Asian Economic and Financial Review
ISSN(e): 2222-6737
ISSN(p): 2305-2147
DOI: 10.55493/5002.v13i12.4936
Vol. 13, No. 12, 1030-1045.

URL: www.aessweb.com

The extent of the commitment of Saudi manufacturing firms to a budget and its impact on planning, controlling, and performance evaluation

Mohammed Abdullah Al-Mekhlafi

College of Business Administration, University of Business and Technology, Jeddah, Kingdom of Saudi Arabia.
Email: m.mekhlafi@ubt.edu.sa

Article History
Received: 31 July 2023
Revised: 18 September 2023
Accepted: 13 November 2023
Published: 15 December 2023

Keywords
Budget
Planning
Controlling
Performance evaluation
Saudi manufacturing firms
Saudi stock exchange.

JEL Classification:
J53; L50; M41; O21.

ABSTRACT

The purpose of this study is to ascertain the extent of the commitment of manufacturing firms listed on the Saudi Exchange that generate raw materials to a budget and its impact on planning, controlling, and performance evaluation, and the significance of having all administrative divisions participate in the preparation of budgets. Questionnaires were developed to gather data to answer the research questions. The results revealed that the firms included in the study apply and prepare budgets regularly to use them effectively to control the production process and evaluate the performance of departments. They also use budgets to plan revenues and expenses. A budget uses outputs to address current deviations and faults to prevent future occurrence and improve the efficiency of the manufacturing processes. Some obstacles partially limit the budget's use for controlling and evaluating performance in some Saudi manufacturing firms. It is recommended that companies have a department that solely focuses on budgets, as it was found that some firms prepare budgets through financial and administrative departments and don't have a designated department for budgets.

Contribution/Originality: This study contributes to the understanding of how listed Saudi manufacturing firms that produce raw materials use budgets for planning, controlling, and performance evaluation. To the researcher's knowledge, published experimental research has yet to address the extent of the commitment of firms listed on the Saudi Exchange (Saudiexchange, 2018) to a budget and its impact on planning, controlling, and performance evaluation.

1. INTRODUCTION

Businesses in general, and productive manufacturing businesses in particular, strive to maximize the use of their resources while minimizing waste to optimize efficiency. This is accomplished by continuously comparing the actual performance and the planned performance of resources to identify any deviations and find appropriate solutions to address them, allowing organizations to compete in the global market that witnesses intense competition between all industries. As a result, these organizations began to rely on administrative techniques such as budgets, which are seen as a detailed plan for policies, objectives, and future operations. Budgets are also valuable for planning, controlling, and performance evaluation because they transform the organization's plans into a collection of financial and quantitative data in sub-budgets coordinated into one budget for all administrative levels.

A budget is a comprehensive future plan typically presented in formal numerical terms. The long-term goals can be identified with a budget, which serves as a base from which to plan from. Budgets have two unique purposes: planning and control. Planning entails setting objectives and developing multiple budgets to achieve those goals, and control entails getting input to verify and ensure that the strategy is implemented properly or modified as needed in response to changing conditions (Garrison, Noreen, & Brewer, 2021).

A budget often covers financial and non-financial plans and guides the business. A profit or loss statement, a cash flow statement, and a statement of financial position serve as the quantitative representation of managers' projections of future revenue, cash flow, and financial situation for a corporation (Datar & Rajan, 2021).

Budgeting is crucial to ensuring that a company has financial security and operates efficiently to meet its objectives. The budget must be used effectively by comparing forecasts to actual results, identifying causes of non-compliance, and creating effective solutions. The budget plans, controls, evaluates performance, and directs a company's resources toward optimal utilization (Isaac, Lawal, & Okoli, 2015).

A budget is a tool that can be used to plan for potential issues in the future and the appropriate solution at the lowest cost; therefore, this study investigates the degree of Saudi manufacturing firms' commitment to a budget and its effects on planning, controlling, and performance assessment.

1.1. Research Problem

Based on the significance of encouraging Saudi manufacturing firms to use budgets to reduce waste and use resources efficiently in the production process, the study seeks to answer the following questions:

1. Are Saudi manufacturing firms' managements interested in developing budgets for planning, controlling, and evaluating performance?
2. What is the extent of the availability of sufficient information and the appropriate environment within Saudi manufacturing firms to prepare budgets?
3. Does the management of Saudi manufacturing firms use the budget outputs to correct deviations and faults and improve the efficiency of their manufacturing processes?
4. Are there obstacles that impede the use of budgets to control and evaluate performance in Saudi manufacturing firms?

