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CHAPTER 3

THE STUDY

INTRODUCTION:

We have discussed the need and importance of the present study in the previous chapter. We have also documented available research in this area along with key statements to research. Such a review clearly shows the promising nature of this research for further investigation. Moreover, we have also tried to distinguish between the present and past studies along with its justification for further investigation. As the starting step, the construct of "managerial effectiveness" is hypothesized which is further studied in relation to age, experience, eight managerial styles and sixteen personality variables (16 PF test) among the managers of automobile industry (manufacturing units) of Haryana. These manufacturing units are located at Dharuhera (Hero Honda Motors Limited); Gurgaon (Maruti Udyog Limited); and Faridabad (Escorts Limited). So the setting of this study is in automobile industry which is of national concern from the economic point of view. In this context, the problem is formulated as: "Managerial Effectiveness in Automobile Industry of Haryana".

AIMS AND OBJECTIVES

The main aims and objectives of this study are:
1. To clarify the concept of managerial effectiveness by surveying the relevant literature.

2. To document the scattered research in this area at one place along with key statements to research.

3. To prepare a status cum development survey on automobile industry.

4. To determine the relationships between the scores on managerial effectiveness test and the following eight managerial styles:

[i] Deserter
[ii] Missionary
[iii] Autocrat
[iv] Compromiser
[v] Bureaucrat
[vi] Developer
[vii] Benevolent autocrat
[viii] Executive

5. To determine the relationships between the scores on managerial effectiveness and the following 16 personality factors:

[i] Reserved vs. outgoing
[ii] Less intelligent vs. more intelligent
[iii] Affected by feelings vs. emotionally stable
[iv] Humble vs. assertive
[v] Sober vs. happy go lucky
[vi] Expedient vs. conscientious
[vii] Shy vs. venturesome
[viii] Tough minded vs. tender minded
[ix] Trusting vs. suspicious
[x] Practical vs. imaginative
[xi] Foresighted vs. shrewd
[xii] Placid vs. apprehensive
[xiii] Conservative vs. experimenting
[xiv] Group dependent vs. self sufficient
[xv] Undisciplined vs. controlled
[xvi] Relaxed vs. tense

6. To determine the characteristics of effective and less effective managers.

7. To determine the mathematical structure of tools and tests used in this study.

8. And lastly, to point out the implications of the present study for further research.

HYPOTHESES TO BE TESTED

It is proposed to set up and test the following hypotheses. These hypotheses have been phrased in the Null form as follows:

$H_0$ There are no significant relationships between the scores on managerial effectiveness and the following outside variables:
1. Age,
2. experience,
3. eight managerial styles
4. sixteen personality factors.

There are no significant relationships between the scores of eight managerial styles, each taken separately; and age and experience.

There are no managerial styles which are manifested explicitly and significantly by the managers of the manufacturing concerns of automobile industry.

There does not exist any underlying unitary mathematical structure among the mutual relationships of managerial effectiveness, age, experience and the eight managerial styles.

There does not exist any underlying unitary mathematical structure among the mutual relationships of age, experience, eight managerial styles and 16 personality variables.

There are no significant characteristic differences between the two groups of effective and ineffective managers.

METHOD OF PROCEDURE

It is to be noticed that the first two objectives at S.no. 1 and 2 have already been achieved and described in the previous chapter. Moreover, a short note on the "Status cum development survey on automobile industry" in general and automobile industry in Haryana was also prepared. The whole account appears in the appendix 1.
SAMPLE AND SUBJECTS

The study comprised 70 managers out of which two were females. They were drawn from three automobile manufacturing concerns, namely, M/s. Escorts Limited, M/s. Maruti Udyog Limited and M/s. Hero Honda Motors Limited. All the three manufacturing concerns are situated in Haryana. They came from diverse departments such as engineering department, establishment (operation), export, finance, heat treatment, marketing, machine shop, personnel department, planning and control, production and engine plant, quality management/quality control, research and development, safety, stores, tool room, vendor payment ware-house and despatch, and weldship. They ages ranged from 25 years to 57 years, the mean age being 40.21 years. Their experience ranged from 4 years to 25 years, the mean experience being 14.89 years. The distribution of the study sample industry-wise at three levels of management is shown in table 3.1:

