Chapter IV

Selection of Instruments
Selection of appropriate instruments for measuring the variable necessitates the review of available instruments. In this context an attempt has been made in this chapter to review some of the instruments measuring the variables under study.

Organizational Climate Scale

When organizational climate is defined as a collection of properties or components of an organization that may be induced from "the way that the organization deals with its members and its environment" (Campbell et al., 1970). The concept here refers to the shared perception of the individuals in the organization regarding the organizational policies, practices and procedures. It is the sum total of their perception being formed on the basis of experiences of micro events in the working lives. Employee perceptions for that matter can be categorised in a number of ways. In this way there is a great variety of climates, describing various organizational situations. For example Taguiri (1968) has identified the following five factors to measure organizational climate.

(1) Practices related to providing a sense of direction or purpose to their jobs - setting of objectives, planning and feedback.

(2) Opportunities for exercising individual initiative.

(3) Working with competitive and competent supervisor.

(4) Co-operative and pleasant people.
Being with a profit-minded and sales-oriented company.

Schneider and Bartlett (1968) have developed a six dimension instrument:

1. Management support
2. Management structure
3. Concern for new employees
4. Intra-agency conflict
5. Agent independence
6. General Satisfaction

Kahn et al., (1964) have framed five factors for the study of organizational climate:

1. Rules orientation
2. Nurturance of subordinates
3. Closeness of supervision
4. Universalism or the degree to which the individual should identify with the organization as a whole
5. Promotion of achievement orientation

Litwin and Stringer (1968) have identified nine dimensions of climate related to functioning of organizations and tasks:

1. Structure
2. Responsibility
3. Reward
4. Warmth
Baumgartel (1971) has reported the following characteristics:

1. Freedom to set own performance goals and performance based rewards
2. Emphasis on growth and development
3. Willingness to train the executives
4. Opportunities to use new knowledge, experimentation and innovation
5. Participation from various hierarchical level in decision making
6. Confidence and trust in competence and judgement of top management
7. Open communication and interpersonal trust
8. Less formal, having minimum rules and administrative procedure.

Pritchard and Karasick (1973) considered a large number of dimensions of organizational climate such as autonomy, conflict vs. co-operation, social relationship, structure, rewards, performance based rewards, status polarization, flexibility and innovation, decision centralization, supportiveness, and achievement orientation of organization.
Although it is extremely difficult to synthesise the various aspects of climate included in different studies in a meaningful way, Campbell et al. (1970) have reported four factors with a good deal of commonality. The composite view of these factors is described as follows:

**Factor 1 Individual autonomy:** This is perhaps the clearest composite, and includes the individual responsibility, agent independence and the rules orientation factors found by Litwin and Stringer and Schneider, the rules orientation factors found by Litwin and Stringer, Schneider and Bartlett, and Kahn et al., and Taguiri's factor dealing with opportunities for exercising individual initiative. The Keystone of this dimension is the freedom of the individual to be his own boss and to reserve considerable decision-making power to himself. He does not have to be constantly accountable to higher management.

**Factor 2 Degree of structure imposed upon the position:**

Litwin and Stringer's structure; Schneider and Bartlett's managerial structure; Taguiri's first factor dealing with direction, objectives, etc., and closeness of supervision framed by Kahn et al., seem similar enough to be lumped under this label. The principal element is the degree to which the objectives of, and methods for, the job are established and communicated to the individual by superiors.
Factor 3 Reward Orientation:

Another meaningful grouping includes Litwin and Stringer's reward factor; Schneider and Bartlett's general satisfaction factor, which seems to convey reward overtones; promotion achievement orientation of Kahn et al., and Taguiri's reference to a profit-minded and sales oriented company. These factors do not hang together quite as well as the previous two groups and seem to vary a great deal in breadth. However, the reward element appears to be present in all.

Factor 4 Consideration, Warmth and Support:

This dimension lacks the clarity of the previous three. Managerial support from the Schneider and Bartlett study and nurturance of subordinates from Kahn et al., seem quite similar. Litwin and Stringer's warmth and support also seem to belong here, since apparently this is a characteristic attributable to supervisory practices. Taguiri's mention of working with a superior who is highly competitive and competent does not fit quite so easily, but nevertheless seems to refer to the support and stimulation received from one's superior. However, the human relations referent is not as clear as the factors derived from other studies (Campbell et al., 1970).

