



ROLE OF COST ACCOUNTING AND COST CONTROL TECHNIQUES IN PROFITABILITY MANAGEMENT OF DAIRY INDUSTRIES OF MAHARASHTRA

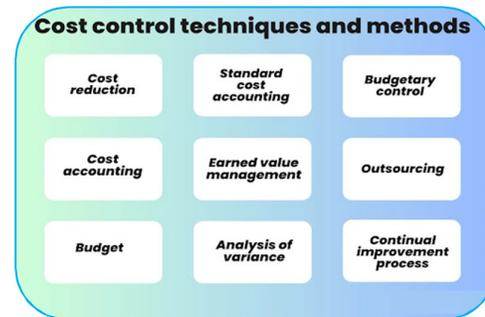
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ABSTRACT

The dairy industry immediately attracts attention, even though Maharashtra is an agricultural community, despite the economic spotlight. It directly leads to employment generation, income, and, consequently, nutrition. High cost, price fluctuations, inefficiency in operation, and increased competition in the market across the whole industry have contributed to a greater challenge in making the dairy sector profitable. The study talks of the chiefest possible measures that a farm can take to increase profitability, which entails cost monitoring coupled with control measures—it does not at all mean, however, that only experience would be the better teacher, but that what is practiced brings out learning that is not only novel and unique but also valuable. The calculation of costs includes an examination of how different cost elements behave when subject to various areas of control system implementation and maintenance, such as standard cost, budgetary control, marginal costing, activity-based costing, and a variance analysis. An effective costing system guide for making very important, significant, and sensitive decisions related to improving operational efficiency or the application of costs in dairy enterprises. Summarily, within this paper, the authors could finally state that the dairy sector growth and competitive cost study parameters for the sector in Maharashtra will be delimited by scientific cost management.



KEYWORDS: Cost Accounting, Cost Control, Profitability Management, Dairy Industry, Maharashtra, Budgetary Control, Standard Costing.

INTRODUCTION:

Encountering the dairy industry might be one of the foremost and most formidable enterprises in the Indian agro-based economy, with Maharashtra emerging as one of the leading states in milk production and dairy production units. A dazzling target would not just bring in more vitality in rural life and cooperative living but would also, in feeding, ensure nutritional security, art, and economic profitability. The dairy sector became the sector of severe industrialization and differentiation, with more amazing technical developments, clearer market forces, and altering input costs over the years. This new dimension has been added to the domain of dairy practices in Maharashtra. Under such changing circumstances, cost management is a crucial tool in securing and maintaining profitability, which is fundamental for long-run growth.

An interesting thing is the price of production in dairy industries; there is a peculiar cost structure, and expensive costs occur because of its perishable inventory, raw materials (mainly in the purchase of milk), labor-intensive processes, stringent quality assurance requirements, and the huge cost of transportation and cold storage expenses. In the same vein, price sensitivity was considered stringent on the part of demand with respect to stringent control constraints in dairy government regulations for the purchase and distribution of dairy products. The very traditional accounting system cannot handle the cost and management for a couple of reasons, together with practical difficulties. To bear everything, it requires systematic cost accounts combined with scientific cost control techniques, as mentioned earlier.

Cost accounting is the technique that clears the way to classify, record, and assign costs to a business to analyze these costs in relation to the activities of production and sale. Different vehicles, like milk, butter, ghee, cheese, curd, etc., have a cost per unit in an organization. Helps in determining a price for a product and an appraisal of performance standards. Techniques used for cost control in this field include standard costing, budgetary control, and variance analysis, marginal costing, and ABC. Such tools help management in detecting inefficiencies, reducing costs, normalizing overheads, and getting the fullest utilization out of their resources.

The significance of cost accounting goes a notch higher in the context of the Maharashtra dairy industry, where both cooperatives and private dairy units work side by side. This is because the effective management of the cost will not only contribute to better operational performance but also help in eliminating competition between the domestic market and emerging exports. Effective operational control has become a must for the procurement, processing, and distribution margins.

