

THE IMPACT OF COST ACCOUNTING TECHNIQUES ON PROFITABILITY OF MANUFACTURING INDUSTRIES

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DOI : <https://www.doi.org/10.56726/IRJMETS41302>

ABSTRACT

Every organization must have a cost accounting system in place; failure to do so will eventually have an impact on profits. The efficiency of manufacturing industries depends on the effectiveness of cost accounting systems. These technologies let companies determine the exact cost of producing goods or services, allowing them to make rational decisions about product pricing, budgeting, and manufacturing methods. In order to minimize expenses, waste is avoided both throughout the production process and even during the selling, administration, and distribution processes. Since employee behavior is crucial to achieving organizational goals, a good cost control system must start with employee behavior. The goal of the study is to understand the impact of cost accounting system and techniques on manufacturing industries. This study helps examining costs related to labor, materials, overhead, and other expenses, cost accounting systems can help businesses find inefficiencies and potential areas for improvement in their production processes. The study is qualitative and uses literature studies to analyze the idea of cost accounting system and techniques. A qualitative research methodology was used to collect data. The results reveal that cost control has a positive impact on business profitability and that element of cost, such as materials, labor and overhead cost and workers' behavior could be strategically controlled with measures like responsibility accounting, data collection and data reporting. The study suggests that effective cost accounting systems can provide management with key insights into the profitability of different products or product lines. By examining cost data, managers may identify which products are the most profitable and which are not, and they can use this knowledge to strategically plan and allocate resources. Systems for cost accounting can also help manufacturing companies comply with regulatory requirements, such as those relating to tax reporting and financial accounting standards. By maintaining accurate records of their expenses and income, organisations may make sure they are abiding by these regulations and avoid getting into problems.

In general, manufacturing industries use cost accounting systems to maintain profitability, make informed decisions, and follow legal requirements. Businesses run the risk of making decisions that cost them money or restrict their potential to grow and flourish if they lack accurate cost data.

Keywords: Cost, Control, Profitability, Management, Budget, Production, Sales.

I. INTRODUCTION

Cost accounting systems are thought of as managerial planning and control processes that give management the accounting tools they need to organize, monitor, and assess operations. Cost accounting is defined as "the application of costing and cost accounting principles, methods and techniques to the science, art and practice of cost control and the ascertainment of profit" in a publication by the Institute of Cost and Management Accountants. It also entails the presentation of data obtained for managerial decision-making. A manufacturer creates the product it sells, whereas a merchant buys goods that are ready to sell. This is the fundamental distinction between the two types of businesses. A manufacturing business, on the other hand, bases the cost of the finished goods' production on the cost of raw materials. As a result, every manufacturing business must be cost-conscious when producing goods. The cost of goods available for sale in a retail business is based on the

cost of purchases. The cost accounting system is dependent on the reasons why management needs the data. These reasons include control, decision-making, and price setting.

The accounting discipline known as cost accounting addresses the recording, classification, analysis, and allocation of costs to commodities and services. Because it provides management with precise and timely information, it is essential for effective decision-making and cost control within businesses. Because it provides management with accurate and timely information regarding the cost of producing goods or providing services, it is essential for effective decision-making and cost control inside businesses. To accurately determine the cost of goods or services, a range of tools and methods are required, including task costing, process costing, and standard costing. It provides information on client profitability, product profitability, and both in addition to pinpointing cost sources.

The role of cost accounting has become increasingly important in today's fiercely competitive, razor-thin business climate. It helps companies identify methods to save expenses, reduce waste, and increase production. Cost accounting enables businesses to decide on product pricing strategies and to make informed decisions regarding investments, capital expenditures, and product development. Generally speaking, cost accounting is an essential part of accounting that helps companies grow their profits, make intelligent decisions about their operations, and find long-term success.

A long-standing and inescapable component of any corporation is the information system that provides both financial and non-financial information on the cost of obtaining or using the organization's resources. With the advent of the industrial period came the majority of cost accounting systems. The development of cost accounting as well as managerial control practices in U.S. organisations has been linked to the importance of cost and management control information in assisting the growth of large transportation, production, and distribution firms between 1850 and 1925. Kaplan also points out that in the first half of the nineteenth century, businesses like textile mills and railroads had to develop internal procedures for administration to coordinate each of the steps involved in the basic activity (the conversion of raw materials into finished goods), which made the need to feed information for internal strategy and oversight inevitable.

Brunog (2008) asserts that businesses should closely monitor costs, and profit will take care of itself. A cost control system, according to Sikka (2003), consists of methods and procedures that help manage operating expenses and ensure that expenditures don't go over a certain limit. The goal of this study is to clarify how cost management can be successfully applied to limit spending in order to increase rather than decrease profitability returns.