<table>
<thead>
<tr>
<th>S. no.</th>
<th>Manufacturing concern</th>
<th>Top level</th>
<th>Middle level</th>
<th>Lower level</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Escorts Ltd.</td>
<td>4</td>
<td>21</td>
<td>10</td>
<td>35</td>
</tr>
<tr>
<td>2.</td>
<td>Maruti Udyog Ltd.</td>
<td>5</td>
<td>5</td>
<td>9</td>
<td>19</td>
</tr>
<tr>
<td>3.</td>
<td>Hero Honda Motors Ltd.</td>
<td>1</td>
<td>10</td>
<td>5</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>Grand Total</td>
<td></td>
<td></td>
<td></td>
<td>70</td>
</tr>
</tbody>
</table>
The following three tools and tests were employed in this study which are now described in brief below:

[a] The managerial effectiveness test.
[b] The managerial styles test.

(a) THE MANAGERIAL EFFECTIVENESS TEST

The success of any investigation depends upon the choice of the tool as well as its reliability and validity. Unfortunately, researchers in this country face the scarcity of measuring tools/instruments. However, a tool directly relevant to our study had already been developed by Seeta Gupta (1991). She had very laboriously selected suitable items for investigating managerial effectiveness from several diverse sources and subjected them to conventional items analysis. She administered this tool on 100 middle level executives of Vayudoot Limited, New Delhi. The reliability of the tool came out to be .73 using the well known test-retest and split half methods of determining reliability. Its validity, other than face validity, was not reported. Her tool contains 45 items. The respondent is asked to rate each of the items on five point scale. Ten of the items had a reversible scoring. When the test was subjected to factor analysis, as many as sixteen factors appeared. There were 2 to 4 items variables on each of the 16 factors. Each item (variable) had significant loadings. These 16 factors, were as follows:
1. Confidence in subordinates
2. Communication and task assignment.
3. Networking
4. Colleague management
5. Discipline
6. Resource utilization
7. Management of market environment
8. Conflict resolution
9. Integrity and communication
10. Competence and client management.
11. Motivating
12. Delegation
13. Teamwork and image building
15. Consultative
16. Inspiration and innovation

It was considered desirable to add nine more items which were further classified into three categories, namely, problem solving adequacy (4 items); cohesiveness (3 items) and morale (2 items). The validity of the entire test as seen from our tables (5.2/5.7) come out to be .653 and .650 respectively. Thus, this test as a whole reflects in ample measure the hypothesized managerial effectiveness construct.² The copy of the whole test is contained in the appendices (see appendix 2).

(b) THE MANAGERIAL STYLES TEST

In order to understand effective management, one has to understand and grasp the range of activities, a manager performs. So, the term, managerial style, becomes an important concept to demand our attention. Style is the core of "what it means to be a person", precisely speaking, a manager in our case. More specifically, it is one's manifested behaviour or characteristic mode of acting on things and while tackling a series of problematic situation, so as to produce "effectiveness". Prof. Bill Reddin talks more or less
the same thing when he equates style with behaviour and finally 
calls it the "Management Style" (see fig 3.1).

Fig.3.1  SHOWING THAT STYLE ACTS AS A DRAGGER AND 
PIERCES THROUGH SITUATION TO PRODUCE EFFECTIVENESS

He classified styles into eight types, out of which the 
first four are ineffective styles; and the other four are effective 
one. The brief description of eight managerial styles is given 
below:

THE BRIEF DESCRIPTION OF THE EIGHT MANAGERIAL STYLE

Let us now mention in brief the main indicators of each 
of the eight managerial styles. He phrased these styles in a question 
form such as:

1. Are you a deserter ?
2. Are you a missionary ?
3. Are you an autocrat ?
4. Are you a compromiser ?
5. Are you a bureaucrat ?
6. Are you a developer ?
7. Are you a benevolent autocrat?
8. Are you an executive ?
Their indicators are now described below:

1. **DESERTER INDICATORS**

1. He simply wishes to survive in the organisation.
   So output for his involvement in the affairs of the company is minimum.

