

---

CHAPTER - III  
ANALYSIS AND INTERPRETATION OF DATA

---

- 3.1 INTRODUCTION.
  - 3.2 ANALYSIS OF DATA.
  - 3.3 DIFFICULTY AREA FACTORS
  - 3.4 VED ANALYSIS.
  - 3.5 RANKING METHOD.
  - 3.6 ASSESSMENT OF EXECUTIVE TRAINING NEEDS.
-

**CHAPTER - III**  
**ANALYSIS AND INTERPRETATION**  
**OF DATA**

**3.1 Introduction.**

The present study deals with 'A Diagnostic Survey of Training Needs in Menon Pistons Pvt.Ltd., Kolhapur'. The researcher has evaluated the training needs of supervisors and middle-level executives and has not taken into consideration other categories.

The techniques used for assessing the training needs of supervisors is based on the model given in Appendix 1.

**3.2 Analysis of Data.**

The sample consists of 36 supervisors and the format to be filled by the supervisor seeks the following information:

1. Personal Data,
2. Answers to 20 indirect questions related to their problems and difficulties,
3. Their personal preferences in the areas of training.

The personal information, viz. experience, age-group and span of control, of the supervisors interviewed is given in the following three Tables.

TABLE NO.3.1

Classification of Supervisors according  
to their Work-Experience.

Sr. No.	Experience (No. of Years)	No. of Supervisors	Percentage of sample
1.	Less than 5 years	27	75
2.	5 to 10 years	7	19
3.	More than 10 years	2	6
TOTAL:		36	100

(N = 36)

From the above Table, it is seen that 75% supervisors have an experience less than 5 years, and there are only 2 supervisors (6%) having an experience of more than 10 years.

TABLE NO.3.2

Classification of Supervisors according  
to their Age-group.

Sr. No.	Age Group	No. of Supervisors	Percentage of Sample
1.	Less than 25 years.	21	58
2.	25 to 35 years	14	39
3.	More than 35 years	1	3
TOTAL:		36	100

(N = 36)

From the above Table, it can be concluded that 21 supervisors (58%) belong to the age-group of less than 25 years and only 1 (3%) supervisor comes under the age-group of more than 35 years.

TABLE NO.3.3

Classification of Supervisors according  
to their Span of Control

Sr. No.	Span of Control	No. of Supervisors	Percentage of Sample
1.	Less than 10	18	50
2.	10 to 20	8	22
3.	More than 20	10	28
		36	100

(N = 36)

The above classification shows that there are 50% supervisors who are having less than 10 sub-ordinates and only 10 supervisors control more than 20 workers.

While considering the educational status of the sub-ordinates, it was seen that there were only 8% supervisors having uneducated sub-ordinates and 92% supervisors had fairly educated or educated sub-ordinates.

The objective of the present study is to diagnose the training needs of supervisors. For this purpose, the difficulty area factor is determined by using 20 indirect questions relating to the problems in their particular personality. The respondents were asked to put (✓) against the column applicable.

Barring question no.9, which is a general question on their interest in training programmes, all other questions refer to some problems and difficulties.

Such problems have been tallied with a score of

3 for 'Always', 2 for 'Here and there', 1 for 'Rarely' and 0 for 'Not at all'. The maximum that a particular area can get is 3 multiplied by the number of persons responding to the questionnaire. In the present study, there were 36 respondents; hence, the DAF (Difficulty Area Factor) was determined using the following formula:

$$\text{DAF} = \frac{\text{No. of Tally Marks}}{3 \times 36}$$

The information collected through these questions is being presented in a tabular form as follows:

TABLE NO.3.4

Scores of Supervisors relating to Difficulty found in 'Controlling of Workers'

Always	Here & there	Rarely	Not at all	Total
-	4	15	-	19

The above Table shows 19 tally marks. The DAF can be calculated by using the following formula:

$$\begin{aligned} \text{DAF} &= \frac{\text{No. of Tally Marks}}{3 \times 36} \\ &= 19 / 36 \times 3 = 19 / 108 \\ &= 0.18. \end{aligned}$$

It may be noted that DAF varies from 0-1. The more the value means more the attention should be given. As the calculation shows DAF is only 0.18, which is less than 0.30, the desirable value. It can be concluded that there is no need to give much attention to training regarding 'controlling of workers'.

