

A Study on Cost Control Techniques

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Abstract- In any organization, the major objective is to maximize profit, but the main constraints facing them are the rise in cost of operation. Due to this, the cost of production increases and could lead to certain cost control and cost reduction which make it complex for many organizations to operate as well organized cost limit of knowledge. The study aims to critically examine and evaluate the application of cost control and cost reduction in organizational performance and also to review the budget as an effective tool of cost control and cost reduction. A descriptive survey research was adopted. A total number of 50 questionnaires were administered and used for the study. The analysis of data collected was undertaken by applying appropriate statistical tools. Regression analysis was used to test the hypothesis with the use of SPSS. Based on the findings, it was evident that cost control has a positive impact on organizational performance and also the style of management has a positive impact on organizational performance.

Keywords- Organization; Cost control; Cost reduction; Performance; Profit; Budget

I. INTRODUCTION

The Indian economy is liberalization thereof, competition has grown fully commercialized. Many foreign firms made in-roads into India and there is cut-throat competition in market for most of the products with Different services. Considering above scenario, it is found relevant to undertake a project work on cost analysis and control of a major part in the industry of electronics & communications[1]. Accordingly ATSP (Aster Tele services Private limited) is chosen for the above project work. ATSP is established in the year 1998 having achieved glorious Further 27 Branches in the all over Global in the recent years. In the backdrop of above, cost control has assumed significance for the purpose of reduction of the same to retain the margins and growth of an Industry.

Concept of Cost

The term cost has a wide variety of meanings. In common use, the word cost means price[2]. In

management terminology, the term cost refers to expenditures and not the price.

II. ANALYSIS AND CLASSIFICATION OF COSTS

Cost Analysis refers to the break up of total cost into certain elements or sub-divisions. Such analysis is essential for the purpose of accounting and control over costs. Cost may be classified into different categories depending upon the purpose of their Importance.

- Classification by nature or element.
- Functional Classification.
- Classification on the basis of behavior.
- Classification for managerial decisions and control.

Classification by nature or Element: According to the nature or elements of cost, costs can be broadly classified as:

- Direct costs
- Indirect costs.

Direct Costs

Direct costs are the costs which can be conveniently identified with and allocated to a particular unit of final product. Such costs are treated as the cost of the unit produced.

Direct costs can be further classified as:

- Direct Material
- Direct Labour
- Direct Expenses.

Direct Material

All materials which become an integral part of the finished product and which can be conveniently assigned to specific physical units is called direct material. Direct materials include all materials specifically purchased or requisitioned for specific cost unit all Primary packing materials.

Direct Labour

Direct labour cost consists of wages paid to workers directly engaged in manufacturing or handling a product, job or process[3]. Direct labour includes the Payment of wages to the workers engaged on the actual production of the product or an operation or a process.

Direct Expenses

All expenses other than the direct material or direct labour that are specifically incurred for a particular job, product or process are called direct expenses[4]. Direct expenses include cost of special tools, patterns, excise duty cost of trial castings, royalties, freight and insurance on special materials.

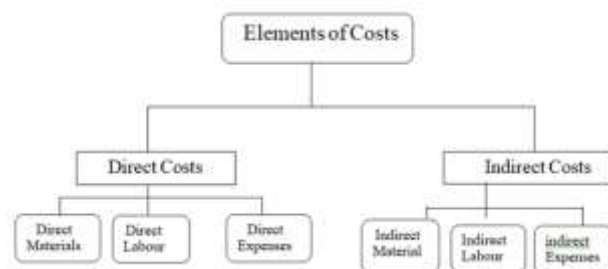


Figure 1: block diagram of elements of costs

Indirect Costs: Indirect costs are those costs which cannot be assigned to any particular cost unit. Indirect costs include for the business as a whole

and apportioned among the various cost units (Product, job or Process) on some reasonable basis.