2. He avoids responsibility. So he initiates and follows up matters slowly.

3. He does nothing about "something" in poorly designed organisations. So he is more or less just short of a "zero multiplier".

4. He is ineffective. He resists change and innovation.

5. He works to rule. He uses rules and 'lies as weapons.

6. He is usually quiet, friendless and little noticed.
   He avoids work which he postpones for tomorrow. Ultimately, he enjoys little respect and prestige.

7. He has low task and relationship orientations and consequently, he does not grow in his job.

2. **MISSIONARY INDICATORS**

1. He is kind, pleasant and warm who wishes to be liked by others.

2. He emphasizes the human aspect of the enterprise. He loves to lead from behind.
3. He makes things easy for others. He is quite easy to get on with. Finally, he is dependent on others.

4. He avoids conflict. At the same time, he is more helpful and generous when it comes to providing help to others.

5. He is less effective. His first priority is morality rather than profitability/output.

6. He gives little emphasis to control, productivity measures, and performance feedback loops.

3. **AUTOCRAT INDICATORS**

1. He talks a lot as well as talks loudly. He is, therefore, a dominant type.

2. He believes that the accomplishment of immediate task is more important and, therefore, works to that end. He does not see the human side of the situation.

3. He believes in "bicycle theory of leadership". In other words, he is totalitarian in his approach.

4. He has poor image of the worker, who prefers to be directed, wishes to avoid responsibility, has relatively little ambition and wants security above all. He fails to utilize the full capabilities of his workers, for he sees workers as "extensions of machines".

5. He believes that best decision is made by one person. This style is "less effective".
6. He is interested in downward communication. So autocracy is contagious.

7. He is feared and disliked. He develops diverse techniques of control and threats. He, thereby, creates stress within the organization.

8. He believes that threats work under all situations. He is a stranger to the concept of motivation. It is, therefore, the least surprising that he invariably acts without consultation.

4. COMPROMISER INDICATORS

1. He is usually unsure and confused.

2. He lacks knowledge. He goes on changing his mind till the last minute. Therefore, he lacks decisiveness.

3. He does not read the situation well. 'e minimizes the incidence of immediate problem.

4. He believes that what is important is that what works rather what is the best.

5. He sets objectives which are easy to achieve in practice.

6. He avoids conflicts by participation.

7. He shows high task as well as high relationship orientation relevant to one or more. It is an ineffective style, but the most effective one among the style (1 to 4) as mentioned above.
5. BUREAUCRAT INDICATORS

1. He is effective in many situations because he is able to adjust task and relationship for meeting the requirements of the situation.

2. He involves him less with the problem of others.

3. He believes in control on activities by sub-dividing them for the workers.

4. He follows rules and procedures firmly. In times of conflict and controversy, he refers them for further clarifications. This supports the view that he has love for proper channel and follows orders exactly.

5. He believes that every situation has straight lines which if followed can lead to added achievement.

6. He does not push for production.

7. It is an effective style in many situations.

6. DEVELOPER'S INDICATORS

1. He is often quite and unassuming.

2. He regards work as natural and to be done in the spirit of play.

3. He encourages workers for enhancing their achievement by generating creative environment.

4. He maintains open communication channels.

5. He develops talents of others.

6. HE believes in the principle of sharing.
7. He trusts and is trusted by others.

7. **BENEVOLENT AUTOCRAT INDICATORS**

1. He is task oriented and intervenes a great deal for achieving goals. This style is, therefore, effective.

2. He places implicit trust in himself and his varied ways of doing things.

3. He insists on high production both on short and long term basis.

4. He pre-consults his subordinates. He is usually somewhat ambitious.

5. He is little in sympathy with techniques like participation and bottom up management.

6. He uses "one on one" style of management.

7. He is industrious, energetic, shows initiative and decisiveness.

8. He obtains results because he is conscious of evaluating quantity, quality, time and costs, profits and sales.

9. He proposes as well as develops new ideas.

10. He knows that everyone needs a "pat on the back from time to time - but some need it lower than others".

8. **EXECUTIVE INDICATORS**

1. He enjoys confidence of his subordinate whom he regards as coworkers.
Individual Score sheet for second test [Fig 3.2].