Kaplan claims that scientific management introduced the practice of assessing and allocating overhead expenses to products rather than the allocation of fixed costs to items or periods in late nineteenth-century cost accounting practice. The pioneers of scientific management were engineers who established "scientific" rules for the amount of labor and materials required to produce a specific unit of output. The majority of cost accounting systems in use up until 1925 were developed by field-based researchers like Monsanto Corporation, General Motors, US railroads, and General Electric Corporation, a provider of energy. Given that the Just in Time method was largely developed by Toyota, the company is not left behind. J.

Maurice Clark, a professor at the University of Chicago, provides a thorough analysis of the nature of overhead costs and how managers might utilize them to make decisions. Up until 1925, according to Johnson (1975), improvements in cost accounting theories and practices were used to boost the productivity of businesses engaged in the mass production of standard goods with relatively high direct labor costs. Cost information was used to manage and motivate employee performance, determine prices, and assess operational effectiveness.

The fact that most cost accounting practices were formed by 1925 and were mostly established in the nineteenth century is the most important piece of information in this book. But during the past three decades, a number of authors have criticized conventional costing techniques. New cost accounting techniques such Behavior Based Costing, Target Costing, Duration Costing, Just in Time Magazine System, Back Wash Accounting, and Throughput Accounting has therefore been developed. In order to determine whether these techniques are still in use in spite of criticism, this study will examine the tactics employed by manufacturing and service firms over the preceding ten years.



II. REVIEW OF LITERATURE

Cost accounting is a crucial technique for businesses to use in order to control expenses and minimize waste. CIMA defines cost control as the direction and management of an undertaking's operational expenses, particularly if such action is informed by cost accounting. Anthony et al. (2005) describe cost control as "a broad set of cost accounting methods and management techniques with the goal of improving business cost efficiency." Businesses employ cost control strategies to monitor, assess, and eventually improve the efficiency of certain aspects of their operations, such as departments, divisions, or product lines. According to Lockyer (2002), cost control is the practice of comparing the cost of a company activity to the initial cost in order to determine whether the cost is as expected. According to Sikka (2003), the first stage in cost control is to establish the target to be accomplished, i.e. the goal or objectives to be realized, and the cost control system lead the organization to achieve that aim. Actual expenses and performance are compared using budgets or criteria. If expenditures are trending away from the objective, the cost control system assists in regulating this trend and eliminating deviations. The executive in charge of incurring the costs takes executive action. The cost accountant draws to the executive's attention the precise moment at which he must take action to control spending. Cost control encompasses all methods and strategies used to reduce the cost of carrying out an operation.

This research examines the literature on cost accounting procedures used in the industrial and service industries during the previous decade. Just in Time (JIT), Activity-Based Budgeting (ABC), Target Costing, Life Cycle (LC) Costing, Throughput Accounting, and Kaizen costing are the most widely used techniques in manufacturing firms, whereas Event Based Costing is the most commonly used methodology in the service industry. The use of the strategies is determined by the conditions on the premises, such as the amount of technical progress, the size of the firm, organizational culture, and product stage. Activity Based Costing is the most often utilized contemporary costing approach in Service Companies. Accounting practices such as costing, budgeting, and decision-making are widely employed in the service industry, particularly in Pakistan. Manufacturing and service organisations use Activity Based Costing, Budgetary Control, Cost Volume Profit Analysis, and Standard Costing/Variance Analysis. The strategies employed in practice are determined by elements like as culture, technical progress, organizational size, and product stage.

Vein and Pizzini (2006) found that cost accounting systems that are better, compared to other systems, at supplying detail and classifying costs provide more relevant and useful data, which in turn leads to better financial performance. That is, more functional cost systems seem to supply managers with more relevant data, which they use to make performance-enhancing decisions. Similarly, Al-Omiri and Drury (2007) found a positive relationship between the importance given to cost information and the level of cost system sophistication. Prior literature places emphasis on management accounting systems' role in relation to providing information useful for planning and control decisions (Kaplan, 1983), which ultimately adds value to the enterprise

III. OBJECTIVES OF THE STUDY

- To investigate the impact of cost accounting methods on manufacturing sector profitability.
- To assess the significance of cost control in the manufacturing sector.
- To assess cost-control effectiveness in the manufacturing sector.
- To examine the relationship between cost accounting systems and inventory management strategies used in manufacturing businesses.

IV. METHODOLOGY

In order to study the concept of cost accounting systems in manufacturing industry, the researcher gathered data from different published papers, reports and government data has been studied and analyzed to frame the conclusions.

