Chapter 5

Methodology
For the purpose of the study attention was focussed on organisations with their corporate head quarters at Calcutta. For this, the list of such companies prepared by the Confederation of Indian Industry (CII) was used.

The survey was conducted in companies whose headquarters are in Calcutta because the research being unfunded, financial and other constraints were there. It may be suspected that data from one of the regions of the country may not represent the all-India situation. But study of relevant Indian literature suggests that there is little difference in the basic issues involved. Recent trend of mobility of managerial personnel throughout the country also asserts our conclusion of little basic differences in the selection process.

Organisations operating in India do not constitute a homogeneous group. So it was decided to divide the population into a number of non-overlapping sub-populations or strata i.e., types of companies in this case. The strata were purposively formed on the basis of past experience and personal judgment. For this study the strata chosen were – Public Sector Companies, Public Limited Companies, Private Limited Companies, Proprietorship Concerns and Others (including partnership firms).

For selecting items for the sample from each stratum, simple random sampling was resorted to. So the entire procedure was stratified random sampling. To select the number of organisations from each stratum, the method of proportional allocation was followed. Under this, the sizes of the samples from the different strata were kept proportional to the sizes of the strata (Kothari, 1991 : 12-14).

The population consisted of 271 companies, out of which 24 were public sector companies, 155 public limited companies, 72 private limited companies, 14 proprietorship concerns and 6 other types of companies respectively. The sample size of 20% of the population was decided upon and accordingly the number of companies of different types for the sample were selected on the basis of proportional allocation. This is shown in Fig. 1.
As there are very few studies in the area of executive selection process in India, the data collected were mainly primary in nature. However extensive literature survey was undertaken in the areas of Human Resource Management, Psychological Anthropology and Organisational Behaviour.

For collecting primary data, it was decided to cover six executives from each organisation, out of whom three would be selectors of executives and three would be recently selected executives. The purpose was to explore the mind-set of these two groups, regarding the selection process.

A questionnaire was framed for the purpose of collection of data. I have not used any previously tested and standardised instrument.

A pilot-study was undertaken for pre-testing the questionnaire. This was pre-tested by administering it to twenty executives in ten different organisations, other than the 56 organisations included in the survey. Two executives were selected from each of the ten organisations, out of whom one was selector of executives and the other, recently selected executive. After a brief discussion of the objectives of the pilot study, each respondent was asked to evaluate the questionnaire. The questionnaire was edited in the light of their response and suggestions.

The revised / final questionnaire consists of a total of 32 items. A copy of the questionnaire is given in Appendix-I. The questionnaire consists of two parts. In the first part, items 1 to 8 are related to psychographic information/background data in respect of each respondent. In the second part, the respondents were asked to give their opinion on the remaining items 9 to 32. These items are related to Indian Personality Traits (Items 10, 12, 15, 18, 23, 30); Socialisation (Items 16, 29, 31); Executive Selection Criteria (Items 11, 13, 17, 19, 22, 24, 27, 32); Social Man (Items 9, 14, 25) and Organisational Effectiveness (Items 20, 21, 26, 28).

In wording each statement, care was taken to make it descriptive of organisational and social reality. Some statements, particularly those related to personality traits and socialisation were deliberately disguised to elicit true response which otherwise would not have been possible.
Five categories were developed for most of the items to tap the feelings and perceptions of the selectors/selected executives. The categories used are Strongly Agree (SA), Agree (A), Somewhat Agree (Som A), Disagree (D) and Strongly Disagree (SD).

Some items (nos. 11 and 32a) are associated with ranking scales and others (nos. 12, 16, 22, 26 and 32b) involve allocation of 100 marks between different alternatives.

The questionnaires were given to 168 selectors and 168 selected executives in 56 companies covering 3 selectors and 3 selected executives from each company. The questionnaires were personally handed over to the Human Resource Managers of each of the companies to be distributed to the concerned executives (selectors/selected).

Of these, 150 questionnaires (89.3%) from the selectors and 158 (94%) questionnaires from the selected executives were finally received. The high percentage of responses was due to constant follow-up and a number of personal visits to all the companies to persuade the concerned executives. Another reason was, some companies not responding were replaced by other companies going sequentially by the list of companies prepared on the basis of random number table.

Some incomplete questionnaires were sent back again to the concerned executives to ensure receipt of filled-up questionnaires after much persuasion. However, many executives did not respond to item number 8.

To get an insight in respect of certain information provided by the respondents, personal discussion in some cases were held. The survey was carried out for a period of six months during 2001.

Reliability and Validity

We have not come across any method of calculating reliability co-efficient with the type of data available from this questionnaire. Because of the qualitative nature of the items, the five response categories are not equally spaced/equidistant from an adjacent category, hence scores cannot be allotted to the five categories. As scores are not available, correlations cannot be calculated.

For most of the questions of the qualitative type we devised a technique for checking reliability which is explained below. However, it has not been possible to devise any technique for quantitative 'percentage' types of questions.
For calculating/checking reliability of the items of qualitative type, test-retest method was adopted. The same questionnaires were administered to 50 executives (out of them, 25 selectors and 25 selected executives respectively) who participated in filling up the questionnaire about six months back. This time-interval ensures that the respondents cannot remember their previous responses and at the same time, the relative positions of the persons also have not changed much.