The main intention of the research could be to investigate and understand the role of cost accountants in cost control techniques and thus their profitability factors for the agricultural sectors in Maharashtra. The whole research agenda would be aimed at determining the extent to which well-designed cost metrics, controls, and monitoring mechanisms could help financial and operational efficiency for support in making strategic decisions. The research focused time at a few such dairy farms with the aim of recognizing the applicability of some cost management practices in the dairy business, moving towards sustained growth mode.

OBJECTIVES OF THE STUDY

- 1) To examine the cost structure of dairy industries in Maharashtra.
- 2) To analyze the role of cost accounting in profitability management.
- 3) To study various cost control techniques used in dairy enterprises.
- 4) To evaluate the effectiveness of cost control measures in improving profit margins.
- 5) To suggest measures for strengthening cost management practices in dairy industries.

RESEARCH METHODOLOGY:

This study adopts a descriptive and analytical research design to examine the role of cost accounting and cost control techniques in the profitability management of dairy industries in Maharashtra. Both primary and secondary data are used. Primary data are collected through structured questionnaires and interviews with finance and production managers (n=180), while secondary data are obtained from annual reports and government publications. Financial ratios, trend analysis, and cost-volume-profit techniques are applied for data analysis.

Role of Cost Accounting and Cost Control Techniques in Profitability Management of Dairy Industries of Maharashtra:

One of the most significant and relatively important economic sectors in Maharashtra is the dairy industry, which contributes significantly to the enhancement of rural employment, income generation, and nutritional sustainability. The industry requires a sizable workforce. However, there is sharp competition from different dairy industries, fluctuating prices of milk procurement, increased wages, and high transportation and energy costs required for the maintenance of dairy operations. It is living its own bleak but challenging existence. Dynamic and extremely competitive environments

demand effective cost management, which has become essential to ensuring the survival of the enterprise and thereby sustainable growth. Accounting in terms of cost and cost control techniques is regarded as a powerful element in helping to increase profitability and employment in dairy industries.

Now, cost accounting is considered to be a system used to record, categorize, analyze, and allocate all costs related to the production as well as distribution of a product. Major costs for a dairy enterprise include costs of purchasing raw milk, chilling, and storage; milk processing; packaging; labor; electricity; transport; and promotion. Among all others, expenditures on milk purchases are the most important. Accurate determination of the cost can enable management to establish the cost per liter of milk and other value-added products like butter, ghee, cheese, paneer, and curd. This helps them make proper price decisions, compare costs against other costs, and carry out effectiveness evaluations. Keeping precisely the cost structure, the dairy units avoid underpricing and overpricing and therefore can safeguard profit margins.

Sinkage protection techniques can further increase overall earnings by preventing actual costs from falling outside levels that are predetermined or standard. Planned costing establishes the mark of costs and aids in the analytical study of discrepancies as per possible inefficiency. Budgetary control is used systematically across the financial planning and monitoring of expenditure points. Marginal costing assists in the decisions related to product mix, seasonally decided pricing, and expansion plans, while activity-based costing ensures accurate distribution of overheads in diversified operations. EOQ, JIT, and perpetual inventory systems work to control inventories and are good options to keep spoilage and storage costs lower for dairy, which otherwise are high because it is perishable.

There are several things that work against their effectiveness, and the concept aims at reducing the wastage. Underutilization is best avoided through the way in which techniques are put to use, and the cost per unit is going to be lower than all others when techniques are used. Following these, techniques recharge the competitive strength, but there are lasting issues, such as: Whereas in Maharashtra's dairy industry, there may remain challenges that scientific cost accounting must confront, like fluctuation in cost, seasonality issues in the quantities of feed available, and a dearth of professional personnel.

