CHAPTER II

METHODOLOGY
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The research design of a study is usually related to the nature of the problem being investigated and its purpose, besides other factors. Since the purpose of the present study is to test the relationship of the managerial effectiveness in the personality traits, job-satisfaction and adjustment, a descriptive survey research is considered suitable. Another factor that influenced the selection of the research design was the meagre number of studies which have utilised a similar conceptual framework to explain the phenomenon of personality and job satisfaction. But whatever research evidence is available, it shows that a similar conceptual framework has been utilised to explain personality and job-satisfaction. Once again, to the best of the knowledge of this researcher, no study has been conducted in India on the relationship of managerial effectiveness with personality, job-satisfaction and adjustment. The present study is, by necessity, an exploratory one. It enters an area where very little previous work has been done in India. This has also influenced the decision to employ a descriptive survey method of research for carrying out the present study.
Considering the nature and purpose of the present study, it was felt that a correlational analysis of the data would achieve the objectives of the study and was, therefore, preferred to an experimental study. Any experimental design usually deliberately introduces a change in one variable to observe the effect of such a change on the dependent variable. A correlational study, however, stresses the relationship between two variables without altering either of them.

The major disadvantage of a correlational study is its inadequacy to establish a causal relationship between two variables, yet it can establish whether the two variables tend to be related at a fixed point of time. From the point of view of the present study, if a close relationship could be established between the managerial effectiveness of branch managers and personality, job satisfaction and adjustment, it would validate, to a certain extent, the hypotheses that have been framed in the present study and vice versa.

Besides this, the objective of the present study is not to establish a causal relationship between managerial effectiveness, personality, job-satisfaction and adjustment but to find out the extent to which the effectiveness of branch managers in commercial banks is associated with personality, job-satisfaction and adjustment.
close association exist between the variables studied, it may suggest areas where experimental studies could be carried on profitably. It is, therefore, thought that a correlational analysis would achieve this objective also.

Another reason for preferring correlational analysis is the fact that experimental researches require a high degree of cooperation from the organisations (where the studies are conducted) in order to control extraneous variables. It is very difficult to secure this kind of cooperation in an organisation like commercial banking in India.

The limitations of time and money, and, of course, capabilities of the present researcher made it extremely difficult to conduct the study according to an experimental design. Besides this, as mentioned earlier as well, the present study is by necessity an exploratory one. It looks at an area where very little previous research has been done in India, and therefore, the format of correlational study best fits the data intended to be obtained. The correlational approach also makes it possible to look at a number of psychological variables related to performance, and this is the crucial factor as far as the purpose of this study is concerned. Looking at all the relationships specified in the objectives of
the study, an experimental approach would require many studies - studies which may or may not be necessary in future.

Yet another reason for selecting the descriptive method of research was the fact that it helps in generalisation to a greater extent than the experimental research design. Commenting upon this, Hyman\(^1\) states that though the descriptive research design proves inadequate in establishing causal relationship between two variables, its heterogeneity allows greater generality whereas in the experimental situation accuracy is achieved at the cost of generality.

**UNIVERSE AND SAMPLING DESIGN**

**Universe**

The present study was conducted in the public sector commercial banks. These commercial banks form a class by themselves due to the substantial stake and interest of the nation in these institutions. These banks account for over ninety-seven per cent of the total business of commercial banks in the country as in 1980. They occupy a dominant position in the banking system and are expected to play a decisive role in the adequate and effective functioning of the credit system in the

country. Thus, it is hoped that the conclusions drawn from the study will have value for the largest sector of banking industry, that is, public sector commercial banks.

The term "Public Sector Commercial Banks" refers to the banks set up as statutory corporations by Acts of Parliament, that is, the State Bank of India (S.B.I.), set up under the State Bank of India Act 1955, its seven associates, governed by the State Bank of India Act 1959 and the twenty corporations (nationalised banks) set up under the Banking Companies Act, 1970 and 1980. While the "nationalised banks" are wholly owned by the Central Government, the State Bank of India is substantially owned by the Reserve Bank of India (R.B.I.) which is wholly owned by the Central Government. The associates are substantially owned by State Bank of India.

