

Impact of Cost Control Techniques on Profitability of Manufacturing Firms

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CHAPTER 1

1.1 Introduction

As raw material prices go higher, the labor costs not only rise but become more competitive after continuous technological advancements, plus a combination of market factors etc., cost management is now a major concern for businesses. That is why companies have started implementing control systems that help them improve operational efficiency which is a major contributing factor to profitable sustainability.

Profitability is a critical measure of an organization's performance and financial standing. Profitability reflects how much money an organization generates from its operations after accounting for all costs. When organizations have high levels of profitability, they are able to expand; make capital investments; reward their stockholders; and remain viable during times of economic distress. Since the costs incurred by organizations are directly related to their level of profitability, it is apparent that cost control is important to improving organizational profitability.

The combination of globalisation and technological advances has created intense competition amongst manufacturing companies in recent years. More and more, customers purchase quality products at lower prices, resulting in organisations continually searching for ways to reduce costs without sacrificing quality. Failure to effectively control costs will result in a company being subject to lower profit margins; operational inefficiencies; and/or financial stress. Therefore, cost control has become a strategic imperative for any organization, not just an increase in accounting functions.

This study examines the various types of cost control techniques used by manufacturing companies and analyses their effect on profitability. The purpose of this study is to identify how the effective management of costs contributes to both financial performance and the success of an organization. The results of the study will assist managers and owners of businesses, researchers and policymakers to develop an understanding of the relationship between cost control and profitability in manufacturing.

The significance of this research study to business is its ability to provide specific recommendations for the improvement of cost management techniques in manufacturing companies. Specifically, this research study will identify and evaluate the most effective cost control techniques and how they affect profitability and thereby contribute to the theory of cost control as well as the decisions made by management. Additionally, the research study will provide insight into the importance of implementing systematic cost control processes in a highly competitive business environment.

1.2 Background of the Study

For what feels like a very long time, controlling expenses has been central to operating a company, particularly in manufacturing, where large sums go toward inputs, workforce costs, equipment, modern systems, and the steps involved in making goods. So, cost control methods have become indispensable not just as part of managerial decision-making but also in the context of strategic planning.

The idea of cost control was born when people started thinking about how to limit business spending and, as a consequence, boost the financial performance of companies. Up to a point, companies were simply targeting sales and production levels in order to generate profits.

Nevertheless, because of higher running costs, more volatile markets, and stiffer competition, the management understood that one of the ways to increase profitability was through controlling and cutting back on wasteful spending. This in turn led to the development of a number of cost control measures aimed at allowing companies to keep an eye on their costs, uncover inefficiencies and fine-tune the use of their resources.

Operating in a manufacturing industry means dealing continuously with a host of elements that can impact production costs. These include changes in raw material prices, wage increases, the cost of energy consumption, expenses related to the transportation, inventory storage costs, spending on technology, and managerial overheads. Since these expenditures have a direct impact on an organization's bottom line, managing costs efficiently has become a strategic issue rather than an accounting procedure only. Companies most likely to be negatively affected by lack of cost control are those who will be faced with profit erosion, loss of competitiveness, and eventually, financial distress.

Cost control involves the process of setting cost standards, comparing actual costs with planned costs, identifying deviations, and taking corrective actions to prevent unnecessary expenditures.

1.3 Importance and Relevance of the Study

The manufacturing sector is essential for economic development of a nation as it creates jobs, promotes industrialization, enlarges exports and accounts for a large share of the national income through the Gross Domestic Product (GDP). Nowadays, manufacturing companies are facing stiff competition mainly due to internationalization, innovation, continuous change in customer preferences, and cost increases of operations. By increasing their revenues alone, companies often won't be able to survive and nicely do their business; the effective control of existing costs also plays a very important role. Hence, the investigation of cost management strategies and results on profits has become very important and topical.

One of the major managerial tasks is cost control, as it largely determines a firm's financial health and results. Every manufacturing process incurs various types of costs such as material costs, personnel costs, machine running costs, transportation expenses, utility costs, upkeep costs, and indirect costs. If not properly supervised, these expenses can lead to severe depletion in profit margins and can even threaten the survival of the business over time.

Hence, businesses require proficient cost control mechanisms that not only help them to make the most of their resources but also aid in doing away with wasteful expenses.

Due to the changing and unstable nature of today's business environment, the issue being addressed here is even more important and urgent. Besides rising labour costs, manufacturing companies are also confronted with other problems such as increase in prices of raw materials, disruptions in supply chain, inflation, and competition in the markets at the highest level. These circumstances have made cost management more significant than ever before. Those companies that go down this path of successful control of costs are usually able to provide products at a price that customers can afford, ensure their delight, keep their profit levels intact, and at the same time, the company gets stronger in the marketing sphere.

1.4 Problem Statement

In the manufacturing industry companies have to work in a setting that is always changing and where there is a lot of competition. The money that companies make depends on using resources and managing the money they spend every day. Manufacturers have to pay a lot for things like materials, workers, equipment, storing goods moving things around using energy and running the office. Lately things like costs rising prices, problems with getting supplies, new technology and tougher competition have had a big impact on the money that manufacturing companies make.

Even though there have been improvements in the way companies are managed and the tools they use a lot of manufacturers still have trouble keeping their spending under control. When companies do not use their resources well waste things when they are making products do not handle their inventories well do not plan their money well and do not keep track of things it usually leads to costs and smaller profits. This makes it hard for manufacturing companies to stay competitive and make improvements, in their financial results.

To deal with these problems people have come up with a ways to keep costs under control.

These ways include watching how much money is being spent, using rules to decide how much things should cost, looking at where money's being wasted managing the things we have in stock figuring out which activities cost the most and using methods that make production more efficient.

The goal of these methods is to help companies keep track of what they're spending find ways to do things better get rid of things that are not needed and make their operations better.

The thing is, these methods do not work the same for every company.

The reason for this is that companies are different like how the people in charge can manage, how big the company is, what kind of technology they have and what is going on in their industry.

1.5 Research Questions

- Is there a connection between the use of cost control techniques and the level of profitability of manufacturing firms?
- Among the cost control techniques, which ones are most effective in increasing profitability?
- In what ways do budgetary control and standard costing affect the performance of the organization?
- What difficulties do manufacturing firms encounter when they carry out cost control techniques?

