CHAPTER - 3

PROBLEM AND PROCEDURE
“Productivity” is achieved in any organization with the association of Job Performance of an employee. Productivity is the result of an employee’s efficient service.

The measurement of Job Performance in industrial organizations has occupied a vital attention of industrial psychologists for a long period. The measurement of Job Performance plays an important role in all organizational decisions.

The “Measurement of Job Performance” provides systematic judgements to back up salary increase, promotions, transfers, and sometimes; terminations. It is a means of telling a subordinate, how he is doing, and sometimes; suggesting needed changes in his behaviour, attitudes, skills, and job knowledge. It lets him know “where he stands” with the boss.

Many studies have revealed that different factors contribute to employee’s Job Performance. Job Performance of an employee is an interaction of an employee’s output within work setting through positive feelings of his relative strength and the result of his favourable environment.

Researchers tried to find the impact of different factors on Job Performance, namely; Organizational Commitment, Organizational
climate, Age, Job anxiety, Personality factors, experience, achievement-motivation, Organizational stress and other factors.

The present study is intended to investigate the impact of Organizational Commitment, and Organizational Climate on Job Performance. A number of studies support findings of the present investigation. The positive relationship between the employees' performance and Organizational Commitment has been reported in many studies: (Mowday, 1974; Jauch, et al., 1978).

The positive relationship has also been reported between Organizational Climate and Job Performance: Frederickson (1966); Kaczka and Kirk (1968); Hall and Lawler (1969); Friendlander and Greenburg (1971); Schneider and Hall (1972); T. Venkateswara Rao and S.N. Chattopadhyay (1972); Dunnette (1973); Pritchard and Karasic (1973); Schneider (1973).

3.1 PROBLEM:

The problem under investigation comprises of the following major questions.

Is Job Performance of First-Line Supervisors associated with Organizational Commitment?
Is Job Performance of First-Line Supervisors associated with the Organizational Climate dimensions?

Does high and low Job Performance of First-Line Supervisors differ significantly in relation to Organizational Commitment and Organizational Climate?

Is high Job Performance of First-Line Supervisors significantly correlated with the corresponding Organizational Commitment?

Is low Job Performance of First-Line Supervisors significantly correlated with the corresponding Organizational Commitment?

Is high Job Performance of First-Line Supervisors significantly correlated with the corresponding Organizational Climate?

Is low Job Performance of First-Line Supervisors significantly correlated with the corresponding Organizational Climate?

Is Organizational Commitment of First-Line Supervisors significantly correlated with overall Organizational Climate?

Is Job Performance of First-Line Supervisors associated with Age?
Is Job Performance of First-Line Supervisors associated with Education?

3.2 OBJECTIVES:

To study the relationship between Job Performance and Organizational Commitment of the First-Line Supervisors.

To investigate the relationship between Job Performance and Organizational Climate of the First-Line Supervisors.

To find out the joint effect of Organizational Commitment and Organizational Climate on Job Performance of the First-Line Supervisors.

To study the relationship between Job Performance and Age of the First-Line Supervisors.

To study the relationship between Job Performance and Education of the First-Line Supervisors.
3.3 HYPOTHESES:

The following are the hypotheses formulated to answer the questions implied in the problem:

\( \text{H}_{a_1} : \text{Job Performance of the First-Line Supervisors is significantly correlated with Organizational Commitment.} \)

\( \text{H}_{a_2} : \text{Job Performance of First-Line Supervisors is significantly correlated with Organizational Climate.} \)

\( \text{H}_{a_3} : \text{High Job Performance group of First-Line Supervisors is significantly correlated with the corresponding Organizational Commitment.} \)

\( \text{H}_{a_4} : \text{Low Job Performance group of First-Line Supervisors is significantly correlated with the corresponding Organizational Commitment.} \)

\( \text{H}_{a_5} : \text{High Job Performance group of First-Line Supervisors is significantly correlated with the corresponding Organizational Climate.} \)
Ha₆: Low Job Performance group of First-Line Supervisors is significantly correlated with the corresponding Organizational Climate.

Ha₇: Organizational Commitment of the First-Line Supervisors is significantly correlated with Organizational Climate.

Ha₉: Joint effect of Organizational Commitment and perception of overall Organizational Climate on Job Performance of First-Line Supervisors is significant.

