



## Journal of Advanced Research in Business and Management Studies

Journal homepage:  
<https://karyailham.com.my/index.php/arbms>  
ISSN: 2462-1935



# Management Accounting Practices for Decision-Making of the Listed Manufacturing Organizations in Bangladesh

Farhana Akhter<sup>1,2</sup>, Hasri Mustafa<sup>1,\*</sup>, Lau Yeng Wai<sup>1</sup>, Amalina Abdullah<sup>1</sup>

<sup>1</sup> Department of Accounting and Finance, School of Business and Economics, Universiti Putra Malaysia, 43400 Seri Kembangan, Selangor, Malaysia

<sup>2</sup> Bangladesh Agricultural University (BAU), Mymensingh-2202, Bangladesh

### ARTICLE INFO

#### Article history:

Received 10 December 2024

Received in revised form 17 March 2025

Accepted 8 April 2025

Available online 30 June 2025

#### Keywords:

Management accounting practices;  
manufacturing; decision-making;  
Bangladesh

### ABSTRACT

This paper investigates the relationship between management accounting practices (MAPs) and decision-making processes (DMPs) within manufacturing organisations in Bangladesh and examines the extent of use of various MAPs, including costing systems, budgeting systems, performance evaluation systems, decision support systems, and strategic management accounting analyses for decision-making (DM). By utilising descriptive statistics, multiple regression, and Pearson correlation tests, the study examines the relationship between these practices and decision-making. This is achieved through the administration of a structured questionnaire to 70 respondents representing 35 DSE-listed manufacturing enterprises in Bangladesh. SPSS version 25 is used to test these results. The findings reveal significant positive relationships, indicating that specific MAPs significantly influence DMPs. Notably, process costing, budgeting for planning and controlling costs, a variety of financial performance evaluation systems, cost volume profit analysis, and shareholder value analysis. This study provides empirical evidence that highlights the information generated by various types of MAPs that are important for decision-making in manufacturing organizations in Bangladesh. The study suggests implications for practice, highlighting the importance for manufacturing organisations to carefully consider their use of MAPs to enhance decision-making effectiveness. The study's limitation lies in its exclusive focus on the MAPs of manufacturing companies in Bangladesh, underscoring the need for further research that encompasses both the manufacturing and service sectors.

## 1. Introduction

In the dynamic landscape of the global economy, manufacturing organizations, particularly those listed on stock exchanges, play a pivotal role in driving economic growth and development. Bangladesh, with its burgeoning industrial sector, stands as a prime example of a nation witnessing rapid industrialization and consequent expansion of its manufacturing base. However, amidst the opportunities and challenges inherent in this environment, effective decision-making remains paramount for the sustained success and competitiveness of these organizations.

\* Corresponding author.

E-mail address: [hasyie@upm.edu.my](mailto:hasyie@upm.edu.my)

Management accounting (MA) is an area of accounting that provides information about organizational performance based on data derived from cost and financial accounting. Data from the past and data from the future, derived from actual [1]. Assisting management with strategy development and execution, MA include collaborating with management in decision-making (DM), developing planning and performance management systems, and offering knowledge in financial reporting and control [2].

Many organizations decision-making processes (DMP) have undergone an enormous shift throughout the last thirty years. It has become clear to managers that long-established practices are no longer productive and that significant modifications are required to the management of organizations and the execution of tasks. Due to various shifts in information and consumer preferences, businesses are increasingly focusing on product quality, operational rating in relation to various activities, and more accurate cost product data [3]. The business climate is changing at a rapid rate, requiring more accurate information for managers to make decisions [4].

Rapid technological advancements and more competitive business settings have resulted in substantial modifications in management accounting practices (MAPs) in manufacturing firms. To deal with these developments, a variety of management accounting tools have been created to assist managers in making operational and strategic decisions. The use of such techniques led to successful decision-making in developed countries but in least developed countries like Bangladesh; the implementation of such contemporary management accounting tools for decision making for the organizations has not yet given significant priority [5].

Manufacturing organizations employ MAPs in order to evaluate their operations. Budgeting, variance analysis, and breakeven analysis are examples of such techniques. These approaches aid businesses in organizing, directing, and controlling their operating costs in order to generate profits. There has been debate regarding the impact of the "new" techniques on management accounting and the subsequent shift in its emphasis; nevertheless, further empirical investigation is warranted [6]. Few empirical studies have examined MAPs within the framework of Bangladeshi listed manufacturing organizations. What little research there is also highlights how successful these methods are at assisting decision-making [7].

In the dynamic landscape of Bangladesh's manufacturing sector, listed organizations face intricate challenge in utilizing MAPs effectively for decision- making. Despite the growing importance of these practices, there remains a notable gap in understanding the specific strategies and approached employed by such companies, this study aims to address this gap by investigating the current MAPs utilized by listed manufacturing organizations in Bangladesh and identifying potential areas for improvement. By delving into this area, the study seeks to enhance the DMP within these organizations, thereby contributing to their sustainable growth and competitiveness in both local and global market.

This article aims to delve into the realm of MAPs adopted by listed manufacturing organizations in Bangladesh, focusing specifically on their role in DMP. The study seeks to identify the most influential management accounting procedures utilised by manufacturing enterprises in Bangladesh during managerial decision-making. Through a comprehensive analysis of MAPs in listed manufacturing organizations in Bangladesh, this article aims to contribute to the existing body of knowledge on strategic decision-making, organizational performance, and management accounting in emerging market contexts. By elucidating the intricate interplay between MAPs and DMP, this study endeavours to offer valuable insights for practitioners, policymakers, and researchers alike, thereby fostering informed discussions and driving positive change within the Bangladeshi manufacturing landscape.

## 2. Literature Review

This literature review focuses on the role of MA in organizational decision-making. Azadina *et al.*, [8] highlight the importance of decision-making abilities in businesses, emphasizing time as a crucial factor in the process. Otley [9] links MA to improved decision-making, stating that it aids in maintaining a competitive edge and aligning organizational actions with cultural values.

### 2.1 Costing System - Decision Making of the Organization

Various costing systems, such as standard costing and activity-based costing (ABC), are essential for informed decision-making, as shown by Freedman [10] and Woodruff [11]. In light of the above debate, the following hypothesis has been formulated for examination:

- H1: There is a significant relationship among the costing systems and DM of the organization.
- H1-1: There is a positive relationship among the process costing and DM of the organization.
- H1-2: There is a positive relationship among the target costing and DM of the organization.
- H1-3: There is a positive relationship among the separation costing and DM of the organization.
- H1-4: There is a positive relationship among the batch costing and DM of the organization.
- H1-5: There is a positive relationship among the activity based costing and DM of the organization.