1.2. Research Objectives

1. Determine the extent of Saudi manufacturing firms' commitment to using budgets to plan, control, and evaluate performance.
2. Identify the efficiency of a budget as a tool for planning, controlling, and performance evaluation.
3. Establish the significance of having all administrative divisions participate in the preparation of budgets.

This paper is divided into the following sections: The theoretical framework and literature review are provided in Section 2; Section 3 explains the various methods and tools utilized in the study; Section 4 contains the conclusions and some recommendations based on the results; and Section 5 discusses the limitations of the study and offers suggestions for future research.

2. THEORETICAL FRAMEWORK AND LITERATURE REVIEW

2.1. Theoretical Framework

2.1.1. Definition of Planning, Controlling, and Performance Evaluation

2.1.1.1. Planning

Planning is the first and most crucial aspect of management, and it entails establishing goals and developing a strategy to achieve them (Mir, Yatoo, Khan, & Kumar, 2021). Planning is the procedure through which managers

set objectives and outline the methods for achieving them. Action and outcome, or goal statements, are the two fundamental parts of a plan. Outcomes, or goal statements, depict the goals and results that managers aspire to achieve. Action statements are the methods that firms use to advance and achieve their goals (Williams, Champion, & Hall, 2018).

2.1.1.2. Controlling

Controlling is a procedure for tracking, evaluating, and improving work performance. Managers should maintain control, even when their units are operating as expected, because they can only achieve this if they have analyzed the actions taken and compared the actual performance against the anticipated standard. Adequate controls ensure that tasks are completed in a way that contributes to achieving the objectives (Robbins & Coulter, 2017).

Controlling is a management function carried out at all organizational levels. Managers or supervisors have specific responsibilities, and they must manage their staff to make sure that their goals are reached (Cambalikova & Misun 2017).

2.1.1.3. Performance Evaluation

Performance evaluation evaluates employees' performance over a specific time and their potential for future growth (Narkunienė & Ulbinaitė, 2018).

Performance assessment is a process that involves establishing goals, and regularly evaluating performance, giving employees feedback, and inspiring them (Büyüközkan & Karabulut, 2018).

2.1.2. The Budget

2.1.2.1. Introduction to Budgets

Planning is an effective tool that aids in achieving objectives and striking a balance between goals and resources. During the planning process, management must anticipate issues that may arise and devise solutions to address them. Budgets are one of the most crucial planning and controlling instruments, making them one of the cornerstones of accounting management (Jonick 2017).

Making and sticking to a budget will help to achieve financial objectives. Budgets created by effective managers are closely monitored, adjusted as needed, and produce the desired outcomes (Dopson & Hayes 2017).

Planning is vital to the success of any organization. It defines future goals, and using budgets is one of the most important means to achieve the administration's objectives in making rational business decisions (Chong & Chong, 2002).

2.1.2.2. Definition of a Budget

A budget serves as a tool for the coordination of tasks required to carry out management's suggested plan of action for a given period and is its quantitative expression. In general, a budget covers the financial parts of a project and acts as a guide for the business to follow (Atkinson, Kaplan, Matsumura, & Young 2019).

A budget is a numerical statement of management's suggested course of action for a future period that helps to implement the plan. These programs can cover both financial and non-financial components (Bhimani, Horngren, Datar, & Rajan 2019).

The basic objectives of a budget include planning, encouraging collaboration and communication, allocating resources, managing profit and operations, assessing performance, and offering rewards (Hilton & Platt 2020).

A master budget is a comprehensive collection of budgets that account for the anticipated operations of an organization over a specific period of time (Whitecotton, Libby, & Phillips, 2020).

2.1.2.3. Characteristics of a Budget

The characteristics of a budget were outlined by Celestin (2021).

1. It is a thorough representation of the projected earnings, financial health, and cash flow that management expects the business to produce over a specific period of time.
2. A budget might only be updated once a year, depending on how often top management wishes to conduct reviews.
3. The budget and actual outcomes are compared to identify deviations from the anticipated performance.
4. It is used by management to make any necessary corrections to align the actual outcomes with the budget.
5. The budget-to-reality comparison may result in adjustments to employees' performance-based pay.

2.1.2.4. The Importance of a Budget

Budgets can be used to forecast the establishment's activities, accounting trends, and economic events. Budgets can be utilized in planning, controlling, and motivation processes, while the oversight role of the budget is mainly to use forecasts to measure and evaluate performance and discover deviations and take the appropriate corrective measures (Crosson & Needles, 2011). Budgets have many benefits, including optimal resource planning, the determination of future expenditures, and aiding in the selection of appropriate strategic decisions to minimize hazards (Ibrahim 2014). All sizes and types of organizations depend heavily on their budgets (Warren & Tayler 2020).

Garrison et al. (2021) outlined the importance of budgeting from planning and controlling perspectives.

