do non-loyal customers.
This knowledge may enable them to contribute more effectively to improve the reputation of the service and the organization as whole. Therefore, we can propose the following hypotheses.

**H3. Customer loyalty will have a significant effect on the Corporate Reputation.**

### 3.6.11. Demographic variable with dependent variable:

In this research study to test any significant variation in mean of selected demographic variables with respect to dependent variable among the respondents of the research study we can formulate following hypotheses.

**H4. There is a significant variation in mean of selected demographic variables namely age, educational background, occupation, experience with bank, investment with a bank and annual income pertaining to respondents of the research study with respect to corporate reputation.**

### 3.7 Tool of Data Collection

The researcher had used questionnaire method to collect data from the respondents.

The questionnaire consists of the following segments:

- **Part – A** : Socio Demographic variables.
- **Part – B** : Corporate Governance.
- **Part – C** : Trust and Customer loyalty.
- **Part – D** : Corporate Reputation
Part – A : Demographic variables: It includes respondents name, (optional) age, income, gender, educational background, occupation, experience /relationship with Bank, Investment with bank, currently bank with type of banks, Currently holds a relationship with bank of the respondents.

Part – B: Corporate Governance Scale: 37 – item Corporate Governance scale by Muhammad Ilyas and Muhammad Rafiq (2012) is an adaptation of the original 37 - item scale adopted form Credit Lyonnais Securities Asia (CLSA) to measure the corporate governance. The scale has seven construct variables as corporate governance dimensions. The dimension are Discipline (5 item), Transparency (6 item), Independence (6 item), Accountability ( 5 item) ,Responsibility (4 item),Fairness (7 item) and Social awareness (4 item) .The scale is a Likert – type scale with response pattern ranging from ‘strongly disagree’ to ‘strongly agree’. Cronbach alpha coefficient as reported by (Muhammad Ilyas and Muhammad Rafiq, 2012) for the thirty seven item scale was in range of 0.76 to 0.85.

Part – C: Trust and Customer Loyalty scale: The trust (5 item) scale adopted from Beh Yin Yee and T.M. Faziharudean (2010) and previously used by Lin and Wang (2006) , and developed by Geffen et al (2003) .Customer loyalty ( 5 item) scale was adopted from Beh Yin Yee and T.M. Faziharudean (2010) and previously used by Lin and Wang (2006) ,and developed by M.P. Pritchard, M.E. Havitz, D.R. Howard ( 1999) .It is a Likert type scale having response options from “Strongly Disagree” to “Strongly Agree”. Cronbach alpha coefficient (as reported by Beh Yin Yee and T.M. Faziharudean) (2010) for the items measuring Trust was 0.820 and for the items measuring Customer loyalty was 0.847.
Part – D: Corporate reputation scale (Fombrun et al., 2000) This 20 items scale measures the Reputation Quotient of the Corporate’s and banks. It is a Likert type scale having response options from “Strongly Disagree” to “Strongly Agree”. Karun Pratoom (2010) has validated the reputation quotient model of Fombrun et al., (2000) Cronbach alpha coefficient (as reported by Broman, Christopher Cabander, Robin Karlsson, Emilia) (2008) for the items measuring reputation quotient was 0.775.

3.8. Pilot Study

The main objective of a pre-test is to examine the reliability of the questionnaire items (de Vaus, 2002; Neuman, 2003). It also aims to detect possible mistakes and to ensure that the questionnaire will elicit the intended information (Webb, 2000).

Pilot study was carried out among 50 respondents in Chennai, Tamilnadu, India (during March, 2015) before the actual collection of data. The respondents of the pilot study were banking Professionals of private sector bank. Most of the respondents stated that the instructions, statements used in the scale pertaining to variables of the research study and the choices of possible answers used in the questionnaire were understandable and comprehensive.

3.9. Data Collection

Data was collected from banks Investors, customers and finance professionals in Chennai, Tamilnadu, India from the month of April 2015 to June, 2015. Ethical considerations to research study were adhered to and due care was taken to treat the research participants with care, sensitivity and respect for their status as human beings. The ethical principles of voluntary participation and anonymity were adhered to. The questionnaire had a small write up about the research study and context in which it was being undertaken.
Further, a request was made soliciting the respondent’s whole hearted cooperation to fill the questionnaire. Confidentiality of the respondents and responses was assured. The name of the respondent was given with option in the questionnaire.

3. 10. Statistical Tests used in this Research Study

Data was statistically analyzed by using Statistical Package for Social Sciences, (SPSS, Version 21.0) and Analysis of Moment Structure (AMOS, Version 20.0) software was used to analyze the data collected for the research study. The various statistical tests used in this research study are discussed below:

(i) **Descriptive statistics**: Descriptive statistics helps to understand the data and helps in knowing about frequency and percentage relating to demographic variables pertaining to respondents of the research study. Descriptive analysis pertaining to constructs of the research study comprises of mean, standard deviation, maximum score and minimum score. It helps to interpret which construct is low and which construct is high among all the constructs of the research study.

(ii) **Confirmatory factor analysis**: It is a multivariate technique to test (confirm) a predetermined relation between observed variables to their underlying constructs (Anderson & Gerbing, 1988; Hair, Anderson, Tatham, & Black, 1998). This technique is usually used when the measurement models have a well-developed underlying theory for hypothesized patterns of loading (Hair et al., 1998).

(a) **Goodness of fit index**

This is an absolute index and is introduced by Jöreskog and Sörbom (1981) to test how good a model is in the absence of the baseline model, in which all parameters are fixed to 0 (Schermelleh-Engel, Moosbrugger, & Müller, 2003).
This index measures the proportion of variability in the sample covariance matrix explained by the model (Kline, 2005). The value of goodness of fit index (GFI) ranges from 0 to 1.00, with the value close to 1.00 as being indicative of a good fit model (Hair et al., 1998). The value of 1.00 or greater might be found when a model is just-identified (has no degree of freedom) or is over-identified with almost perfect fit (Kline, 2005).