### 2.2 Budgeting System - Decision Making of the Organization

The role of budgeting in decision-making is also critical, with Garrison *et al.*, [12] defining budgets as tools for planning and regulating revenues and expenses. Rahman and Hassan [13] emphasize how budgetary participation and variance analysis influence managerial satisfaction. The findings revealed that budgetary participation and budgetary variance analysis greatly increased managerial satisfaction. Budgeting has a vital part in the communication of goals, formulation of strategy and in performance evaluation. Consistent with the above arguments, this study proposed the following hypothesis for examination:

- H2: There is a significant relationship among the budgeting systems and DM of the organization.
- H2-1: There is a positive relationship among the budgeting for planning and DM of the organization.
- H2-2: There is a positive relationship among the budgeting for controlling cost and DM of the organization.
- H2-3: There is a positive relationship among the activity based budgeting and DM of the organization.
- H2-4: There is a positive relationship among the budgeting what if analysis and DM of the organization.
- H2-5: There is a positive relationship among the flexible budgeting and DM of the organization.
- H2-6: There is a positive relationship among the zero based budgeting and DM of the organization.

### 2.3 Performance Evaluation System - Decision Making of the Organization

Performance evaluation is crucial in business management as it provides information necessary to assess various aspects of the organization. Performance evaluation systems, such as the balanced scorecard, play a vital role in assessing organizational performance, combining both financial and non-financial measures [14,15]. Performance evaluation serves as a framework for managers to measure against future times and aids in the decision-making process. In order to identify that the using different types of performance evaluation systems affects the decision making of the manufacturing organizations in Bangladesh the following hypothesis is formed as:

- H3: There is a significant relationship among performance evaluation systems and DM of the organization.
- H3-1: There is a positive relationship among the using different types of financial measure and DM of the organization.
- H3-2: There is a positive relationship among using balance scorecard and DM of the organization.
- H3-3: There is a positive relationship among the non- financial measure related to customer and DM of the organization.
- H3-4: There is a positive relationship among the non- financial measure related to operation what if analysis and DM of the organization.
- H3-5: There is a positive relationship among the non- financial measure related to employees and DM of the organization.

#### 2.4 Decision Support System - Decision Making of the Organization

The rapidly aggressive competitive business environment necessitates that organizations make informed decisions for both the short term and long term to ensure their survival. Decision support systems, including cost-volume-profit analysis and product profitability analysis, provide valuable insights for decision-making, as explored by Maelah *et al.*, [16]. To confirm a similar relationships this study also formed the following hypothesis for investigation:

- H4: There is a significant relationship among the decision support system and DM of the organization.
- H4-1: There is a positive relationship among the using cost volume profit analysis and DM of the organization.
- H4-2: There is a positive relationship among using product profitability analysis and DM of the organization.
- H4-3: There is a positive relationship among the customer profitability analysis and DM of the organization.
- H4-4: There is a positive relationship among evaluation of major capital investment based on discounted cashflow method and DM of the organization.
- H4-5: There is a positive relationship among evaluation of major capital investment based on payback period and DM of the organization.
- H4-6: There is a positive relationship among calculation and use of cost of capital in discounting cashflow for major capital investment evaluation and DM of the organization.
- H4-7: There is a positive relationship among the evaluation of major capital investments non-financial aspects are documented and reported and DM of the organization.

#### 2.5 Strategic Management Accounting - Decision Making of the Organization

Strategic Management Accounting (SMA) involves the oversight of an organization's and its competitors' strategy via the analysis of financial and economic data. SMA, which focuses on tools like long-range forecasting and competitive analysis, informs high-level business decisions [7,17].

- H5: There is a significant relationship among strategic analysis MAPs and DM of the organization.
- H5-1: There is a positive relationship among the long range forecasting and DM of the organization.
- H5-2: There is a positive relationship among the shareholder value analysis and DM of the organization.
- H5-3: There is a positive relationship among the industry analysis and DM of the organization.
- H5-4: There is a positive relationship among the analysis of competitive position and DM of organization.
- H5-5: There is a positive relationship among the value chain analysis and DM of the organization.
- H5-6: There is a positive relationship among the product life cycle analysis and DM of the organization.
- H5-7: There is a positive relationship among the divisional analysis and DM of the organization.

In summary, the literature suggests that various MAPs, including costing, budgeting, performance evaluation, decision support systems, and strategic management accounting, significantly contribute to informed and effective decision-making within organizations.

### 3. Research Framework

In light of the main focus of the study, the constructs examined and the relationship analyses conducted, a conceptual framework for the study is outlined below:

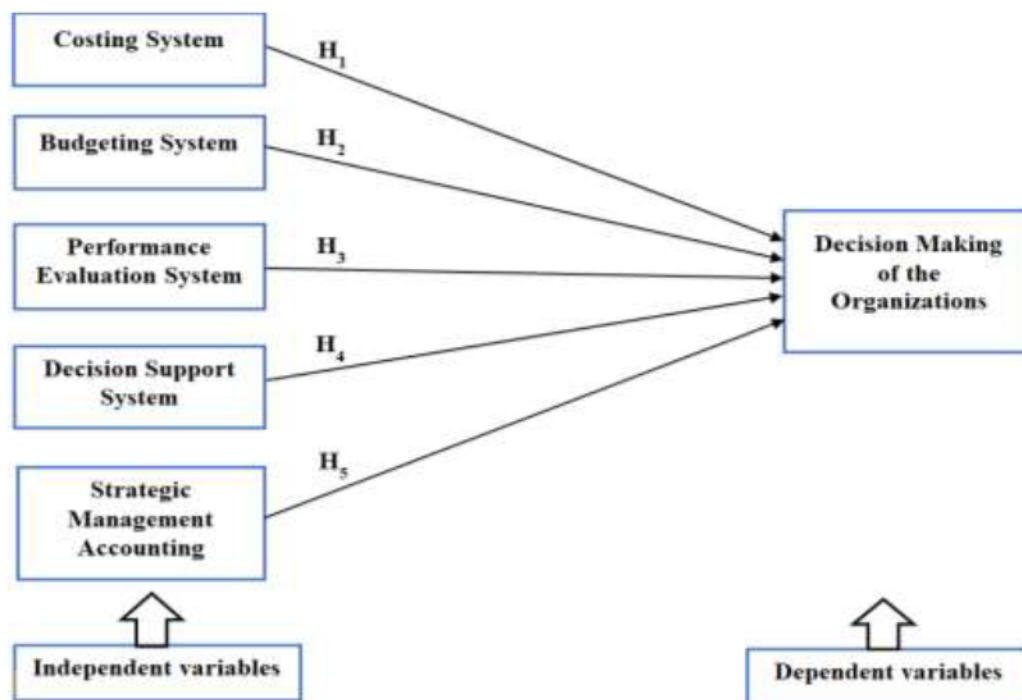


Fig. 1. Research framework

### 4. Methodology

The data for this study were gathered via a structured questionnaire survey with 45 items for quantitative analysis. Section A collect general information on the organization, whereas Section B focused on MAPs and decision-making, which included 37 variables. The questions in Section B were based on a 5-point Likert scale (1 = not at all, 2 = low extent, 3 = moderate extent, 4 = high extent, 5 = very high extent) [6,18,19]. The survey targeted top and mid-level employees in the accounts and finance departments of listed manufacturing companies on the Dhaka Stock Exchange (DSE), specifically within the Cement, Ceramics, Pharmaceuticals, Foods, and Allied sectors. Out of 95 questionnaires sent between November 2023 and February 2024, 74 responses were received, of which 70 were usable. Respondent contact details were obtained from the Institute of Cost and Management Accountants of Bangladesh (ICMAB) and the Institute of Chartered Accountants of Bangladesh (ICAB). Descriptive analysis was used for demographic data, while correlation and multiple regression analyses tested the relationship between MAPs usage and organizational decision-making. Data analysis was performed using SPSS.