1.6 Research Objectives

1. To study the major cost control techniques adopted by manufacturing firms.
2. To study the effectiveness of cost control practices in managing operational costs.
3. To study the relationship between cost control techniques and profitability.
4. To study the impact of budgetary control, standard costing, and inventory management on organizational performance.
5. To study the challenges faced by manufacturing firms in implementing cost control measures.

CHAPTER 2

2.1 Literature Review

Kaplan and Cooper (1998) analyzed the weaknesses of classical cost accounting systems and proposed Activity-Based Costing (ABC) that better depicts the reality for assigning costs.

Their goal was to assist managerial decision-making by revealing cost drivers for various activities within a company. They conducted their research by performing detailed studies on manufacturing companies and demonstrated that ABC gives very accurate costs of goods and offers insights into which processes are wasteful. They suggested that firms that switch to ABC can enhance their use of resources and increase profitability. Nevertheless, the authors noted that going through the ABC implementation is time-consuming, requires expert knowledge, and costs considerable amounts of money, hence not all companies can manage to implement it

Drury (2000) has identified various management accounting methods through which companies can gain control over manufacturing costs and consequently raise profitability. His work mainly revolved around budgeting, standard costing, and variance analysis as instruments of managerial control. Among the main conclusions was that successful cost management gives companies an opportunity to keep track of their operational efficiency, minimize waste, and expand their profit margins.

In 2006 Henri studied how companies control costs and how it affects their performance. The study tried to find out how cost control tools help companies make choices and get better results. It found out that companies, with cost control practices do better work more efficiently and make more money. The research showed that keeping track of performance and costs is very important for companies to compete with others.

In 2002 Cagwin and Bouwman looked into Activity-Based Costing (ABC). How it affects a company's profits. They wanted to know if using ABC would help companies make money. Their study of manufacturing companies found that ABC helps companies get cost information make better pricing decisions and increase profits especially when used with a clear business strategy.

On the hand companies that used ABC without much support inside did not see many benefits. In 2013 Elhamma and Zhang studied how ABC relates to a company's strategy and performance. They aimed to find out if ABC helps companies make money.

Their study of production companies found that those using ABC managed costs better and had improved results. They concluded that ABC helps managers make choices by providing accurate cost data. However, Their study only looked at a companies and did not consider the long-term effects of using ABC. In 2014 Ahmad studied how manufacturing companies use accounting methods to improve performance.

In 2011 Akenbor and Okoye studied how manufacturing companies use cost accounting methods. They wanted to know if these methods can help companies make money. They used a questionnaire to find out. Reported that companies with good cost accounting methods have better control over their money waste less and make more money. Their results showed that tracking costs is very important for how a company does. They only looked at companies in one area.

In 2011 Alleyne and Weekes-Marshall looked at how management accounting methods affect performance in manufacturing companies. They wanted to know if methods for managing costs can help companies do better. They found out that companies that use accounting methods and budgeting do better and have more secure finances. They said that managing and controlling costs is still very important for running a company. However, they only looked at a cases.

Novák and Popesko looked at how industrial companies manage cost systems in 2014. They wanted to know if modern costing methods can help companies make money. They looked at data, from production businesses. Found out that good cost allocation practices and keeping an eye on costs can make companies work better and make more money. The effect of using these methods depended on how big the company was.

In 2010 Bhimani and Bromwich looked at cost management and how it can help a company compete better. They wanted to know how cost control methods affect how well a company does over time. They found out that this approach to cost management helps companies make choices use resources better and have better financial results. They also said that cost management methods need to be changed as business conditions change. However, their research was mostly theoretical. Did not look at real companies.

2.2 Research Gap

People have been studying ways to manage expenses for a time because it is really important for companies to make more money and be more productive. A lot of research has been done on ways to manage expenses like making budgets planning costs checking if costs are going as planned and using methods like Activity-Based Costing. Some smart people like Kaplan and Cooper, Drury, Chenhall, Cadez and Guilding, Maiga and Jacobs and Hoozée and Hansen have said that keeping an eye on costs helps companies spend less money every day use their resources better make good decisions and get better financial results. Also some studies have shown that making production processes better and getting rid of waste can help companies make money and be more competitive.

Even though a lot of work has been done on this topic there are still some issues with what we know about managing costs. First most studies have only looked at one way to manage costs at a time of looking at how using many different methods together affects how much money a manufacturing company makes. In the world companies usually use many methods to control costs all at the same time so we need to look at how all these cost management methods work together.

Next most of the research has been done on companies in countries but not as much on manufacturing companies in poorer countries, where the markets and resources and competition are very different.

Finally most studies have only looked at how to cut costs and make production processes better. Not at how these changes can lead to long-term profitability and financial stability for manufacturing companies.

To fix these problems this study is going to look at ways to manage costs and how they affect the profitability of manufacturing companies. By looking at cost management methods and seeing how they affect financial results this study hopes to give a clearer understanding of how keeping a close eye on costs can help manufacturing companies work better make more money and stay strong over time.

- * The study will look at cost management methods, like budget planning and Activity-Based Costing to see how they affect manufacturing companies.

- * It will also look at how these methods affect results, such as profitability and financial stability.

- * The goal is to help manufacturing companies make decisions, about how to manage their costs and improve their financial performance.

This research will focus on manufacturing companies. How they can use cost-management methods to improve their financial results and stay competitive.

CHAPTER 3

RESEARCH METHODOLOGY

Research methodology is a rational process by which data is gathered, analysed, and interpreted to accomplish the goals of the research. It sets out a well-organized mechanism that guarantees the veracity, trustworthiness, and correctness of the research outcomes.

This paper titled *"Impact of Cost Control Techniques on Profitability of Manufacturing Firms"* seeks to find out what cost control methods manufacturing companies largely use and how these methods are related to their profitability and performance.

There are number of reasons why cost control is very important in a manufacturing sector such as higher production costs, stiff competition, technological changes, and alteration of customer's needs. Manufacturing organizations often rely on different operational, financial, and procurement level cost control techniques in order to increase efficiency and make the best use of their profitability.

In light of the above, this paper not only attempts to pinpoint the major cost control strategies used by the industry but also their role in profitability and sustainable growth of businesses in the long run.

3.2 Research Design

Research design is, like a plan that shows how to do a study.

In this study we use a design that has two parts: description and analysis. #Description Part

The description part helps us find out which cost-management methods manufacturing companies use.

It also helps us understand how these companies work today. #Analysis Part

The analysis part helps us check how these methods affect profit reduce costs and improve performance.