[Diagram of a grid with numbers from 1 to 56, divided into two diagonals.]

[Total your 'A's']

[Total your 'B's']
2. He maximizes the efforts of his workers and thereby obtains high standards of work and production.
3. He uses team work when it comes to decision making. He has firm faith in a team management.
4. He commits himself to objectives firmly.
5. He uses participatory techniques.
6. He coordinates others' work too.
7. He regards disagreement, conflict and controversy as normal at work places which can be resolved easily.
8. He has firm faith in equality, and develops sense of self respect.

THE DETERMINATION OF EIGHT MANAGERIAL STYLES

We have listed the eight managerial styles along with their indicators as visualized by Professor Bill Reddin. His questionnaire entitled as "Managerial Style Test" is then administered which contains 56 items in all under two columns. A scoring sheet as shown below is given to the subject (see fig. 3.2). The subject is asked to write in box either "A" or "B", it is one of the two statements with which he agrees. Then B and A are counted down the column and across the column. Scores arising due to adjustment factors are fixed and added for each of the styles. It is seen, that scores on adjustment factors are positive, "0" and negative. The entire total gives one the
adjusted score on each of the eight managerial styles. These adjusted scores are entered, analysed and interpreted.

**INTERPRETATION OF SCORES**

This interpretation is simple. If your score for a particular style is 11 or above, it is your dominant style. If your score is 10, it is a supporting style. If your score is 4 or less than 4, it is a style which can be rejected straight away. According to the author, it is not a test of personality but, in short, it is a test of behaviour in the job one has at that particular moment.  

**THE MEASURES OF PERSONALITY**

It is difficult to define personality for it defies its own definition. Man sans (minus) personality is a piece of living material who is subject to the laws of mechanical forces. Otherwise, it is both explicit (physical look and social value); and implicit. That is, inner aspects of personality such as perceptions, feelings, reactions, attitudes, values, motivation and prejudices. These are also considered the basis of human behaviour. It is only the projective tests which measure the covert and subtle aspects of behaviour. As a field of experimental investigation, it is over 100 years old. Its entry into the field of business management is about 50 years old. Keeping these considerations in mind, let us quote below a few definitions of personality:
1. Personality is the dynamic organization within the individual, of the psychological systems that determine his UNIQUE ADJUSTMENT to the environment (G.W. Allport).

2. ...more or less a stable and enduring organization of a person's character and temperament, intellect and physique which determine his UNIQUE ADJUSTMENT to the environment (H.J. Eysenck).

3. A person is the product of the dynamic and characteristic organization within the individual of psycho-biological structures of systems; and their interaction with the environment. It is these two aspects - individuality of the structured organism and nature of his environment - that determine the individual's particular adjustment to his environment (Frank S. Freeman).

H. Bonner makes the following observations in regard to the psychology of personality. It does not mean that he has clarified the concept of personality by his five observations. He only tries to put the discussion on personality in a way comprehensible to the practitioners of psychology in other helping professions. His view is somewhat as follows:

1. Human behaviour is vast. Normally, it takes place in a context. If so, it comprises acts which, largely speaking, are interpretable. The individual to meet the requirements of the directive or situation acts.

2. Personality acts as a whole rather than in pieces in a determining environment. It is possibly the case that the person and his environment are inseparable. He is also an integral part of the work unit and group. There is, thus, a symbiosis between the two which influences personality for the affiliations interact with the entire organizational climate.
3. Personality is characterized by uniqueness, self consistency and acts more, or less as a whole. It remains under normal circumstances in a state of dynamic equilibrium. While monitoring unity of action, it is flexible too.

4. Personality is a goal directed behaviour. The employee, seeks as well evaluates objectives; all means-end relationships.

5. Personality grows and develops over time.

LISTING THE VARIABLES:

It is equally necessary to discern some common discernible patterns of behaviour across persons. Having said this, let us list several personality variables which have been used as well as talked of in literature by research workers in the field of management. These variables are mentioned below alphabetically:

(i) Ability, accountability, achievement, adjustment and aggressiveness.

