

CHAPTER – IV

DATA PRESENTATION AND ANALYSIS



CHAPTER FOUR
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In this Chapter, the survey data has been presented in the form of simple tables and percentiles.

Table 1
Types of Industry

Types	No.of Units	Percentage
Engineering	9	56
Agro	3	19
Textile	2	13
Tiles	1	6
Chemical	1	6
Total	16	100

From the above Table, it is noted that majority of the units surveyed fall in the engineering category, i.e. approximately 56 per cent, while 6 per cent of the units belong to chemical and tiles types, i.e. one unit each.

Table 2
Types of Purchase

Types	No.of Units	Percentage
Centralized	8	50
Decentralized	7	44
Imprest System	1	6
Total	16	100

Table 2 shows that 50 per cent of the units adopt a centralized method of purchasing where these organizations strongly feel that all the purchase decisions should be under one roof, by which the control could be efficient. The study has revealed that 44 per cent of them still adopt the decentralized method of purchasing. Only one organization adopts the imprest method of purchase.

Table 3
Method of Purchase

Method of Purchase	No.of Units	Percentage
Purchasing strictly by requirement	12	75
Purchasing for a specific future period	10	62.5
Market purchasing	7	44
Speculative purchasing	3	19
Contract purchasing	3	19
Group purchasing of small items	3	19
Scheduled purchasing	5	31
Purchasing through commission agents	4	25
Any other	-	-

The above Table reveals that 75 per cent units adopt purchasing strictly by requirement method and the study has recorded that 19 per cent units adopt selective purchasing, contract purchasing, group purchasing of small items methods of purchasing.

Table 4
Sources of Supply for Selecting Supplier

Source of supply	No. of Units	Percentage
Trade directories	1	6
Telephone directories	2	13
Purchasing periodicals	2	13
Commercial magazines	3	19
Catalogues	3	19
Blueprints	-	-
Supply index file	1	6
Exhibitions	2	13
Market surveys	6	38
Quotations	14	88
Interviews with salesmen	5	31

From the above Table, it is noted that a majority of the units fall in the supply of quotation based category, i.e. approximately 88 per cent, while 6 per cent units belong to the trade directories, supply index file, i.e. one unit each.

Table 5
Analysis of Price-record, Price-budget and
Purchase procedure followed

Particular	No.of Units	Percentage
Purchase budget prepared	7	44
Price record kept	15	94
Purchase procedure followed	12	75

From the above Table, it is noted that majority of the units surveyed fall in the price record kept category, i.e. approximately 94 per cent, while approximately 44 per cent of units prepare their purchase budgets before going to purchase, i.e. 7 units and 12 units follow the purchase procedure.

Table 6
Records kept by Purchase Department

Records of the Purchase Department	No.of Units	Percentage
Purchase record	15	94
Contract record	-	-
Vendor record	16	100
Quotation record	5	31
Summary of Purchase work	-	-

Table 6 shows that 100 per cent units adopt vendors record document. The study has recorded that 31 per cent of the units adopt the quotation record document.

Table 7

Analysis about receiving, inspection and testing departments

Particulars	No.of Units	Percentage
Having separate receiving department	7	44
Having separate inspection department	8	50
Having testing department	12	75

The above Table reflects that 75 per cent units have their separate testing department to test the materials purchased. The study has recorded that approximately 44 per cent of the units have their separate receiving departments and 50 per cent units have their inspection department

Table 8

Type of stores organization

Type of stores organization	No.of Units	Percentage
Centralized stores	11	69
Decentralized stores	4	25
Central stores with <u>substores</u>	1	6

The above Table indicates that 69 per cent of units adopt centralized stores organization method and the study has recorded that 25 per cent units lie under decentralized stores organization and 6 per cent units adopt central stores with substores organization.

Table 9
Aspects taken into account for
determining stores layout

Aspects of stores layout	No. of Units	Percentage
Nearness to point of use	11	69
Minimum handling and transportation	12	75
Provision for flexibility	1	6
Efficient utilization of floor-space	-	-
Clear identification of materials	6	38
Protection against waste, damage and Pilferage	4	25

The above Table shows that 75 per cent of units have considered minimum handling and transport aspect. The study has also recorded that 6 per cent units have considered the aspect of provision for flexibility.

Table 10
Industries having classification and
codification of materials

Particulars	No. of Units	Percentage
Having classification of materials	12	75
Having codification of materials	7	44

The above Table shows that 75 per cent units have adopted classification of material and 44 per cent of the units have done codification of materials.

Table 11
Technique adopted for classification of materials

Technique of classification	No.of Units	Percentage
ABC	6	38
SMI	5	31
FMI	5	31
SIZE	1	6
Department	1	6

The above Table indicates that approximately 38 per cent units have adopted ABC Technique for classification of material, while 6 per cent units have adopted size and department, i.e. any other suitable technique.