V. RESULT & DISCUSSION

Profitability as a result of cost structure

According to Harris and Hazard (1992), from an accounting standpoint, the cost structure profile is a fundamental characteristic shared by all firms. Cost structure, also known as operating leverage, is quantified in terms of the proportions of fixed and variable expenses in a firm's cost volume profit (CVP) equation. A firm with a high proportion of fixed costs to total costs is said to have a high fixed cost structure, whereas a firm with a low proportion is said to have a low fixed cost structure. Understanding the impact of cost structure on earnings is critical in management decision making. They also described how a technique known as sensitivity analysis may be used to analyze the impact of cost structure on profitability. In the context of CVP, if a little change in a factor, such as cost of production, generates a substantial change in profit, then profit is cost sensitive.

Effective cost cutting strategies to increase profit margins

According to Khera (2007), the purpose of every firm is to generate a profit, and most small business owners believe that growing sales is the best method to achieve it. However, this raises another issue: in order to boost sales, there must be a matching increase in expenditures due to the greater quantity of labor needed. However, growing costs are precisely what must be reduced; consequently, another method of cutting costs is to manage them, thereby boosting profit margins.

The importance of cost control in the manufacturing industry

- Cost accounting systems are critical in the manufacturing industry. They provide crucial data on costs, profitability, and performance to organisations, allowing them to make decisions that increase productivity, reduce expenses, and increase profits.
- **Accurate cost estimation:** Cost accounting systems help manufacturers estimate the exact cost of producing goods or providing services. This data is required for making price, financial, and production-related strategic choices.
- **Resource allocation:** Manufacturing companies can utilize cost accounting systems to evaluate which goods or product lines are the most profitable. Furthermore, they can identify inefficiencies in production processes and take corrective action, cutting costs and increasing profitability.
- **Regulation compliance:** Manufacturing enterprises must follow regulations, such as tax reporting and financial accounting standards. Cost accounting systems aid organisations in adhering to these rules in order to avoid fines and other consequences.
- **Making decisions:** Manufacturing companies can make informed judgments about pricing, product design, and manufacturing procedures if they have accurate cost data. Making decisions that are likely to yield positive consequences is dependent on this information. Several novel cost accounting technologies are being used in manufacturing industries.

Cost Control Standards

A management creates a budget and a road map to direct its operations. It makes a number of assumptions about the economy's relationships and interactions, market dynamics, the competencies of its sales force, and its capacity to offer the appropriate quality and quantity of items requested. An analysis of the budget

calculations and assumptions reveals that management expects the sales force to spend only a certain amount of money in pursuit of the sales projection. The details also show that management anticipates operations producing the needed number of units within a specified cost range. Management bases its predictions and projections on the strongest historical and statistical data available.

Effective Cost Control Requirements

According to Anthony et al. (2005), in order for a cost control system to be properly administered, the following factors must be considered: data collecting; data analysis; and budget control and administration:

- **Data gathering**

Because accurate and timely information is the foundation of every cost control system, thorough cost data are required for any cost control endeavor. Management must have a thorough understanding of how monies have been spent in the past and how they are being spent now. As a result, businesses invest heavily in sophisticated and error-proof cost control systems in order to acquire a thorough picture of their finances.

- **Data Examination**

The accountant's specialty is in cost control, but its analysis is critical to the planning process. The adjustment and interpretation of data allows for changes to be made in terms of standards and variance management.

- **Budget and Control Administration**

The budget plays a key role in designing and securing support for the procedural aspects of the planning process. In addition, the design and distribution of forms through budget and control administration further ensures the collection and booking of detailed data on cost.

Role of inventory management control in cost accounting

Inventory management control is a vital part of cost accounting that involves managing and regulating inventory levels in order to optimize the cost-to-service ratio. Inventory management control's purpose is to ensure that the proper amount of inventory is available at the right time to meet customer demand while minimizing inventory costs. Inventory is often divided into three categories in cost accounting: raw materials, work-in-process, and finished goods. Each of these categories necessitates a unique set of inventory management procedures and controls. The emphasis in raw materials inventory is on ensuring that the inventory level is sufficient to satisfy production needs without incurring excessive carrying costs. Monitoring inventory levels, ordering products as needed, and negotiating with suppliers to ensure competitive pricing and favorable payment terms are all part of the job. The emphasis for work-in-progress inventory is on reducing cycle times and ensuring that manufacturing processes are efficient and effective. This includes monitoring labor and material costs, following the progress of production jobs, detecting and resolving bottlenecks, and tracking the progress of production activities. The focus for finished goods inventory is on keeping the appropriate quantity of inventory to meet customer demand while minimizing carrying costs. Forecasting demand, establishing safety stock levels, and monitoring inventory turnover and obsolescence to ensure that inventory levels are optimized are all part of this process.

To summarize, effective inventory management control in cost accounting include monitoring inventory levels, forecasting demand, optimizing manufacturing processes, negotiating with suppliers, and managing inventory turnover and obsolescence. Businesses can optimize inventory levels by using these techniques and controls to achieve the proper balance of costs and customer service levels.