## 5. Results and Discussion

### 5.1 Reliability Analysis

The survey questionnaire's reliability was evaluated through the use of Cronbach's alpha. The fact that the Cronbach's alpha ( $\alpha=0.944$ ) values for 37 variables exceeded the significance threshold of 0.70 provided evidence for the variables' internal consistency according to Nunnally [20] and Abdel-Kader & Luther [18]. A multicollinearity test was run as part of the research. All tests had a VIF value below 10 and tolerance values over 0.1, indicating that the study's independent variables were not affected by multicollinearity.

### 5.2 Demographic Details

The participant consisted mostly of males (94.6%), while females accounted for 5.4%. In terms of age, 59.5% were in the 36–45 age range, and 32.4% were 46 years of age or older. In terms of education, 5.4% had a post-doctoral degree, while 86.5% had a master's degree or above. Furthermore, 83.8% possessed professional degrees such as Cost Management Accountant (CMA) and Chartered Accountant (CA). Concerning work experience, 32.4% possessed 11-15 years, while 51.4% had more than 16 years (Table 1).

**Table 1**

Demographical status

| Measure                   | Items                                                   | Percentage % |
|---------------------------|---------------------------------------------------------|--------------|
| Gender                    | Male                                                    | 94.6%        |
|                           | Female                                                  | 5.4%         |
| Age                       | 25-35 Years                                             | 8.1%         |
|                           | 36-45 years                                             | 59.5%        |
|                           | Over 46 years                                           | 32.4%        |
|                           |                                                         |              |
| Education                 | Graduation                                              | 8.1%         |
|                           | Masters                                                 | 86.5%        |
|                           | Post Doctorate                                          | 5.4%         |
|                           |                                                         |              |
| Educational qualification | CA (Intermediate)                                       | 2.7%         |
|                           | CA                                                      | 18.9%        |
|                           | FCA                                                     | 13.5%        |
|                           | ACMA                                                    | 21.6%        |
|                           | CMA                                                     | 16.2%        |
|                           | FCMA                                                    | 8.1%         |
|                           | Qualified Chartered Secretary and Fellow member of ICSB | 2.7%         |
|                           | Not Applicable                                          | 16.2%        |
| Rank                      | Top level                                               | 54.1%        |
|                           | Mid-level                                               | 45.9%        |
| Experience                | Less than 5 years                                       | 2.7%         |
|                           | 6-10 years                                              | 13.5%        |
|                           | 11-15 years                                             | 32.4%        |
|                           | Over 16 years                                           | 51.4%        |

### 5.3 Descriptive Statistics

Table 2 provides insights into the usage levels of various MAPs and techniques across surveyed companies, based on a five-point scale ranging from “Not at all” to “Very High Extent”.

**Table 2**

Management accounting practices and techniques practices or techniques related to decision making of the organization

|                                                             | Usage of MAPs in Respondents' Companies (n=70) in percentage (%) |      |      |      |      | Rank (%) |
|-------------------------------------------------------------|------------------------------------------------------------------|------|------|------|------|----------|
|                                                             | S1                                                               | S2   | S3   | S4   | S5   |          |
| <b>A. Costing System</b>                                    |                                                                  |      |      |      |      |          |
| Separation costing                                          | 0                                                                | 7.1  | 24.3 | 32.9 | 35.7 | 100      |
| Process costing                                             | 5.7                                                              | 5.7  | 18.6 | 48.6 | 21.4 | 100      |
| Target costing                                              | 0                                                                | 15.7 | 32.9 | 37.1 | 14.3 | 100      |
| Batch costing                                               | 8.6                                                              | 5.7  | 12.9 | 38.6 | 34.3 | 100      |
| Activity costing                                            | 5.7                                                              | 18.6 | 30.0 | 32.9 | 12.9 | 100      |
| <b>B. Budgeting System</b>                                  |                                                                  |      |      |      |      |          |
| Budgeting for Planning                                      | 0                                                                | 2.9  | 14.3 | 40.0 | 42.9 | 100      |
| Budgeting for Controlling                                   | 0                                                                | 2.9  | 8.6  | 57.1 | 31.4 | 100      |
| Activity Based Budgeting                                    | 0                                                                | 17.1 | 28.6 | 38.6 | 15.7 | 100      |
| Budgeting with "What if analysis"                           | 11.4                                                             | 12.9 | 35.7 | 31.4 | 8.6  | 100      |
| Flexible Budgeting                                          | 0                                                                | 22.9 | 34.3 | 28.6 | 14.3 | 100      |
| Zero based budgeting                                        | 17.1                                                             | 34.3 | 21.4 | 12.9 | 14.3 | 100      |
| Budgeting for long term                                     | 5.7                                                              | 4.3  | 30.0 | 40.0 | 20.0 | 100      |
| <b>C. Performance Evaluation System</b>                     |                                                                  |      |      |      |      |          |
| Different types of financial measure                        | 0                                                                | 0    | 21.4 | 34.3 | 44.3 | 100      |
| Balance Scorecard                                           | 27                                                               | 11.4 | 31.4 | 24.3 | 5.7  | 100      |
| Economic Value Added                                        | 14.3                                                             | 15.7 | 35.7 | 31.4 | 2.9  | 100      |
| Non -financial measure related to customer                  | 2.9                                                              | 10.0 | 35.7 | 37.1 | 14.3 | 100      |
| Non-financial measure related to operation                  | 5.7                                                              | 12.9 | 31.4 | 41.4 | 8.6  | 100      |
| Non-financial measure related                               | 0                                                                | 7.1  | 50   | 37.1 | 5.7  | 100      |
| <b>D. Decision Support System</b>                           |                                                                  |      |      |      |      |          |
| Cost volume profit analysis                                 | 1.4                                                              | 0    | 18.6 | 37.1 | 42.9 | 100      |
| Product Profitability analysis                              | 12.9                                                             | 7.1  | 20.0 | 31.4 | 28.6 | 100      |
| Customer Profitability analysis                             | 8.6                                                              | 15.7 | 30.0 | 30.0 | 15.7 | 100      |
| Capital investment evaluation on discounted cash flow (DCF) | 1.4                                                              | 8.6  | 37.1 | 34.3 | 18.6 | 100      |
| Capital investment evaluation based on payback period       | 2.9                                                              | 12.9 | 28.6 | 35.7 | 20.0 | 100      |
| Cost of Capital in DCF for Capital Investment               | 1.4                                                              | 10.0 | 41.4 | 37.1 | 10.0 | 100      |
| Non-Financial Aspects in Capital Investment Evaluation      | 5.7                                                              | 8.6  | 45.7 | 28.6 | 11.4 | 100      |
| <b>E. Strategic Management Accounting Practices</b>         |                                                                  |      |      |      |      |          |
| Long range forecasting                                      | 5.7                                                              | 2.9  | 24.6 | 47.1 | 20.0 | 100      |
| Shareholder value analysis                                  | 2.9                                                              | 20.0 | 28.6 | 38.6 | 10.0 | 100      |
| Industry Analysis                                           | 5.7                                                              | 5.7  | 15.7 | 60.0 | 12.9 | 100      |
| Analysis of competitive position                            | 5.7                                                              | 4.3  | 11.4 | 61.4 | 17.1 | 100      |
| Value chain analysis                                        | 7.1                                                              | 17.1 | 20.0 | 38.6 | 17.1 | 100      |
| Product life cycle analysis                                 | 7.1                                                              | 14.3 | 40.0 | 25.7 | 12.9 | 100      |
| Divisional analysis                                         | 7.1                                                              | 12.9 | 35.7 | 27.1 | 17.1 | 100      |