Table 12
Methods of codification

Methods of codification	No.of Units	Percentage
Numeric	1	6
Alphabetic	4	25
Alphanumeric	2	13

It is clear from the above Table that more than 50 per cent units have not done codification of material, 25 per cent of units have adopted alphabetic method for codification, 13 per cent units have adopted alphanumeric method of codification and 6 per cent units, i.e. only one have adopted numeric method of codification for materials.

Table 13
Methods for identification of material

Methods of identification	No. of Units	Percentage
Tagging or labelling	12	75
Writing or plating	4	25
Stamping, embossing, etching	11	69

The above Table indicates that 75 per cent units adopt tagging or labelling method of identification of material and the study has recorded that 25 per cent have adopted the writing or plating method of identification of material.

Table 14
Industrial units having separate storekeeper and stores location plan adopted

Particulars	No. of Units	Percentage
Having separate storekeeper	9	56
Having stores location plan adopted	8	50

The above Table shows that 56 per cent units have separate storekeeper and the study has recorded that 50 per cent units have adopted stores location plan.

Table 15
Types of location plan applied

Type of location plan	No. of Units	Percentage
Alphabetic and numerical plan	2	13
Modified alphanumeric system	-	-
Storage by space	3	18
Storage by space and location card	4	25

From the above Table, it is noted that 25 per cent of the units surveyed have adopted storage by space and location card, while 13 per cent of the units have adopted alphabetical and numerical stores location plan.

Table 16
Levels of materials and economic order quantity fixed

Particulars	No. of Units	Percentage
Levels fixed	14	88
Levels not fixed	2	13
E.O.Q. fixed	10	62
E.O.Q. not fixed	6	38

From the above Table, it is noted that a majority of the units surveyed have fixed the levels of materials and E.O.Q., i.e. approximately 88 per cent and 62 per cent, respectively.

Table 17
Types of Levels of Materials

Types of Levels	No. of Units	Percentage
Re-order level	11	69
Maximum level	7	44
Minimum level	11	69
Average stock level	1	6
Danger level	2	13
Selective level	1	6

The above Table indicates that 69 per cent units have fixed the re-order level and minimum level. Maximum level is fixed by 44 per cent units and 6 per cent units have fixed average stock level and selective level.

Table 18
Nature of Storage Equipment

Storage Equipment	No. of Units	Percentage
R.C.C.	4	25
Wood	5	31
Steel	8	50

The above Table shows that 50 per cent units are using steel storage equipment while 25 per cent units have RCC storage equipment.

Table 19
Types of storage equipment

Types of storage equipment	No. of Units	Percentage
Bags	5	31
Racks	12	75
Any other	1	6

The above Table shows that a majority of units, i.e. 75 per cent, are using rack-type storage equipment while 31 per cent units use bags and 6 per cent units use other equipment.

Table 20
Types of Racks used

Types of racks used	No. of Units	Percentage
Bin	4	25
Open-type racks	8	50
Flat pallet	2	13
Wood platform	2	13
Tote plan	-	-
Box pallet	4	25
Lean-on racks for bars	2	13
Racks for horizontal storage	2	13

The above Table shows that 50 per cent units are using open type racks, 25 per cent units are using Bin and box pallet racks and 13 per cent units are using flat pallet, wood platform, lean-on racks for bars and racks for horizontal storage.

Table 21
Equipment used for material handling

Name of Equipment	No. of Units	Percentage
Trays	2	13
Four-wheel trolleys	4	25
Basket/small boxes	2	13
Crane	1	6
Two-wheel trolleys	2	13

The above Table indicates that 25 per cent units are using four-wheel trolleys for material handling while 13 per cent units use trays and baskets and only 6 per cent units, i.e. only one unit, uses crane for material handling.

Table 22
Procedure followed for issue of material to production

Name of the Document	No. of Units	Percentage
Material requisition	8	50
Bill of material	2	13
Issue voucher book	3	19
Oral demand	6	38

The above Table shows that 50 per cent units adopt material requisition for issue of material; 13 per cent units are using bill of material while the study has revealed that 38 per cent units issued materials to production on oral demand.

Table 23
Forms used for the purpose of issue of material

Name of the Form	No.of Units	Percentage
Stores requisition	8	50
Bill of material	4	25
Material return note	3	19
Material transfer note	-	-
Issue receipt note	1	6

From the above Table, it is revealed that 50 per cent units adopt stores requisition forms for issue of material and the study has revealed that 6 per cent units, i.e. one unit only, adopts issue receipt note, as a form for the issue of material.

Table 24
Basis for initiating new purchase order

Basis for initiating new purchase order.	No.of Units	Percentage
After reaching stock to reorder level	9	56
Arbitrary basis	6	38
Schedule is prepared	2	13

The above Table shows that 56 per cent units adopt the basis of re-order level for initiating new purchase order while 13 per cent units prepare their schedule for initiating new purchase order.