We use numbers and facts in this study because we collect information through a questionnaire. Then we use methods to examine this information.

The study aims to understand cost-management methods. These methods are used by manufacturing companies.

They help in lowering costs and improving performance.

The methods are assessed to see how they affect profit levels.

3.3 Research Nature

This project has substantial value and is simple in terms of using practical approaches. Collected data was hands-on, as well as derived from people currently in practice at manufacturing companies. The descriptive portion of the study is concerned with the understanding of how control methods (for cost) are used by businesses to analyze operations, monitor expenses and sources. The evaluative portion of the study is concerned with the influence of control methods on the ability of businesses to profit financially. The project is a snapshot in time, as it gathered data from respondents at a single time.

3.4 Data Sources

Both primary and secondary data sources are utilized in the study.

Primary Data Primary data was collected through the performance of a survey using Google Forms that was distributed to respondents in manufacturing firms. All survey respondents were staff from accounts, finance, purchased goods, manufactured goods, Shop floor supervisors, Operations supervisory management staff, and Cost control manager-level staff. In the survey, we obtained information relating to the control of operational costs. The survey also assessed how businesses managed operational costs.

3.5 .3 Target Respondents

The target respondents included:

- Finance Managers
- Cost Accountants
- Procurement Managers
- Production Managers
- Operations Managers
- Supervisors
- Manufacturing Employees

3.6 Research Variables

Independent Variables

Operational Cost Control Techniques

- Lean Manufacturing/Waste Reduction
- Just-in-Time (JIT) Inventory System
- Total Quality Management (TQM)
- Outsourcing and Offshoring
- Energy Consumption Optimization
- Process Automation and Robotics

Financial and Procurement Cost Control Techniques

- Strategic Sourcing
- Supplier Consolidation

- Volume Discount Negotiation
- Zero-Based Budgeting (ZBB)
- Activity-Based Costing (ABC)
- ERP and Cost Management Software
- Hedging Against Raw Material Price Volatility

Dependent Variables

The dependent variables include:

- Profitability
- Gross Profit Margin (GPM)
- Cost Reduction
- Financial Performance
- Operational Efficiency
- Long-Term Sustainability

3.7 Development of Research Model

Independent Variables

Operational Cost Control Techniques

- Lean Manufacturing
- JIT Inventory System
- TQM
- Outsourcing
- Energy Optimization
- Automation

Financial and Procurement Cost Control Techniques

- Strategic Sourcing

- ZBB
- ABC
- ERP Systems
- Supplier Consolidation

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Dependent Variables

- Cost Reduction
- Gross Profit Margin
- Operational Efficiency
- Profitability
- Long-Term Sustainability

3.8 Hypotheses of the Study

In this study, three hypotheses were tested:

H1: In manufacturing firms, there is a relationship between how well they manage their operating costs and their overall profits,

H2: Companies that monitor their financial situation closely will have increased profitability due to the ability to control their purchasing costs, and

3.9 Questionnaire Design

The questionnaire was structured into four sections.

Section A: Organizational Profile

1. Manufacturing Sector
2. Annual Revenue
3. Effectiveness of Current Cost Control Strategy

Section B: Operational Cost Control Techniques

4. Lean Manufacturing/Waste Reduction
5. Just-in-Time Inventory System

6. Total Quality Management
7. Outsourcing/Offshoring
8. Energy Optimization
9. Process Automation and Robotics

Section C: Financial and Procurement Cost Control Techniques

10. Strategic Sourcing
11. Supplier Consolidation
12. Volume Discount Negotiation
13. Zero-Based Budgeting
14. Activity-Based Costing
15. ERP and Cost Management Software
16. Hedging Against Raw Material Price Volatility

Section D: Impact on Profitability

17. Impact on Direct Material Cost Reduction
18. Impact on Direct Labour Cost Reduction
19. Impact on Overhead Cost Reduction
20. Gross Profit Margin Change
21. Frequency of Cost Variance Analysis
22. Challenges in Cost Control Implementation
23. Long-Term Profitability Impact

3.10 Data Collection Procedure

We made a survey using Google Forms. Sent it to people through email, LinkedIn, WhatsApp and some professional groups. We told everyone what the survey was about before they answered any questions. It was up to them if they wanted to take part. We asked them to be honest with their answers.

When we got all the answers we looked at the information put it into groups and got it ready to be analyzed. We did this so we could work with the survey information and get some results, from the Google Forms survey.

3.11 Tools and Techniques Used for Data Analysis

The collected data were analyzed using the following methods:

- Percentage Analysis
- Frequency Distribution Tables
- Mean Score Analysis
- Likert Scale Analysis
- Bar Charts
- Pie Charts
- Comparative Analysis

These tools helped measure the impact of cost control techniques and their impact on profitability.

3.12 Reliability and Validity Considerations

Reliability is about how a study gets the same results. Validity is about how a tool measures what it is supposed to measure. The people who did the study made a survey based on what they wanted to find out and what they learned from work on costs and how well a company does. They made the questions easy to understand so people could answer them easily.

The people who did the study did things the way every time when they collected the information and looked at it. They did this to make sure the study was reliable and that the measurements were good. They wanted to make sure the study was done in a way that would give them results, about managing costs and profit performance.

3.13 Ethical Considerations

When we did the research we made sure to follow the rules that are supposed to guide this kind of thing. We told the people who were part of the study why we were doing it before they agreed to take part. They did not have to be in the study if they did not want to. They could leave at any time they wanted to.

We made sure the people, in the study stayed anonymous and that their personal privacy was protected. We only used the information we gathered for school work. We did not share it with anyone who was not supposed to see it like a person or a group or a school that we did not have permission to share it with.

3.14 Methodology Summary

Research Objectives

1. The primary focus of looking into how manufacturing firms' control and manage their costs.
2. The goal is to determine if the way manufacturing firms manage their operating and financial costs is effective at reducing the expense.
3. Determine how the method used by manufacturing entities to manage operational and financial operations overall affects Gross Profit Margin and total profit generated by the entity.

4. Manufacturing firms must understand the benefits that cost management will have on their profitability over time.
5. We will conduct an investigation into the obstacles that manufacturing firms face when implementing cost management strategies.

Research Design

This research study employs both a descriptive and analytical design methodology. The descriptive method is useful for identifying the various cost control techniques utilized in manufacturing firms. The analytical method evaluates the effectiveness of such cost control techniques on the overall profitability of the firm and the firm's financial performance.