Based on five-point scale (S1: Not at all; S2: Low extent; S3: Moderate extent; S4: High Extent; S5: Very high extent)

#### 5.4 Costing System

The separation costing method is implemented to a high extent (S4: 32.9%) and very high extent (S5: 35.7%). Process costing is predominantly used to a high extent (S3-S4: 69.9%). The utilization of target costing ranges from moderate to high (S3-S5: 85.8%). ABC is ultimately to a moderate to high extent (S3-S4: 63.2%).

### 5.5 Budgeting System

Budgeting for planning is mainly used at a high to very high extent (S4-S5: 82.9%), while budgeting for controlling is used predominantly at a high extent (S4: 57.1%). Activity-Based Budgeting (ABB) (S3-S4: 67.2%) and "What if analysis" (S3-S4: 67.1%) are used moderately to high. Flexible Budgeting (S3-S4: 63.0%) and Zero-based Budgeting (S3-S4: 67.2%) are employed to a moderate to high extent. Long-term budgeting is predominantly utilized at a moderate to very high extent (S3-S5: 90.0%).

### 5.6 Performance evaluation System

Different types of financial measures are predominantly utilized at a high to very high extent (S4-S5: 78.6%). The Balanced Scorecard (BSC) is predominantly utilized at a moderate to a high extent (S3-S4: 55.7%). Economic Value Added is also predominantly utilized at a moderate to a very high extent (S3-S5: 67.1%). Lastly Non-financial measures related to customers, operations, and others are predominantly utilized at a moderate to a very high extent.

### 5.7 Decision Support System

Cost-volume-profit analysis is predominantly utilized at a high to a very high extent (S4-S5: 80.0%). Product profitability analysis, customer profitability analysis, and evaluation of major capital investments are utilized across moderate to high extent.

### 5.8 Strategic Management Accounting Practices

Long-range forecasting, shareholder value analysis, industry analysis, analysis of competitive position, value chain analysis, product life cycle analysis, and divisional analysis are utilized across moderate to a very high extent.

### 5.9 Correlation, Regression Analyses and Hypothesis Testing

#### 5.9.1 Correlation analysis (costing system)

The first hypothesis (H1) tests the correlation between the manufacturing organization's decision-making and the use of costing systems. Table 3 shows that all the costing systems, except activity-based costing, had a positive correlation with decision-making.

**Table 3**

Spearman correlation coefficients test results for the relationship between decision making and the extent of use of different types of costing systems

|                                    | Costing system for decision making | Separation costing | Process costing | Target costing | Batch costing | Activity based costing |
|------------------------------------|------------------------------------|--------------------|-----------------|----------------|---------------|------------------------|
| Costing system for decision making | 1                                  |                    |                 |                |               |                        |
| Separation costing                 | .675**                             | 1                  |                 |                |               |                        |
| Process costing                    | .552**                             | .633**             | 1               |                |               |                        |
| Target costing                     | .424**                             | .433**             | .486**          | 1              |               |                        |
| Batch costing                      | .485**                             | .516**             | .408*           | .329*          | 1             |                        |
| Activity Based costing             | .152                               | .228               | .340*           | .056           | .378*         | 1                      |

\*\* Correlation is significant at the 0.01 level; \* Correlation is significant at the 0.05 level.

### 5.9.2 Regression analysis (costing system)

The R-squared value of 0.431 indicates that 43% of the variability in decision-making is explained by the independent variables (Table 4). While coefficients are needed to assess the relative advantages of the costing systems, statistics show that ABC, process-based costing, batch-based costing, separation-based costing, and target-based costing are important for manufacturing organizations' decision-making.

**Table 4**

Co-efficient of determination (R<sup>2</sup>)

| Regression Statistics |                   |
|-----------------------|-------------------|
| Multiple R            | .657 <sup>a</sup> |
| R Square              | .431              |

a. Predictors: (constant), ABC, target costing, separation costing, batch costing, process costing.

The regression results in Table 5 show that separation costing, process costing, target costing, and batch costing positively and significantly impact organizational decision-making, while ABC has no significant effect. Therefore, we adopt the sub-hypotheses (H1-H4). In Bangladesh, 79% of cement companies use batch costing and 87% use process costing, aligning with Rahman *et al.*, [19] and Alleyne and Marshall [21], who found that common costing methods involve separating fixed and variable costs and using plant-wide overhead rates. However, the relationship between ABC and decision-making is less pronounced, leading to the rejection of hypothesis H1-5, consistent with previous research [21-23].

**Table 5**

Regression and hypothesis test table

| Variables              | Beta  | Significance | Collinearity Statistics |       |
|------------------------|-------|--------------|-------------------------|-------|
|                        |       |              | Tolerance               | VIF   |
| (Constant)             | 3.030 | .000         |                         |       |
| Separation Costing     | .315  | .002         | .632                    | 1.583 |
| Process Costing        | .410  | .000         | .557                    | 1.797 |
| Target Costing         | .380  | .001         | .696                    | 1.436 |
| Batch Costing          | .298  | .013         | .671                    | 1.490 |
| Activity Based Costing | -.102 | .345         | .776                    | 1.288 |

Dependent variable: Extent of use of different types of costing system for decision making.