The managerial personnel considered in the present study are branch managers. The branch manager, as head of operative unit (branch) plays an important role in the attainment of organisational goals. It would have been much better if all the branch managers working in these banks had been included in the study, but on account of the limitations of time and resources at the disposal of the researcher the scope of the study was limited to the branch managers working in the State of Punjab and Union Territory of Chandigarh.
If the research findings are to have value for banking industry, the branch managers should not be grouped with managerial personnel working in various other capacities nor should branch managers working under vastly different extraneous factors be grouped together. An attempt has been made to avoid this pitfall in the present study, and particular emphasis has been placed on the comparability of managerial responsibilities, areas of job-performance and broad extraneous factors like minimum experience in managerial cadre, category of branch, characteristics of clientele and socio-economic conditions around the branch. To adhere to some of these requirements a brief study of the internal managerial set up of these banks was made which revealed the following:

The public sector commercial banks have implemented, in principle, the recommendations of Pillai Committee's Report (P.C.R.) regarding the gradation of managerial jobs, promotions, categorisation of posts and branches. Pillai Committee's Report has recommended four grades in management, namely, top executives, senior management, middle management and junior management. Two scales of pay for each of the first three grades and one scale of pay for the fourth grade of management has been suggested and is being implemented in these banks. Although some variations in
the categorisation of posts below the senior management level prevail in these banks yet they are all broadly adhering to the following recommendations of Pillai Committee's Report. The Committee recommended that:

Top executive grade would normally include all executives under the Managing Director such as General Manager, Joint General Managers, etc. The main criterion for this categorisation would be their share in the policy making, review and control functions of the bank as a whole.

The senior management grade will include Assistant General Managers and heads of functioning departments in the Head Office exercising either operational or advisory responsibilities both in policy making and areas reserved for Head Office functions. Officers having full functional responsibilities for certain large geographical areas with supervision over a sizable portion of the total number of branches of the bank, managers of exceptionally large metropolitan branches and the principal officers responsible for training.

The middle management grade will include the managers of fullfledged branches of large and medium size. The second line officers in large branches as well as regional/area/divisional/district and like officers will also fall in this category.

The junior management will comprise all other officers. This would include managers of small and rural branches and pay offices, accountants or second line supervisors in small medium branches and other officers and newly inducted officers both general and technical/specialised either by direct recruitment or promotion.

Regarding the promotions of managerial staff, it is being done on the basis of seniority, subject to
crossing of efficiency bars, if any, and absence of adverse reports on the conduct or performance. The other recommendations of the Pillai Committee's Report regarding promotion which are generally implemented in all the public sector commercial banks lay down that:

All officers in junior management cadre who have seven years of satisfactory service and have completed both parts of CAIIB examination or have ten years of satisfactory service and have qualified the first part of CAIIB examination or have twelve years of satisfactory service are eligible for promotion to middle management.

All officers with ten years of satisfactory service in middle management are eligible for promotion to senior management, while officers with five years of satisfactory service in senior management are eligible for promotion to top executive grade. Promotion to senior management scale and to top executive grade depends upon the availability of posts and occurrence of vacancies.

As for the categorisation of the operative units (branches) of these banks, the Committee suggested four categories of branches. The following criterion for this categorisation is normally adhered to in the banking institutions:

A branch handling a total business (deposits plus advances) of rupees over ten crores and generally headed by an officer of senior management grade is named as exceptionally larger metropolitan branch. A branch with total business of rupees five crores or above but below
ten crores and headed by an officer in middle management grade is termed as large branch, while the medium branch is one which handles a total business of rupees one crore or above but below five crores and is generally headed by an officer of middle management grade. The branches which are headed by officers of junior management grade and handle business below one crore are designated as small and rural branches and pay-offices.

The discussions had with the executives of these institutions revealed that the nature of the job, functions and responsibilities of the branch managers of medium and large branches are almost similar.

In view of the above, it was decided to restrict the study to branch managers falling in the middle management grade to bring, as far as possible, uniformity in the sample. With a view to controlling other extraneous factors like characteristics of clientele and socio-economic conditions around the branch, it was further decided to include the branches operating only at district headquarters of Punjab and Chandigarh.