Nature/Type of Research

The study is:

- Empirical Research
- Descriptive Research
- Analytical Research
- Quantitative Research
- Cross-Sectional Research

Sample

- Finance Managers
- Cost Accountants
- Procurement Managers
- Production Managers
- Operations Managers
- Supervisors
- Manufacturing Employees

Data Sources Primary Data

Primary data were collected by using a structured Google Forms questionnaire .

Secondary Data

- Research Journals
- Books

- Annual Reports
- Company Reports
- Industry Publications
- Websites
- Research Articles
- Academic Databases

Statistical Tools/Methods

- Frequency Distribution
- Percentage Analysis
- Mean Score Analysis
- Likert Scale Analysis
- Comparative Analysis
- Bar Charts
- Pie Charts
- Tabular Analysis

Software Used

The collected data by:

- Microsoft Excel
- Google Forms Response Analysis

CHAPTER 4**4.1 DATA ANALYSIS AND RESULTS**

The data for the chapter was collected through a questionnaire sent to manufacturing companies to analyze how cost controls impact the profitability of their businesses. Of the total recipients of the questionnaire, we received a response rate of 34. The data was then analyzed through graphs/tables to easily display the results. All data is represented by means of frequency distributions and analysis using percentages, which enables easy interpretation of the results obtained from this analysis.

The analysis helps to interpret the data gathered from the companies. Overall the results provide insights into the relationship between cost control and profitability. The study provides a look, at how manufacturing companies use cost control methods. The findings are based on the data collected and analyzed. The results of the study are displayed

in a way that's easy to understand

4.2 Profile of Respondents

Table 4.1: Firm's Primary Manufacturing Sector

Manufacturing Sector	Number of Respondents	Percentage (%)
Automotive/Transportation	7	20.6
Electronics/High-Tech	6	17.6
Pharmaceuticals/Chemicals	3	8.8
Food & Beverage	9	26.5
Textile/Apparel	2	5.9
Heavy Machinery/Industrial Equipment	1	2.9
Other	6	17.6
Total	34	100

What is your firm's primary manufacturing sector?

34 responses

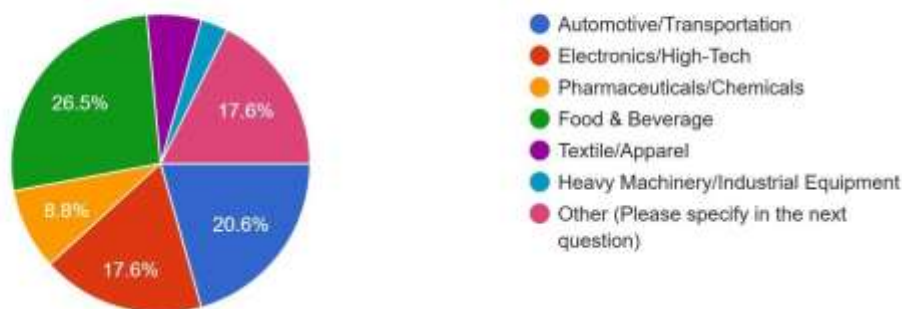


Fig 4.1: Firm's Primary Manufacturing Sector

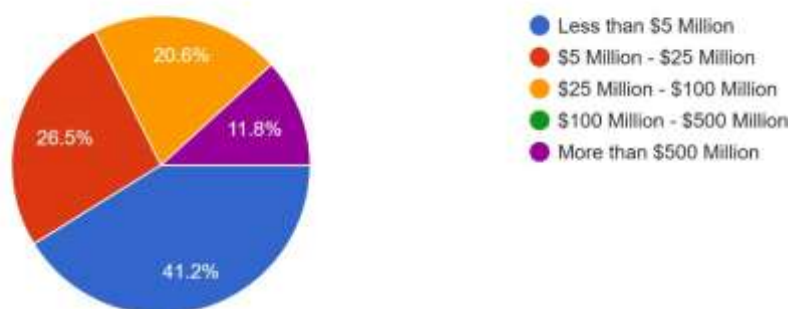
The results show that the things companies do to manage costs have really helped increase the Gross Profit Margin across a lot of firms. Most of the people who answered the questions, 38.2 percent said their Gross Profit Margin went up by 1 percent to 5 percent. 11.8 Percent said their Gross Profit Margin went up by more than 5 percent. On the hand 23.5 percent said their Gross Profit Margin went down and 26.5 percent said it did not really change. So to sum it up these results show that most manufacturing companies will make money because they are doing a good job of controlling their costs. The Gross Profit Margin is really important for these companies. It seems like they are getting better, at managing their Gross Profit Margin

Table 4.2: Approximate Annual Revenue of the Firm

Annual Revenue (USD)	Number of Respondents	Percentage (%)
Less than \$5 Million	14	41.2
\$5 Million – \$25 Million	9	26.5
\$25 Million – \$100 Million	7	20.6
\$100 Million – \$500 Million	0	0.0
More than \$500 Million	4	11.8
Total	34	100

What is the approximate annual revenue of your firm in USD?

34 responses


Fig 4.2: Approximate Annual Revenue of the Firm

Result: The results show that **41.2% of the respondents** are working for companies whose annual revenues are **below \$5 million**. This is the biggest group by far. Companies with annual revenues between **\$5 million and \$25 million** comprise **26.5%**, while **20.6%** are within the revenue class of **\$25 million to \$100 million**.

4.3 Effectiveness of Current Cost Control Strategy

Table 4.3: Overall Effectiveness of Current Cost Control Strategy

Rating Scale	Observation
Highest Rating Received	10
Most Frequent Rating	8
Percentage at Rating 8	32.4%

How would you rate the overall effectiveness of your current cost control strategy?