### 5.9.3 Correlation analysis (budgeting system)

Correlation coefficients test results for the relationship between decision-making and the extent of use of different types of budgeting systems presented in Table 6. Second hypothesis (H2) examines the relationship between the extent of use of the budgeting system and the decision-making of the manufacturing organization. Table 6 shows that each correlation coefficient represents the strength and direction of the relationship between a specific budgeting system and the use of budgeting system information for decision-making. Because the correlation coefficient of all the independent variables in the budgeting system is close to 1, it indicates a strong positive relationship, and the significance value is 0.000.

**Table 6**

Spearman correlation coefficients test results for the relationship between decision making and the extent of use of different types of budgeting systems

|                            | Budgeting for DM | Budgeting for planning | Budgeting for controlling | ABB    | Budgeting what if analysis | Flexible budgeting | Zero based budgeting | Budgeting for long-term |
|----------------------------|------------------|------------------------|---------------------------|--------|----------------------------|--------------------|----------------------|-------------------------|
| Budgeting for DM           | 1                |                        |                           |        |                            |                    |                      |                         |
| Budgeting for planning     | .579**           | 1                      |                           |        |                            |                    |                      |                         |
| Budgeting for controlling  | .456**           | .812**                 | 1                         |        |                            |                    |                      |                         |
| ABB                        | .653**           | .586**                 | .463**                    | 1      |                            |                    |                      |                         |
| Budgeting what if analysis | .474**           | .528**                 | .431**                    | .633** | 1                          |                    |                      |                         |
| Flexible budgeting         | .429**           | .151*                  | 0.76**                    | .292** | .113*                      | 1                  |                      |                         |
| Zero based budgeting       | .704**           | .420**                 | .244                      | .483** | .358*                      | .477**             | 1                    |                         |
| Budgeting for long-term    | .599**           | .451**                 | .292*                     | .574** | .504**                     | .462**             | .756**               | 1                       |

\*\* Correlation is significant at the 0.01 level; \* Correlation is significant at the 0.05 level

#### 5.9.4 Regression analysis (budgeting system)

With an R-squared value of 0.659 (Table 7), these independent variables seem to account for around 65% of the variation in decision-making. Budgeting using "What if analysis," ABB, budgeting for long-term planning, budgeting for controlling costs, flexible budgeting, zero-based budgeting, and budgeting for controlling costs cannot be described in full without coefficients. Statistics suggest that these budgeting methods do affect the worth of the organizations.

**Table 7**

Co-efficient of determination (R2)

| Regression Statistics |                   |
|-----------------------|-------------------|
| Multiple R            | .811 <sup>a</sup> |
| R Square              | .659              |

a. Predictors: (constant), Budgeting for long term, Budgeting for controlling cost, Flexible budgeting, Budgeting with What if analysis. ABB, Zero based budgeting, budgeting for planning

According to the regression results in Table 8, the various types of budgeting system have a positive and significant effect on decision-making (p, 0.05). Results indicate that all budgeting methods have statistically significant relationships with the extent of use of budgeting system for decision-making. So, all the sub-hypotheses is accepted. The findings highlight budgetary availability as a key factor in successful product development and resource acquisition. Budgets help manage expectations and provide data for cost-benefit analysis. The widespread use of various budgeting systems aligns with previous studies [19,21,24], which identified budgeting for planning, control costs, "what-if analysis," zero-based budgeting, and long-term strategic plans as the most common practices among selected companies.

**Table 8**  
Regression and hypothesis test table

| Variables                          | Beta  | Significance (p) | Collinearity Statistics |       |
|------------------------------------|-------|------------------|-------------------------|-------|
|                                    |       |                  | Tolerance               | VIF   |
| (Constant)                         | 2.090 | .000             |                         |       |
| Budgeting for planning             | .499  | .000             | .243                    | 4.113 |
| Budgeting for controlling cost     | .280  | .009             | .294                    | 3.396 |
| Activity-based budgeting           | .252  | .005             | .454                    | 2.204 |
| Budgeting with "what if analysis"  | .250  | .002             | .523                    | 1.912 |
| Flexible Budgeting                 | .244  | .013             | .722                    | 1.384 |
| Zero based budgeting               | .232  | .014             | .376                    | 2.657 |
| Budgeting for long term(strategic) | .309  | .001             | .336                    | 2.975 |

Dependent variable: Extent of use of different types of budgeting system for decision making.

### 5.9.5 Correlation analysis (performance evaluation system)

The third hypothesis (H3) examines at how the organization's decision-making is influenced by the data provided by various performance evaluation systems and how widely used these systems are. Results for a number of independent variables that may have an effect on the dependent variable are shown in Table 9. The usage of information from performance evaluation systems for decision-making is strongly correlated with the independent variable, as indicated by a high positive correlation coefficient (near to 1).

**Table 9**

Spearman correlation coefficients test results for the relationship between decision making and the extent of use of different types of performance evaluation systems

|                                                               | Using performance evaluation system for DM | Financial measure (s) | Balance scorecard | Economic value added or residual income | Non-financial measure(s) related to customers | Non-financial measure(s) related to operations and innov. | Non-financial measure(s) related to employees |
|---------------------------------------------------------------|--------------------------------------------|-----------------------|-------------------|-----------------------------------------|-----------------------------------------------|-----------------------------------------------------------|-----------------------------------------------|
| Performance Evaluation system for DM                          | 1                                          |                       |                   |                                         |                                               |                                                           |                                               |
| Financial measure(s)                                          | .710**                                     | 1                     |                   |                                         |                                               |                                                           |                                               |
| Balance scorecard                                             | .685**                                     | .588**                | 1                 |                                         |                                               |                                                           |                                               |
| Economic value added or residual income                       | .769**                                     | .685*                 | .538**            | 1                                       |                                               |                                                           |                                               |
| Non-financial measure(s) related to customers                 | .631**                                     | .453**                | .412**            | .418**                                  | 1                                             |                                                           |                                               |
| Non-financial measure(s) related to operations and innovation | .587**                                     | .367**                | .253*             | .390**                                  | .794**                                        | 1                                                         |                                               |
| Non-financial measure(s) related to employees                 | .637*                                      | .391**                | .522**            | .476*                                   | .545**                                        | .402**                                                    | 1                                             |

\*\* Correlation is significant at the 0.01 level;\* Correlation is significant at the 0.05 level.

### 5.9.6 Regression analysis (performance evaluation system)

Different kinds of financial measures, the Balanced Scorecard, Economic Value Added, and other performance evaluation systems i.e. various types of non-financial measurements such as customer-related, operational, and employee-related explain 82.8% of the variation in decision making, the dependent variable, according to the R squared value of 0.828 shows in Table 10.

**Table 10**

Co-efficient of determination (R<sup>2</sup>)

| Regression Statistics |                   |
|-----------------------|-------------------|
| Multiple R            | .910 <sup>a</sup> |
| R Square              | .828              |

a. Predictors: (constant), Different types of financial measure, Balance scorecard, Economic value added, Non-financial measure related to customer, Non-financial measure related to operation, Non-financial measure related to employees.

