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Analysis of Cost Control Mechanism - Karnataka Soaps and Detergent Limited (KS & DL), Sandal Wood Oil Division, Mysuru

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Abstract: *Businesses are driven by the strong conviction of profit maximization and to be the benchmark in today's cut throat competition. An effective cost control mechanism in the system enables the organization to achieve their desired results. Cost controlling tool aims at reducing the spillovers like idle inventory, rework, scrap and the like in the process of manufacturing the product. Hence, to have a better insight into cost control mechanism a study is carried out at KS & DL. The study is descriptive in nature. During the study, while analyzing the cost sheet investment on material and labour impact in the breakup of the overall cost of production it is observed that the break in the cost of production is creating variations between budgeted cost and actual cost. Further analyses are carried out with the help of t test to find out the impact on overall performance of the business set between budgeted cost and actual cost. The test reveals a significant difference between the budgeted cost and actual cost and has succeeded in attaining cost control mechanism at KS & DL, as it is evident that in all the year's actual cost is less than budgeted cost.*

Keywords: *Actual, Budgeted, Cost, Mechanism, Performance.*

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I. Introduction

Cost control mechanism sets a platform for managers to make effective strategic decisions towards production process. To attain zero losses through the implementation of Japanese model know as Total Productive Maintenance (TPM). The super specialty of the TPM model is being set up with eight pillars to attain zero losses with the help of cost control mechanism.

In TPM model, each pillar focus towards attaining quality excellence at minimal cost with zero defects. Through, controlling cost deviations and reaching long term profits in the manufacturing sectors. Cost control mechanism also helps in finding out the business expenses incurring in the production process to evaluate actual performance with the standard.

Henceforth, a deep study is carrying out at KS & DL to understand the cost control mechanism for analyzing the past, present and future cost of products manufactured and service supplied. One common factor came into the light is cost control mechanism is a continuous process starts with the annual budget of the firm.

During the financial year progresses the manufacturing firm compares actual costs incurred with budgeted cost. The comparison helps the managers to make better investment decision towards production process. The comparison study also provides a blue print about the cost incurring and strategies to be set up to cut down the cost.

II. Review Of Literature

The review of the literature provides a brief idea about the cost control mechanism adopted in the manufacturing sector to attain qualitative products at minimal cost.

Karmarkar et al., (1990) have identified the physical process of production is the key to the design cost accounting system. The study reveals that costing system is more useful in satisfying external reporting requirements than in internal managerial purposes.

Barbole et al., (1990) have revealed cost as a residual factor for the manufacturer or service provider within stipulated cost structure for ongoing continuous improvement programmed. The study focuses on the impact of cost reduction and costs control techniques to find out the effects on the cost of material.

Brinke, (2002) have identified generic cost estimation is coming up with cost model, cost determination, and cost report tuning to control the cost involved in the production process to attain qualitative product at the minimal cost of production.

Widener, (2007) has explored the control framework to examine the relations between costs and benefits in terms of consumptions of a scarce resource. In the study during the production process estimation, many strategies are adopted to find out the risk factor involved in the process.

Uyar, (2010) has emphasized cost and management accounting practices are playing a vital role in manufacturing sectors to plan a budget and cost volume profit analysis. Nowadays many manufacturing sectors are using traditional cost techniques to analyze the cost insurance than modern methods.

Fayard et al., (2012) have portrayed inter-related resources enable the company to manage the inter-organizational cost. By using structural equation modeling resources of absorptive capacity and internal managing cost to develop organizational cost management.

Siyanbola& Raji, (2013) have expressed in cost-controlling mechanism wastage is excluded during production, administration and selling and distribution activities. To start proper cost control system behavior of workers in an organization is considered because workers are playing a crucial role in achieving organizational goals.

Review of literature provides a deep knowledge of cost control techniques adopted in the manufacture firms to control the cost deviation in the production process.

NEED FOR THE STUDY

The study includes the Actual cost and the Standard cost so that is helpful to understand the performance efficiency of the Company in terms of effective utilization of world's scarce resources.

By having effective cost control system in the organization, we can easily analyze the performance of the organization which is not analyzed properly by the traditional method of cost control system.

STATEMENT OF THE PROBLEM

Inefficient cost management and cost control technique lead to increase in the cost of goods. Henceforth, a study is carrying out in KS & DL to identify the strategies and technique used to overcome the losses and deficiency in the market.

OBJECTIVES

The objectives of the study are as follows:

- To examine the cost effectiveness of KS & DL.
- To compare the difference between standard cost and actual cost.
- To analyze the effect of cost control system on profitability.
- To examine the performance efficiency of KS & DL.