A. From a planning perspective, firms use budgets to:

1. Motivate managers to plan for the future.
2. Spread the financial objectives throughout the firm.
3. Allocate resources throughout the company where they will be used most efficiently.
4. Coordinate departmental supervisors' plans and actions.
5. Identify potential bottlenecks before they materialize.

B. From a controlling perspective, businesses compare their budget to their actual performance to:

1. Enhance the efficacy and efficiency of operations.
2. Assess and reward staff.

2.2. Literature Review

2.2.1. Previous Studies

Lawal (2014) empirically investigated the extent to which budgeting and financial management affect the performance of Nigeria's industrial sector using the chi-square test. Three hundred questionnaires were distributed; however, only 250 could be collected as 50 were irrecoverable. According to the findings, managers and business owners were urged to pay more attention to their budgetary management system (not just in the manufacturing industries). Those who don't already have a fiscal control system should set one up; it's time for those with a fictitious or ineffective budgetary control system, as well as those without one, to establish a result-oriented system to help move the industrial sector from the point of a declining performance to one of increased capacity and production.

Anajdi (2016) aimed to identify how budgets affect the planning, monitoring, and evaluation of Kuwait's industrial sector performance. The study population included all 40 Kuwaiti industrial businesses. The study sample included 85 respondents from financial and personnel management, accounting, and those creating budgets. The study employed a descriptive analytical methodology that used primary and secondary data. The study concluded that the effect of budgets is situated in the planning function. The researcher recommended that senior management should understand the significance of budget planning to provide accurate information about the plans created to

simplify forecasting and reduce errors because planning budgets are built using data the company has gathered from experiences as well as future projections.

Al-Ramahi (2017) investigated the use of budgets to enhance Jordanian industrial enterprises' planning, control, and performance assessment. A survey was created to gauge the study's variables (planning, control, and performance evaluation). The study sample included 63 industrial Jordanian companies listed on the Amman Stock Exchange (ASE). Each company was given two questionnaires, and the total number of responses was 112. The study revealed that the industrial firms listed in the first market in the ASE are much better at planning, monitoring, and evaluating performance when budgets are used. However, the industrial firms listed in the second ASE market were less impacted, and the industrial firms listed in the third ASE market showed no influence at all. The researcher advised that senior management should have a thorough understanding of budgets and that they provide accurate data that can be used as a performance indicator.

Agbenyo, Danquah, and Shuangshuang (2018) investigated how budgeting works and how the financial performance of industrial enterprises listed on the Ghana Stock Exchange is affected. In particular, the research was conducted to better understand how budgeting works and analyze how budgeting affects the financial performance of these organizations. Data from 51 respondents was gathered through questionnaires, and the correlation matrix showed that budgeting and financial performance were strongly related. According to the study, budgeting has a big impact on how profitable publicly traded manufacturing companies are. The results confirmed the significance of the association between budgeting and financial performance. The study also concluded that planning, monitoring, controlling, coordinating, and assessing are crucial and enhance the financial performance of manufacturing organizations. The paper claimed that managers must implement long-term initiatives thorough budgetary strategies. Annual budgeting reviews must also be a part of the procedure to identify the key financial indicators that are crucial to their operations and knowledge, plan for the future, update their strategic plans, and learn how to compete in the market.

Indrani, Wickremasinghe, and Naidoo (2019) examined the ways that various businesses and industrial sectors implement budgeting procedures in order to achieve their goals. This study used a mixed method research technique to collect data from the finance executives of 42 listed companies across five industries via questionnaire surveys and in-depth interviews. Out of the eight paradigms, two are the focus of this research: quantitative + qualitative and quantitative to qualitative, respectively. This is due to the fact that the most prevalent simultaneous and sequential mixed method designs use these two paradigms. The survey data were examined using frequency tables and SPSS software, while descriptive data were examined using thematic and content analyses. It was found that the 'result point of interface' was the best place to combine the study's primary quantitative component and secondary qualitative component to generate insightful interpretations and sound conclusions. According to the study's findings, budgeting was the most important technique for all firms, with planning having a greater impact than operation control regardless of the industry. In order to ensure that business entities operating under different organizational contexts and influences are applying specific management accounting techniques effectively, they should be moving in the right direction toward achieving organizational goals and, ultimately, business sustainability.