As per the government records, there are twelve districts in Punjab, and the Union Territory of Chandigarh is governed by the Centre. Thus the respondents for the study were spread over the thirteen cities. Following is
the list of the public sector commercial banks operating in these thirteen cities:

1. State Bank of India
2. State Bank of Patiala
3. State Bank of Bikaner and Jaipur
4. Allahabad Bank
5. Andhra Bank
6. Bank of Baroda
7. Bank of India
8. Bank of Maharashtra
9. Canara Bank
10. Central Bank of India
11. Corporation Bank
12. Dena Bank
13. Indian Bank
14. Indian Overseas Bank
15. New Bank of India
16. Oriental Bank of Commerce
17. Punjab National Bank
18. Punjab and Sind Bank
19. Syndicate Bank
20. Union Bank
21. United Bank of India
22. United Commercial Bank
23. Vijay Bank
The district headquarter-wise distribution of branch managers is given below in Table 2.1.

TABLE 2.1
District Headquarter-wise Distribution of Branch Managers

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Name of city</th>
<th>Number of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Amritsar</td>
<td>68</td>
</tr>
<tr>
<td>2.</td>
<td>Bhatinda</td>
<td>35</td>
</tr>
<tr>
<td>3.</td>
<td>Ferozepur</td>
<td>15</td>
</tr>
<tr>
<td>4.</td>
<td>Faridkot</td>
<td>10</td>
</tr>
<tr>
<td>5.</td>
<td>Hoshiarpur</td>
<td>10</td>
</tr>
<tr>
<td>6.</td>
<td>Jallandhar</td>
<td>65</td>
</tr>
<tr>
<td>7.</td>
<td>Kapurthala</td>
<td>8</td>
</tr>
<tr>
<td>8.</td>
<td>Ludhiana</td>
<td>67</td>
</tr>
<tr>
<td>9.</td>
<td>Patiala</td>
<td>45</td>
</tr>
<tr>
<td>10.</td>
<td>Ropar</td>
<td>9</td>
</tr>
<tr>
<td>11.</td>
<td>Sangrur</td>
<td>7</td>
</tr>
<tr>
<td>12.</td>
<td>Gurdaspur</td>
<td>7</td>
</tr>
<tr>
<td>13.</td>
<td>Chandigarh</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>483</strong></td>
</tr>
</tbody>
</table>

It would have been much better, if the study had been conducted on the total population described above.
Sampling

Sampling deals with the method of selecting and observing part of a population in order to make inferences about the whole population. It is being done because it has several advantages:

1. It is more economical;
2. It is more speedy and less time-consuming;
3. It is more feasible; and
4. It ensures quality and accuracy.

Broadly speaking, there are two kinds of sampling:

i) Purposive or judgement sampling, and
ii) Probability sampling.

Purposive sampling is a form of the expert's choice and is used by experts to pick up typical or representative specimens, units or portions in their own specialised field.

Contrary to purposive sampling, there are random sampling procedures. They are often called probability sampling procedures. In this, every element in the population has equal chance of being selected. These samples are so designed that statistical inferences drawn from them about the population values can be made with a known amount of uncertainty.
For the present study, the probability sampling design has been utilised in view of the above mentioned reasons namely, practicability, economy, speed and feasibility.

Out of thirteen cities, where the population for the study was spread, a sample of five cities was selected by simple random sampling procedure. These are: (1) Amritsar, (2) Jallandhar, (3) Ludhiana, (4) Patiala, and (5) Chandigarh.

The next step was to obtain a list of all the branch managers working in medium and large branches of the public sector commercial banks operating in the selected five cities. The list was personally prepared by the researcher from the District Lead Bank Offices and with full cooperation from the concerned officers. The city-wise distribution of the subjects for the study is given below:

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Name of the city</th>
<th>Number of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Amritsar</td>
<td>68</td>
</tr>
<tr>
<td>2.</td>
<td>Jallandhar</td>
<td>65</td>
</tr>
<tr>
<td>3.</td>
<td>Ludhiana</td>
<td>67</td>
</tr>
<tr>
<td>4.</td>
<td>Patiala</td>
<td>45</td>
</tr>
<tr>
<td>5.</td>
<td>Chandigarh</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td><strong>Total number of respondents</strong></td>
<td><strong>305</strong></td>
</tr>
</tbody>
</table>

Source: District Lead Bank Offices, Patiala, Jallandhar, Ludhiana, Amritsar and Chandigarh
The next problem that had to be faced was the selection of the tool which could measure the variables on which the present study is being conducted. Considering the subjects on whom the study is to be conducted, the nature and scope of the present study, the personal competence of the researcher to administer these tools, it was felt that either a questionnaire or a schedule could be utilised for the purpose of collecting the data. The use of questionnaire was preferred to that of the schedule in the study currently being conducted for the following reasons:

The subjects on whom the present study is conducted are educated and even highly educated. They would prefer a questionnaire to a schedule as it is quicker and easier.