Ha₁₀: Joint effect of corresponding Organizational Commitment and perception of overall Organizational Climate on high Job Performance of First-Line Supervisors is significant.

Ha₁₁: Joint effect of corresponding Organizational Commitment and perception of overall Organizational Climate of First-Line Supervisors is significant.

Ha₁₂: First-Line Supervisors differ significantly in their perception of Organizational Climate dimensions in high Job Performance group.
Han: First-Line Supervisors differ significantly in their perception of Organizational Climate dimensions in low Job Performance group.

Ha_{15}: First-Line Supervisors differ significantly in low Job Performance group, low Organizational Commitment group, high Job Performance group and Organizational high Commitment group.

Ha_{16}: First-Line Supervisors differ significantly in low Job Performance group, high Job Performance group, perception of low overall Organizational Climate group and perception of high overall Organizational Climate group.

Ha_{18}: The group of First-Line Supervisors with high perception of Organizational Climate dimensions differs significantly from the group with low perception of Organizational Climate dimensions.

Ha_{18}: Job Performance of the First-Line Supervisors is not significantly correlated with Age.

Ha_{17}: Job Performance of the First-Line Supervisors is not significantly correlated with Education.
3.4 DESIGN:

Organizational Commitment, Organizational Climate, Age and Education were taken to be the independent variables.

The Job Performance was taken to be the dependent variable. The high and low job performance of the First-Line Supervisors forms the basis for comparison groups.

3.5 SAMPLE:

The present study has been designed to find out the relationship between the Job Performance, Organizational Commitment, Organizational Climate, Age and Education of First-Line Supervisors in industrial organization. The total sample selected for this study consists of 462 First-Line Supervisors from different Engineering Industrial Organizations, located in Hubli-Dharwad, Harihar and Belgaum in Karnataka State, India. The Age ranged from 21 years to 59 years and the average Age was 36.31. The number of industrial organizations to be selected was decided prior to the collecting of the required data. The method of Random Sampling was adopted for the present study.
3.6 MEASURES:

3.6.1 Measurement of Job Performance:

The measurement of Job Performance in industrial setting has occupied the attention of psychologists for a long period. Measurement of Job Performance has been dealt with the following studies, namely; Rao and Sohal (1958), Lawler (1966), Kolte (1972), Mowday (1974), Jauch, et al. (1978), Janardhan (1979), Hedge (1984), Borman (1992) and Burrick (1992).

M.C. Agarwal's (1979) First-Line Supervisors Job Performance Rating Scale:

In the present study, First-Line Supervisor Job Performance scale developed by M.C. Agarwal (1979) has been used for measuring the Job Performance of industrial First-Line Supervisors. It consists a set of 21 statements. There are five point response anchors against each statement in the scale depending upon the criterion of the statement.

For example: The Statement No.1 measures the knowledge of job, so here the responses against that statement are like,

1) His knowledge of the job as:
   i) Markedly limited [ ] ii) Somewhat limited [ ]
   iii) Fairly well [ ] iv) Better than average [ ]
   v) Exceptional [ ].

Another example: The last statement that is, No. 21 in the scale, measures ability to maintain discipline, so here the responses against that statement are like,
21) His ability to maintain discipline,

i) Unsatisfactory [ ] ii) Fair [ ]

iii) Good [ ] iv) Very good [ ]

v) Excellent [ ].

The scores for these responses are 1 to 5 respectively and higher score indicates higher Job Performance of each supervisor.

Here, the immediate supervisor of the First-Line Supervisor, has to rate the performance by putting the check mark [ √ ] against each statement shown in the brackets by choosing one of the alternative response anchors, and by filling the detailed information regarding the ratees, namely; Name, Department, Designation, and Rater's overall rating regarding the First-Line supervisor.

Reliability :

The split half method of reliability for Job Performance Scale is 0.83.
3.6.2 Measurement of Organizational Commitment:

Many studies have been done regarding the measurement of Organizational Commitment with a view to develop scales for measuring Organizational Commitment. Some of the scales have been mentioned below.


The Organizational Commitment Questionnaire developed by Porter et al., (1974) has been used in the present study for measuring the Organizational Commitment.