Odetoyinbo, Adeyemi, Hassan, Adebisi, and Adegbola (2020) evaluated whether manufacturing companies in Osun State plan their profits such that their losses are unreasonably large in comparison to their budget estimate. They also examined the profit-making controls in these companies and specified the forms of budgeting that improve efficiency. A survey was employed as the research design, and the stratified and simple random sampling techniques were used. A questionnaire was developed for the research to gather primary information. Descriptive statistics, such as frequency distribution and percentage mean, were used to assess the data, while Chi-squares were used to test the hypotheses. The study concluded that, in those manufacturing business groups, profit levels and methods of attainment are under control. The study also demonstrated that manufacturing firms have some control

over their levels of profit-making and the methods they use to achieve it. The outcome also supports some of the effective budgeting practices used by manufacturing companies in Osun State. The study revealed that every company respondent indicated that there was a formal budget process in place. This is a sign that the business's financial process has gone through the standard budget planning, management, coordination, and evaluation stages. The researchers recommended that organizations ensure that budgets are created in accordance with the guidelines for budget planning. Additionally, employers of any manufacturing businesses should ensure that they hire qualified personnel. In order to assist in planning and investigating any variations, management should also form a budget committee made up of specialists in that field.

Aworinde, Ogundipe, and Oluyombo (2021) examined how the financial performance of selected listed industrial businesses in Lagos State, Nigeria, are impacted by budgetary control. The study used a survey research design as its chosen method of investigation. This study's target group consisted of 1,186 manufacturing company line managers, accountants, budget office directors, and financial officers. The results demonstrated a robust and beneficial relationship between the budgetary procedure and the financial performance of the listed Nigerian manufacturing companies (budgetary process = 0.685, t-test = 18.774, p = 0.05). According to the study's conclusion, budgetary management enhances the financial performance of Nigerian manufacturing businesses. However, it was advised that to support strong financial standing, the budgetary management process should consider the sector demands at the planning stage and firm-specific factors within the individual companies.

Gupta and Deena (2021) researched and tested the impact of budgeting, planning, and control on the performance of a manufacturing organization. The respondents comprised a variety of cost accountants and authorities to gather and evaluate primary data using statistical methods. The sample of the study was a production and promotion company. The study's main objective was to establish a systematic conceptual framework for the budget and its importance in the profitability of the firm. The data was reviewed using descriptive statistics such as percentages and arithmetic mean scores. The reliability, correlation, regression, and analysis of variance (ANOVA) tests were all used to examine the demographic data. An overview of the data was represented statistically using SPSS. The study presented a number of assumptions and references, including the necessity for the company to carefully consider the budgeting, planning, and control practices on the effectiveness of the company.

Simidi, Ojera, and Odhiambo (2021) determined how the financial outcomes of sugar-producing firms are affected by the planning, implementation, variance analysis, and evaluation of their budgets using a descriptive survey research design. Employees in the finance and cost center budgeting departments were chosen as participants through the use of deliberate sampling. A sample of respondents was taken from Butali and Nzoia sugar companies, which represent both the governmental and private sectors in the western region. Questionnaires were the preferred method of data collection, and descriptive and inferential statistical analyses were used. The descriptive analysis revealed that the financial performance was directly impacted favorably by the planning, execution, variance analysis, and review of the budget. In conclusion, budgetary control is crucial to the financial performance of the organizations examined in the survey, so it was recommended that all budgetary control processes be used as a tool for financial control. It was also stated that even after reviewing budgetary control, which is effective, the industry is still seeing continual decreases in profitability and liquidity, along with a sizable amount of debt. Therefore, it is necessary to concentrate on additional factors that may affect financial performance.

Mohamed, Ahmed, and Nor (2022) investigated how budgetary planning, monitoring, and feedback affect financial performance. A total of 60 workers from diverse organizations were the study's target population. Data was gathered for the study using a questionnaire, and SPSS was used to analyze the data. The purpose of this study was to determine whether budgetary control affects performance and, if so, whether there is a relationship between the two. A substantial correlation between budgeting and financial performance was discovered (p = 0.237), a poor correlation was discovered between budget monitoring and financial success (p = -1.03), and a statistically significant correlation was discovered between budget feedback and financial performance (0.916). The study's

findings show that each specific firm's approach to budgetary control should include budget planning and feedback. The study suggests that in order to outperform rival businesses, commercial companies should determine which activities to prioritize in their budgets. Management should take remedial action when variations are presented because they are a quick, reasonably effective, and efficient approach to provide budget feedback. Budget conferences should be held by the top administration to review performance since it may affect the performance of the company.

3. RESEARCH DESIGN AND METHODOLOGY

3.1. Research Design

An exploratory and descriptive research design was used to answer the research questions using data gathered from questionnaires.

3.2. Research Hypotheses

H1: The management of Saudi manufacturing firms are not interested in preparing budgets for planning, controlling, and evaluating performance.

H2: To prepare budgets, more information and the appropriate environment are needed within Saudi manufacturing firms.

H3: The management of Saudi manufacturing firms do not use the budget outputs to correct deviations and faults to improve the efficiency of their manufacturing processes.