(ii) Courage, communication, cooperation, creativity (desire to change and innovate), curiosity.

(iii) Discipline (self and organisational), disposition (charming), Dominance/submissiveness

(iv) Emotions, emotional stability, empathy, encouragement, energetic, extraversion/introversion.
(v) Fairness, feedback (feed forward), firmness, frankness (candour), friendship.

(vi) Goal oriented.

(vii) Helpfulness, hindsight.

(viii) Idealism, independence (sense of), ingenuity, initiative, insight, intelligence/aptitudes, interpersonal relationship; interest, intuition.

(ix) Job satisfaction; judgement.

(x) Knowledge (general and technical).

(xi) Morality (business), motivation, motives (ego) (security).

(xii) Neuroticism.

(xiii) Patience, performance (worker and interprise), persistence, personal and professional, political views, pragmatism, problem solving adequacy, psychoticism.

(xiv) Recognition, resourcefulness, reward.

(xv) Sociableness, styles of working (managerial), stress, sympathetic and supportive response.

(xvi) Tact, tolerance, trust.

(xvii) Value system (societal, theoretical, practical), vision (breadth of).

(xviii) Willingness to accept responsibility and take risk.

(xix) Zestfulness.
It may be noted that the choice of a particular variable (variables) depends upon the orientation of the researcher as well as the purpose of investigation. Lastly, it is a poor appreciation of an hypothesized "construct" when many variables are identified which overlap with each other in meanings. If so, the "construct under study" becomes an untidy concept. It is, therefore, highly desirable to choose a standardized personality test.

THE SIXTEEN PERSONALITY FACTOR QUESTIONNAIRE

This test was devised by R.B. Cattell and Eber in 1962 at the Institute for Personality and Ability Testing Champaign (USA). It is a standardized test which has been widely used in several countries of the world. It provides scores on 16 personality measures which sample almost whole of individual's personality. The sixteen factors of personality along with their reliability and validity are mentioned in table 3.2:
### Table 3.2. SHOWING 16 FACTORS ALONG WITH RELIABILITY (TEST-RETEST) AND VALIDITY

<table>
<thead>
<tr>
<th>S. no.</th>
<th>Factor</th>
<th>Symbol</th>
<th>Reliability</th>
<th>Validity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Reserved versus outgoing</td>
<td>(A)</td>
<td>.85</td>
<td>.86</td>
</tr>
<tr>
<td>2.</td>
<td>Less intelligent versus more intelligent.</td>
<td>(B)</td>
<td>.63</td>
<td>.75</td>
</tr>
<tr>
<td>3.</td>
<td>Affected by feelings versus emotionally stable</td>
<td>(C)</td>
<td>.75</td>
<td>.82</td>
</tr>
<tr>
<td>4.</td>
<td>Humble versus assertive</td>
<td>(E)</td>
<td>.85</td>
<td>.75</td>
</tr>
<tr>
<td>5.</td>
<td>Sober versus happy go lucky</td>
<td>(F)</td>
<td>.78</td>
<td>.84</td>
</tr>
<tr>
<td>6.</td>
<td>Expedient versus conscientious</td>
<td>(G)</td>
<td>.84</td>
<td>.74</td>
</tr>
<tr>
<td>7.</td>
<td>Shy versus venturesomeness</td>
<td>(H)</td>
<td>.88</td>
<td>.92</td>
</tr>
<tr>
<td>8.</td>
<td>Tough minded versus tenderminded.</td>
<td>(I)</td>
<td>.87</td>
<td>.82</td>
</tr>
<tr>
<td>9.</td>
<td>Trusting versus suspicious</td>
<td>(L)</td>
<td>.76</td>
<td>.78</td>
</tr>
<tr>
<td>10.</td>
<td>Practical versus imaginative</td>
<td>(M)</td>
<td>.71</td>
<td>.74</td>
</tr>
<tr>
<td>11.</td>
<td>Foresight versus Shrewd</td>
<td>(N)</td>
<td>.74</td>
<td>.77</td>
</tr>
<tr>
<td>12.</td>
<td>Placid versus apprehensive</td>
<td>(O)</td>
<td>.77</td>
<td>.85</td>
</tr>
<tr>
<td>13.</td>
<td>Conservative versus experimenting</td>
<td>(Q1)</td>
<td>.83</td>
<td>.86</td>
</tr>
<tr>
<td>14.</td>
<td>Group dependent versus self sufficient</td>
<td>(Q2)</td>
<td>.81</td>
<td>.76</td>
</tr>
<tr>
<td>15.</td>
<td>Undisciplined versus controlled</td>
<td>(Q3)</td>
<td>.70</td>
<td>.83</td>
</tr>
<tr>
<td>16.</td>
<td>Relaxed versus tense</td>
<td>(Q4)</td>
<td>.78</td>
<td>.83</td>
</tr>
</tbody>
</table>
Let us now describe the above mentioned sixteen factors of personality briefly in the order given above in fig. 3.3