Indirect costs can be further classified as:

Indirect Material

Indirect materials such as fuel, lubricating oil, small tools, and material consumed for repairs and maintenance work, miscellaneous stores used in factory[5].

Indirect Labour

Indirect labour which includes wages of general supervisors, inspectors, workshop cleaners, store keepers, time keepers.

Indirect Expenses

Indirect expenses such as rent, lighting, insurance, canteen, hospital, welfare expenses.

Classification on the basis of Behavior: According to the Behavior cost may be classified as:

- Variable Costs
- Fixed Costs
- Semi Variable costs

Variable Costs

Variable costs that vary almost in direct proportion to the volume of production. Those are direct material, direct labour, direct expenses such as electric power and fuel.

Fixed Costs

Fixed costs which do not vary with the level of production. Noted that fixed costs do not remain constant for all times.

Semi Variable Costs

Semi variable costs are mixed costs. Those are partly fixed costs and partly variable costs. Semi variable costs include depreciation of machinery, maintenance of equipment, administrative costs.

III. CONTROL TECHNIQUES

1. Inventory Management

Inventory control is concerned with adequate control over the cost, acquisition, safety and handling of materials.

The main techniques of Inventory management are

- ABC Analysis
- Economic Order Quantity

2. Standard Costing

It is technique of cost control. Under this technique standard cost of material, labour overheads etc are determined[6]. Actual costs are recorded and compared with the standard cost and variances are found out.

3. Breakeven Analysis

A breakeven analysis determines the point at which one method becomes superior to another method of accomplishing some task or objective. Breakeven analysis is a common and important part of cost control.

The term "Break-even analysis" is used in two senses.

- Narrow sense.
- Broad sense.

4. Budgetary Control

It states that a figurative aspect of an approved plan of action relating to a particular period. It is based on the assumption that cost is controllable.

5. PERT/CPM

Program evaluation and review technique(pert) and critical path method(cpm) were developed in USA in the late 50's. Any program consists of various activities and subactivities. Importance is given to identifying the critical activities by controlling the time of the critical activities the total time and cost of the job are minimized.

6. Return On Investment

Investment consists of fixed asset and working capital used in business. If the return on investment is high then the financial performance of a business is good and vice versa. It also shows the areas where the corrective actions are needed.

7. Personal Observation

This is most traditional method of control. It helps managers to collect first hand information. It also creates a psychological pressure on the employees

to perform well as they are aware that they are being observed personally on their job .

Statistical Data & Report

Statistical analysis in the form of averages, percentages, ratios, etc. Data can be used for diagrammatic representations like histograms, pie charts, bar graphs etc.

Report is a statement that represents data in the form of information for carrying out the controlling function[7].

Objectives of the Study

Objectives for analyze the costing procedures cost databases and causes in competition of a true and fair cost of the products that have a Presence on:

- Analysis and Interpretation of cost statement for two years 2021-22 and 2022-23.
- Analysis of causes for differences in various elements of cost by comparative cost statement.
- Fixation of Pricing of the product in respect of the cost plus contracts and statutory requirements.
- Identification of cost roles and reduce.

IV. DATA ANALYSIS & INTERPRETATION

Aster Tele Services Private Limited (ATSPL) is a Telecom, transmission and distribution organization having different manufacturing processes for its products. Every product division in a way is unique and activities differ widely[8].

The data which received is Apportionment of Expenses will be:

Table 1: Apportionment of Factory Expenses

Item of Cost	Base
Material Consumption	Allocated
Power	Machine Hours
Water& Fuel	Cost centers
Repair& Maintenance	Machine Hours
Depreciation	Allocated

Table 2: Apportionment of Administration Overheads

Item Cost	Base
Insurance Purchases	Direct Material
Professional Consult	Sales
Conveyance	No. of Employees
Telephones	PRV to production
Entertainment	Sales
Bank charges	Based on others
Exchange rate	Direct Material
Printing & Stationary	Present Realizable
Hire Charges	Present Realizable
Stores incidents	Direct material
Insurance others	Present Realizable
Rents-Branches	Sales