3.6.2a Organizational Commitment Questionnaire, by Porter, et. al. (1974):

The Organizational Commitment Questionnaire was developed by Porter, et. al., (1974). The earlier measures of Organizational
Commitment seemed to have been created on “a priori” basis and to back systematic or comprehensive efforts to determine their stability, consistency or predictive powers (Mowday, et. al. 1979).

The Organizational Commitment Questionnaires purports to measure Organizational Commitment defined as “the relative strength of an individual’s identification with and involvement in a particular organization”. (Porter, et al., 1974, p. 601).

The Organizational Commitment Questionnaire consists of 15 statements. And each statement has seven response anchors. They are like,

<table>
<thead>
<tr>
<th>Statements</th>
<th>Response Anchors</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I am willing to put in a great deal of effort beyond that normally expected in order to help this organization be successful.</td>
<td>1: Strongly Disagree, 2: Moderately Disagree, 3: Slightly Disagree, 4: Neither Disagree nor Agree</td>
</tr>
<tr>
<td>5: Slightly Agree, 6: Moderately Agree, 7: Strongly Agree</td>
<td></td>
</tr>
</tbody>
</table>

While for the last statement is also like,

<table>
<thead>
<tr>
<th>Statements</th>
<th>Response Anchors</th>
</tr>
</thead>
<tbody>
<tr>
<td>15) Deciding to work for this organization was a definite mistake on my part.</td>
<td>1: Strongly Disagree, 2: Moderately Disagree, 3: Slightly Disagree, 4: Neither Disagree nor Agree</td>
</tr>
<tr>
<td>5: Slightly Agree, 6: Moderately Agree, 7: Strongly Agree</td>
<td></td>
</tr>
</tbody>
</table>
The scale has been intended to measure the three characteristics of the Organizational Commitment, namely; a strong belief in and acceptance of the organizational goals and values; a willingness to exert considerable effort on behalf of the organization; and a strong desire to maintain membership in the organization.

Six of the statement are negatively phrased and reverse scored to reduce response bias. These six statements are those bearing the serial numbers, 3, 7, 9, 11, 12, and 15. It employs a 7-point Likert type response format. The scores for these responses are from 1 to 7 respectively. The total of the scores for the 15 statements provides the index of Organizational Commitment, higher score indicates stronger Organizational Commitment of an employee.

Reliability:

The Organizational Commitment variable measured by using the scale developed by Porter, et. al., (1974) has been found to have the split half method reliability 0.75 by Reddy (1986).
3.6.3 Measurement of Organizational Climate:

There are many scales developed for measuring the Organizational Climate, some of them are; Litwin and Stringer's Organizational Climate Questionnaire (1968, Form B); Burns and Stalker (1961); Halpin and Craft (1962); Frederickson (1966); Likert (1967); Davis (1968); Hall and Lalwer (1969); Dewhirst (1971); Friendlander and Greenburg (1971); Payne and Phesey (1971); Schneider (1972); and Schneider and Hall (1973).

The Organization Climate Questionnaire developed by Litwin and Stringer (1968, Form B) has been widely used. In the present investigation has also used the Litwin and Stringer's Organizational Climate Questionnaire (1968, Form B) to study the Organization Climate variable.

3.6.3.a Litwin and Stringer's Organizational Climate Questionnaire (1968, Form B):

The scale of Litwin and Stringer (1968, Form B) is used for measuring the Organizational Climate in the present study. This scale consists of nine sub-scales; measuring different dimensions of Organizational Climate; in which there are 50 statements included, and four response anchors for these statements. They are like,
The jobs in this organization are clearly defined and logically structured.

50. In this organization people look out for their own interests to a great extent.

**TABLE - 3.1**

The Nine Different Dimensions of Organizational Climate and the Number of Statements