TABLE NO.3.5

Scores of Supervisors relating to Difficulty  
found in 'Convincing for Changes'

Always	Here & there	Rarely	Not at all	Total
3	6	13	-	22

The above Table indicates 22 tally marks,  
therefore, DAF =  $22 / 36 \times 3$   
=  $22 / 108$   
= 0.20

As the DAF is only 0.20 which is lesser than the  
desirable value, it can be said that the supervisors do not  
face much difficulty while convincing the workers about any  
changes being introduced in their work.

TABLE NO.3.6

Scores of Supervisors relating to Difficulty in 'Improving  
Workers against Immunity to Labour Problems'

Always	Here & there	Rarely	Not at all	Total
3	10	12	-	25

$$\begin{aligned} \text{DAF} &= 25 / 36 \times 3 \\ &= 25 / 108 \\ &= 0.23 \end{aligned}$$

The DAF is 0.23. It is lesser than the desirable  
classification. It can, therefore, be concluded that there  
is no need to give much attention to this area of training.

TABLE NO.3.7

Scores of Supervisors relating to Difficulty  
in 'Indiscipline among Sub-ordinates'.

Always	Here & there	Rarely	Not at all	Total
-	14	9	-	23

The above Table indicates 23 tally marks,  
therefore, DAF =  $23 / 36 \times 3$   
=  $23 / 108$   
= 0.21.

The obtained DAF is 0.21, which is lesser than the desirable value. It can, therefore, be concluded that the supervisors need not be given training in improving the discipline among their sub-ordinates.

TABLE NO.3.8

Scores of Supervisors relating to  
'Motivation of Sub-ordinates'

Always	Here & there	Rarely	Not at all	Total
-	10	7	-	17

The above Table indicates 17 tally marks,  
therefore DAF =  $17 / 108$   
= 0.16.

The above score is only 0.16, which is related to the motivation of sub-ordinates. Since the score is much lesser than 0.30 (desirable value), the supervisors need not be given training in motivating the sub-ordinates.

TABLE NO.3.9

Scores of Supervisors relating to  
'Discussing Problems with the Boss'

Always	Here & there	Rarely	Not at all	Total
-	6	3	-	9

The above Table indicates 9 tally marks,  
therefore, DAF =  $9 / 108$   
= 0.08

DAF shows 0.08, which is a very small value.  
Hence, it can be concluded that the Supervisors of the Company  
frankly discussed their problems with their bosses.

TABLE NO.3.10

Scores of Supervisors relating to their  
feelings about 'Technical Assistance'.

Always	Here & there	Rarely	Not at all	Total
45	14	13	-	72

The above Table indicates 72 tally marks,  
therefore, DAF =  $72 / 108$   
= 0.67

It shows that more of the supervisors feel  
that they can do their work better if they are given better  
technical competence.

TABLE NO.3.11

Scores of Supervisors relating to  
'Work Completion Dates'

Always	Here & there	Rarely	Not at all	Total
3	2	21	-	26

The above Table indicates 26 tally marks,  
therefore, DAF =  $26 / 108$   
= 0.24

TABLE NO.3.12

Scores of Supervisors relating to the  
'Time for Completing their Tasks'

Always	Here & there	Rarely	Not at all	Total
9	14	17	-	40

The above Table indicates 40 tally marks,  
therefore, DAF =  $40 / 108$   
= 0.37

Since Table nos.3.11 and 3.12 are related to time, the researcher has calculated 'Time Management' DAF by combining these two tables, i.e.

$$\text{DAF} = \frac{0.24 + 0.37}{2} = \frac{0.61}{2}$$

$$= 0.30$$

As 0.30 is a 'desirable' factor, we can say that a training relating to time management should be given while conducting training programmes for the supervisors.



TABLE NO.3.13

Scores of Supervisors relating to 'Inducing  
Quality Consciousness among Workers'

Always	Here & there	Rarely	Not at all	Total
6	12	15	-	33

The above Table indicates 33 tally marks,  
therefore, DAF =  $33/108$   
= 0.30

It is also a desirable factor. Hence attention  
should be given to 'quality control' while organizing the training  
programmes.