(b) Comparative fit index

Comparative fit index (CFI) compares the proposed model and the baseline model by penalizing a small sample (Schermelleh-Engel et al., 2003). Bentler and Bonnett (1980) suggests the value of comparative fit index of greater than 0.90.

(d) Root mean square error of approximation

Root mean square error of approximation (RMSEA) is the extent to which the hypothesized model fits approximately well in the population. According to Browne and Cudeck (1993), the value of 0.05 - 0.08 is reasonable and the value of 0.08 - 0.10 is tolerable. The value of less than 0.05 indicates a close fit between the hypothesized model and the data, while the value of 0 suggests a perfect fit (Browne & Cudeck, 1993).

(e) Chi - square test

The absolute index of chi-square statistic test has been traditionally used as the most popular test to assess the goodness-of-fit of a model (Hair et al., 1998, Shook, Ketchen, Hult, & Kacmar, 2004). The test measures how much the sample data deviates from the hypothesized model. Unlike the common chi-square tests, the test of measurement model seeks a non-significant difference \((p > 0.05)\) between the hypothesized model and the sample data (Hair et al., 1998). In a large sample (N >200), a significant difference \((p < 0.05)\) may exist, resulting in a mistaken rejection of the proposed model (Hair et al., 1998).
This suggests that research study should use multiple indices and not rely on the chi-square test as the only guide to assess the goodness-of-fit of the models. The sample size in this research study is 554 and a significant difference (p < 0.05) exists.

Therefore, goodness of fit indices other than chi-square test like goodness of fit index, comparative fit index, root mean square error of approximation and normed chi-square is used in this research study.

(f) Normed chi-square

Normed chi-square or $\chi^2/df$ was created to assess the appropriateness of model that is whether it shows perfect fit (indicated by the $\chi^2/df$ index value of less than 1.00), or it is over fitted (indicated by the $\chi^2/df$ index value of < 1.00), or whether improvement is required (shown by the $\chi^2/df$ index value of either 2.00 or 3.00, or the more liberal limit of 5.00) as suggested by Hair et al. (1998). The index is obtained by dividing the value of chi-square ($\chi^2$) by the degrees of freedom (df) (Hair et al., 1998; Kline, 2005, Schumacher & Lomax, 2004).

(iii) Normality:

The normality tests are supplementary to the graphical assessment of normality. The one of main tests for the assessment of normality is Shapiro-Wilk test. The Shapiro-Wilk test is based on the correlation between the data and the corresponding normal scores. To assess the normality of data researcher use the Shapiro-Wilk test in the research study. A Shapiro–Wilk’s test (P > 0.05) (Shapiro – wilk, 1965, Razali and wah, 2011).
(iv) **Factors analysis.**

KMO and Bartlett’s tests which shows that our data were sufficient for factor analysis. Values ranging from .6 to .9 show KMO’s value from good to superb (Hutcheson and Sofronie, 1999).

Relationship between two construct variables is investigated by Bartlett’s test. Factor analysis can be conducted if items of a construct are mutually related to each other and the significance level of Chi-square that is less than .001 in case of all constructs.

(v) **Reliability analysis**

Cronbach alpha coefficient: Cronbach alpha coefficient was employed to assess the reliability of each variable of the research study. George and Mallery (2003) provide the following rules of thumb: “Greater than 0.9 – Excellent, Greater than 0.8 – Good, Greater than 0.7 – Acceptable, Greater than 0.6 – Questionable, Greater than 0.5 – Poor, and Lesser than 0.5 – Unacceptable”.

(vi) **Analysis of variation.**

One way analysis of variance: One way analysis of variance helps to compare the mean variation between two variables across more than two groups. Analysis of Variation examines the mean of sub - groups in the sample and analyses the variance as well. It also examines whether the actual values are clustered around the mean or spread out from it (Babbie et al., 2003). Significant F - ratio indicates that the population means are probably not at all equal.
(vii) **Independent “t” test.**

Independent t test with Levene’s test for equality of variances. (Babbie, Halley and Zaino (2003) encapsulate the essence of t test as the examination of the distribution of the values on one variable among two different categories of another variable; thereby calculating the probability that the observed difference in mean results from sampling error alone. While, computing the t - test results for each of the data tables, the Levene’s test for equality of variances is checked for significance. If the test results are not found significant, the equal variance estimates of the t - test results are interpreted in each of the case.

(viii) **Karl Pearson’s correlation coefficient.**

Correlation studies the relationship between two or more variables in a linear fashion. Correlation helps determine the presence, direction and magnitude of relationship between independent and dependent variable of the research study. Correlation coefficient below 0.1 is small and between 0.3 is medium and 0.5 and above is large (Cohen, 1988). Further, coefficient of correlation ($r^2$) also known as ‘Coefficient of determination’ is the proportion of variance in the dependent variable that can be accounted by knowing the independent variable   (Sheskin, 2004). The coefficient of determination indicates the proportion of shared variance between the variables, irrespective of causality.
(ix) **Multiple regression.**

Multiple regression helps predict a criterion variable from a set of predictors. In regression analysis, a predictive model is fitted to predict values of the dependent variable from one or more independent variables. Regression analysis is used when independent variables are correlated with one another and with the dependent variable (Coakes, Steed, & Dzidic, 2006).

The next chapter “Result and Discussion” would present the statistical findings pertaining to data collected from the respondents of the research study and discussion pertaining to statistical findings of the research study.