Secondly, unlike in the case of a schedule, the subjects would not be expected to make any oral confession or rejection of any statement in the presence of the researcher.

Not only this, time was a big constraint which influenced the selection of the tool namely questionnaire in preference to a schedule. The respondents included in the study are a busy lot and would not spare time there and then whenever called upon to do so.
Under these circumstances, the use of questionnaire was preferred to that of the schedule, in spite of the fact that it was known that responses to questionnaire may be delayed or even, in some cases, not received at all.

SELECTION OF INSTRUMENT

Having decided to use a questionnaire for data collection, the next task was to choose suitable instruments for measuring personality traits, job-satisfaction, social adjustment and effectiveness of branch managers. The selection of the instrument for a particular study depends upon various considerations such as objectives of the study, the amount of time at the researcher's disposal, availability of suitable tests, personal competence of the researcher to score and interpret the test results.

After carefully reviewing various tests and inventories, the following instruments were chosen for the study because they had been found to be reasonably reliable. Among the other factors taken into consideration in the selection of the test instruments were: (1) the efficiency of the test; (2) ease in administration and scoring; (3) the educational level for which the test was best suited; (4) the content of the test; (5) the suitability of the test to the objectives of the research.
INSTRUMENTS AND THEIR DESCRIPTION

1. Eysenck personality questionnaire (E.P.Q.) was used to study the personality traits of branch managers.

2. Job-satisfaction index by Brayfield and Rothe was used to measure the level of job-satisfaction of branch managers.

3. Deva's social adjustment inventory was used to know the extent to which branch managers were socially adjusted.

4. A self-prepared scale by the researcher to measure managerial effectiveness of branch managers was used to determine the level of their effectiveness.

EYSENCK PERSONALITY QUESTIONNAIRE (E.P.Q.)

The Eysenck personality questionnaire is a development of various earlier personality questionnaires by the same author. It differs from the latest of these, Eysenck personality inventory (E.P.I.), by including an additional scale to measure psychoticism. Eysenck, as early as 1952, developed Maudsley Medical Questionnaire (MMQ) measuring only neuroticism or emotionality. This was followed by Maudsley personality inventory (M.P.I.) in 1959, which measured Neuroticism and Extroversion-introversion. Again in 1964, Eysenck developed Eysenck
personality inventory (E.P.I.) by adding the new dimension of lie (L) to measure dissimulation. It is also in a somewhat simplified language in order to make it easier for less educated subjects to understand the questionnaire without having to have its meaning explained to them. The dimensions Extroversion and Neuroticism (E and N) were completely independent in Eysenck personality inventory whereas these were slightly correlated in Maudsley personality inventory (M.P.I.). Also, the reliability of Eysenck personality inventory was higher than that of Maudsley personality inventory. But the scales on the two inventories do, of course, correlate so highly that they must be assumed to measure identical dimensions of personality and for most practical purposes they are interchangeable. Similarly the Extroversion and Neuroticism scales of the present questionnaire are so similar to the corresponding scales of the other questionnaires that whatever has been discovered about the correlates of Extroversion and Neuroticism with the use of older scales must be assumed to apply with equal force to the new scale. Eysenck's tool has been widely used in various research studies.
like those by Mohan and Virdi, Gupta et al., Muthayya and again Muthayya, to mention a few, in India. It was, therefore, decided to use Eysenck's tool to measure personality in the present study and his latest one, that is, Eysenck personality questionnaire, is applied.

The main advantage of the new scale (Eysenck's personality questionnaire) is the introduction of a new variable which the author has labelled "P" for psychoticism or toughmindedness. The new scale consists of 101 items - twenty-five for extroversion; twenty-one for neuroticism, twenty for lie, and twenty-four for psychoticism while eleven are filler statements.

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RELIABILITY OF THE SCALES

The author states that the test re-test reliability of the scales, that is, the correlation between the first and the second testing, carried out with a time interval intervening between the two occasions ranged from 0.78 (for P) to 0.89 (for E) which is not inferior to any other published personality test. As per the author, the consistency reliabilities of the scales which are the indications of the degree to which the questions in the scale cover a given area ranged from 0.74 (for P) to 0.85 (for E) which is considered adequate and not inferior to those observed for other tests measuring similar factors.