34 responses

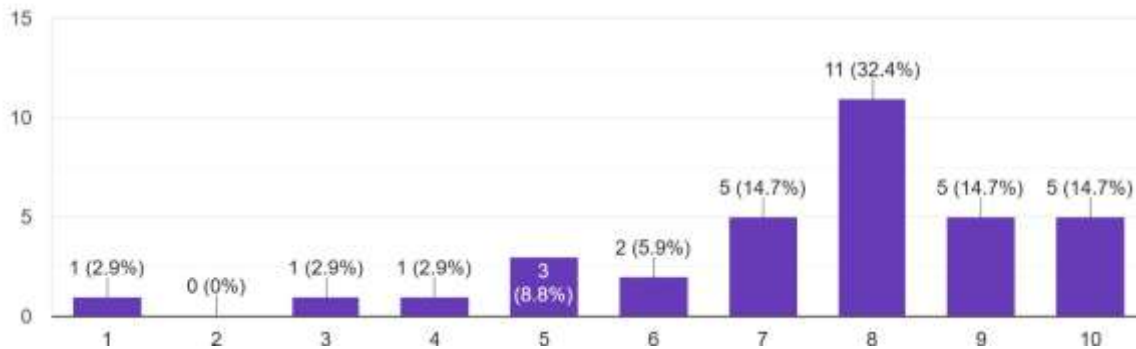


Fig 4.3: Overall Effectiveness of Current Cost Control Strategy

Result: Only a small percentage provided ratings below 5. Overall, the findings suggest that most firms are satisfied with the performance of their cost control strategies and consider them successful in managing costs and supporting profitability.

4.4 Operational Cost Control Techniques

Table 4.4: Operational Cost Control Techniques Implemented by Firms

Cost Control Technique	Number of Responses	Percentage (%)
Lean Manufacturing/Waste Reduction (e.g., Kaizen, 5S)	10	29.4
Just-In-Time (JIT) Inventory System	11	32.4
Total Quality Management (TQM)	15	44.1
Outsourcing/Offshoring of Non-Core Activities	9	26.5
Energy Consumption Optimization/Green Initiatives	5	14.7
Process Automation and Robotics	5	14.7

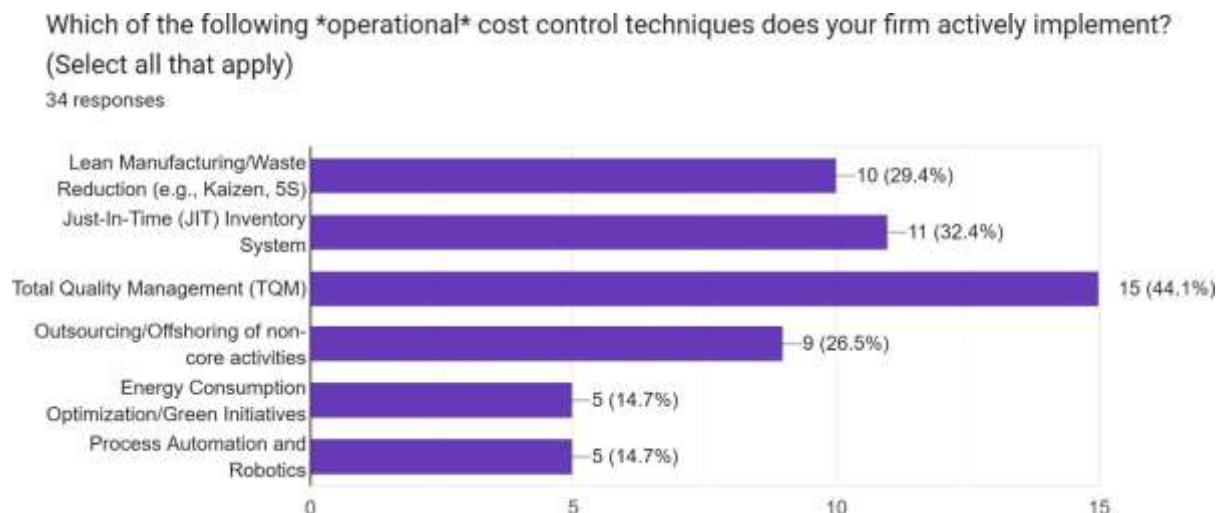


Fig 4.4: Operational Cost Control Techniques Implemented by Firms

Result: The findings indicate that **Total Quality Management (TQM)** is the most widely adopted operational cost control technique, implemented by **44.1%** of firms. This is followed by the **Just-In-Time (JIT) Inventory System (32.4%)** and **Lean Manufacturing/Waste Reduction (29.4%)**. Fewer firms use **Outsourcing/Offshoring (26.5%)**, while **Energy Optimization** and **Process Automation and Robotics** are each adopted by **14.7%** of respondents. Overall, the results suggest that firms primarily focus on quality improvement and inventory management as key strategies for controlling operational costs.

4.5 Financial and Procurement Cost Control Techniques

Table 4.5: Financial/Procurement Cost Control Techniques Implemented by Firms

Technique	Percentage (%)
Activity-Based Costing (ABC)	47.1
Zero-Based Budgeting (ZBB)	38.2
Strategic Sourcing	23.5
Volume Discount Negotiation	20.6
Hedging Against Price Volatility	17.6
ERP Software	14.7

Which of the following *financial/procurement* cost control techniques does your firm actively implement? (Select all that apply)

34 responses

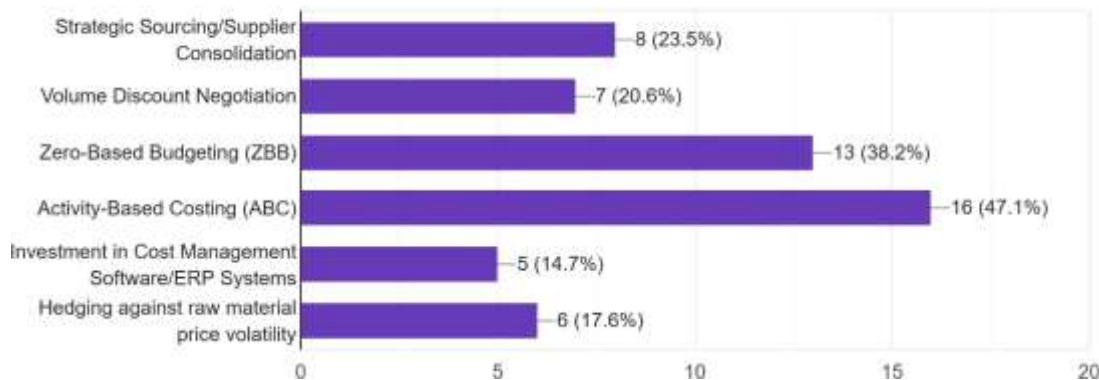


Fig 4.5: Financial/Procurement Cost Control Techniques Implemented by Firms

Result: The results show that Activity-Based Costing is the commonly used method to control costs. Activity-Based Costing is used by 47.1 percent of companies. The next used method is Zero-Based Budgeting. Zero-Based Budgeting is used by 38.2 percent of companies. Some companies also use Strategic Sourcing. Negotiating volume-based discounts. Strategic Sourcing is used by 23.5 percent of companies. Negotiating volume-based discounts is used by 20.6 percent of companies. However, some methods like using ERP or cost management systems and hedging to limit swings in raw material prices are not used much. ERP or cost management systems are used by 14.7 percent of companies. Hedging to limit swings, in raw material prices is used by 17.6 percent of companies. In summary companies mainly use Activity-Based Costing and Zero-Based Budgeting to control costs and make money.

