CHAPTER 3: RESEARCH METHODOLOGY

3.1 Introduction

3.2 Research Design

3.3 Sampling Design

3.4 Data Collection

3.5 Data Analysis

3.6 Questionnaire Design
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3.1 Introduction

The research follows the descriptive method of research. According to Cooper and Schindler (2007) “the descriptive studies, in contrast to exploratory, relate to more formalized studies typically structured with clearly stated hypotheses or investigative questions. Formal studies of this nature serve a variety of research objectives such as Description of phenomena or characteristics associated with a subject population (who, what, when and how of a topic) and discovery of association among different variables”. In the case of IPO’s relationship between variables has been observed, which we plans to investigate. The objectives formulated for the research are as follows:

i. To evaluate role played by IPO’s in corporate finance.
ii. To measure the variations in IPO’s from year to year in terms of both the number of issues and the issue size.
iii. To evaluate factors leading to pricing of IPO’s.
iv. To evaluate marketing aspects of the IPO’s.
v. To evaluate role of investment banks and the intermediaries in the context of IPO’s.
vi. To evaluate financial factors related to cost of capital, dependent on IPO price and issue cost.

We also restate the Research Gap identified by the researcher as below:

“Despite large volume of literature available and reviewed, it is observed the period considered viz. 2002-2007 has not been adequately and systematically covered. It has therefore been necessary to research the IPO’s during the stated period”.

137
3.2 Research Design

The research design implemented for the research, in order to meet the stated objectives and to bridge the research gap identified, can be briefly outlined as follows.

(1) A comprehensive literature review is carried out to understand various facets of the research theme.

(2) Select historical data related to all IPO’s during the period 2002-2007 has been obtained (to the extent available) and studied.

(3) A questionnaire study was carried out to obtain information about the motivation and policies related to the IPO. This was done as a mail survey keeping in view constraints of time and cost. The survey instrument was prepared in consultation with the experts in the field.

(4) Data obtained through the two surveys has been independently as well as jointly analyzed. This has been linked with the literature survey and inferences drawn.

3.3 Sampling Design

As mentioned above all companies going for IPO during the period 2002-2007 have been viewed as target population for the study. A total number of 272 companies were targeted out of which information for 222 companies could be obtained (about 81%). For the questionnaire study stated above, a questionnaire mailed to all the companies resulted in 32 replies, that too with a great deal of follow-up. This works out to 12% of the target population, which we consider adequate for a study of this nature. The initial survey instrument was developed based on an extensive review of the extant IPO literature. The questionnaire, to measure managerial IPO attitudes, was designed using semantic differential method which consists of a set of
bipolar rating scales, of a 5-points level, by which the respondents are asked to rate one or more concepts relevant to the selected research problem. This method gives ordinal data which was analyzed through non-parametric analysis.

3.4 Data Collection

The data related to performance of IPO’s has been collected through the NSE and BSE. The information used has been: listing date, listing price, issue price, No. of shares, price range, type of the issue, and, opening and closing price one, thirty, ninety, and one hundred and eighty trading days. For the publicly available secondary data, we downloaded Draft Red Herring Prospectus (DRHP) data at www.moneycontrol.com, www.chittorgarh.com, www.cmlinks.com/pub/dp, www.capitalmarket.com, www.bse.com, www.nse.com and, we then checked the original prospectus from offer documents at www.sebi.gov.in. We also filled in some data by using offer documents.

3.5 Data Analysis

We have used Advanced Excel and SPSS Software package for analyzing the secondary data as well as primary data. We used Initial Return (IR) formula for understanding whether the IPO’s reported underpricing or overpricing, by comparing prices on the 1st and 180th trading days with the offer price. If the returns are positive, it indicates underpricing, whereas, if the returns are negative, it shows overpricing.

The Initial Return (IR) formula for each of IPO has been computed as the difference between the closing price on the first trading day (P1) and the offer price (P0), divided by the offer price (P0) by Beatty and Ritter (1986).

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IR = \left[ \frac{(P_1 - P_0)}{P_0} \right] \times 100
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Variables being in the form of ordinal data have been analyzed through the Frequencies, Chi-square tests based on cross tabulation, and tests of correlation.

### 3.6 Questionnaire Design

The questionnaire to investigate financial as well as behavioral aspects of IPO’s was prepared and validated using the method of ‘Expert Opinion’. Five independent experts related to Stock Exchange, Investment Consultants, Corporate Finance Managers and Academicians have reviewed and endorsed the questionnaire; after duly incorporating suggestions made by them.

The questionnaire was e-mailed to all 222 companies which had made IPO’s during the period 2002-2007. The researcher has thus followed the ‘census’ method. However, only 31 responses were received, that too after substantial follow-up and persuasion.

The questionnaire consists of 2 parts. Part I calls for essential information about the issuing company and IPO. The information related to the company is about its name, address and the year of establishment. The information about the IPO was about the year of IPO, its size, opening and and closing dates, method of pricing (fixed or auction i.e. book built), price range, name of the book runner and first day trading price.

Part II of the questionnaire, has 8 questions which relate to the following.

1. Motivation for the IPO (6 different aspects)
2. Factors that determine Timing of IPO (5 factors)
3. Criteria for selecting Lead IPO Underwriter (7 criteria)
4. Percentage of shares owned by top 3 shareholders (ranges of 5%, 5-10%, 10-20% and > 20%)
5. Percentage of underpricing planned (i.e. expected)
6. Factors impacting Underpricing of IPO (7 different factors)
7. Importance of actions/events leading to IPO’s (5 actions/events)
8. Factors that created concern w.r.t. IPO (10 factors)

Each of the factors and elements (indicated in brackets above) were required to be evaluated on a five factor Likert scale, 1 as ‘Not Important’ and 5 as ‘Important’. Since the Likert scale facilitated quantification, it was possible to analyze the responses statistically.

The questionnaire is enclosed as Appendix ‘A’ of the thesis.

Based on literature review and research gap identified, 5 hypotheses were formulated for the research as follows.

1. The number of IPO’s every year depends on outlook for the economy as measured by the Sensex.

2. An IPO being overpriced is related to the size of the issue.

3. There is a significant difference between importance attributed to the factors that motivate an IPO.

4. There is a significant difference between importance attributed to the factors that determine timing of an IPO.

5. There is a significant difference between importance attributed to the factors that create concern in a decision to go for the IPO.