The Litwin and Stringer (1968) scale has been adopted by many researchers (Meyer, 1968; Waters et al., 1974; Sims and
LaFollette, 1975; Muchinsky, 1976) in their study of organizational climate since the scale covers major aspects related to industrial functions and human behaviour. In addition, the instrument has been thoroughly tested for its reliability and validity in textile industry by Padaki (1982). The present study also adopts the scale because of its feasibility.

After pretesting the instrument, certain items were slightly restructured considering the general environment of the textile industry of this region and the respondents from whom the data were to be collected.

The Scale consists of fifty items describing the nine dimensions (the operational definitions of the dimensions are given in the methodology chapter) of climate. A respondent has to indicate on a four point Likert type scale the extent to which the statements described climate in his own organization. The response categories were 'definitely true', 'somewhat true', 'somewhat false', and 'definitely false'.

Communication Scale:

Reilly and Roberts (1977) developed a questionnaire to measure communication. The same scale has been adopted for the present study considering its feasibility. It measures two dimensions of communication i.e. openness and accuracy (the operational definitions of the dimensions are given in the methodology chapter). The scale has ten items. Five
items measure communication openness and five items measure communication accuracy. The scale follows a seven point rating. The minimum score is five and maximum score is thirty five on both the dimension. The reliability coefficient of communication accuracy is .70 and communication openness is .79. Reilly and Roberts (1977) using principal component analysis and varimax rotation techniques, examined the validity of the two dimensions. It was found that the scale had a fair validity.

Organizational Effectiveness Scale:

Organizational effectiveness is the central theme of organization theory. It is a viable concept from the standpoint of management. It is very difficult to conceive a theory of organization that does not include the concept of effectiveness. At the same time there is little agreement among the social scientists as to what the concept really means. The principal reason for the notable lack of consensus as the concept stems from the parochial views that many scientists harbour about the effectiveness construct. For instance, a financial analyst usually equates effectiveness with the rate of return on investment; the number of inventions and introductions may be the criteria of effectiveness for a Research and Development specialist; job security, job satisfaction and pay levels may be the measuring rods of effectiveness for a labour union leader. Thus effectiveness can be constructed as a semantic jungle.
However, researchers have formulated two types of models to measure the organizational effectiveness: 1. Univariate effectiveness models 2. Multivariate effectiveness models.

Univariate Effectiveness Models

Thorndike (1949) first noted a general trend among organizational researchers to measure effectiveness in terms of the attainment of some "ultimate criterion" such as productivity, net profit, mission accomplishment, or organizational growth and stability. Campbell's (1973) review of various effectiveness measures identified 19 different variables that have been used in the research literature. The most widely used of these univariate measures are: (1) overall performance, measured by employee or supervisory ratings; (2) productivity, measured typically with actual output data, (3) employee satisfaction, measured by self-report questionnaires; (4) profit, or rate of return, based on accounting data and (5) withdrawal, based on archival turnover and absenteeism data.

The usefulness of the univariate models for the study of organizational effectiveness can be questioned on several grounds. First, while univariate measurement techniques continue to be popular among researchers it is difficult to defend the use of certain of the variables by themselves as comprehensive or even adequate measures of organizational effectiveness. While turnover, may represent one important variable in the effectiveness construct, there is little
reason to equate it with effectiveness as has been done (Campbell, 1973). Second, several of the criteria that have been used (for instance, job satisfaction) appear to represent more expression of researcher's value premises instead of objective measures of the effectiveness of an organization in attaining its goals. Finally, and perhaps more seriously, there is a problem of integration. Although these isolated criteria have often been fairly rigorously defined and measured, researchers have been far less specific as to how such variables contribute meaningfully to an understanding of the effectiveness construct.

**Multivariate Effectiveness models**

Perhaps a more useful approach to the study of effectiveness lies in model-building attempts which focus on relationships between important variables as they jointly influence organizational success.

Steers (1975) has given multivariate models used by different authors, a representative sample 17 of these models is summarized in Table below, in which the various models are compared as to (1) the primary evaluation criteria used in the models; (2) the type of model, that is, whether it is normative or descriptive; (3) the purported generalizability of the criteria; and (4) the bases for selecting the criteria.
### Table 4.1