The scoring is done with the help of the scoring sheet developed by the author. One point is assigned to each correct answer on a scale and the total score of a respondent on the scale is the sum of these points. High score on E scale indicates extroversion and low score indicates introversion.

High score on N scale indicates neuroticism while high scores on P scale indicate psychoticism. The low scores indicate the lack of neuroticism and psychoticism.

It is a brief and simple test with high reliability and validity indices. It is easy to administer and to score.
It is, therefore, considered suitable for the attainment of the objectives of the study.

**MEASURING JOB-SATISFACTION**

There are normally two approaches to measure job-satisfaction. These approaches may be termed as the *global* approach and the *summation* approach. The *global* approach is concerned with eliciting generalised undifferentiated evaluation of the job or vocation, whereas the *summated* approach elicits the reactions or attitudes of the individual to specific aspects of the work situation which are then summed to obtain an overall index of liking or disliking. The present study has adopted the global approach in measuring job-satisfaction. This approach was preferred on the following grounds:

1. It can be logically argued that job-satisfaction is simply not the summation of likes and dislikes of specific aspects in the work situation. One may be dissatisfied with many aspects of the work situation and yet be satisfied with the job and vice versa.

2. The global approach to the measurement of job satisfaction seems to be more rational. It measures
the attitudes of the individuals towards their job as a whole. It forces the individual to give his reactions to the job in its totality (that is in a way it asks *all said and done, how satisfied are you with your job*) and these reactions are measures in a subtle manner, rather than by asking the respondents to state the extent to which they are satisfied or dissatisfied with their jobs. Such a statement was avoided, as even with the assurance of anonymity on account of the recessions prevailing in the country as a whole, many persons might not have given a correct response to such a questionnaire. Srivastava has used a similar approach.

It was, therefore, decided to adopt the global approach to measure the job-satisfaction of managers and the job-satisfaction index used is that by Brayfield and Rothe.

**JOB SATISFACTION INDEX**

The job-satisfaction index by Brayfield and Rothe\(^7\) is based on the assumption that job-satisfaction could be inferred from the individual's attitude towards his work. An attitude scale elicits an expression of feeling towards

an object. It may be used directly with individuals to obtain such an expression and permits qualification of expression of feeling. According to the authors, the following requirements were formulated as desirable attributes of the attitude-scale designed to provide a useful index of job-satisfaction:

1. It should give an index to "Overall" job-satisfaction rather than to specific aspects of job situation.
2. It should be applicable to a wide variety of jobs.
3. It should be sensitive to variations in attitude.
4. The items should be of such a nature (interesting, realistic and varied) that the scale would evoke cooperation from both management and employees.
5. It should yield a reliable index.
6. It should yield a valid index.
7. It should be brief and easily scored.

Thurstone method of scaling was used in the construction of the scale and eighteen statements were finally selected which constitute the final scale.

RELIABILITY

According to the authors, the odd-even product moment reliability coefficient was 0.77 which was
corrected by Spearman Brown formula to 0.87. These indices give an evidence of the reliability of the scale.

VALIDITY

The authors have described that the method of constructing the scale itself furnished the evidence of its validity. According to them an attitude variable was specified in developing the scale. This was job-satisfaction which was to be inferred from verbal reactions to a job expressed along a favourable-unfavourable continuum. The *Q* values, which are based on the degree of uniformity in the sorting of statements, had been used as an objective measure of ambiguity in accordance with Thurstone's recommendations. According to the authors, no item was selected which had *Q* value of 2.00 or above. It is, therefore, perceived that statements used in this scale uniformly had a small *Q* value which is indicative of marked consistency among the judges. The authors of the scale used outside criteria also, which is another rigorous requirement for validation, and found the validity of the test to be high.

SCORING

The Likert scoring system consisting of five categories of agreement-disagreement is applied to each
The authors explained that from the Thurstone scale value it was known in what direction to apply the new scoring method so that a low total score would represent the dissatisfied end of the scale and high total score the satisfied end. The items were selected so that the satisfied end of the scale was indicated by "Strongly Agree" and "Agree" for one half of the items and by "Strongly Disagree" and "Disagree" for the other half. The neutral response was undecided. The Likert scoring weighs for each item range from one to five and the range for possible total score now becomes eighteen to ninety with undecided or neutral point at fifty-four.