Fig. 3.3 SHOWING THE DESCRIPTION IN BRIEF OF THE 16 PF PERSONALITY FACTORS.

FACTOR A

Reserved, Detached Critical, Cool:

The person who scores low (sten of 1 to 3) on Factor A tends to be stiff, cool, skeptical, and aloof. He likes things rather than people, working alone, and avoiding compromises of viewpoints. He is likely to be precise and "rigid" in his way of doing things and in personal standards, and in many occupations these are desirable traits. He may tend, at times, to be critical obstructive, or hard.

Vs.

Outgoing, Warmhearted, Easy-going participating

The person who scores high (sten of 8 to 10) on Factor A tends to be good-natured, easy-going, emotionally expressive, ready to cooperate, attentive to people, softhearted, kindly, adaptable. He likes occupations dealing with people and socially impressive situations. He readily forms active groups. He is generous in personal relations, less afraid of criticism, better able to remember names of people

FACTOR B

Less Intelligent, Concrete-thinking:

The person scoring low on Factor B tends to be slow to learn and grasp, dull, given to concrete and literal interpretation. His dullness may be simply a reflection of low intelligence, or it may represent poor function due to psychopathology.

Vs.
More Intelligent, Abstract-thinking, Bright:

The person who scores high on Factor B tends to be quick to grasp ideas, a fast learner, intelligent. There is some correlation with level of culture, and some with alertness. High scores contraindicate deterioration of mental functions in pathological conditions.

FACTOR C

Affected by Feelings, Emotionally Less Stable, Easily Upset:

The person who scores low on Factor C tends to be low in frustration tolerance for unsatisfactory conditions, changeable and plastic, evading necessary reality demands, neurotically fatigued, easily emotional and annoyed, active in dissatisfaction, having neurotic symptom (phobias, sleep disturbances, psychosomatic complaints, etc.) Low Factor C score is common to almost all forms of neurotic and some psychotic disorders.

Vs.

Emotionally Stable, Faces Reality, Calm, Mature:

The person who scores high on Factor C tends to be emotionally mature, stable, realistic about life, unruffled, possessing ego strength, better able to maintain solid group morale. Sometimes he may be a person making a resigned adjustment to unsolve emotional problems.

FACTOR E

Humble, Mild, Accommodating, Conforming:

The person who scores low on Factor E tends to give way to others, to be docile, and to conform. He is often dependent, confessing, anxious for obsessional correctness. This passivity is part of many neurotic syndromes.

Vs.
Assertive, Independent, Aggressive, Competitive, Stubborn:

The person who scores high on Factor E is assertive, self-assured, and independent-minded. He tends to be austere, a law to himself hostile or extrapunitive, authoritarian (managing other) and disregards authority.

FACTOR F

Sober, Prudent, Serious, Taciturn:

The person who scores low on Factor F tends to be restrained, reticent, introspective. He is sometimes dour, pessimistic, unduly deliberate and considered smug and primly correct by observers. He tends to be a sober, dependable person.

Vs.

Happy-go-lucky, Impulsively Lively, Enthusiastic:

The person who scores high on this trait tends to be cheerful active, talkative, frank, expressive, effervescent, carefree. He is frequently chosen as an elected leader. He may be impulsive and mercurial.