4.6 Gross Profit Margin Analysis

Table 4.6: Change in Gross Profit Margin (GPM) Due to Cost Control Efforts

Response Category	Number of Respondents	Percentage (%)
Decreased by more than 5%	2	5.9
Decreased by 1% – 5%	6	17.6
No significant change ($\pm 1\%$)	9	26.5
Increased by 1% – 5%	13	38.2
Increased by more than 5%	4	11.8

Total	34	100
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In the last fiscal year, approximately by what percentage did your firm's Gross Profit Margin (GPM) change due to cost control efforts?

34 responses

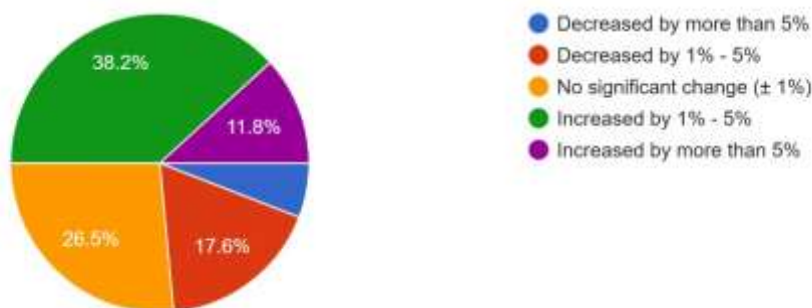


Fig 4.6: Change in Gross Profit Margin (GPM) Due to Cost Control Efforts

Result: The results are in and it looks like many companies have seen good things happen when they try to manage their expenses. A lot of the people we talked to forty percent said their Gross Profit Margin or GPM went up a little bit by one to five percent. Some companies, twelve percent even saw their GPM go up by more than five percent. On the hand some companies did not do as well with almost a quarter of them saying their GPM actually went down. Then there were the companies that did not see much of a change about twenty seven percent of them. So when we look at all of this it seems like most manufacturing businesses can make money when they do a good job of managing their expenses and keeping their costs under control, which is good, for their Gross Profit Margin.

4.7 Cost Variance Analysis

Table 4.7: Frequency of Formal Review and Analysis of Cost Variances

Response Category	Number of Respondents	Percentage (%)
Daily/Weekly	3	8.8
Monthly	16	47.1
Quarterly	9	26.5
Annually	4	11.8
Irregularly or never	2	5.9
Total	34	100

How frequently does your firm conduct a formal review and analysis of cost variances?

34 responses

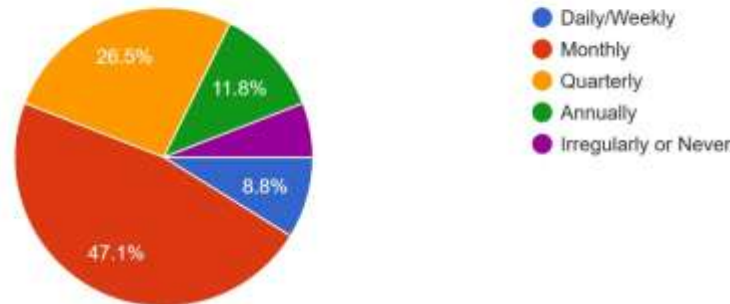


Fig 4.7: Frequency of Formal Review and Analysis of Cost Variances

Result: The results show that almost half of the companies do checks of cost variances. This is what 47.1% of the participants do. Monthly checks of cost variances are the common thing that companies do. Some companies do cost reviews every three months. This is what 26.5% of the participants do. Then there are companies that do cost reviews every day or every week. This is what 8.8% of the participants do.

A smaller number of companies do cost reviews a year. This is what 11.8% of the participants do. Some companies do not have a schedule, for cost reviews. This is what 5.9% of the participants do. So the data shows that companies usually keep an eye on cost variances. Monthly cost reviews are what most companies like to do to keep their costs under control. Monthly cost reviews are the way to maintain strong cost control. Companies like to do checks of cost variances.

4.8 Long-Term Profitability Analysis

Table 4.8: Relationship Between Cost Control and Long-Term Profitability

Response Category	Number of Respondents	Percentage (%)
Strongly Agree	11	36.7
Agree	13	43.3
Neutral	4	13.3
Disagree	1	3.3
Strongly Disagree	1	3.3
Total	30	100

How strongly do you agree that effective cost control is directly correlated with sustainable long-term profitability in your firm?

30 responses

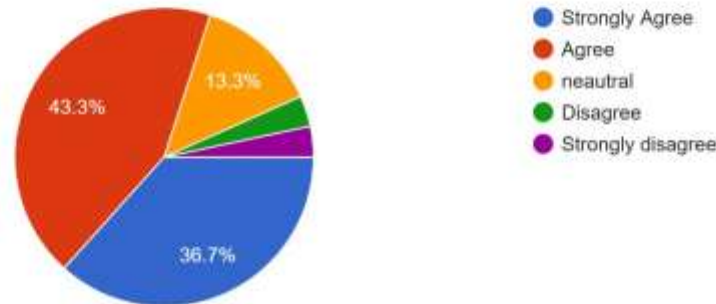


Fig 4.8: Relationship Between Cost Control and Long-Term Profitability

Result: The graph shows that most people think controlling costs helps a business make money for a time.

Most people, 43.3% agree that keeping costs under control is important for long-term profitability.

Another 36.7% strongly agree with this idea.

Keeping costs well managed is directly linked to making profits and sustaining success.

Table 4.9: Summary of Hypothesis Testing

Hypothesis	Statement	Result
H1	Operational cost control techniques significantly influence profitability	Accepted
H2	Financial and procurement cost control techniques positively affect profitability	Accepted
H3	Effective cost control strategies improve long-term profitability	Accepted

4.13 Major Findings

1. Most manufacturers believe their methods for controlling costs are effective.
2. Companies primarily utilize Total Quality Management to manage operating expense control processes.
3. Companies tend to use Activity-Based Costing to manage expenses.