Table 3: Apportionment of selling & Distribution Overheads

Item of cost	Base
Fright Outward	Net Sales
Installation Charges	No. of installations
Insurance-sales	Net Sales
Salaries & Wages of Marketing	Net Sales
Sales Promotion	Net Sales
Testing & Evaluation	Net Sales
Packing & forwarding	Net Sales
Incidentals	Net Sales

Table 4: Cost Sheet for 2021-22 of Aster Teleservices Pvt.Ltd

Particulars	Amount (Rs.)	Amount (Rs.)
Materials		106,479,845
Factory Expenses		
Labour Charges	4,899,127	
Power And Fuel Expenses	4,575,746	
Depreciation	4,825,728	
Repairs & Maintenance	506,257	
Consumables	20,377,056	
Other Direct	1,623,606	

Expenses		
Other Work Overheads	2,216,236	
Tour Expenses	23,317	
Inward Expenses	13,380,093	
Hire Charges	152,391	52,579,558
Works Cost		159,059,403
Administration Expenses		
Salaries & Wages	13,559,137	
Office Maintenance Expenses	100,090	
Repair & Maintenance	888,308	
Telephone Expenses	414,740	
Stationery Expenses	656,427	
Training & Seminar Expenses	30,280	
Insurance Expenses	84,625	15,733,607
Cost Of Production		174,793,011
Less: Stock Adjustments (WIP)		483,855
Net Cost Of Production		174,309,156
Selling & Distribution Charges		
Selling Expenses	3,187,013	
Sales Tax Expenses	19,237	
Transport Charges	3,417,169	6,623,418
Cost Of Sales		180,932,574
Sales		240,640,323
Profit Margin		59,707,749

Table 5: Cost Sheet for 2022-23 of Aster
Teleservices Pvt.Ltd

Particulars	Amount (Rs.)	Amount (Rs.)
Materials		145,862,802
Factory Expenses		
Labour Charges	6,362,503	
Power And Fuel Expenses	6,536,780	
Depreciation	5,885,034	
Repairs & Maintenance	744,495	
Consumables	32,866,219	
Other Direct Expenses	2,255,009	
Other Work Overheads	3,462,868	
Tour Expenses	28,787	
Inward Expenses	17,605,386	
Hire Charges	167,463	75,914,554
Works Cost		221,777,346
Administration Expenses		
Salaries & Wages	15,766,438	
Office Maintenance Expenses	122,061	
Repair & Maintenance	1,138,857	
Telephone Expenses	505,780	
Stationery Expenses	745,940	
Training & Seminar Expenses	47,313	
Insurance Expenses	99,559	18,425,948
Cost Of Production		240,203,294
Less: Stock Adjustments (WIP)		6,705,800
Net Cost Production		233,497,494
Selling & Distribution Charges		
Selling Expenses	3,705,829.00	
Sales Tax Expenses	24,350.00	
Transport Charges	4,746,068.00	8,476,247
Cost Of Sales		241,973,741
Sales		354,877,004
Profit Margin		112,903,263

Percentage of Material to Sales Ratio

Year 2021-22

=Direct material Sales

Year 2022-23

=Direct Material Sales

Year 2

= 106,479,845

240,640,323

= 0.44

= 44%

= 145,862,802

354,877,004

= 0.41

= 41%

Table 6: year wise sales

Year	Total raw material expenses in sales	Total sales
2021-22	44.00	100.00
2022-23	41.00	100