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Dimensions</th>
<th>Statement Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Structure</td>
<td>1, 2, 3, 4, 5, 6, 7, 8,</td>
</tr>
<tr>
<td>2.</td>
<td>Responsibility</td>
<td>9, 10, 11, 12, 13, 14, 15,</td>
</tr>
<tr>
<td>3.</td>
<td>Reward</td>
<td>16, 17, 18, 19, 20, 21,</td>
</tr>
<tr>
<td>4.</td>
<td>Risk</td>
<td>22, 23, 24, 25, 26,</td>
</tr>
<tr>
<td>5.</td>
<td>Warmth</td>
<td>27, 28, 29, 30, 31,</td>
</tr>
<tr>
<td>6.</td>
<td>Support</td>
<td>32, 33, 34, 35, 36,</td>
</tr>
<tr>
<td>7.</td>
<td>Standard</td>
<td>37, 38, 39, 40, 41, 42,</td>
</tr>
<tr>
<td>8.</td>
<td>Conflict</td>
<td>43, 44, 45, 46,</td>
</tr>
</tbody>
</table>

Note: Bold Numbers are negative scoring statements.

The fifty item Litwin and Stringer Organizational Climate Questionnaire consists of nine separate "a priori" scales which are defined as under:
1) **Structure (8 items):**

The feelings that employees have about the constraints in the group, how many rules, regulations, procedures, there are; is there an emphasis on "red tape" and going through channels, or is there a loose and informal atmosphere.

2) **Responsibility (7 items):**

The feelings of being your own boss; not having to double check all your decisions; when you have a job to do, knowing that it is your job.

3) **Reward (6 items):**

The feelings of being Rewarded for a job well done; emphasizing positive Rewards rather than punishments; the perceived fairness of the pay and promotions policies.

4) **Risk (5 items):**

The sense of Riskiness and challenge in the job and in the organizations; is there an emphasizes on taking calculated Risks, or is playing it safe the best way to operate.
5) **Warmth (5 items):**

The feelings of general good fellowship that prevails in the work group atmosphere; the emphasis on being well-liked; the prevalence of friendly and informal social groups.

6) **Support (5 items):**

The perceived helpfulness of the managers and other employees in the group emphasis on mutual support from above and below:

7) **Standards (6 items):**

The perceived importance of implicit and explicit goals and performance standards: the emphasis on doing a good job; the challenge represented in personal and group goals.

8) **Conflict (4 items):**

The feelings that managers and other workers want to hear different opinions; the emphasis placed on getting problems out in the open rather than smoothing over or ignoring them.
9) **Identity (4 items)**:

The feelings that you belong to a company and you are a valuable member of a working-team; the importance placed on this kind of spirit.

The improved scale was administered to over 5,000 managers, supervisors, technicians, specialists and salesmen in a wide variety of business organizations. Analysis revealed the better scale consistency.

**TABLE - 3.2**

Consistency on the Organizational Climate Scale in an Improved Questionnaire (1968, Form B)

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Scale</th>
<th>No. of items</th>
<th>No. of items clustering</th>
<th>Mean intercorrelation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Structure</td>
<td>8</td>
<td>5</td>
<td>0.31</td>
</tr>
<tr>
<td>2.</td>
<td>Responsibility</td>
<td>7</td>
<td>4</td>
<td>0.23</td>
</tr>
<tr>
<td>3.</td>
<td>Reward</td>
<td>6</td>
<td>4</td>
<td>0.42</td>
</tr>
<tr>
<td>4.</td>
<td>Risk</td>
<td>5</td>
<td>3</td>
<td>0.29</td>
</tr>
<tr>
<td>5.</td>
<td>Warmth</td>
<td>5</td>
<td>3</td>
<td>0.33</td>
</tr>
<tr>
<td>6.</td>
<td>Support</td>
<td>5</td>
<td>2</td>
<td>0.37</td>
</tr>
<tr>
<td>7.</td>
<td>Standards</td>
<td>6</td>
<td>2</td>
<td>0.21</td>
</tr>
<tr>
<td>8.</td>
<td>Conflict</td>
<td>4</td>
<td>2</td>
<td>0.19</td>
</tr>
<tr>
<td>9.</td>
<td>Identity</td>
<td>4</td>
<td>3</td>
<td>0.49</td>
</tr>
</tbody>
</table>

This column describes the number of items on a scale that correlates most highly with another item on the same scale (as opposed to correlating most highly with an item on another scale).

Scale independence evaluated through the analysis of the scale inter-correlation showed a higher inter-correlation between Warmth and Identity ($r = 0.69$); Identity and Support ($r = 0.59$); Warmth and Support ($r = 0.57$); Reward and Warmth ($r = 0.54$); and Identity ($r = 0.56$). The degree of scale overlap was considerably lower than that for the earlier measures, although some scales were still strongly related.