It is a brief test, easy to administer and to score. The statements are very simple and the scale has high reliability and validity. Moreover, as it gives an index to "overall" job-satisfaction rather than to specific aspects of the job situation, it is considered to be suitable for the present study.

**Deva's Social Adjustment Inventory**

Deva's Social Adjustment Inventory considers the level of emotional adjustment and social maturity to determine the extent of social adjustment an individual has. The author has referred to the work of Schnider and
others. Regarding emotional-adjustment part of it, Schnider has said that emotionally well-adjusted persons are quick enough to establish affectional relations with others. It is true that emotional reactions are natural and are in no way indicative of poor adjustment, but, as Schnider remarks:

An emotional reaction which lacks control, maturity and adequacy is regarded as disagreeable and indicates poor emotional adjustment, control, maturity and adequacy of emotional reactions are needed.

Similarly regarding the social maturity aspect of the inventory, the author has quoted from the work of Adler:

A socially well-adjusted person is not only efficient and happy in his environment, but also he must have a sense of social feelings, that is, he must be cooperative and sympathetic.

The items which could be considered to assess the above mentioned aspect of emotional and social adjustment were collected and Thurstone's technique of "Equal Appearing Intervals" was employed for scaling the items.


9A. Adler, Individual Psychology, Clark University Press, 1930.
The author preferred Thustone's technique, as it provides an objective check on the ambiguity of test items. Quartile deviations of the distributions of the rating given to each statement were employed as measure of statement ambiguity. It was considered that statements with precise and specific meaning are likely to get a small variety of rating and thus would have relatively small quartile deviations. Of 250 statements originally collected, eighty-five survived this scrutiny and have been included in the final questionnaire. The median value of the distribution of ratings given to each of these statements served as the basis of scoring weights. There are fifteen filler items which have been designed to yield a "Test Dishonesty" score, whereas thirty-nine items measure emotional adjustment and forty-six items measure social maturity.

RELIABILITY AND VALIDITY

The inventory has yielded satisfactory reliability and validity indices. The test-retest reliability after a period of two months was 0.91. The emotional and social adjustment scales of this inventory were validated against the corresponding scales of Saxena's "Vyaktitva
Parakh Prashnavali. The validity of the two scales had come out to be 0.81 and 0.79 respectively.

**SCORING**

The scoring is done with the help of scoring stencils provided by the author. There are three scoring stencils - one to measure emotional adjustment, the other to measure social maturity while the third one is to know test dishonesty score. Each stencil has a pattern of holes which reveal the responses. Adjacent to each hole in the key stencil is a number indicating the weight to be given to it, if a response appears through the hole. The items marked double, both for "yes" and "No" are not to be considered for scoring.

Social adjustment scores of the respondents will be derived by adding together their scores on emotional adjustment and social maturity scales. The testee can obtain zero as minimum score and 273 as maximum score on this scale. High scores indicate maladjustment while low scores indicate better adjustment.

The scale is developed by the author for Hindi knowing people of North India and is simple to administer and easy to score. It was considered that the scale would serve the objectives of the present research study.
EFFECTIVENESS SCALE

Effectiveness of the subjects in the sample is measured through a scale, prepared by this researcher. On this scale, the branch managers are rated by their immediate superior and immediate junior. The effectiveness score of a manager is the mean of the scores given by the superior and the junior. The format of the scale is Likert type with five categories — Highly satisfactory, satisfactory, average, unsatisfactory and highly unsatisfactory or maximum, above average, average, below average and minimum. The scale contains thirty qualities, selected on the basis of bank officers’ perception of managerial effectiveness required to optimise the utilisation of all available and potential resources — material, men and finance — both within and outside the branch towards its sustained long-term functioning.

RELIABILITY

The split-half product moment reliability coefficient and test-retest reliability coefficient after a period of six weeks was 0.82 and 0.79 respectively. The index in both cases is high which indicates that the test was a reliable measure of a branch manager's effectiveness.
VALIDITY

The content and statistical validity indices are 0.90 and 0.71 respectively which indicate that the validity of the scale is high.

SCORING

The Likert scoring system consisting of five categories of satisfactory/maximum and disagreement/minimum is applied to each item. All the items were positive and high total scores would represent more effective and low total score would represent less effective or ineffective. The Likert scoring weights for each item range from one to five and the range for possible total score now becomes thirty to 150 with an average score of ninety.