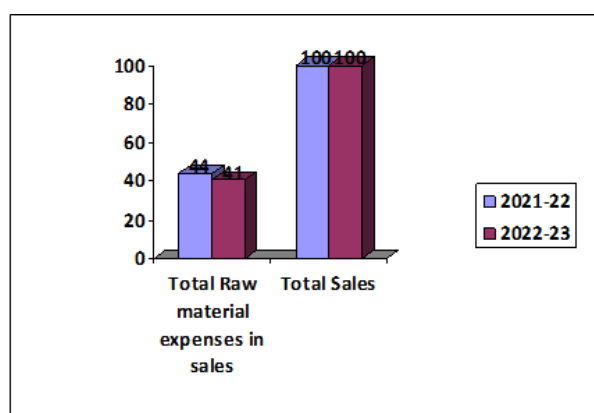


Figure 2: Percentage of Material to Sales Ratio

Interpretation

Raw materials Cost represent a major part of the total cost of production. Hence, proper control over materials is necessary from the time of the orders are placed with the suppliers till they are actually Consumed. An efficient system of material control will lead to a specific reduction in production cost[9].

Here, the material cost ratio to sales ratio has got reduced. If see the "Raw material Cost ratio in the year 2021-22 is 44 percent" and Also "the Cost ratio of Raw material in the year 2022-23 is 41 percent" it has reduced 3%.

It might be due to bulk purchases where the price of total cost of material will get reduced. This reduction in material cost ratio will have a good impact on profit margin because material cost plays a major role in the production cost[10].

Factory Overhead to Sales Ratio:

Year 2021-22

= Factory Overheads
Sales
= 52,579,554
240,640,323
= 0.2185
= 21.85%

Year 2022-23

= Factory Overheads
Sales
= 75,914,554
354,877,004
= 0.2139
= 21.39%

Table 7: year wise total factory expenses

Year	Total Factory expenses in sales	Total sales
2021-22	15.00	100.00
2022-23	21.39	100

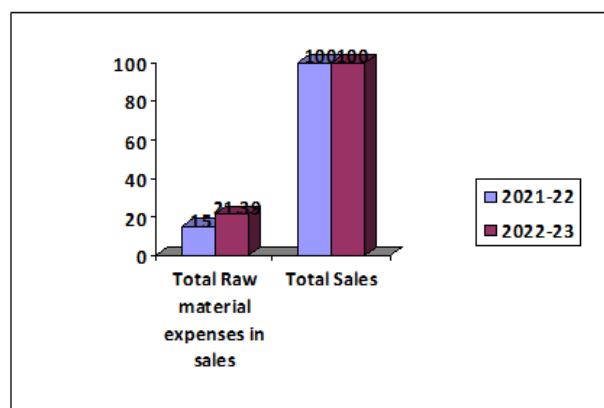


Figure 3: Factory overhead to sales Ratio

Interpretation

It is a fact that up to a certain level, due to increase in production level the profit margin rises due to presence of economics of scale. Here also "the Factory Expenses ratio in year 2021-22 is 21.85 percent" And "the 2008-09 Factory Expenses ratio is 21.39 percent" when compare to 2021-22 & 2022-23 The Factory expenses ratio is Decreased[11]. Due to that, Factory Overhead rate will decelerate because the expenses incurred are not directly proportionate to the production level. Due to that reason, even though there was increase in the expenses such as Repairs & Maintains, Research & Development, Consumable Stores & Spares etc, the factory overhead rate is low in 2021-22 as compared with 2022-23, which is indirectly an indication of increase in profits.