Table 11 (ANOVA) reveals the overall significance of the regression model. With an F-statistic of 50.479 and a p-value of 0.000, the model is statistically significant. The results demonstrate that variables such as financial measures, balanced scorecards, economic value added, and non-financial measures (customers, operations, employees) meaningfully contribute to explaining decision-making, rather than being random.

**Table 11**

F test result

| Model      | Sum of Squares | df | Mean Square | F      | Sig.              |
|------------|----------------|----|-------------|--------|-------------------|
| Regression | 34.011         | 6  | 5.669       | 50.479 | .000 <sup>b</sup> |
| Residual   | 7.075          | 63 | .112        |        |                   |
| Total      | 41.086         | 69 |             |        |                   |

Dependent variable: Extent of use of different types of performance evaluation systems for DM.

b. Predictors: (constant), Different types of financial measure, BSC, Economic value added, Non- financial measure related to customer, Non-financial measure related to operation, Non-financial measure related to employees.

Based on the result of the regression that has been done (Table 12) shows that that various types of performance evaluation systems significantly and positively influence manufacturing companies' decision-making.

**Table 12**

Regression and hypothesis test table

| Variables                                   | Beta  | Significance | Collinearity Statistics |       |
|---------------------------------------------|-------|--------------|-------------------------|-------|
|                                             |       |              | Tolerance               | VIF   |
| (Constant)                                  | 1.144 | .000         |                         |       |
| Different types of financial measure        | .328  | .000         | .449                    | 2.226 |
| Balance Scorecard                           | .197  | .036         | .541                    | 1.849 |
| Economic Value added                        | .186  | .020         | .452                    | 2.212 |
| Non-financial measure related to customer   | .252  | .001         | .280                    | 3.570 |
| Non-financial measure related to operation  | .260  | .005         | .345                    | 2.898 |
| Non- financial measure related to employees | .163  | .021         | .575                    | 1.738 |

Dependent Variable: Extent of use of different types of performance evaluation systems for decision making.

Consequently, we accept all of the null hypotheses that form part of Hypothesis 3. In line with previous research by Alleyne and Weekes-Marshall [21], Ittner and Larcker [25], and Rahman et al., [19], this finding is positive and confirms that the selected companies generally utilised practically all practices of performance evaluation systems when obtaining information for decision-making. Among the performance evaluation systems, different types of financial measures, such as operating income, cash flow measure, returning investment, product profitability analysis, sales growth measure, etc., as well as non-financial measures related to customers, have a strong and significant effect on the organisation's decision-making.

#### 5.9.7 Correlation analysis (decision support system)

Hypothesis four (H4) examines the relationship between decision support systems' utilization and organizational decision-making. Table 13 shows positive correlation coefficients between all independent and dependent variables.

**Table 13**

Spearman correlation coefficients test results for the relationship between decision making and the extent of use of different types of decision support system

|                                                                                                         | Decision support system for DM | Cost-volume-profit analysis for major products | Product profitability analysis | Customer profitability analysis | Evaluation of major capital investments based on DCF method | Major capital investment payback period/ accounting ROR evaluation | Cost of capital calculation & cash flow discounting for major capital investment evaluation | Non-financial factors major capital investment |
|---------------------------------------------------------------------------------------------------------|--------------------------------|------------------------------------------------|--------------------------------|---------------------------------|-------------------------------------------------------------|--------------------------------------------------------------------|---------------------------------------------------------------------------------------------|------------------------------------------------|
| Decision support system for DM                                                                          | 1                              |                                                |                                |                                 |                                                             |                                                                    |                                                                                             |                                                |
| Cost-volume-profit analysis for major products                                                          | .621**                         | 1                                              |                                |                                 |                                                             |                                                                    |                                                                                             |                                                |
| Product profitability analysis                                                                          | .597**                         | .528**                                         | 1                              |                                 |                                                             |                                                                    |                                                                                             |                                                |
| Customer profitability analysis                                                                         | .552**                         | .468**                                         | .654**                         | 1                               |                                                             |                                                                    |                                                                                             |                                                |
| Evaluation of major capital investments based on DCF method                                             | .539**                         | .461**                                         | .596**                         | .440**                          | 1                                                           |                                                                    |                                                                                             |                                                |
| Evaluation of major capital investments based on payback period and/or accounting ROR                   | .668**                         | .484**                                         | .624**                         | .410*                           | .682**                                                      | 1                                                                  |                                                                                             |                                                |
| Calculation and use of cost of capital in discounting cash flow for major capital investment evaluation | .700**                         | .470**                                         | .499**                         | .484**                          | .578**                                                      | .663**                                                             | 1                                                                                           |                                                |
| Non-financial factors major capital investments                                                         | .593**                         | .292*                                          | .318**                         | .251                            | .441                                                        | .557**                                                             | .678*                                                                                       | 1                                              |

\*\*Correlation is significant at the 0.01 level; \*Correlation is significant at the 0.05 level.

The multiple correlation coefficient ( $R = 0.849$ ), as seen in Table 14, indicates a strong positive linear relationship. The  $R^2$  value of 0.721 suggests that 72.1% of the variation in decision-making can be explained by the independent variables. Table 15's ANOVA results, with an F-statistic of 22.915 and a p-value of 0.000, confirm the regression model's statistical significance.

**Table 14**

Co-efficient of determination (R<sup>2</sup>)

| Regression Statistics |                   |
|-----------------------|-------------------|
| Multiple R            | .849 <sup>a</sup> |
| R Square              | .721              |

a. Predictors:(constant), Cost-volume-profit analysis, product and customer profitability analysis, capital investment assessment using DCF, payback period appraisal, accounting rate of return analysis, cost of capital calculation for investments, and evaluation of non-financial aspects.

**Table 15**

F test result

| Model      | Sum of | df | Mean Square | F      | Sig.              |
|------------|--------|----|-------------|--------|-------------------|
| Regression | 24.944 | 7  | 3.563       | 22.915 | .000 <sup>b</sup> |
| Residual   | 9.642  | 62 | .156        |        |                   |
| Total      | 34.586 | 69 |             |        |                   |

a. Dependent Variable: Extent of use of different types of Decision Support system for decision making.

b. Predictors: (constant), Cost-volume-profit, product and customer profitability analysis, capital investment assessment using DCF, payback period appraisal, accounting rate of return analysis, cost of capital calculation, and evaluation of non-financial factors in investments.

#### 5.9.8 Regression analysis (decision support system)

The regression analysis in Table 16 indicates that cost-volume-profit analysis, product profitability analysis, customer profitability analysis, and capital investment evaluation using methods like discounted cash flow, payback period, and accounting rate of return positively impact decision-making. The use of capital cost calculations and non-financial factors in investment appraisal also significantly influence decisions. The findings validated all the sub-hypothesis associated with Hypothesis H4. Research by Rahman *et al.*, [19] and Alleyne & Marshall [21], Pavlatos & Paggios [23] and Chenhall & Lang Field-Smith [26] supports the widespread use of these techniques in manufacturing firms. Similar results were also reported by Abdel kader and Luther [24] for industrial enterprises.