<table>
<thead>
<tr>
<th>Evaluation Criteria</th>
<th>Multivariate Models of Organizational Effectiveness</th>
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<tr>
<td>Study and Primary Evaluation Criteria</td>
<td>Type of Measure</td>
</tr>
<tr>
<td>(1)</td>
<td>(2)</td>
</tr>
<tr>
<td>1. Georgopoulos and Tannenbaum (1957) - Productivity, Flexibility, Absence of organizational strain</td>
<td>N</td>
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<tr>
<td>3. Blake and Mouton (1964) Simultaneous achievement of high production-centered and high people-centered enterprise.</td>
<td>N</td>
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<tr>
<td></td>
<td>Study Title</td>
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<td>7.</td>
<td>Yuchtman and Seashore (1967)</td>
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<td>No.</td>
<td>Author(s)</td>
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<tr>
<td>12</td>
<td>Mott (1972)</td>
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<tr>
<td>13</td>
<td>Duncan (1973)</td>
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<td>14</td>
<td>Gibson et al. (1973)</td>
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<tr>
<td>15</td>
<td>Negandhi and Reimann (1973)</td>
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</table>
  Profitability, Growth.
  N    B
  Ded; Followed by study of 82 British firms.

  Cohesion, Efficiency, Adaptability, Support.
  D    C
  Ind: Based on the study of religious organizations.

Note:

N - Normative models
A - All organizations
R - Research and development laboratories
Ded - Deductive
B - Business organizations
C - Religious Organizations
Ind - Inductive

Singh (1978) suggested the use of social, economic and behavioural criteria and indicated the need for satisfactory performance on all the three criteria. Indian researchers have used a wide range of criteria of effectiveness. Some conventional indicators have been used, like financial solvency (Bidani and Mitra, 1982), profitability and growth (George, 1984 and Khandwalla, 1982a) and organizational health and job satisfaction (Khandwalla and Jain, 1984). Some researchers have used unusual indicators such as capability development, innovative thrust and market penetration (Ganesh, 1980), creativity and innovation (Khandwalla, 1984b), the organization's ability to change society and the relevance of the organization's activities to national objectives (Zahir, 1984). All the criteria of effectiveness may be grouped into three: (1) objective indicators (2) behavioural or subjective indicators (3) social indicators. The objective indicators include profit, production rate, etc., the behavioural indicators include satisfaction of employees, quality of working life and related criteria. While the social indicators include contribution to society and development of infrastructure, etc.

Social criteria like the organization's contribution to society can be applied for assessment of organizational effectiveness at a global level. Empirical investigation taking such criteria requires a long term study.

In this study, organizational effectiveness has been
measured taking the subjective indicator. Organizations are seen as human ecologies that need improvement. Organizational effectiveness is evaluated on the basis of certain job attitudes which apply to individuals in the organization. The rationale for the selection of subjective criteria is that they influence the behavior of individuals in the organization who determine the survival, growth and performance of the organization. The table below shows the relationship between some of these attitudes and other criteria of organizational effectiveness.

Table 4.2

<table>
<thead>
<tr>
<th>Job Attitudes</th>
<th>Criteria of Effectiveness</th>
<th>Author</th>
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</thead>
<tbody>
<tr>
<td>1. Satisfaction</td>
<td>Job performance</td>
<td>(Singh &amp; Singh, 1980)</td>
</tr>
<tr>
<td></td>
<td>Absenteeism, Accidents</td>
<td>(Ghosh &amp; Ghosh, 1983)</td>
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<td></td>
<td>Mental Health</td>
<td>(Gurthy &amp; Singh, 1982)</td>
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<tr>
<td>2. Employee Commitment to Work</td>
<td>Performance</td>
<td>(Sayeed &amp; Sinha, 1984)</td>
</tr>
<tr>
<td>3. Job Involvement</td>
<td>Objective criteria of performance of Banks</td>
<td>(Sayeed, 1980)</td>
</tr>
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Some of these studies indicate that job attitudes are related to various variables like, absenteeism, employee performance, turnaround process and objective indicator of organizational performance. These variables have been considered to be criteria of effectiveness (Miles, 1980).

To be effective an organization should first adopt to the environmental changes. Secondly its performance should be high with respect to economic factor, employee morale, and good public opinion. Therefore, two organizational level criteria have been selected.

1. Organizational Adaptability
2. Organizational Performance

According to Campbell (1977) and Steers (1975) "Effectiveness is not one thing. An organization can be effective or ineffective on a number of factors that may be relatively independent of each other". The present study also takes a similar position in studying organizational effectiveness.

For measuring the afore said seven parameters of organizational effectiveness the following instruments have been adopted in the present study. The operational definitions of components of effectiveness are presented in the methodology chapter.
COMPONENTS OF EFFECTIVENESS

Organizational Commitment Scale

Balajee (1986) developed a questionnaire to measure organizational commitment. The scale has five items. It has a six point rating with the lowest score of five and highest score of thirty. A higher score shows a high level organizational commitment. All the scales have as their object the organization and not the part of the organization. All the items have been included after being validated by thirty five judges and the items have high face validity. The scale has concurrent validity. The reliability coefficient of the scale is 0.79.