H4: There are no obstacles to using budgets to control and evaluate performance in Saudi manufacturing firms.

3.3. Sample Size, Population, and Unit of Analysis

This study examined the degree of commitment of 42 Saudi raw material manufacturers listed on the Saudi exchange at the end of 2022 to the budget and how that commitment affected planning, controlling, and performance evaluation. Through telephone conversations with the accounting departments of the selected companies, the study identified businesses that had committed to budgets. The population of the study comprises 154 employees (general managers, assistant managers, financial managers, and accountants).

3.4. Data Collection

Both secondary and primary sources were used to gather data for this research.

3.4.1. Secondary Data Sources

The secondary data used was gathered from publications such as books, theses, periodicals, articles, and selected websites. The theoretical framework was established after carefully examining the relevant literature.

3.4.2. Primary Data Sources

A five-point Likert scale (see Table 1) was used to create a questionnaire that was appropriate for evaluating the respondents' opinions.

Table 1. Five-point Likert scale.

Point	Response
1	Strongly disagree
2	Disagree
3	Neutral
4	Agree
5	Strongly agree

No agreement is indicated by a mean value between 1 and less than 2.5, neutrality is characterized by a mean value between 2.5 to less than 3.5, and agreement is indicated by a mean value between 3.5 and 5.0.

There are two primary sections to the questionnaire, which are as follows:

First part: Questions regarding the respondents' demographics (age, education, gender, profession, and work experience) to describe the study's natural sample.

Second part: This section comprises the following four dimensions:

First dimension: How much the management of Saudi manufacturing firms are interested in preparing budgets for planning, controlling, and evaluating performance.

Second dimension: Items related to the availability of sufficient information and the appropriate environment within the selected firms to prepare budgets.

Third dimension: Items related to the extent to which management uses the budget outputs to correct deviations and faults and improve the efficiency of their manufacturing processes.

Fourth dimension: Items related to the extent of obstacles to using budgets to control and evaluate firm performance.

3.5. Data Analysis Techniques

A questionnaire was used to collect data, which was then coded via a statistical analysis using Microsoft Excel and the Statistical Package for the Social Sciences (SPSS).

The study made use of the following statistical methods:

1. Frequency and percentages: To characterize the demographic features of the sample.
2. Means: To look for trends in the responses to the study's questions.
3. On sample T-Test: To examine research hypotheses.
4. Cronbach's alpha coefficients: The average correlations between the items were used to measure the concept.

Cronbach's alpha has a standard value of 0.7 but can also have values higher than 0.6 (Taber, 2018; Van Griethuijsen, Van Eijck , & Haste, 2015).

3.6. Data Validity: Internal Consistency and Reliability

The data was tested by measuring the internal consistency reliability using Cronbach's alpha. Generally, the acceptance rate for stability percentages is 60% or above (Taber, 2018; Van Griethuijsen et al., 2015).

Table 2 shows the Cronbach's alpha coefficient for each dimension.

Table 2. Cronbach's alpha coefficients.

Reliability statistics		
Item	**Cronbach's alpha**	**Number of items**
First dimension	0.863	13
Second dimension	0.714	10
Third dimension	0.739	9
Fourth dimension	0.897	7

The first dimension's internal consistency coefficient is 86.3%, indicating a very high level of consistency.

The second dimension's internal consistency coefficient is 71.4%, indicating a moderate level of consistency.

The third dimension's internal consistency coefficient is 73.9%, indicating a moderate level of consistency.

The fourth dimension's internal consistency coefficient is 89.7%, indicating a very high level of consistency.

3.7. Respondents' Characteristics

Table 3 indicates that 42.21% of the respondents were between the ages of 21 and less than 30, 25.32% were between 30 and less than 40, 14.94% were between 40 and 49, and 10.39% were between 50 and 60. The "less than

21 years" and "60 years or more" percentages were the lowest, at 4.55% and 2.59%, respectively; this could imply that a lengthy period is required for promotion to finance manager and chief accountant posts.

Table 3. Distribution of sample characteristics.