A pilot study was conducted. The questionnaires used in the present study were pre-tested with a sample of 60 First-Line Supervisors of industrial organizations.

3.6.4 Personal Data Sheet:

The personal data sheet has been used to collect information regarding; Name, Age, Education, Name of the Organization and other particulars.
3.7 DATA COLLECTION:

The responses to M.C. Agarwal’s First-Line Supervisors Job Performance Rating scale (1979), Organizational Commitment Questionnaire by Porter, et al., (1974) and Litwin and Stringers Organizational Climate Questionnaire (1968, Form B) were used in the present study.

The respondents of the study were contacted personally in their industrial organizations by the investigator in two different sessions. In the first session, the First-Line Supervisors were asked to respond to the Organizational Commitment Questionnaire and the Organizational Climate Questionnaire along with their bio-data in the Personal Data Sheet.

The Questionnaires were supplied to each First-Line supervisor and given the following instructions:

3.7.1 Organizational Commitment Questionnaire:

"Listed below are a series of statements that represent possible feelings that individuals might have about the company or organization for which they work. With respect to your own feelings about the particular organization for which you are now
working, please indicate the degree of your agreement or disagreement with each statement by encircling one of the seven alternatives given against each statement. The alternatives are Strongly disagree, Moderately disagree, Slightly disagree, Neither disagree- nor agree, Slightly agree, Moderately agree and Strongly agree. There is no time limit for filling the questionnaire, please give your most honest and frank degrees of opinion, please avoid double marking”.

3.7.2 Organizational Climate Questionnaire:

“Following are some of the statements which describes condition that may or may not exist in your organization, I am interested in knowing the existing conditions in which you are working. I am interested in knowing your reactions, likes, dislikes, etc., about those conditions. I am interested in your agreement or disagreement, whether a particular characteristics or aspect is existing in your organization or not. Please read each statement carefully, you have to indicate to what extent the given statement is agreeable. There are four alternatives, Definitely agree, Somewhat agree, Somewhat disagree and Definitely disagree. Among these alternatives you have to give your agreement or disagreement by encircling the number shown in the right margin of each statement by selecting one of the four alternatives. There is no time limit for
filling the questionnaire. Please give your most honest and frank degrees of opinion. Please avoid double marking."

Along with the two questionnaires the Personal Data Sheets were distributed to First-Line Supervisors and collected the following information, namely; Name, Age, Marital status, Educational level, Designation, Name of the organization, Department, Date of joining, Salary drawing in total per month, In what position did he join the organization, Promotions received since when, and formal training received in the organization. After completion, the two questionnaires along with Personal Data Sheets were collected back.

The Investigator in the second session, asked the immediate supervisor of the First-Line Supervisors to respond regarding their First-Line supervisor's Job Performance ratings, by furnishing the particulars of the personal data of their ratees, the particulars, namely; Report on marking performance of the First-Line supervisor, Department, Designation, and Rater's overall rating about the ratee.
3.7.3 Job Performance Rating Scale:

The instructions to the immediate Supervisors of the First-Line Supervisors are given as follows:

"You have to rate here the First-Line Supervisors who are working under you. This rating will help me in my study. It is expected that you will give it as much care and attention as you would like from those who might be rating you. Please do not take into consideration your personal involvement and feelings while rating your subordinates, and try to be as objective as possible. Please indicate your judgement by putting check mark [✓] in the brackets shown in front of each response anchors of the statement."

Job Performance Rating scales duly rated by immediate Supervisors of the First-Line Supervisors were collected back.

3.8 DATA PROCESSING:

The data thus collected, were scrutinized, coded, scored and then transformed into the Standard score.
3.8.1 Scrutinizing :

The responses given by each respondent were carefully scrutinized for wrong markings, omissions, and commissions. Only such of those answered and which were complete in all respects were retained and others rejected.

3.8.2 Scoring :

3.8.2a Job Performance Rating Scale :

The scale consists of 21 items and there are no negative statements. There are five different response anchors depending upon the criterion of the statements. The responses carry weightages 1, 2, 3, 4, and 5. The higher score indicates the higher job performance of the employee. The total score of their weightages provide an index of Job Performance of an employee.