Job Satisfaction Scale

The questionnaire developed by Taylor and Bowers (1974) has been used to measure job satisfaction. It has seven items and measure satisfaction with company, pay, work group, future progress, present progress, superiors, and job. The scale has a five point rating. The lowest score is seven and the highest thirty five. A low score indicates a low level of job satisfaction and high score indicates a high level of job satisfaction. It has also been used in the Indian setting by Sethia (1983). The reliability coefficient of the scale is 0.82.
Job Involvement Scale

Agrawal (1981) has developed a scale to measure job involvement in the Indian setting. It has ten items with a five point rating. The lowest score can be ten and the highest score can be fifty. A low score indicates a low level of job involvement. The author examined the construct validity of the scale by testing its relationship with job satisfaction, intrinsic motivation and locus of control scales. It was found that the scale had construct validity. The reliability coefficient of the scale was 0.82.

Job Performance Scale

Moorhead's (1981) five point rating scale has been used to measure feeling about job performance. The scale consists of two parts. Part one includes items on perception about one's job performance and part two measures pathological reactions to job role relationship. Part one of the scale was used to measure job performance. The original version of the scale was replaced by a seven point rating to provide more response variation. The scale has five items. The highest score can be thirty five and lowest can be five. The higher score shows high performance level and the low score indicates a low performance level. The reliability coefficient is 0.50. It has been used in the Indian context (Kumar, 1987).
**Group Processes Scale**

Taylor and Bowers' (1974) scale was used to measure group processes. It has seven items with a five point rating. The lowest score can be seven and the highest thirty five. The higher score indicates effective group processes. The reliability coefficient is 0.89.

**Organizational Performance Scale**

Khandwalla's (1985) scale was taken to measure subjective performance of the organization. It measures five factors of organizational performance. These include growth rate of sales, employee morale, public image, financial strength and long run level of profitability. It has five items. The lowest score is five and the highest thirty five. A low score indicates a low organizational performance and a high score indicates a high organizational performance. Khandwalla (1985) examined the validity of this scale in his study of Canadian firms by measuring the degree of agreement on response of two executives. Correlation between responses of two executives was 0.59 in his study. The reliability coefficient of the scale is 0.78.

**Organizational Adaptability Scale.**

Organizational adaptability has been measured by the Mott (1972) scale which has four items with a six point rating. The lowest score can be four and the highest twenty four. A low score indicates a low level of adaptability and
a high score, a high level of adaptability. The scale has fair validity. The reliability coefficient of the scale is 0.73.

Productivity Index

An objective index of performance of a textile mill developed by SITRA (South India Textile Research Association) has been adapted for present study, which permits the comparison of the performances of various mills directly i.e., without having to ask questions about their average count, average loom width, etc., and without any need for adjustments in these factors. Productivity and costs vary not only from mill to mill but also from count to count (i.e., product mix) within a mill. The most important property of any index to be used for comparing the performance of different mills is that the index should not be influenced by factors such as the count being spun, the type of fabrics manufactured, percentage production on different types of machines, the fibers or blends in process and other such aspects of the manufacturing policy of an individual mill. At the same time the index should appropriately reflect factors such as production rates, machines efficiency, extent of machinery modernization, level of maintenance of machinery, etc. Thus the indices used for measuring performance should be independent of all factors which relate to what to manufacture but should reflect all factors which relate to how to manufacture more efficiently.
Such a system of indices has been developed for measuring and analyzing the performance of the major departments of a textile mill (SITRA, 1992). Productivity index refers to the productivity of a department in terms of the production of yarn or cloth per unit input of man-hours on the available machinery. This index reflects the true performance of a mill in terms of the extent of utilization of available resources; it does not indicate the profitability of yarn or cloth manufactured. In other words, two mills which are identical in the range of fibers, profit margin and production and equal in values of Productivity Index are not equal in overall profits. The reason is that one mill may achieve the given level of Productivity Index mainly through increase in machine productivity and the other mainly through reduction in labour. Thus the mill which reaches the given level of Productivity Index through higher machine productivity would be better equipped to make more profits than the other which reaches it through less labour employment (Padaki, 1982).

SITRA's Productivity Index of spinning has been taken as the ultimate dependent variable for the organizational level analysis of the study.