Characteristic	Category	Frequency	Percentage	Cumulative percentage
Age	Less than 21 years	7	4.55%	4.55%
	21–less than 30 years	65	42.21%	46.76%
	30–less than 40 years	39	25.32%	72.08%
	40–less than 50 years	23	14.94%	87.02%
	50–less than 60 years	16	10.39%	97.41%
	60 years or more	4	2.59%	100.00%
Education	High School	0	0.00%	0.00%
	Diploma (Community college)	15	9.74%	9.74%
	Bachelor's degree	82	53.25%	62.99%
	High diploma	24	15.58%	78.57%
	Master's degree	28	18.18%	96.75%
	Ph.D. degree	5	3.25%	100.00%
Gender	Male	128	83.12%	83.12%
	Female	26	16.88%	100.00%
Position	General manager	8	5.19%	5.19%
	Assistant manager	14	9.09%	14.28%
	Financial manager	23	14.94%	29.22%
	Accountant	103	66.88%	96.10%
	Other	6	3.90%	100.00%
Practical experience	Less than six years	19	12.34%	12.34%
	6–less than ten years	48	31.17%	43.51%
	10–less than 15 years	46	29.87%	73.38%
	15–less than 20 years	23	14.94%	88.32%
	20–less than 25 years	9	5.84%	94.16%
	More than 25 years	9	5.84%	100.00%

Additionally, Table 3 shows that 53.25% of those surveyed had a bachelor's degree, which suggests that most respondents have a solid knowledge of how to budget and may influence the quality of their responses. In contrast, a master's degree is held by 18.18% of the respondents, and the remaining 28.57% hold various other degrees.

Furthermore, 83.12% of the sample's respondents are men; this may be a result of the nature of these occupations.

The majority of the sample's respondents are accountants (66.88%), which indicates that most respondents have a solid understanding of budgets.

It is noteworthy that 31.17% of the respondents have experience of six to ten years or less, while 29.87% have practical experience of ten to fifteen years or less. This indicates that the respondents have relevant and sufficient experience in order to provide information and respond to the questionnaire.

3.8. Descriptive Statistics

Data analysis was performed with SPSS, where a 5% significance level and a 95% confidence level were used to test the hypotheses.

First dimension: Items related to how much the management of Saudi manufacturing firms are interested in preparing budgets for planning, controlling, and evaluating performance.

According to Table 4, the answers to the questions for the first dimension do not differ between respondents, and minor standard deviations did not show any discernible variations.

The highest mean is 4.49, indicating that the majority of the respondents believe that the company gives training to its staff to guarantee that those working on budget preparation are effective and that the firm is interested in preparing budgets for planning, controlling, and evaluating performance.

Table 4. Responses to the first dimension: Means and standard deviations.

No.	Item	Mean	Standard deviation
1	The firm's management is interested in the existence of a special division to prepare budgets.	4.43	0.56
2	Budgets are prepared periodically.	4.47	0.67
3	The firm sets clear instructions for preparing budgets.	4.39	0.63
4	Budgets are used by management to forecast the future.	4.31	0.76
5	The firm offers training to its staff to guarantee that those working on budget preparation are effective.	4.49	0.65
6	The firm uses budgets for all of its administrative and operational divisions.	4.21	0.79
7	Budgets effectively link a firm's goals to its available resources.	4.25	0.67
8	The budget is viewed as a planning mechanism.	4.46	0.69
9	The budget is viewed as a control mechanism.	4.45	0.58
10	The budget is viewed as a performance evaluation mechanism.	4.48	0.61
11	Budgets help the firm to run more smoothly and effectively.	4.41	0.57
12	Incentives are given to departments whose budget results are identical to their actual performance.	4.42	0.54
13	Budgets are prepared based on sales, costs, and profit.	4.37	0.78

However, the lowest mean of 4.21 shows that most respondents agreed that the firm uses budgets for its administrative and operational divisions.

These results indicate that most of the sample's response trends agree with the items in the first dimension and positively affect the firms that prepare budgets for planning, controlling, and evaluating performance.

"Strongly Agree" was the response given most frequently.

Second dimension: Items related to the availability of sufficient information and the appropriate environment within the Saudi manufacturing firms to prepare budgets.

According to Table 5, the answers to the questions for the second dimension do not differ between respondents, and minor standard deviations did not show any discernible variations.

The highest mean of 4.46 showed that the majority of the respondents agree that the firm takes legal and economic factors into consideration and provides sufficient information and the appropriate environment when preparing budgets.

The lowest mean (3.73) shows that most respondents agree that transferring information across departments is highly effective and transparent.

Therefore, this indicates that most of the sample's response trends agree with the items in the second dimension and positively affect the availability of sufficient information and the appropriate environment within the Saudi manufacturing firms to prepare budgets.

"Agree" and "Strongly Agree" were the responses given most frequently.

Table 5. Responses to the second dimension: Means and standard deviations.