FACTOR G

Expedient, Evades Rules, Feels Few Obligations:

The person who scores low on Factor G tends to be unsteady in purpose. He is often casual and lacking in effort for group undertakings and cultural demands. His freedom from group influence may lead to anti-social acts, but at times makes him more effective, while his refusal to be bound by rules causes him to have less somatic upset from stress.

Vs.
Conscientious, Perserving, Staid, Rule-bound:

The person who scores high on Factor G tends to be exacting in character, dominated by sense of duty, persevering, responsible, planful, "fills the unforgiving minute". He is usually conscientious and moralistic and he "refers hard-working people to witty companions.

FACTOR L

Trusting, Adaptable, Free of Jealousy, Easy to Get on with:

The person who scores low on Factor L tends to be free of jealous tendencies, adaptable, cheerful, uncompetitive, concerned about other people, a good team worker.

Vs.

Suspicious, Self opinionated, Hard to Fool:

The person who scores high on Factor L tends to be mistrusting and doubtful. He is often involved in his own ego, is self-opinionated, and interested in internal, mental life. He is usually deliberate in his actions, unconcerned about other people, appoor team emember.

NOTE: This factor is not necessarily paranoia. In fact, the date on paranoid schizophrenics are near clear as to typical Factor L value to be expected.

FACTOR M

Practical Careful, Conventional, Regulated by External Realities, Proper:

The person who scores low on Factor M tends to be anxious to do the right things, attentive to practical matters and subject to the dictation of what is obviously possible. He is concerned over detail, able to keep his head in emergencies but sometimes unimaginative.

Vs.
Imaginative, Wrapped up in Inner Urgencies, Careless of Practical Matters, Absent-minded:

The person who scores high on Factor M tends to be unconventional, unconcerned over everyday matters, Bohemian, self-motivated "essentials", and oblivious of particular people and physical realities. His inner realistic situations accompanied by expressive outbursts. His individuality tends to cause him to be rejected in group activities.

FACTOR N

Forthright, Natural, Artless, Sentimental:

The person who scores low on Factor N tends to be unsophisticated, sentimental and simple. He is sometimes crude and awkward, but easily pleased and content with what comes, and is natural and spontaneous.

Vs.

Shrewd, Calculating, Worldly, Penetrating:

The person who scores high on Factor N tends to be polished, experienced, worldly, shrewd. He is often hardheaded and analytical. He has an intellectual, unsentimental approach to situations, an approach akin to cynicism.

FACTOR 0

Placid, Self-assured, Confident, Serene:

The person who scores low on Factor 0 tends to be placid, with unshakable nerve. He has a mature, unanxious confidence in himself and his capacity to deal with things. He is resilient and secure, but to the point of being insensitive of when a group is not going along with him, so that he may evoke antipathies and distrust.

Vs.
Apprehensive, Worrying, Depressive, Troubled:

The person who scores high on Factor 0 tends to be depressed, moody, a worrier, full of foreboding, and brooding. He has a childlike tendency to anxiety in difficulties. He does not feel accepted in groups or free to participate. High Factor 0 score is very common in clinical groups of all types.

FACTOR Q1

Conservative, Respecting, Established ideas, Tolerant of Traditional, Difficulties:

The person who scores low on Factor Q1 is confident in what he has been taught to believe, and accepts the "tried and true", despite inconsistencies, when something else might be better. He is cautious and compromising in regard to new ideas. Thus, he tends to oppose and postpone change is inclined to go along with tradition, is more conservative in religion and politics and tends not to be interested in a analytical "intellectual" thought.

Vs.

Experimenting, Critical, Liberal, Analytical, Free-thinking:

The person who scores high on Factor Q1 tends to be interested in intellectual matters and has doubts on fundamental garding ideas, either old or new. He tends to be more well informed, less inclined to moralize more inclined to experiment in life generally, and more tolerant of inconvenience and change.

FACTOR Q2

Group-dependent, A 'Joiner' and Sound Follower:

The person who scores low on Factor Q2 prefers to work and make decisions with other people, likes and depends on social approval and admiration. He tends to go along with the group and may be lacking in individual resolution. He is not necessarily gregarious by choice; rather he needs group support.