**Table 16**

Regression and hypothesis test

| Variables                                                                          | Beta  | Significance | Collinearity Statistics |       |
|------------------------------------------------------------------------------------|-------|--------------|-------------------------|-------|
|                                                                                    |       |              | Tolerance               | VIF   |
| (Constant)                                                                         | 2.318 | .000         |                         |       |
| Cost volume profit analysis                                                        | .279  | .001         | .655                    | 1.527 |
| Product profitability analysis                                                     | .260  | .003         | .596                    | 1.678 |
| Customer profitability analysis                                                    | .202  | .006         | .504                    | 1.986 |
| Capital investment evaluation based on discounted cash flow method                 | .234  | .005         | .402                    | 2.489 |
| Capital investment evaluation using payback period and accounting rate of return   | .182  | .038         | .389                    | 2.570 |
| Cost of capital calculation for DCF in capital investment evaluation               | .196  | .036         | .531                    | 1.882 |
| Non-financial aspects in capital investment evaluation are documented and reported | .186  | .04          | .650                    | 1.538 |

a. Dependent Variable: Extent of use of different types of Decision Support system for decision making.

### 5.9.9 Correlation analysis (strategic management accounting analyses)

Hypothesis five (H5) explore the impact of strategic management accounting on decision-making. Table 17 shows a statistically significant positive association between the use of various strategic management accounting techniques and decision-making. The R-squared value of 0.844 in Table 18 indicates that independent variables such as Long Range Forecasting, Shareholder Value Analysis, Industry Analysis, Competitive Position Analysis, Value Chain Analysis, Product Life Cycle Analysis, and Divisional Analysis explain approximately 84% of the variability in decision-making.

**Table 17**

Spearman correlation coefficients test results for the relationship between decision making and the extent of use of different types of strategic management accounting analyses

|                                  | SMA analysis for DM | Long-range forecasting | Shareholder value | Industry analysis | Analysis of competitive position | Value chain analysis | Product Life cycle analysis | Product life cycle analysis |
|----------------------------------|---------------------|------------------------|-------------------|-------------------|----------------------------------|----------------------|-----------------------------|-----------------------------|
| Using SMA analysis for DM        | 1                   |                        |                   |                   |                                  |                      |                             |                             |
| Long-range forecasting           | .729**              | 1                      |                   |                   |                                  |                      |                             |                             |
| Shareholder value                | .763**              | .544**                 | 1                 |                   |                                  |                      |                             |                             |
| Industry analysis                | .821**              | .754**                 | .709**            | 1                 |                                  |                      |                             |                             |
| Analysis of competitive position | .726**              | .644**                 | .566**            | .739**            | 1                                |                      |                             |                             |
| Value chain analysis             | .694**              | .444**                 | .421**            | .608**            | .629**                           | 1                    |                             |                             |
| Product life cycle analysis      | .756**              | .687**                 | .528**            | .709**            | .534**                           | .675**               | 1                           |                             |
| Product life cycle analysis      | .624**              | .511**                 | .411*             | .605**            | .703**                           | .607**               | .601**                      | 1                           |

\*\*Correlation is significant at the 0.01 level; \*Correlation is significant at the 0.05 level.

**Table 18**

Co-efficient of determination (R<sup>2</sup>)

| Regression Statistics |                   |
|-----------------------|-------------------|
| Multiple R            | .919 <sup>a</sup> |
| R Square              | .844              |

a. Predictors: (constant), long range forecasting, shareholder value analysis, industry analysis, analysis of competitive position, value chain analysis, product life cycle analysis and divisional analysis

### 5.9.10 Regression analysis (strategic management accounting analyses)

The ANOVA in Table 19 shows the regression model's significance, with an F-statistic of 47.988 and a p-value of 0.000. This indicates that the model, which includes variables like long-range forecasting, shareholder value analysis, industry analysis, competitive position analysis, value chain analysis, product life cycle analysis, and divisional analysis, is statistically significant and effectively explains the rationale behind different DMP.

**Table 19**

F test result

| Model      | Sum of | df | Mean Square | F      | Sig.              |
|------------|--------|----|-------------|--------|-------------------|
| Regression | 42.945 | 7  | 6.135       | 47.988 | .000 <sup>b</sup> |
| Residual   | 7.926  | 62 | .128        |        |                   |
| Total      | 50.871 | 69 |             |        |                   |

a. Dependent variable: Extent of use of different types of SMA analyses for decision making.

b. Predictors: (Constant), Long range forecasting, Shareholder value analysis, Industry analysis, Analysis of competitive position, Value chain analysis, Product life cycle analysis and Divisional analysis.

The regression results in Table 20 show that all the sub-hypotheses (H5-1 to H5-7) under SMA significantly and positively influence decision-making in manufacturing companies in Bangladesh ( $p < 0.05$ ). Management should focus on factors like debt collection, control, organization, record-keeping, and planning. To enhance strategic management accounting, all process phases should be considered. Research [6,21,24] suggests manufacturing firms prioritize long-term planning and external environment analysis. Strategic analysis is vital for decision-making, providing insights into opportunities and threats [27].

**Table 20**  
Regression and hypothesis test

| Variables                        | Beta  | Significance | Collinearity Statistics |       |
|----------------------------------|-------|--------------|-------------------------|-------|
|                                  |       |              | Tolerance               | VIF   |
| (Constant)                       | 1.318 | .000         |                         |       |
| Long range forecasting           | .188  | .005         | .316                    | 3.162 |
| Shareholder value analysis       | .346  | .000         | .493                    | 2.029 |
| Industry analysis                | .234  | .002         | .215                    | 4.656 |
| Analysis of Competitive position | .202  | .013         | .253                    | 3.957 |
| Value chain analysis             | .198  | .014         | .408                    | 2.454 |
| Product life cycle analysis      | .289  | .001         | .302                    | 3.312 |
| Divisional analysis              | .182  | .036         | .443                    | 2.255 |

a. Dependent variable: Extent of use of different types of strategic management accounting analyses for decision making.

## 6. Conclusions

This study concludes that MAPs play a significant role in improving decision-making within manufacturing businesses, enhancing performance and competitiveness. The survey questionnaire showed high reliability, with respondents primarily from high- and mid-level staff with strong academic and professional backgrounds. A wide range of MAPs, including process costing, budgeting, financial performance evaluation, cost-volume-profit analysis, and shareholder value analysis, were identified as influential in decision-making. Correlation and regression tests confirmed strong positive links between the use of various MAPs and DMP. The findings strongly support the proposed hypotheses, showing that specific MAPs significantly influence decision-making in manufacturing firms.

## 7. Implication for Practice

Based on the findings, it is prudent for manufacturing organizations to thoroughly evaluate the extent to which they employ different MAPs, given the substantial influence that such practices have on the DMP. Specifically, the implementation of performance evaluation systems, budgeting for planning, and strategic management accounting analyses can significantly improve the efficacy of decision-making.