Works Cost of Sales Ratio

Year 2021-22

= works cost Sales
= 159,059,403
240,640,323
= 0.6609
= 66.09%

Year 2022-23

= works costs Sales
= 221777346
354877004
= 0.6249
= 62.49%

Table 8: year wise work cost sales

Year	Work cost in sales	Total sales
2021-22	66.09	100.00
2022-23	62.49	100

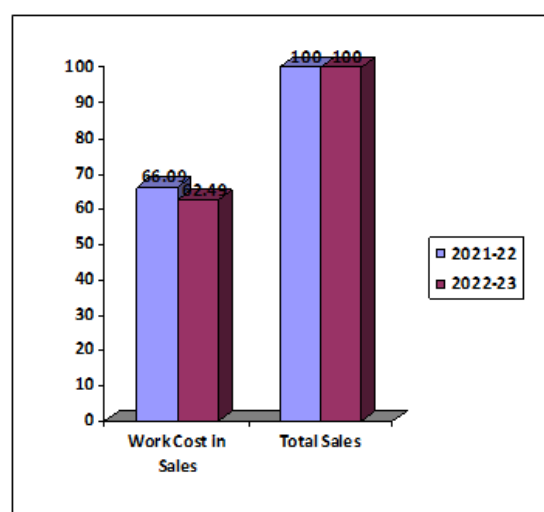


Figure 4: Works cost of sales Ratio

Interpretation

Here The Works cost ratio is Decreased When 2021-22 and 2022-23 years data is compared, "The works cost ratio of 2021-22 is 66.09 percent" And "the year 2022-23 works cost ratio is 62.49 percent" since the Factory Overheads are less in later year as compared to former year, it can be said that some precautions are being taken to reduce the costs which can make the company to prosper in the future years if they continue the same trend.

Administration Expenses to Sales Ratio

Year 2021-22

= Administration Overheads
Sales
= 15,733,607
240,640,323

Year 2022-23

= Administration
Overheads Sales
= 18,425,948
354,877,004

$$= 0.0653$$

$$= 6.53\%$$

$$= 0.0519$$

$$= 5.19\%$$

Table 9: year wise admin expenses

Year	Administration expenses in sales	Total sales
2021-22	6.53	100.00
2022-23	5.19	100

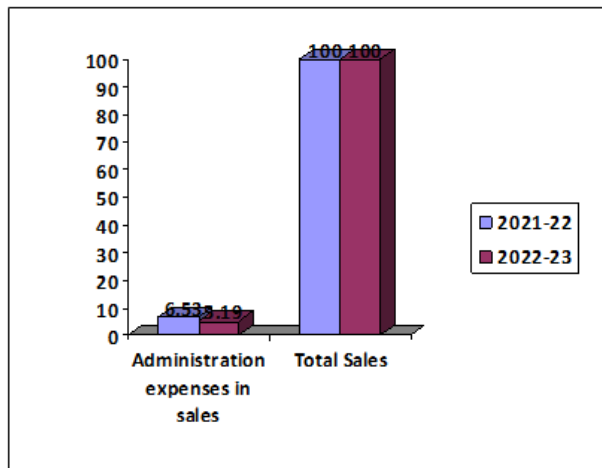


Figure 5: Administration Expenses to Sales Ratio

Interpretation

The Administration expenses ratio are less as compared to 2021-22. There is no increase in Administration Salary & Wages, Manufacturing expenses, in 2021-22 as compared to 2022-23. The reason for Decreased in expenditure might be due to in the year not recruitment and individuals[12]. If it is due to recruitment, it will yield good results in the coming year if there is plan for increase in production level.

Cost production to sales Ratio:

Year 2021-22

$$= \text{Cost of Production}$$

$$\text{Sales}$$

$$= 174,793,011$$

$$240,640,323$$

$$= 0.7263$$

$$= 72.63\%$$

Year 2022-23

$$= \text{cost of production}$$

$$\text{Sales}$$

$$= 240,203,294$$

$$354,877,004$$

$$= 0.6768$$

$$= 67.68\%$$

Table 10: year wise production sales

Year	Cost of production in sales	Total sales
2021-22	72.63	100.00
2022-23	67.68	100