No.	Item	Mean	Standard deviation
1	The firm has the data and information necessary to prepare budgets.	4.37	0.63
2	The transfer of information across departments is highly effective and transparent.	3.73	0.91
3	The financial and accounting system satisfies the criteria needed to prepare budgets.	4.29	0.57
4	The firm has information systems that aid in budget preparation.	4.44	0.60
5	Each department contributes to budget preparation.	3.82	0.83
6	The firm's management gives the budget department access to all of the firm's operations and activities.	4.43	0.87
7	The departmental leaders work together to implement the budgets.	4.25	0.76
8	The firm offers the prerequisites needed for budget implementation.	4.43	0.77
9	When preparing budgets, legal and economic factors are taken into consideration.	4.46	0.62
10	Department leaders meet periodically to review budget items.	4.24	0.86

Third Dimension: Items related to the extent to which the Saudi manufacturing firms' management use the budget outputs to correct deviations and faults to improve the efficiency of their manufacturing processes.

According to Table 6, the answers to the questions for the third dimension do not differ between respondents, and minor standard deviations did not show any discernible variations.

The highest mean (4.39) shows that most respondents agree that the causes of the variances from the estimate are investigated, corrective action is taken to address deviations and stop them from recurring, and budget outputs are used to correct deviations and faults to improve the efficiency of their manufacturing processes.

The lowest mean (3.78) shows that most respondents agree that the budget system enables modifications in response to changing firm conditions.

Therefore, this indicates that most of the sample's response trends agree with the items in the third dimension and positively affect the budget outputs used to correct deviations and faults to improve the efficiency of their manufacturing processes.

"Agree" and "Strongly Agree" were the responses given most frequently.

Table 6. Responses to the third dimension: Means and standard deviations.

No.	Item	Mean	Standard deviation
1	The budget outputs are an efficient tool for resolving deviations.	4.06	0.64
2	The causes of the variances from the estimates are investigated.	4.37	0.48
3	Corrective action is performed to address deviations and stop them from recurring.	4.39	0.67
4	The internal control department is vital in keeping track of and assessing budget performance.	4.31	0.76
5	The budget system enables modifications in response to changing firm conditions.	3.78	0.61
6	The decision to correct deviations is followed up by management.	3.96	0.97
7	The budget outputs are used to evaluate the effectiveness and efficiency of performance.	4.27	0.63
8	The firm adopts the budget outputs as indicators to improve performance.	4.33	0.71
9	Periodic reports are available throughout the term of budget implementation.	4.05	0.68

Fourth Dimension: Items related to the extent to which there are obstacles to using budgets to control and evaluate performance in Saudi manufacturing firms.

According to Table 7, the answers to the questions for the fourth dimension show a noticeable variance, with the standard deviation values for some of the answers being more than one.

Table 7. Responses to the fourth dimension: Means and standard deviations.

No.	Item	Mean	Standard deviation
1	The management establishes clear policies and procedures to implement the budget.	4.41	0.91
2	Budgets are based on the firm's accounting system.	3.87	1.15
3	The budget department can use the data quickly and simply since there is a link between the budget system and the accounting system.	3.37	1.02
4	There is an absence of engagement in decision making at all administrative levels.	3.33	0.87
5	There is a lack of qualified individuals who can prepare budgets.	2.23	0.73
6	Corporate laws in Saudi Arabia limit the use of budgets.	2.18	1.12
7	Saudi Arabia's tax laws are considered a significant obstacle to budget adoption in firms.	2.09	0.88

The highest mean (4.41) shows that most respondents agree that management establishes clear policies and procedures to implement the budget, and budgets are based on the firm's accounting system.

Additionally, most respondents remained neutral when asked if the budget department can use the data quickly and simply since there is a link between the budget system and the accounting system, and there needs to be more engagement in decision making at all administrative levels.

The lowest mean (2.09) shows that most respondents don't agree that Saudi Arabia's tax laws are considered a significant obstacle to budget adoption in firms.

Therefore, this indicates that most of the sample's response trends were different in the group of items related to the fourth dimension, and despite the belief that Saudi manufacturing firms face obstacles, they do not prevent the preparation of budgets and their application within the firm.

"Agree," "Neutral," and "Strongly agree" were the responses given most frequently.

3.9. Hypothesis Testing

The level of statistical significance for the one-sample t-test employed was $\alpha \leq 0.05$.

Table 8. One-sample t-test.

Hypothesis	N.	df	Mean	Mean diff.	Std. dev.	Std. error mean	t	Sig. (2-tailed)	95% confidence interval of the difference	
									Lower	Upper
1	154	153	4.458	1.452	0.456	0.064	21.535	0.000	1.339	1.592
2	154	153	4.426	4.426	0.435	0.059	74.857	0.000	4.203	4.540
3	154	153	4.239	4.239	0.437	0.059	71.394	0.000	4.124	4.356
4	154	153	3.785	3.785	0.446	0.062	63.891	0.000	3.573	3.984

3.9.1. First Hypothesis

H1 states that Saudi manufacturing firms' management aren't interested in preparing budgets for planning, controlling, and evaluating performance.