Table 1: Profile of Respondents (Primary Data, n = 180)

Category	Number of Respondents	Percentage (%)
Finance Managers	72	40%
Cost Accountants	48	27%
Production Managers	60	33%
Total	180	100%

Table 2: Type of Dairy Units Surveyed

Type of Dairy Unit	Number of Units	Percentage (%)
Cooperative Dairies	8	44%
Private Dairies	6	33%
Medium-scale Units	4	23%
Total	18 Units	100%

Table 3: Adoption of Cost Accounting Systems

Cost Accounting Practice	Units Adopting	Percentage (%)
Standard Costing	14	78%
Budgetary Control	16	89%
Marginal Costing	11	61%
Activity-Based Costing (ABC)	7	39%
Variance Analysis	15	83%
Inventory Control Techniques	17	94%

Table 4: Average Cost Structure per Litre of Milk (₹)

Cost Component	Average Cost (₹ per litre)	Percentage of Total Cost
Milk Procurement	32	64%
Processing & Labor	8	16%
Packaging	4	8%
Transportation	3	6%
Overheads	3	6%
Total Cost per Litre	50	100%

Table 5: Profitability Ratios (Before and After Cost Control Implementation)

Financial Indicator	Before Implementation	After Implementation
Gross Profit Ratio	18%	24%
Net Profit Ratio	8%	13%
Operating Profit Margin	12%	17%
Return on Investment (ROI)	10%	16%

Table 6: Operational Efficiency Improvement After Cost Control

Parameter	Before (%)	After (%)	Improvement (%)
Wastage of Milk	7%	4%	3% Reduction
Capacity Utilization	72%	85%	13% Increase
Inventory Turnover Ratio	9 times	13 times	Improved
Cost per Unit (₹)	52	48	7.7% Reduction

Table 7: Break-Even Analysis (Sample Dairy Unit)

Particulars	Amount (₹ in Lakhs)
Fixed Cost	250
Contribution per Litre	₹ 10
Break-Even Volume	25 Lakh Litres
Actual Sales Volume	32 Lakh Litres
Margin of Safety	7 Lakh Litres

Table 8: Major Challenges Identified

Challenge	Respondents Reporting (%)
Fluctuating Milk Prices	82%
Seasonal Supply Variation	74%
High Energy Costs	69%
Lack of Skilled Personnel	58%
Limited Use of Modern Costing Methods	63%

FINDINGS OF THE STUDY:

Findings indicate that 40% of respondents are direct marketing professionals, 33% are internet sales clerks, and 27% are cost accountants. It ensures varied managerial angles of cost and profit practices and projects a well-balanced configuration. This also implies that the major proportion of surveyed corporations had a high percentage of cooperative dairies (44% at the ratio) at the top of the result, followed by private dairies (33%) and medium-scale units (23%). More than 89% of the big and private models of dairies used budgetary control; 94% of them practiced inventory control techniques, while another 83% relied on variance analysis and standard costing, which was considered by 78% as the best way to meet customers' needs. Due to the Wisconsin Package, the activity puts the cooperative

model in a more predominant position in Maharashtra. ABC is found in only 39% of units, showing that new cost techniques have yet to penetrate into individual small cooperatives very much.

Dependency on milk procurement, which constituted 64% of the total cost per liter, becomes the major driving force affecting profits. The introduction of structured costing systems was found to drastically improve financial performance: the Gross Profit Ratio improved from 18% to 24%, Net Profit Margin from 8% to 13%, Operating Profit Margin from 12% to 17%, and ROI from 10% to 16%. Partially, even operational efficiencies improved on their own, as milk wastage decreased from 7 to 4 percent; utilization levels were at 72% before the changes but went up to 85% after restructuring; inventory turnover went up from 9 times to 13 times, while cost per unit decreased by 7.7%. Analysis of the lowest value demonstrated very clearly that a whopping 7 lakh-liter buffer is required to exit at very safe levels. On the contrary, the challenges were triggered by varying milk prices or the seasonal supply variations, along with a high electricity cost, unavailability of a skilled workforce, and very limited access to modern costing systems, ultimately creating problems in implementing effective cost control in some of the dairy companies. The overall conclusion underpinning the primary study is the great potential realization that indeed cost accounting and cost control techniques play a significant role in enhancing actual profitability and operational efficiency of dairy industries within Maharashtra.