Inventory management control is an important part of cost accounting since it has a large impact on a company's profitability. Here are some of the main reasons why excellent inventory management control is so important:

- ✓ **Lowers carrying expenses:** Carrying costs, including as storage, insurance, and obsolescence, can be substantial for enterprises. By ensuring that inventory levels are optimized to match customer demand while minimizing surplus inventory, effective inventory management control can help to reduce these expenses.
- ✓ **Increases cash flow:** Inventory consumes a major portion of a company's cash flow. Businesses can reduce the amount of cash locked up in inventory and enhance their overall cash flow by successfully controlling inventory levels.

- ✓ **Improves customer service:** Businesses may ensure that they have the proper products in store to fulfill consumer demand by keeping optimal inventory levels. This can lead to greater sales and profitability by increasing client happiness and loyalty.
- ✓ **Increases production efficiency:** By efficiently managing work-in-process inventories, companies may optimize production processes and minimize cycle times. This can result in cost savings and increased efficiency.
- ✓ **Increases profitability:** Effective inventory management control can assist organisations in reducing expenses, improving cash flow, and improving customer service.

Recommendations

- ✓ Companies should use the costing techniques that are most suitable for their environment. For instance, the level of technological advancement, size of the company, stage of the product and culture. There should be naturalistic research for the development of cost and management techniques.
- ✓ Companies should only adopt those techniques that have practical basis and those techniques that their competitors have successfully adopted.
- ✓ Effective cost control, including good responsibility accounting system, should be established by all business concerns in the country.
- ✓ Cost control should be in place in all the departments, most especially the production department, in order to make sure that units of finished goods are properly accounted for.

To improve cost accounting, new technology is being deployed.

- ✓ **Cloud Computing:** Cloud-based cost accounting systems allow companies to access data from anywhere and collaborate in real-time. These systems also offer scalable solutions that can be customized to meet the specific needs of the organization.
- ✓ **Artificial Intelligence (AI) and Machine Learning (ML):** These technologies can be used to automate data analysis, identify patterns, and predict future costs. AI and ML can also be used to optimize production processes and reduce costs.
- ✓ **Internet of Things (IoT):** IoT sensors can be used to collect data on production processes, energy consumption, and equipment usage. This data can then be analyzed to identify areas for improvement and reduce costs.
- ✓ **Block chain:** Block chain technology can be used to create a secure and transparent ledger of all transactions related to cost accounting. This can help companies track costs and prevent fraud.
- ✓ **Robotic Process Automation (RPA):** RPA can be used to automate repetitive and time-consuming tasks related to cost accounting, such as data entry and report generation. This can free up employees to focus on more strategic tasks.
- ✓ In conclusion, new technologies such as cloud computing, AI and ML, IoT, blockchain, and RPA are transforming cost accounting in manufacturing industries. These technologies offer opportunities for increased efficiency, accuracy, and transparency, helping companies make informed decisions about pricing, budgeting, and resource allocation.

VI. CONCLUSION

Cost accounting, which allows manufacturers to optimize their operations, save money, increase efficiency, and make educated pricing, investment, and resource allocation decisions, has a significant impact on the manufacturing industries. It is also critical to product lifecycle management since it assists firms in identifying profitable products and services and discarding failing ones. Governments and business organisations are critical to the advancement of cost accounting in the manufacturing industry. Cost accounting experts are proficient in both accounting and cost management. Cost accounting is a vital instrument for manufacturing organisations to operate in a competitive and ever-changing commercial climate. Manufacturers may enhance operations, lower costs, and preserve profitability by successfully applying cost accounting, all of which are critical for their long-term viability. In other words, cost control boosts business profitability and can be achieved by methods such as ethical accounting, data collection, and data reporting. However, the influence of cost control on profit development will be limited in the absence of behavioral control. Management should focus on informing and inspiring employees about the broader goal of cost savings in order to increase

profitability. The findings of this study demonstrate unequivocally that cost control improves business profitability and that specific cost components, such as materials, labor, and overhead costs, as well as employee behavior, can be strategically managed through the use of responsibility accounting, data collection, and other techniques. Greater profitability is assured if management can focus on educating and inspiring employees about the underlying purpose of cost.

VII. REFERENCES

- [1] Al-Omiri, M. and Drury, C. (2007), "A survey of factors influencing the choice of product costing systems in UK organizations", *Management Accounting Research*, Vol. 18, pp. 399-424.
- [2] Anthony, et al., (2005), "Management Control Systems", Chicago, Irwin Publisher
- [3] Lockyer, K. (2000), "Factory and Production", London, DP Publishers.
- [4] Sikka, T.K. (2003), "Fundamental of Cost Accounting" India, Viva Books Private Ltd. 5th Edition
- [5] Lucey, T. (2000), "Management Accounting", DP Publishers, 4th Edition.