PROCEDURE

The sample was drawn from all the public sector commercial banks operating in four district headquarters of Punjab and headquarter of the Union Territory of Chandigarh. As group testing was not possible, the sampled individuals were approached individually and requested to complete the three tests in three sequences: (1) Eysenck personality questionnaire, (2) Job-satisfaction index of Brayfield and Rothe, (3) Deva's
social adjustment inventory. Although full and clear instructions were written on each of the tests, the researcher first familiarised the respondents with these three tests and explained thoroughly all the tests and the manner in which they had to record their responses to the test items. They were requested to go through the instructions of each test before actually starting to record their responses to the tests. The immediate superiors - Regional/Area/Divisional/Chief Managers, and the immediate juniors - Accountants/Sub-managers, of the testees were approached to provide evaluation of the performance of the testees on a given form of "Effectiveness Scale." The clear-cut direction for superiors and juniors were printed on forms of effectiveness scale. Out of a sample of 305 branch managers, twenty-six were under transfer and the second man was working in their places, ten were found on long leave, while twenty refused to accept the test material. Remaining 249 subjects were given the test material out of whom 180 responses were received. The superiors and the juniors of these 249 subjects were contacted for getting their (Branch Managers') effectiveness evaluated. The superiors' responses about 180 subjects and juniors' responses regarding 235 subjects were received. On scrutinising the responses, sets of responses for 150 subjects were found complete in all respects (a set is
considered complete when the complete response of the testee, his effectiveness scores from his superior as well as from his junior are received). The mean of the scores obtained by a subject on the effectiveness scale from his superior and junior was considered his effectiveness score.

On the basis of their effectiveness score the subjects were categorised into two broad categories, namely, "Effective" and "Ineffective." The maximum score on the effectiveness scale is 150 and the minimum is thirty, while ninety is the average score. It was decided that subjects with effectiveness score of ninety points or above are effective and those scoring below ninety are ineffective. Further, those falling in the effective category may not be equally effective. Some may be more effective while others may be less effective. It may be recalled that the object of the present study is to see the association between effectiveness and personality, job-satisfaction and adjustment. It is, therefore, desirable to categorise the effective subjects according to their level of effectiveness and for this purpose quartile deviations were calculated. Subjects falling above the value of third quartile are categorised as "Highly Effective," falling below the value of third quartile but above the value of first quartile are
categorised as "Moderately Effective" and those falling below the value of first quartile are "Less Effective."

To sum up, for the purpose of the present study the subjects were grouped into four categories namely, highly effective, moderately effective, less effective and ineffective. On the basis of quartile values those scoring 123 or above are highly effective, those scoring below 123 but above 106 are moderately effective while those scoring below 106 are less effective. Branch Managers scoring less than ninety are ineffective.

To extract the maximum cooperation and reliable responses on the various test instruments it was considered desirable to maintain the anonymity of the responses and so the subjects were allotted code numbers which were marked on all the questionnaires concerning each subject. The following example would illustrate the procedure followed for coding the questionnaires:

If a branch manager is allotted a code number 001, the instrument measuring personality, job-satisfaction and adjustment on which this particular branch manager was to record his responses were marked with 001 code. The respondents for these questionnaire were not to put any identification mark such as their signatures, the name of the bank or the branch on it. Also two copies of
effectiveness scale on which the effectiveness of this particular branch manager was to be assessed by his immediate superior and immediate junior were also marked with 001 code. For the purpose of analysis, scores on all these instruments would be recorded against the code 001.

In order to know the personality traits, job-satisfaction level and social adjustment patterns of branch managers at different levels of effectiveness, the following statistical methods were followed:

1. Arithmetic mean scores of each personality trait, job-satisfaction and social adjustment were calculated separately for branch managers falling in different categories of effectiveness.

2. To know the significance of difference between mean scores of personality traits, job-satisfaction and social adjustment for branch managers in different categories of effectiveness, *t* values were calculated and compared with critical value of *t* at 5 per cent level of significance.

3. For determining the relationships between personality traits, job-satisfaction and social adjustment on
the one hand and effectiveness of branch managers on the other, Pearson product moment coefficient of correlation was calculated and its significance was treated at 5 per cent level of significance.

In conclusion, it may be stated that this chapter was concerned with the following:

1. Choice of the research design for the present study.
2. Stating the universe and the sampling design for the study.
3. Selection of tools and description of instruments applied to measure the variables.
4. Procedure to be followed for the conduct of the study and the nature of statistical analysis of the data.