HYPOTHESIS

H_1: There is no significant difference between budgeted cost and actual cost.
H_a: There is a significant difference between budgeted cost and actual cost.

III. Research Methodology

To carry out the study KS & DL is considered.

- **Research Design:** Descriptive research design
- **Sources of Data**
  - **Primary Data:** The data will be collecting through oral conversation with Finance and Accounts Officers, observation and one to one communication at KS & DL.
  - **Secondary Data:** The data will be collecting from websites, articles, published research work, journals and annual report from the KS & DL.
- **Statistical Tools:** t test using excel sheet
- **Financial Tools:** Cost sheet from the company, Break Even Analysis, and Standard Costing

LIMITATION OF THE STUDY

The limitations of the study are the follows:

- The study is limited to KS & DL.
- The data is limited to 5 years only.
- The study period is limited to 10 weeks only.

DATA ANALYSIS

OBJECTIVE 1: TO EXAMINE THE COST EFFECTIVENESS OF KS & DL.

TABLE 1 BREAK UP OF TOTAL COST

Sl.No	Cost of goods	2011-12 (Cr)	2012-13 (Cr)	2013-14 (Cr)	2014-15 (Cr)	2015-16 (Cr)
1	Prime Cost	124266348	218885578	261030235	271194781	299870615
2	Factory Cost	11404567	19458564	10245838	14477604	11883947
3	Administration cost	5569831	5684505	5229827	8459551	6560980
4	Cost of goods	8426599	7841342	8772898	14193403	9344020
Total cost		**149667345**	**251869989**	**285278798**	**308325339**	**327659562**

Inference: The table indicates the huge investment is incurring on prime cost compared to another cost factor like factory cost, administrative cost, and cost of goods sold. Henceforth firm must adopt modern techniques to cut down the cost incurring on prime cost like labour, material.

The table also indicates total cost is increasing year by year continuously. This indicates the firm sales volume is having a positive impact on the market. Henceforth the firm is incurring huge profits this clearly indicates the firm has maintained cost control mechanism effectively and efficiently.

OBJECTIVE 2: TO COMPARE THE DIFFERENCE BETWEEN STANDARD COST AND ACTUAL COST.

TABLE 2 PRIME COST

Year	Budgeted Cost	Actual Cost
2011-12	136692982	124266348
2012-13	240774136	218885578
2013-14	282820335	261030235
2014-15	288677654	271194781
2015-16	317428339	299870615

TABLE 3: t TEST OF PRIME COST

Particulars	Budgeted Cost(x)	Actual Cost(y)
Mean	253278689.2	235049511.4
Variance(x and y)	4.99739E+15	4.67936E+15
S.D	70692227.45	68405840.43
N	5	5
Sxy	69558428.78	
t-value	0.414369062	
Dof	8	
critical value (Table Value)	1.860	

Inference: By Determining the critical value for t value (0.05) with a degree of freedom (8). the t value is smaller than the critical value (0.4143<1.860) therefore the means of prime cost are not significantly different. Hence null hypothesis is accepted and alternative hypothesis rejected.

TABLE 4 FACTORY COST

Year	Budgeted Cost	Actual Cost
2011-12	12545024	11404567
2012-13	21404420	19458564
2013-14	12607624	11883947
2014-15	10869579	10245838
2015-16	12508316	14477604

TABLE 4: t TEST OF FACTORY COST

Particulars	Budgeted Cost(x)	Actual Cost(y)
Mean	13986993	13494104
Variance (x and y)	1.77262E+13	1.3513E+13
S.D	4210252.737	3676005.229
N	5	5
Sxy	3952166.656	
t-value	0.197189383	
Dof	8	
critical value (Table Value)	1.860	

Inference: By Determining the critical value for t value (0.05) with a degree of freedom (8). the t value is smaller than the critical value (0.1972<1.860) therefore the means of factory cost are not significantly different. Hence null hypothesis is accepted and alternative hypothesis rejected.

TABLE 5 ADMINISTRATIVE COST

Year	Budgeted Cost	Actual Cost
2011-12	6126814	5569831
2012-13	6252955	5684505
2013-14	7058764	6560980
2014-15	5626651	5229827
2015-16	8707667	8459551

TABLE 6: t TEST OF ADMINISTRATIVE COST

Particulars	Budgeted Cost(x)	Actual Cost(y)
Mean	6754570.2	6300938.8
Variance (x and y)	1.45625E+12	1.69725E+12
S.D	1206753.74	1302787.184
N	5	5
Sxy	1255688.862	
t-value	0.571203777	
Dof	8	
critical value (Table Value)	1.860	

Inference: By Determining the critical value for t value (0.05) with a degree of freedom (8). the t value is smaller than the critical value (0.5712<1.860) therefore the means of administrative cost are not significantly different. Hence null hypothesis is accepted and alternative hypothesis rejected.