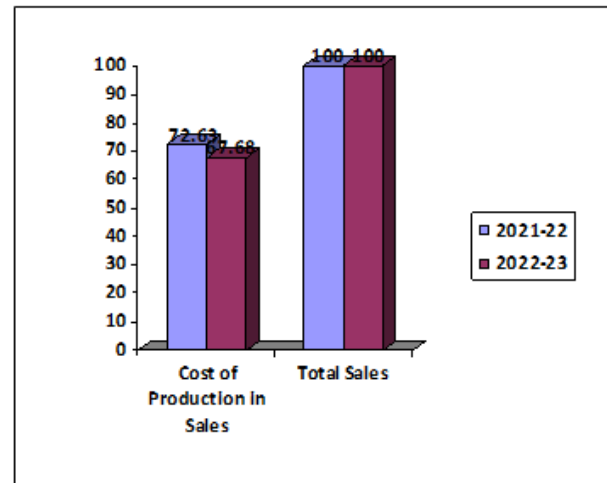


Figure 6: Cost productions to sales Ratio

Interpretation

The cost of production ratio of 2021-22 is 72.63 percent and the cost of production ratio in year 2022-23 is 67.68 here the cost of production ratio to sales in 2022-23 is less as compared to 2021-22. It is because of increase in sales volume. If there is a keen scrutiny on these administration expenses, there will be a significant increase in profit margin can be observed.

Selling & Distribution Expenses to Sales Ratio:

Year 2021-22

$$= \text{Cost of Production}$$

$$\text{Sales}$$

$$= 6623418$$

$$240640323$$

$$= 0.0275$$

$$= 2.75\%$$

Year 2022-23

$$= \text{Cost of Production}$$

$$\text{Sales}$$

$$= 8476247$$

$$354877004$$

$$= 0.0238$$

$$= 2.38\%$$

Table 11: year wise expenses in sales

Year	Selling & distribution expenses in sales	Total sales
2021-22	2.75	100.00
2022-23	2.38	100

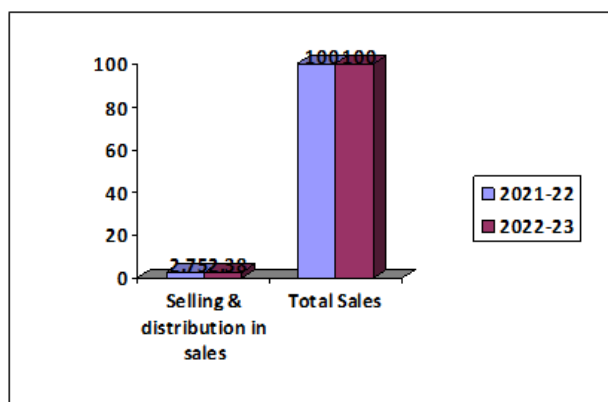


Figure 7: Selling & Distribution Expenses to Sales Ratio

Interpretation

Here also, The Selling and Distribution expenses ratio in year 2021-22 is 2.75 percent and the Year 2022-23 is 2.38 percent, the expense percentage is less as compared to 2021-22 Even though we can't say that there is significant difference in this expenditure. Because, there need to be minimum expenditure to be incurred in order to promote the product.

Cost of Sales to Sales Ratio:

Year 2021-22

= cost of sales

Sales

= 180,932,574

240,640,323

= 0.7518

= 75.78%

Year 2022-23

= cost of sales

Sales

= 241,973,741

354,877,004

= 0.6818

= 68.18%

Table 12: year wise cost of sales in total sales

Year	Cost of sales in total sales	Total sales
2021-22	75.15	100.00
2022-23	68.18	100

V. CONCLUSION

- The Company has following an established system of Cost Accounting based Target costing Principles for cost analysis of products and reporting.
- The company is Maintained Records by Cost Accounting Record Rules (CARR) and records

are maintained accordingly which help in cost analysis.

- Cost in the above referred division are pooled in designated cost centers and through allocation and apportionment on suitable basis and then later absorbed to projects/products.
- However there are certain costs directly charged to product groups.
- Costs for ATSPL are classified under Factory costs-Material, Direct Wages, Direct expenses and Factory Overheads, Administration Overheads and Selling & Dist Overheads.
- Appropriate Cost Ratios are computed to reflect efficiency of operations.

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