Vs.
Self-sufficient, Prefers Own Decisions Resourceful:

The person who scores high on Factor Q2 is temperamentally independent, accustomed to going his own way, making decisions and taking action on his own. He discounts public opinion, but is not necessarily dominant in his relations with others (see Factor E). He does not dislike people but simply does not need their agreement of support.

FACTOR Q3

Undisciplined Self-conflict, Careless of Protocol, Follows Own Urges:

The person who scores low on Factor Q3 will not be bothered with will control and regard for social demands. He is not overly considerate, careful, or painstaking.

Vs.

Controlled, Socially precise, Following self-image:

The person who scores high on Factor Q3 tends to have strong control of his emotions and general behaviour, is inclined to be socially aware and careful, and evidences what is commonly termed "self-respect" and regard for social reputation. He sometimes tends, however, to be obstinate. Effective leaders, and some paranoids, are high on Q3.

FACTOR Q4

Relaxed, Tranquil, Torpid, Unfrustrated:

The person who scores low on Factor Q4 tends to be sedate, relaxed, composed, and satisfied (not frustrated). In some situations, his oversatisfaction can lead to laziness and low performance in the sense that low motivation produces little trial and error. Conversely, high tension level may disrupt school and work performance.

Vs.
Tense, Frustrated, Driven, Overwrought:

The person who scores high on Factor Q4 tends to be tense, excitable, restless, fretful, impatient. He is often fatigued, but unable to remain inactive. In groups he takes a poor view of the degree of unity orderliness, and leadership. His frustration represents an excess of stimulated, but undischarged, drive.

The 16 P F test contains 187 items (see the appendix 2). There are about 10 to 13 items for each of the factors. The test items are arranged in a cyclic order with a view to give convenience in scoring by stencils as well as to ensure variety and interest for the subject.

COLLECTION AND HANDLING OF DATA

The data were collected on three tests by administering them on 70 managers who perform diverse managerial functions over a period of four months. The answer sheets were scored as per instructions and data were recorded on data sheets. Finally, there were then available scores/values in respect of the following 27 variables used investigation in this study. These 27 variables were as follows:

1. Managerial effectiveness
2. Age in years
3. Length of experience in years
4. Eight managerial styles
5. Sixteen measures of personality
The software of the Social Science Package (REYAD 1022 Computer) enabled us to provide the following statistical measures:

(a) Means, median,
(b) Standard deviation,
(c) Standard error,
(d) Correlations (Karl Person),
(e) 't' test,
(f) Factor analysis.

THE ORGANISATION OF THESIS

The organization of thesis is simple and straightforward. It contains six chapters excluding the appendices. The first chapter provides introduction to the problem by describing in brief the growing field of management. It also discusses the elusive concept of managerial effectiveness under the title: Managerial effectiveness - a conceptual analysis. The second chapter is on "Review of literature on managerial effectiveness". It also points out the differences between the past studies and the present study along with the formulation and justification of the problem under study. The third chapter deals with the statement of aims and objectives, proposed hypotheses, method of procedure etc. under the overall title: "The Study". The fourth and fifth chapters deal respectively with the presentation, analysis and interpretation of data; and the determination of
mathematical structures underlying tests and tools used in this study. Here Hotelling method was used. The last chapter provides in nut-shell the summary of the study along with suggestions for further research.

THE LIMITATIONS OF THE PRESENT STUDY

No research study is complete in itself. It is also true of the present investigation. Let us, therefore, list some of the important limitations of the present investigation. These were:

1. We could not obtain a larger size of the sample despite our personal and official efforts. Hence, we could not go for further subtle analysis by sub-grouping managers on the basis of their common functionings.

2. It would have been better had we studied the functioning of managers, using case studies for further support of our findings.

3. There was no cross check available for ascertaining the considered opinions of the superiors and sub-ordinates of the managers under study for the support of our findings. However, all managers under study liked the "managerial style test".

4. Whereas the 16 PF test is a standardized test adapted to Indian conditions, it became difficult to report data on the reliability and validity of the eight managerial style test. Our experience with the test shows that it is difficult to fake on this test.