Table 25
Methods of stock verification

Method of stock verification	No. of Units	Percentage
Annual stock verification	6	38
Periodic stock verification	6	38
Continuous stock verification	8	50
Low point inventory verification	2	13

The above Table indicates that 50 per cent industries adopt continuous stock verification method and further, the study has found that 13 per cent of the industries use low-point inventory verification.

Table 26
Technique applied for Inventory Control

Name of Technique	No. of Units	Percentage
Two Bin	1	6
Order cycling system	-	-
Determination of inventory level	2	13
Statistical control system	-	-
Control ratios	1	6
Reservation System	1	6
Budgetary control system	1	6
Standard costing system	4	25
ABC analysis system	2	13
Perpetual inventory system	8	50
Verbal instructions	1	6

The above Table shows that 50 per cent units

adopt perpetual inventory system as a technique of inventory control and further the study has revealed that 6 per cent industries adopt Two-Bin system, control ratios, reservation system, budgetary control system and verbal instruction system.

Table 27
Estimate of normal loss

Particulars	No. of Units	Percentage
Normal loss estimated	10	62
Normal loss not estimated	6	38

From the above Table, it is seen that the unit surveyed, 30 per cent units have not estimated their normal loss whereas only 62 per cent units have estimated their normal loss.

Table 28
Types of material losses existed

Type of material losses	No. of Units	Percentage
Scrap	7	44
Defectives	5	31
Spoilages	3	19
Wastages	9	56
Theft/Pilferages	-	-
Any other losses	-	-

The above Table indicates that material wastages occur in 56 per cent industries, while scrap in 44 per cent units, defective in 31 per cent units. Further, the study notes that spoilage of material occurs in 19 per cent units.

Table 29
Reasons for scrap

Reason for Scrap	No. of Units	Percentage
Processing of material	4	25
Defective and broken parts	6	38
Obsolete stock	1	6
Obsolete machinery	-	-
Abandonment of experimental project	1	6
Non-availability of handling equipment	-	-
Other (fabrication process)	1	6

From the above Table, it is found that in 38 per cent units, defective and broken parts is the reason for scrap and in 6 per cent units, the reason for scrap is obsolete stock abandonment of an experimental project and fabrication process.

Table 30
Types of spoilage of material

Types of Spoilage	No. of Units	Percentage
Evaporation	3	19
Shrinkage	3	19
Loss in weight	8	50

The above Table shows that in 50 per cent units spoilage occurs in the form of loss of weight and in 19 per cent units, there is evaporation and shrinkage of materials.

Table 31
Reasons for Spoilage

Reasons for spoilage	No.of Units	Percentage
Loss by fire	1	6
Theft/Pilferage	-	-
Loss in transit	3	19
Loss in material handling	3	19

The above Table indicates that in 19 per cent of the units, spoilage occurs because of loss in transit and loss in material handling and in 6 per cent units, spoilage is due to loss by fire.

Table 32
Steps adopted for controlling scrap, wastages, etc.

Steps adopted	No.of Units	Percentage
Reports relating to wastage and defectives	6	39
Standardization of scrap waste defectives	4	25
Good quality material used	9	56
Stage inspection process	1	6

From the above Table, it becomes clear that 56 per cent of industries adopt use of good quality material as a step for controlling scrap and wastage, while only 6 per cent

units adopt stage inspection process.

Table 33

Documents used for recording material losses

Name of Document	No. of Units	Percentage
Damage report	1	6
Input-Output statement	2	13
Batch record	1	6
Inspection report	2	13
Visual record	2	13
Asnticipated process losses	1	6

The above Table shows that 13 per cent units are preparing input-output statement, inspection report and visual record as a document for material losses and only 6 per cent units keep batch record, Damage report and Anticipated process losses documents.

Table 34

Techniques adopted for controlling losses

Name of Technique	No. of Units	Percentage
Testing and inspection	1	6
Use of standards	4	25
Inspection checkpoints (at critical stages)	1	6
Control ratios	1	6
Perpetual inventory system	8	50

The above Table shows that 50 per cent units adopt perpetual inventory system as a technique for controlling the losses while 6 per cent industries adopt testing, inspection and control ratios.

Table 35
Method of Pricing the Inventory

Method of pricing	No. of Units	Percentage
First-in first-out	4	25
Last-in first-out	4	25
Highest-in first-out	-	-
Specific price	-	-
Base stock price	-	-
Simple average method	6	38
Weighted average method	-	-
Periodic simple average	-	-
Periodic weighted average	-	-
Moving simple average	-	-
Moving weighted average	-	-
Replacement price/Market price-	-	-
Standard price	-	-
Inflated price method	2	13

From the above Table, it is noticed that 38 per cent industries adopt simple average method of pricing and further, the study has recorded that 13 per cent industries adopt inflated price method.