TABLE NO.3.14

Scores of Supervisors relating to  
'Delegation and Directing Workers'

Always	Here & there	Rarely	Not at all	Total
24	18	16	-	58

The above Table indicates 58 tally marks,  
therefore, DAF =  $58 / 108$   
= 0.54

The Table shows a DAF of 0.54 which is a  
vital or necessary. More attention should be given to 'directing  
and co-ordination of work' in training programmes for the super-  
visors.

TABLE NO.3.15

Scores of Supervisors relating to  
'Work Study of Sub-ordinates'

Always	Here & there	Rarely	Not at all	Total
15	10	11	-	36

The above Table indicates 36 tally marks,  
therefore, DAF =  $36 / 108$   
= 0.33

The DAF calculated is 0.33 which is more than  
0.30. It indicates that there is a desirable need to give training  
in the work-study of sub-ordinates.

TABLE NO.3.16

Scores of Supervisors relating to  
'Financial Aspects of Daily Work'

Always	Here & there	Rarely	Not at all	Total
12	18	11	-	41

The above Table indicates 41 tally marks,  
therefore, DAF =  $41 / 108$   
= 0.38.

From the above Table, we can say that as  
the DAF 0.38 is an essential factor, training regarding finance  
and cost control may be given to the supervisors.

TABLE NO.3.17

Scores of Supervisors relating to  
'Record Keeping'

Always	Here & there	Rarely	Not at all	Total
27	4	7	-	38

The above Table indicates 38 tally marks,  
therefore, DAF =  $38 / 108$   
= 0.35

As the DAF of 0.35 is an essential factor,  
'record keeping' training should also be included in the training  
programmes.

TABLE NO.3.18

Scores of Supervisors relating to  
'Useful and Objective Group Discussions'

Always	Here & there	Rarely	Not at all	Total
6	4	4	-	14

The above Table indicates 14 tally marks,  
therefore, DAF =  $14 / 108$   
= 0.13

From the above Table, it can be concluded that  
training related to individual and group discussions is not very  
much needed at present.

8633

A.

TABLE NO.3.19

Scores of Supervisors relating to  
'Maintenance Management'

Always	Here & there	Rarely	Not at all	Total
15	10	12	-	37

The above Table indicates 37 tally marks,  
therefore, DAF =  $37 / 108$   
= 0.34

The Table shows 0.34 DAF which is more than 0.30.  
We can conclude that there is a desirable need to give training  
regarding 'maintenance management'.

TABLE NO.3.20

Scores of Supervisors relating to  
'Handling Grievances of Workers'

Always	Here & there	Rarely	Not at all	Total
3	16	8	-	27

The above Table indicates 27 tally marks,  
therefore, DAF =  $27 / 108$   
= 0.25

The value is less than desirable value of  
0.30. It indicates that the supervisors of the Company do not  
face much difficulty while handling the complaints and grievances  
of the workers.

TABLE NO.3.21

Scores of Supervisors relating to  
'Motivating the Workers'

Always	Here & there	Rarely	Not at all	Total
3	6	8	-	17

The above Table indicates 17 tally marks,  
therefore, DAF =  $17 / 108$   
= 0.16

As the value is below 0.30, it can be concluded  
that there is no need at present to give training regarding  
motivating employees.

TABLE NO.3.22

Scores of Supervisors relating to  
'General Supervision'.

Always	Here & there	Rarely	Not at all	Total
21	6	12	-	39

The above Table indicates 39 tally marks,  
therefore, DAF =  $39 / 108$   
= 0.36

The Table shows 0.36 DAF which is more than  
0.30. It can therefore be concluded that there is a need to  
give training relating to the principles of general supervision.

While considering Question no.9, it is seen  
that approximately all the supervisors are interested in the  
training programmes.,

### 3.3 Difficulty Area Factors:

The 'Difficulty Area Factors' are listed below:

TABLE NO.3.23  
Difficulty Area Factors

Sr. No.	Difficulty found in	Factors
1.	Controlling Workers	0.18
2.	Convincing for Changes	0.20
3.	Improving Workers against immunity to labour problems	0.23
4.	Indiscipline of sub-ordinates	0.21
5.	Motivation of sub-ordinates	0.16
6.	Discussing problems with boss	0.08
7.	Time management	0.30'
8.	Inducing quality consciousness in workers	0.30
9.	Delegation and directing workers	0.54
10.	Work study of subordinates	0.33
11.	Financial aspects of daily work	0.38
12.	Record keeping	0.35
13.	Useful and objective group discussions	0.13
14.	Maintenance Management	0.34
15.	Handling grievances of workers	0.25
16.	Motivating the workers	0.16
17.	General Supervision	0.36

### 3.4 VED Analysis.

As explained in Chapter on Methodology, we considered that

DAF (Difficulty Area Factor) = NEF (Net Evaluation Factor).