## 8. Limitation and Future Research

It is critical to recognize the study's constraints, including possible predispositions in the selection of respondents and the restricted scope of the survey questionnaire. Further investigation

is warranted to examine the implementation challenges associated with particular MAPs or to conduct industry-specific analyses.

## Acknowledgement

This research was not funded by any grant.

## References

- [1] Garrison, Ray H., Eric W. Noreen, and Peter C. Brewer. *Managerial accounting*. McGraw-Hill, 2021.
- [2] CGMA, CGMA. "Global Management Accounting Principles: Improving Decisions and Building Successful Organizations. n." (2014): 56.
- [3] Al-Sayyed, Saleh Mohammad. "The impact of the use of modern management accounting techniques to streamline decision-making in the Jordanian industrial companies." *development* 7, no. 10 (2015).
- [4] Ern, Siow Yung, Amalina Abdullah, and SOON YAU FOONG. "Contingency Factors Influencing MAS Design of Manufacturing Firms in Malaysia." *Asian Journal of Accounting & Governance* 7 (2016). <https://doi.org/10.17576/AJAG-2016-07-01>
- [5] Kabir, Mohammad Rokibul. "Management accounting dynamics in bangladesh: Areas and factors behind the changes." *Asia-Pacific Management Accounting Journal (APMAJ)* 14, no. 2 (2019): 51-77. <https://doi.org/10.24191/APMAJ.v14i2-03>
- [6] Bawaneh, Shamsi S. "Management accounting practices: A case of Jordanian Manufacturing Companies." *Asia-Pacific Management Accounting Journal* 13, no. 3 (2018): 25-53.
- [7] Shil, Nikhil Chandra, Mahfuzul Hoque, and Mahmuda Akter. "Factors influencing the choice of sophisticated management accounting practices-exploratory evidence from an emerging market." *EMAJ: Emerging Markets Journal* 11, no. 1 (2021): 1-12. <https://doi.org/10.5195/emaj.2021.211>
- [8] Azadnia, Amir Hossein, Muhamad Zameri Mat Saman, and Kuan Yew Wong. "Sustainable supplier selection and order lot-sizing: an integrated multi-objective decision-making process." *International Journal of Production Research* 53, no. 2 (2015): 383-408. <https://doi.org/10.1080/00207543.2014.935827>
- [9] Otley, David. "The contingency theory of management accounting and control: 1980–2014." *Management accounting research* 31 (2016): 45-62. <https://doi.org/10.1016/j.mar.2016.02.001>
- [10] Freedman, J. *Why Management Accounting Is Important in Decision-Making*. 2018.
- [11] Woodruff, J., and M. Seidel. "Why is financial management so important in business." *Obtenido de https://smallbusiness.chron.com/financial-managementimportant-business-57073.html* (2019).
- [12] Garrison, Ray H., Eric W. Noreen, and Peter C. Brewer. *Managerial accounting*. McGraw-Hill, 2021.
- [13] Rahman, Mohammad Mizanour, and Md Riad Hassan. "Impact of Budgetary System on Managerial Satisfaction: A Structural Equation Modeling Approach."
- [14] Khan, Imran. "Enhancing management accounting practices in manufacturing companies: A special reference to top-level management." *Asian Business Review* 8, no. 3 (2018): 163-170. <https://doi.org/10.18034/abr.v8i3.168>
- [15] Smith, Malcolm. "Performance measurement and management: a strategic approach to management accounting." (2005): 1-312.
- [16] Maelah, Ruhanita, Mohammed Fadhil Farhan Al Lami, and Gheyath Ghas. "Usefulness of management accounting information in decision making among SMEs: the moderating role of cloud computing." *Asia-Pasific Management Accounting Journal* 16, no. 1 (2021): 59-92. <https://doi.org/10.24191/APMAJ.V16i1-04>
- [17] Pylypiv, Nadiya, and Iryna Piatnychuk. "Essential strategic management accounting tools used for making investment decisions at enterprises in EU." *Journal of Vasyl Stefanyk Precarpathian National University* 5, no. 3-4 (2018): 50-56. <https://doi.org/10.15330/jpnu.5.3-4.50-56>
- [18] Abdel-Kader, Magdy, and Robert Luther. "The impact of firm characteristics on management accounting practices: A UK-based empirical analysis." *The British Accounting Review* 40, no. 1 (2008): 2-27. <https://doi.org/10.1016/j.bar.2007.11.003>
- [19] Rahman, Md Khalilur, A. Talukder, and A. Darda. "Extent of Use of Cost and Management Accounting in the Cement Industry of Bangladesh." *European Journal of Business and Management* 9, no. 36 (2017).
- [20] Nunnally, Jum C. *An overview of psychological measurement. Clinical diagnosis of mental disorders: A handbook*, 97–146. 1978. [https://doi.org/10.1007/978-1-4684-2490-4\\_4](https://doi.org/10.1007/978-1-4684-2490-4_4)
- [21] Alleyne, Philmore, and Diana Weekes-Marshall. "An exploratory study of management accounting practices in manufacturing companies in Barbados." *International Journal of Business and Social Science* 2, no. 9 (2011): 49-58.

- [22] Joshi, Prem Lal. "The international diffusion of new management accounting practices: the case of India." *Journal of International Accounting, Auditing and Taxation* 10, no. 1 (2001): 85-109. [https://doi.org/10.1016/S1061-9518\(01\)00037-4](https://doi.org/10.1016/S1061-9518(01)00037-4)
- [23] Pavlatos, Odysseas, and Ioannis Paggios. "Management accounting practices in the Greek hospitality industry." *Managerial Auditing Journal* 24, no. 1 (2008): 81-98. <https://doi.org/10.1108/02686900910919910>
- [24] Abdel-Kader, Magdy, and Robert Luther. "Management accounting practices in the British food and drinks industry." *British food journal* 108, no. 5 (2006): 336-357. <https://doi.org/10.1108/00070700610661321>
- [25] Ittner, Christopher D., and David F. Larcker. "Assessing empirical research in managerial accounting: a value-based management perspective." *Journal of accounting and economics* 32, no. 1-3 (2001): 349-410. [https://doi.org/10.1016/S0165-4101\(01\)00026-X](https://doi.org/10.1016/S0165-4101(01)00026-X)
- [26] Chenhall, Robert H., and Kim Langfield-Smith. "Adoption and benefits of management accounting practices: an Australian study." *Management accounting research* 9, no. 1 (1998): 1-19. <https://doi.org/10.1006/mare.1997.0060>
- [27] Papulova, Zuzana, and Andrea Gazova. "Role of strategic analysis in strategic decision-making." *Procedia Economics and Finance* 39 (2016): 571-579. [https://doi.org/10.1016/S2212-5671\(16\)30301-X](https://doi.org/10.1016/S2212-5671(16)30301-X)