4. By improving the quality of inventory and supplier management, the possibility of reducing the costs for raw materials is significant.
5. Companies can reduce overhead expenses and improve their efficiency through employee training and energy conservation.
6. Several manufacturers evaluate their expenditures on a monthly basis to determine whether they are meeting their projections.
7. Controls for costs create opportunities for profit.
8. Successful cost controls are linked to long-term financial success for a manufacturer.
9. The greatest difficulty in cost control is finding the means by which cost-cutting can be accomplished without effecting the quality of product delivered?
10. The combination of all the above methods provides assistance to manufacturers in generating more profit.

CHAPTER 5

5.1 Findings

Interpretation:

Survey results indicate that the majority of respondents, 41.5%, work for small companies (defined as businesses with revenue below \$5 million). In contrast, 26.5% work for companies that generate \$5 - \$25 million in revenue. The percentage of respondents that work for companies that generate \$25 - \$100 million in revenue is 20.6%. 11.5% of respondents indicated that they work for companies with revenue of over \$500 million. There were no respondents in this study that worked for companies that generated revenue in the \$100 - \$500 million range. Therefore, this study represents mainly medium-sized manufacturing companies. The purpose of this research was to identify various methods of cost controls in manufacturing businesses and the impact on profit. The survey results from the manufacturing industry demonstrate several observations regarding cost control in manufacturing businesses. The rise in production costs, competition, and need to generate profit have created greater pressures to manage costs in manufacturing organizations. The majority of respondents believe their company's current cost control system is effective. In addition, many of the respondents evaluated their current company's cost control systems. The results indicate that manufacturing organizations demonstrate an awareness of the link between cost management and the overall performance of their business. Manufacturing businesses continue to introduce cost control as an integral part of managing production and finances. The research has also indicated that manufacturing organizations frequently employ TQM, JIT inventory systems, Lean manufacturing, and outsourcing of core business processes to manage operational costs.

5.2 Important Findings from Analyzing Data

The data being analyzed from companies engaged in manufacturing indicates that there are certain things manufacturers must do to get an optimal level of profit and perform well within their business. The ability to manage cost is more than just tracking expenses; it provides businesses with a means to make wise decisions. To remain competitive for the long term, many manufacturing firms now have included methods to control costs in their business plans.

* The use of multiple methods together increases company performance when compared to the single use of one method. For example the use of both lean manufacturing and total quality management (with methods that are focused on financial control such as activity based costing and zero-based budget), has much greater potential for increased productivity and profits than if only one control method were utilized. This indicates that combined related efforts for effective cost management will produce greater results than standalone efforts are capable of producing.

This research also identified barriers to implementing cost controls. Cutting costs is generally a goal but the methodologies used to achieve cost reductions must not negatively impact product quality, employee morale, and customer satisfaction. Because of this, successful cost management requires a balanced approach between financial objectives and operational objectives. Firms must not only focus on reducing costs but also maintain high standards of performance in other areas. A balanced approach will enable firms to achieve their objectives while successfully maintaining their operational capabilities.

5.3 Practical Implications

According to this study, this research is important for managers of development companies and others who make public policy and as well as scholars. Managers should establish a system to track their expenses so that they can relate to their finances and purchase. All businesses[edit] should regularly monitor how they spend their money and should ensure that they are conducting their business in a manner that is efficient and ultimately profitable for the company. The conclusions of the study indicate that managers must do regular assessments on whether they are effectively controlling costs to determine if there is an error with their costing. If they actively participate in this process, they will identify potential problems prior to having them occur and see if they are able to make corrections. Being proactive is beneficial to the overall strength of the company and for eventual profitability. Additionally, this research indicates that developing a strong relationship with suppliers by improving purchasing procedures may allow companies to improve their bottom line by using cost-saving methods with their suppliers; therefore, they should work with suppliers to negotiate pricing and employ successful inventory management practices. In summary, no matter how well a company practices using cost-control methods, it can make a profit, improve its operational efficiency, gain a competitive edge over other companies, and remain viable as a business for an extended period; consequently, controlling production costs is imperative for all manufacturing companies. All manufacturing companies should be vigilant with their costs at all times.

CHAPTER 6

Conclusion

The goal of this research study entitled "Impact of Cost Control Techniques on Profitability of Manufacturing Firms" was to identify cost control methods employed by manufacturing firms and evaluate the relationship between cost control methods and profitability, operation efficiency, and long-term success of the manufacturing firms.

In today's business world managing costs in manufacturing organizations is crucial for survival. A manufacturing firm can protect its profitability make productive use of its resources and pursue lasting growth only when cost control is handled well. The research sought to determine how cost control actions tied to operations, finance and purchasing contribute to organizational outcomes in manufacturing businesses.

To conduct the research information was sourced from secondhand materials. A designed questionnaire was used to obtain responses from employees across various manufacturing companies, including automobile, food and drinks, electronics, drug production, textile and industrial machinery fields.

The collected information was assessed using statistics, such as proportion, counts of occurrences and table-based summaries. The findings provided insight into the current cost-management practices used by manufacturing businesses and showed how strongly these cost control practices influence profit levels in manufacturing firms.

The research showed that many manufacturing companies use approaches to managing costs, such as Total Quality Management (TQM) lean production methods, Just-In-Time (JIT) stock practices, Activity-Based Costing (ABC) Zero-Based Budgeting (ZBB) strategic procurement and automating workflows.

Recommendations

The purpose of these suggestions is to guide leaders toward grounded choices about managing costs and improving how operations run at manufacturing companies.

Manufacturing companies are advised to use a cost-control strategy instead of depending on only one method. The results showed that companies that use a mix of production-focused finance-oriented and purchasing-based controls perform strongly in lowering costs and increasing profitability at manufacturing companies. For that reason manufacturing companies should combine methods like Total Quality Management, Lean Manufacturing, Just-In-Time Inventory Systems, Activity-Based Costing and Zero-Based Budgeting within a cost-management structure at manufacturing companies.

The research points out that Activity-Based Costing is one of the finance-related cost-control methods for manufacturing companies. As a result manufacturing businesses ought to expand their use of Activity-Based Costing to sharpen allocation precision and to understand clearly what drives costs at manufacturing companies. Reliable cost data can aid manufacturing companies in setting prices preparing budgets and evaluating profitability at manufacturing companies.