The VED classification is made as given in Table no.3.24. The cut-off points suggested in Chapter on Methodology are used for VED analysis.

TABLE NO.3.24  
V E D Analysis

Sr. No.	Classification	Modules	Obtained Score
1.	VITAL NEF 0.40 and above.	1. Delegation and directing Workers.	0.54
2.	ESSENTIAL NEF 0.35 to 0.40	1. Financial aspects of daily work	0.38
		2. General Supervision	0.36
		3. Record keeping	0.35
3.	DESIRABLE NEF 0.30 to 0.35	1. Maintenance Management	0.34
		2. Work study of subordinates	0.33
		3. Inducing quality consciousness in workers	0.30
		4. Time Management	0.30

The classification shows that it is vital or necessary to give training regarding delegation and directing workers, second importance may be given to the factors such as financial aspects of daily work, record keeping and general supervision.

There is also a desirable need of training in the subjects of work study, maintenance management, quality control and time management.

Other modules are not considered as very much important at present. However, these may also be considered

in due course as the organization grows.

### 3.5 Ranking Method.

The present study focusses on assessing the training needs of supervisors. The second part of the assessment is related to the 'Ranking Method'. Eleven areas were given to the supervisors to rank them according to their preferences. The ranking was carried out from the lowest mean to the highest mean. The results were as follows:

TABLE NO.3.25

Ranking Values of Training Areas according to the Preferences given by the Supervisors.

Sr. No.	Training Areas	Mean Value	Rank
1.	Principles of Supervision	4.25	2
2.	Directing and co-ordinating of work	4.33	3
3.	Controlling of work	4.20	1
4.	Motivation and Human Behaviour	5.25	5
5.	Quality Control	4.69	4
6.	Time Management	5.89	6
7.	Utilization of Equipment and Facilities	5.92	7
8.	Leadership	8.22	10
9.	Motivating employees	6.97	8
10.	Industrial Relations	7.06	9
11.	Complaints and Grievances	8.47	11

From the above Table, it is seen that the Supervisors have given first preference to the training relating to controlling of work, followed by the principles of supervision. In the third place, directing and co-ordinating of work is

preferred. According to them, the least important training areas are complaints and grievances, leadership and industrial relations. Other areas like quality control, motivation and human behaviour and time-management, are treated as middle-important training areas.

### **3.6 Assessment of Executive Training Needs.**

The third objective of the present study is to assess the training needs of the middle-level executives. Out of 29 middle-level executives, 6 executives have been interviewed. A structured interview schedule was used. The result is as follows:-

1. Out of six executives, four executives (67%) were sent for training programmes in their respective fields;
2. Most of them are well-versed in their respective technical fields;
3. According to them, the technological progress is adversely affecting their routine work. Similarly, some of them are of the opinion that the technological progress is helping them to improve the quality of their work and working conditions;
4. Most of the executives' opinion that the training related to their specific areas will help them in improving knowledge, skill, technique, and they also feel that they can cope-up with the technological progress.

5. The Engineering Department executives felt that since the modern industries are highly sophisticated, the training in the practical aspects is most important. Time management, utilization of equipment, industrial relations are the training needs of the Engineering Department. They also felt that they should be sent to the Seminars, Exhibitions, Training Programmes, etc., organized by reputed institutions.
6. The needs of the Quality Control Department is quite different from other Departments. They have attended Technical Upgradation programmes in Japan and they strongly feel that similar training should be arranged in future.
7. There are various courses in the field of Export Management conducted by Institutes such as CEI (Confederation of Engineering Industries), EEPC (Engineering Export Promotion Council), IEM (Indian Export Management), etc., which are of regular as well as academic nature. If the executives are given an opportunity to attend these courses, it will help them a lot in gaining more knowledge. The firm can be helped to compete in the international market, which leads to an increase in the foreign trade.
8. The executives felt that the literature on the current technological developments should be made available in the organization.