The responses to items of qualitative type were obtained on five categories comprising Strongly Agree, Agree, Somewhat Agree, Disagree and Strongly Disagree. Comparing with the original schedules the responses could be classified into three groups.

**Concordance (C)** – If exactly the same response is obtained during retest.

**Near Concordance (NC)** – If the response during re-test shifts to an adjacent category; and

**Discordance (D)** – If the response during re-test is far different i.e. neither C nor NC.

For each of the items the number of cases falling under concordance, near concordance and discordance are counted by comparing the responses of the test and re-test questionnaires. These are shown in Tables 1, 2 and 3 for the selectors, selected executives and combined groups respectively. Since there are five response categories, if a respondent is taking the re-test randomly (i.e., without a given mind-set) his probability of concordance will be 0.2 and the probability of C and NC will be 0.52. Hence, we can say that the test is reliable if probability of concordance is significantly higher than 0.2 or if probability of C&NC is significantly higher than 0.52.

Therefore, testing for $H_0: p = 0.2$ against $H_1: p > 0.2$

We use the statistic $Z = \frac{x}{n} - 0.2$ \sqrt{\frac{0.2(1-0.2)}{n}}$

and reject $H_0$ at 5% level if $Z > Z_{0.05} = 1.64$

So, $Z > 1.64$ implies that the item is reliable. Where $n =$ Total number of persons in that group; and $x =$ Number of cases out of total falling under concordance. ($Po = 0.2$)
Using this formulation we find that $Z > 1.64$ for all the items in all groups (selectors, selected and combined) except items 13 and 17 under the group of selected executives.

In that case we use the same formulation but with $P_0$ (for C and NC) = 0.52 and $x =$ Number of cases falling under C as well as NC for the items 13 and 17 and find that $Z > 1.64$. (Tables 1, 2 and 3)

Thus, we can say that all the qualitative items (which form most of the items) of this questionnaire are reliable.

**Validity**: The questionnaire was designed to explore the mind-set of the selectors as well as selectees during the process of executive selection. This is not like a general personality questionnaire. In this case criterion-related validity and construct validity cannot be calculated because of the absence of any external criterion. Content validity also cannot be estimated because of the qualitative content of the questionnaire.

One possibility could have been to have an expert in psychology/organisational behaviour to identify the type of mind-set that each of the individual respondents have and then compare the responses with his observations of the executives. This way content validity could be estimated for ensuring the relevance of individual questionnaire items as well as the contents as a whole, to the behavioural domain under consideration. But this is not feasible in the present study.

The collected data were processed and analysed in accordance with the purpose of the study that is to justify the main issues of the study. The findings and conclusions of this study are based on analysis of aggregated/cumulative data.

Frequency distribution tables showing cumulative frequency of each of the five categories (viz, SA, A, Som A, D and SD) of responses pertaining to each item of the qualitative type were constructed for both the selectors and selected executives.

The responses under the categories SA, A and Som A were clubbed as 'A' and those under D and SD as 'D' to analyse the data in a proper manner. For item no. 28 responses under (a) and (b) categories were clubbed as one single category and those of (c) and (d) as another. These are shown under Tables 4, 5, 6 and 7.

For each item of the qualitative type, the difference of means test was performed to show whether the selectors who assign response 'A' or 'D' to a particular item/statement differ significantly. If the answer is yes then to what extent. Similar test was performed for selected executives also.
We use Z statistic at 5% level for \( H_0 : P = P_0 \) against \( H_1 : P > P_0 \) and reject \( H_0 \) at 5% level if \( Z > Z_{0.05} = 1.64 \); or \( H_1 : P < P_0 \) and reject \( H_0 \) at 5% level if \( Z < -Z_{0.05} = -1.64 \).

In this case, \( P_0 = \frac{1}{2} \) so, \( H_0 : P = \frac{1}{2} \) and \( H_1 : P > \frac{1}{2} \) or \( H_1 : P < \frac{1}{2} \).

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Z = \frac{x - P_0}{\sqrt{P_0 (1 - P_0)/n}} = \frac{1}{\sqrt{n}} (2x - n); \quad \text{where} \quad x = 'A' \quad (A = SA + A + SomA)
\]

and \( n = \) total number of executives in that group. The difference is significant if \( Z > 1.64 \) or \( Z < -1.64 \).

For item nos. 11 and 32(a), ranks of attributes were calculated by using Mean Rank Score. This is shown in Figures 8 and 9 for the selectors and selected executives respectively.

For item nos. 22, 26 and 32(b) the proportion (percentage) of a particular attribute was calculated with respect to the total (100). Similar procedure was adopted for item nos. 12 and 16.

After cumulative analysis for verifying the main issues of the study, cross-tables were constructed to study the association of psychographic variables (1-7) on different items (9-32) of the questionnaire for the selectors and selected executives separately. Apart from this, cross-relations have been examined to find out whether executives working in different types of companies differ/vary significantly in their opinion on different items. Chi-square as a non-parametric test has been used as a test of independence between attributes. Concepts and advanced knowledge developed all over the world (including India) have been used to interpret the results.