TABLE 7 COST OF GOODS SOLD

Year	Budgeted Cost	Actual Cost
2011-12	9269259	8426599
2012-13	8625476	7841342
2013-14	9839953	9544020
2014-15	9238543	8772898
2015-16	13798976	14193403

TABLE 8: t TEST OF COST OF GOODS SOLD

Particulars	Budgeted Cost(x)	Actual Cost(y)
Mean	10154441.4	9755652.4
Variance (x and y)	4.33542E+12	6.5338E+12
S.D	2082167.642	2556129.5
N	5	5
Sxy	2331225.013	
t-value	0.270476153	
Dof	8	
critical value (Table Value)	1.860	

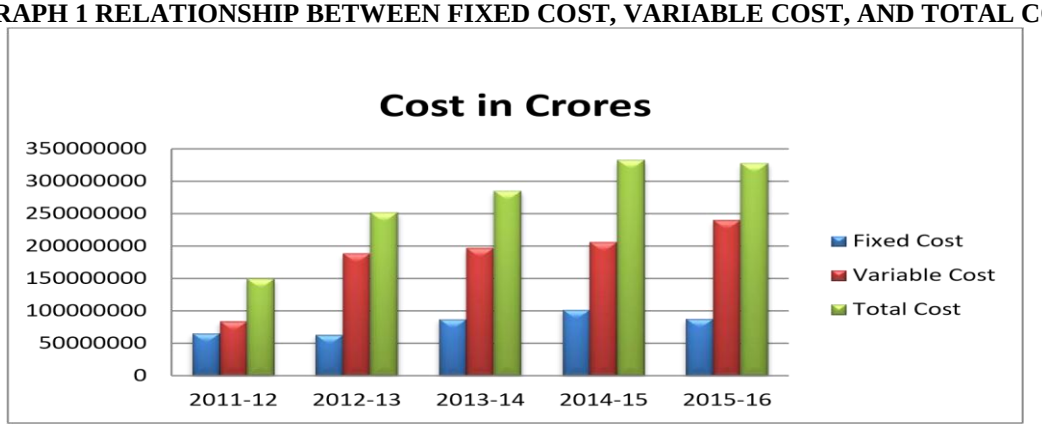
Inference: By Determining the critical value for t value (0.05) with a degree of freedom (8). the t value is smaller than the critical value (0.2708<1.860) therefore the means of Cost of goods sold are not significantly different. Hence null hypothesis is accepted and alternative hypothesis rejected.

OBJECTIVE 3: TO ANALYSE THE EFFECT OF COST CONTROL ON PROFITABILITY.

TABLE 9 COMPUTATION OF PROFIT FROM THE YEAR 2011-12 TO 2015-16

PARTICULAR	2011-12	2012-13	2013-14	2014-15	2015-16
Sales	2311232797	2862132818	3157167354	3570263347	4118692228
Total Cost	149667345	251869989	285278798	332903872	327652562
Variable Cost	84053750	188600710	197040730	206212560	240072420
Contribution	2227179047	2673532108	2960126624	3364050787	3878619808
Fixed Cost	65613595	63269279	87338143	102112779	88091537
Profit	2161565452	2610262829	2872788481	3261938008	3790528271