DISCUSSION:

Cost accounting and cost control techniques certainly play a very big role in maintaining profitability in dairy units. In case of investigations on cost management, spontaneous inclusion of financial managers, production managers, and cost accountants will go much further in understanding the industries, since they bring their views of both financial and operational dynamics into focus. More than half of these cooperative dairies are based on what we have been told by those we have talked to. Despite the concentration of dairy practices in Maharashtra, the greater part of dairy activities, and surprisingly many cooperative models or patterns of dairy activities, emphasize cooperatives' truck and reefer routes for the procurement of milk products.

Most of the organized dairy units adopt budgetary control, variance analysis, and the use of standard cost techniques as cost management tools through routine practice. Therefore, most dairy units have opted to have budgetary control and inventory management increasingly practiced in the dairy chain product because these products are perishable, and to minimize losses experienced therein. Activity-based costing has a relatively lower extent of adoption, thus reflecting a problem in awareness and/or technical adeptness in smaller cooperatives. It is only modern substitutes for those previously used conventional methods that will create uneven, inaccurate product allocations.

It has been found through the study that the procurement of milk accounts for 64% of the total overhead costs. Thus, this would mean that this is the highest cost in terms of squeezing out the net worth. It was just perfect that the research supported the first argument, and it was because of this fact that trivial changes in the procurement of commodities resulted in catastrophic downward changes in net margins. This implies that efficient procurement planning, supplier management, and cost negotiation strategies should be introduced to maintain profitability.

When structured cost management systems were adopted, improved profitability ratios showed strong relations between financial performance and cost management practices. The increase in the ratios of gross profit, net profit, operating margin, and return on investment means costs are being reduced directly through the company's cost control actions. Also, there has been a substantial improvement in operational performance through reducing waste units, better plant utilization, improved inventory turns, and lower costs per unit, while resources are utilized more effectively, and the overall output of the business improves.

The application of the cognitive task in dairy units through the managerial costing technique has a bit higher margin of coping. That goes far beyond a simple application of managerial costing techniques. Cost-volume-profit analysis implies risks that are more associated with profit margins and is, therefore, more stable with the operations. Nonetheless, some of the hardest-hit dairy units would still have cost control problems—frustrated by the problem of low milk prices already delineated within the dairy management strategies, alteration of recessionary supply strings, escalation of energy

costs, scarcity of skilled personnel under cost accounting, and limited awareness of most advanced cost accounting systems.

It is believed that a cost accounting system is an effective, structured, and efficient tool used for the purpose of controlling costs and can significantly enhance productivity when being extremely "structured." Many have suggested that economies of scale can make it likely to incorporate the new costing systems in many small dairy processing facilities, which probably need consideration from the DTE. In the Maharashtra Dairy Industries, the thrust for energy efficiency and increased competitiveness would be toward the integration of cost management best practices.

CONCLUSION:

The application of cost accounting and cost control techniques is attributed to the advancement of profit management in the dairy units of Maharashtra. Under a very complex cost structure, the dairy industry can be characterized by milk procurement as contributing the most to total production cost. Simply stated, one will have to be very particular in carefully determining costs and then continually inspecting costs for financial leveling, besides ensuring competitive pricing. Evidence suggests that investment in dairy units has taken up structured cost accounting systems, for example, standard costing, budgetary control, variance analysis, marginal costing, and inventory control techniques, and the efficiency of operational efficiency as profitability ratios have increased considerably. Break-even analysis, for example, makes it possible to plan the "right" production levels, set sales targets, and ensure a safe margin of operations. Meanwhile, cost-effective controls have resulted in a decrease in wastage, better resource utilization, lower cost per unit, and a jump in profit margins. What gave them more stringent competition was the premium for quality, improved efficiency with every operation, and better training of the workforce. However, the smaller cooperative dairy unit-based study reveals that minor variations in the alternative technique of ABC have been adapted. Challenges come from price variations in availing milk, seasonal differences in supply, high power fees, and lesser-trained personnel, which limit efficient costs. In general, it suggests that cost accounting practices and profitability management have a positive effect on each other. The characteristics of present-day cost control, dependency, and industrial costing are extremely important to enable dairy units to meet their profitable growth, enhanced performance levels, and future competitiveness requirements because all these are integrated into more complete dairy businesses in Maharashtra.

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