The total Raw scores, thus obtained, are transformed into Standard score.
3.8.2b Organizational Commitment Questionnaire:

There are 15 statements in the scale, of these, 6 statements are negatively phrased, they are, 3, 7, 9, 11, 12 and 15. There are seven responses to the statements. These responses carry weightages from 1 to 7, Strongly Disagree = 1, Moderately Disagree = 2, Slightly Disagree = 3, Neither Disagree nor Agree = 4, Slightly Agree = 5, Moderately Agree = 6, and Strongly Agree = 7. The higher score of the response indicate the stronger degree of Organizational Commitment of an employee, and in the negative statements *vice versa*; and the total score for fifteen statements provide the index of the Organizational Commitment.

The total Raw scores, thus obtained are transformed into Standard score.

3.8.2c Organizational Climate Questionnaire:

There are 50 statements in the scale, of the fifty statements 23 statements are negatively phrased, they are; 2, 5, 6, 7, 9, 14, 15, 19, 20, 21, 22, 24, 28, 29, 30, 32, 34, 40, 41, 42, 43, 49 and 50, and remaining statements are positive. The statements carry weightages 1, 2, 3 and 4. That is, Definitely Agree = 1, Somewhat Agree = 2, Somewhat Disagree = 3, and Definitely Agree = 4. And in the
case of negative statements *vice versa*. The degree encircled in each item by the respondent provides an opinion about the organizational climate in their respective industrial organization.

The total Raw scores, thus obtained, are transformed into Standard score.

3.8.2d Age:

The actual chronological Age of the First-Line Supervisors collected in Personal data sheet has been taken as a raw score. The total Raw scores, thus obtained, are transformed into Standard scores.

3.8.2e Education:

The Educational level of the First-Line Supervisors collected in Personal data sheet. The Educational levels included are, ITI, Diploma and B.E. The weightages given to each Educational level is as follows, namely; ITI = 01, Diploma = 02 and B.E. = 03. The total Raw scores, thus obtained, are transformed into Standard scores.
3.9 ANALYSIS OF RESULTS:

The derived Standard scores of Job Performance of First-Line Supervisors are compared with the Standard scores of the other variables, namely; Organizational Commitment, Organizational Climate, Age and Education.

Simple correlation, Multiple Regression, One-way Analysis of Variance (ANOVA) and \( t \)-tests are the main statistical techniques used in the present study.

Simple Correlation is Applied:

1) to study the Job Performance of the First-Line Supervisors in relation to Organizational Commitment, Organizational Climate, Age and Education.

2) to study the high and low Job Performance group of the First-Line Supervisors in relation to Organizational Commitment and Organizational Climate.
Multiple Regression is Applied:

3) to study the joint effect of Organizational Commitment and Organizational Climate on Job Performance of the First-Line Supervisors.

4) to study the joint effect of Organizational Commitment and Organizational Climate on Job Performance of the high Job Performance group of the First-Line Supervisors.

5) to study the joint effect of Organizational Commitment and Organizational Climate on Job Performance of the low performance group of the First-Line Supervisors.

One-way Analysis of Variance (ANOVA) is Applied:

6) to study the significant difference between high and low Job Performance groups of the First-Line Supervisors in relation to Organizational Commitment and Organizational Climate.

7) to study the significant difference between Organizational Climate dimensions in high Job Performance group and low Job Performance groups respectively.
t-test is applied:

8) to make a comparison between high and low groups of Organizational Climate dimensions in high and low Job Performance groups of First-Line Supervisors.

For studying the Job Performance of First-Line Supervisors the median score is taken as the criterion for regrouping into high Job Performance group of the First-Line Supervisors and low Job Performance group of the First-Line Supervisors.

Further, scores regarding Organizational Commitment of First-Line Supervisors are also regrouped into two groups on the basis of corresponding scores of high Job Performance group of the First-Line Supervisors and corresponding scores of low Job Performance group of the First-Line Supervisors.

The scores regarding perception of Organizational Climate of the First-Line Supervisors are also regrouped into two groups on the basis of corresponding scores of high Job Performance group of the First-Line Supervisors and corresponding scores of low Job Performance group of the First-Line Supervisors.