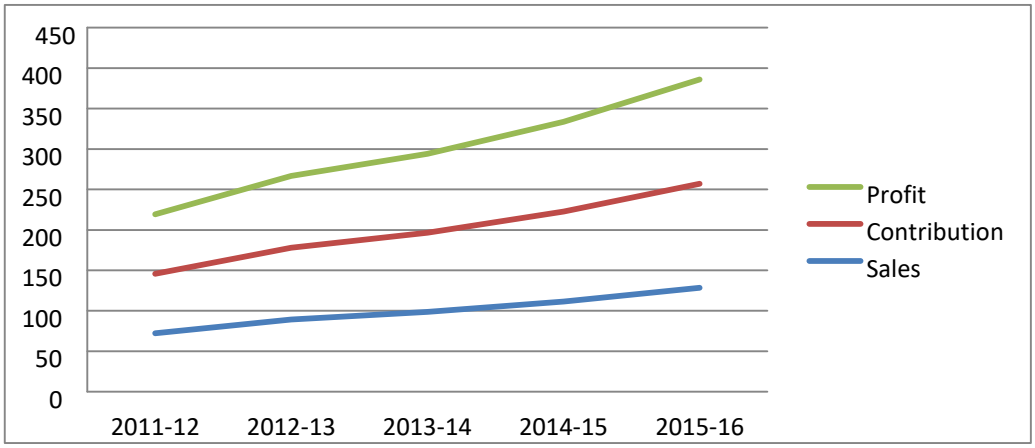
GRAPH 1 RELATIONSHIP BETWEEN FIXED COST, VARIABLE COST, AND TOTAL COST



Inference: The Chart indicates the relationship between Variable Cost, Fixed Cost and the Total Cost and the Variable Cost is having more impact on Total Cost. After the comparison of 5 years data, we have identified total cost is more in last year.

OBJECTIVE 4: TO EXAMINE THE PERFORMANCE EFFICIENCY OF KS & DL.

GRAPH 2 RELATIONSHIP BETWEEN PROFIT AND SALES



Inference: The chart reveals the relationship existing between profit, contribution and sales from 2011 to 2016. The chart also highlights volume of sales is increasing every year from 2011-16 along with contribution and profit in all the years.

TABLE 10 CALCULATION OF BEP FROM THE YEAR 2011 TO 2016

PARTICULARS	2011-12	2012-13	2013-14	2014-15	2015-16
Breakeven Sales	68089852	67732525	93151804	108372178	93544082
P/V Ratio	0.964	0.934	0.938	0.942	0.942
Margin of Safety	2243142945	2794400293	3064015550	3461891169	4025148146

Source: Secondary Data

Inference: The table shows a margin of safety from 2011-12 to 2015-16. The MOS Volume is increasing year by year. As the result of high growth in Margin of Safety is said to be that the company business is strengthening year by year.

IV. Findings

- This study analyzes whether KS&DL have effective cost control system.
- The company reached to highest sales turnover in the year 2014-15 as 357.02 cores, which is 315.71 crores in 2013-14, 286.21 crores in 2012-13and 231.12 crores in 2011-12 respectively. It shows the progressive growth form the last 12 years by increasing its production and sales volume.
- Prime cost holds most of the weight age in the breakup of total cost every year as 83%, 87%, 91.5% 92% and 93% in the year 2011, 2012, 2013, 2014 and 2015 respectively.
- The production is not consistent because of non-availability of raw material.

- The interpretation of t-test shows that t-value is smaller than the critical value which results into the means of Prime cost, Factory cost, administration cost and the cost of goods sold are not significantly different. So, the H**1** hypothesis is accepted.
- This year the company has 94.80% of capacity in break-even sales.
- The company is following traditional production process which is there from the last few decades.
- In KS & DL actual sale is higher than the break even sale which is good for the company.

V. Suggestions

- The company needs to adopt modern production process to reduce the cost of production.
- The company should reduce the Prime cost which holds most of the weight age in the breakup of total cost every year as 83%, 87%, 88%, 89% and 91.5% in the year 2011, 2012, 2013, 2014 and 2015 respectively.
- The BEP sales should need to be decreased to increase the profits as it is 94.80% in 2015-16.
- Company's profit margin is very low as it is to be increased by 7-9 % in coming year.
- The company needs to increase its volume of production to meet the growing demand for their products.
- The company should focus to reduce the total cost as it's more in the year 91.50 % in 2015-16.
- The company needs to have effective R&D department to reduce the production cost.
- The company needs to update in terms of Technology.
- The company should focus on outsourcing of Raw Material to meet the demand for their products.

VI. Conclusion

For every manufacturing company Cost Accounting is a must. This used to provide the information about the cost Sheet of the company to various managerial departments in the organization. So that it ensures the effective response from the top management to perform effectively.

Karnataka Soap and Detergent Ltd (KS&DL), which produces soaps, detergents, and sandal wood oil. Here in KS&DL, there is a separate department for cost accounting and it performs various functions such as preparation of raw materials cost analysis, computation of work cost, preparing of cost sheet, sending annual or monthly reports to statutory bodies, preparing budgets and its control measures and presenting to the top management information report. Here the KS&DL cost accounting mainly divided onto 3 factors they are

a) Department wise
b) Product wise
c) The method of accounting for material, labour and overhead.

Here the hypothesis is accepted, where it shows that the budgeted and the actual costs are not significantly different. T-test also proves that Primes cost, Factory cost, administrative cost and the cost of goods sold are not significantly different in their values. The companies actual cost is always lower than budgeted cost. Therefore, cost control system includes the routine management of the organizational activities such as cutting the wastage, misappropriation, and loss of work time.

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