The results further indicate that technology may be essential for improving the impact of cost-management efforts at manufacturing companies. Manufacturing companies should allocate resources to Enterprise Resource Planning platforms, automation solutions and digital tools for tracking costs at manufacturing companies. Such systems deliver data support better decisions and improve operating efficiency at manufacturing companies. When technology is combined with established cost-control methods it can produce savings and enhance profitability at manufacturing companies.

In conclusion manufacturing companies ought to regard managing expenses as a strategic endeavor, not a brief attempt to slash spending at manufacturing companies. Manufacturing companies that regularly review and refine how they handle costs tend to be better positioned to sustain profits over time remain financially secure. Maintain an edge against rivals in the market, for manufacturing companies.

Suggestions for Future Research

This study provides us with insight into how businesses control expenditures and how these expenditures impact their income. However, there is still many aspects of this topic that remain unanswered and therefore additional research is needed. In the future, further studies may be able to determine if results hold constant throughout the world by conducting research on many different businesses across many different countries. Another possibility includes looking at businesses that manufacture products locationally or internationally as well as how cost management impacts profitability through location and/or industry type. Lastly, we can examine various industries, such as the automotive sector, pharmaceuticals, electronics, food production, textile manufacturing and construction, to determine how each industry manages costs and to identify trends and common obstacles. By examining small, mid-sized and large organizations we will gain insight into how the size of a business impacts their ability to control costs. Additionally, we will identify which method of cost management works best by comparing outcomes for small, medium sized and large businesses. The best way to analyse the effects of cost management on profits is through the use of analytical tools like regression analysis, structural equation modelling, SmartPLS, SPSS, and AMOS. Such tools provide the ability to develop cause & effect relationships rather than simple visual representation between two variables.

We should also look at how cost management affects the environment and how companies can be more sustainable. As companies start to care more, about the environment it will be important to know how being sustainable affects their profit.

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QUESTIONNAIRE

Impact of Cost Control Techniques on Profitability of Manufacturing Firms Respondent Information

Dear Respondent

My name is Rohan Kumar and I am working with Riya Varshney. We are students who are getting our MBA degree from Galgotias University. We are doing a research project on the Impact of Cost Control Techniques on Profitability of Manufacturing Firms.

We want to know about the ways manufacturing companies manage their costs and how this affects their profitability.

We will use the information you give us for our academic work. We will keep all your answers private. We will not tell anyone who gave us the information.

We really appreciate the time you take to help us with this project. The information you share is very important, to us.

Section A: Organizational Profile

1. Which industry does your company mainly work in?

☐ Automotive/Transportation

☐ Electronics/High-Tech

☐ Pharmaceuticals/Chemicals

☐ Food & Beverage

☐ Textile/Apparel

☐ Heavy Machinery/Industrial Equipment

☐ Another category (Please state):

2. When Another category is chosen above you need to tell us what your production field is. You have to write down the name of the field where you work when you select Another category?

3. About how money does your company make in a year?

☐ Less than \$5 Million

☐ \$5 Million – \$25 Million

☐ \$25 Million – \$100 Million

☐ \$100 Million – \$500 Million

☐ More than \$500 Million

4. How do I evaluate the performance of my companys existing expense management approach?

(Scale: 1 = Very Ineffective, 10 = Extremely Effective)

1 ☐

2 ☐

3 ☐

4 ☐

5 ☐

6 ☐7 ☐8 ☐9 ☐10 ☐**Section B: Operational Cost Control Techniques****5. What methods do you use to control the operating expenses at your company?**

(You may choose more than one)

☐ Lean (such as Kaizen, 5S) ☐ Just-In-Time (JIT) Inventory System☐ Total Quality Management (TQM)☐ Outsourcing/Offshoring of Non-Core Activities☐ Energy Consumption Optimization/Green Initiatives☐ Process Automation and Robotics☐ (Kindly indicate):

Section C: Financial and Procurement Cost Control Techniques**6. What cost-management methods does your organization currently use for finance or purchasing?**

(You may choose more than one)

☐ Strategic Sourcing/Supplier Consolidation☐ Volume Discount Negotiation

- ☐ Zero-Based Budgeting (ZBB)
- ☐ Activity-Based Costing (ABC)
- ☐ Investment in Cost Management Software/ERP Systems
- ☐ Hedging Against Raw Material Price Volatility
- ☐ Alternative (Kindly indicate):

Section D: Impact of Cost Control Techniques

7. Evaluate how much

Direct Material Costs.

the following cost-management methods are believed to lower

Technique	No Impact	Low Impact	Moderate Impact	High Impact	Very Impact	High
Strategic Sourcing	☐	☐	☐	☐	☐	
Material Substitution	☐	☐	☐	☐	☐	
Inventory Optimization	☐	☐	☐	☐	☐	

8. Rate the perceived impact of the following cost control techniques on reducing Direct Labour Costs.

Technique	No Impact	Low Impact	Moderate Impact	High Impact	Very Impact	High
Workforce Training & Skill Development	☐	☐	☐	☐	☐	
Automation of Repetitive Tasks	☐	☐	☐	☐	☐	
Performance-Based Incentives	☐	☐	☐	☐	☐	

9. Rate the perceived impact of the following cost control techniques on reducing Overhead Costs.

Technique	No Impact	Low Impact	Moderate Impact	High Impact	Very High Impact
Energy Management Systems	☐	☐	☐	☐	☐
Facilities Maintenance Optimization	☐	☐	☐	☐	☐
Shared Services/Administrative Consolidation	☐	☐	☐	☐	☐

Section E: Profitability Impact

10. In the last fiscal year, approximately by what percentage did your firm's Gross Profit Margin (GPM) change due to cost control initiatives?

- ☐ Increased by more than 5%
- ☐ Increased by 1% – 5%
- ☐ No Significant Change ($\pm 1\%$)
- ☐ Decreased by 1% – 5%
- ☐ Decreased by more than 5%

11. How frequently does your firm conduct a formal review and analysis of cost variances?

- ☐ Daily/Weekly
- ☐ Monthly
- ☐ Quarterly
- ☐ Annually
- ☐ Irregularly or Never

Section F: Challenges and Long-Term Profitability

12. What is the biggest challenge your firm faces in successfully implementing cost control initiatives?