Table 8 indicates a significant statistical relationship between Saudi manufacturing firms' management and the interest in preparing budgets for planning, controlling, and evaluating performance.

The relationship's significance level was 0.0 with significant values below the allowable statistical error margin of 0.05. This indicates a significant statistical relationship.

Moreover, Table 8 shows that the mean for this dimension is 4.45, and the response average is 1.45, This indicates a positive trend, and the two variables are statistically significantly associated.

In light of this, the null hypothesis (H1) is rejected, whereas the alternative hypothesis (AH) is accepted, confirming that Saudi manufacturing firms' management are interested in preparing budgets for planning, controlling, and evaluating performance.

This outcome is consistent with what was reported by Anajdi (2016); Al-Ramahi (2017); Agbenyo et al. (2018) and Aworinde et al. (2021).

3.9.2. Second Hypothesis

H2 states that preparing budgets needs more information and an appropriate environment within Saudi manufacturing firms.

Table 8 indicates a statistically significant correlation between information and the appropriate environment within the Saudi manufacturing firms and the preparation of budgets.

The relationship's significance level is 0.0, according to the sample t-test with significant values below the allowable statistical error margin of 0.05. This indicates a significant statistical relationship.

Moreover, Table 8 shows that the mean for this dimension is 4.42, which shows a positive trend. A positive result indicates that the two variables are statistically significantly associated.

In light of this, the null hypothesis (H2) is rejected, and the alternative hypothesis (AH) is accepted, meaning that Saudi manufacturing firms' have sufficient information and the appropriate environment for preparing budgets.

This outcome is consistent with what was reported by Agbenyo et al. (2018) and Aworinde et al. (2021).

3.9.3. Third Hypothesis

H3 states that Saudi manufacturing firms' management do not use the budget outputs to correct deviations and faults to improve the efficiency of their manufacturing processes.

Table 8 indicates a significant statistical relationship between the use of budget outputs to correct deviations and faults, thus improving the efficiency of their manufacturing processes.

The relationship's significance level is 0.0 according to the sample t-test with significant values below the allowable statistical error margin of 0.05. This points to a significant statistical relationship.

Moreover, Table 8 shows that the mean for this dimension is 4.23, revealing a favorable trend. A favorable outcome signifies that the two variables have a strong statistical association.

In light of this, the null hypothesis (H3) is rejected, and the alternative hypothesis (AH) is accepted. This confirms that the management of Saudi manufacturing firms use the budget outputs to correct deviations and faults to improve the efficiency of their manufacturing processes.

This outcome is consistent with what was reported by Agbenyo et al. (2018).

3.9.4. Fourth Hypothesis

H4 states that there are no obstacles to using budgets to control and evaluate performance in Saudi manufacturing firms.

Table 8 indicates a significant statistical relationship between the lack of obstacles to using budgets and control and performance evaluation in Saudi manufacturing firms.

The relationship's significance level is 0.0 according to a sample t-test with significant values below the allowable statistical error margin of 0.05. This indicates a significant statistical relationship.

Moreover, Table 8 shows that the mean for this dimension is 3.78, which shows a positive trend, and the mean of these responses is 3.78. A positive result indicates a significant statistical correlation between the two variables.

In light of this, the null hypothesis (H4) is rejected, and the alternative hypothesis (AH) is accepted. Therefore, Saudi manufacturing firms are hindered by certain obstacles that prevent them using budgets as a tool for controlling and evaluating performance.

4. CONCLUSION AND RECOMMENDATIONS

4.1. Conclusions

The analysis of the information gathered from the questionnaires revealed the following:

1. Saudi manufacturing firms prepare and apply budgets regularly to use them effectively in controlling the production process and evaluating the performance of departments. They are generally interested in preparing budgets for planning, controlling, and evaluating performance.
2. Saudi manufacturing firms use budgets to plan revenues and expenses, as budgets are regarded as one of the most crucial tools for lowering expenses and raising revenues through careful pre-planning for sales operations.
3. The management of Saudi manufacturing firms have a high level of awareness of the significance of supplying adequate information and a suitable environment in which to prepare a budget that is relatively close to reality.

4. The management of Saudi manufacturing firm use the budget outputs to address current deviations and faults to avoid their recurrence and improve the efficiency of their manufacturing processes.
5. Some obstacles partially limit the use of the budget for controlling and evaluating performance in some Saudi manufacturing firms, such as the budget department needing to use the data quickly and simply and needing more engagement in decision making at all administrative levels.

The directors of Saudi manufacturing firms said the budget is essential in any firm, whatever its industry.

4.2. Recommendations

The following recommendations are made based on the study's findings:

1. It is necessary to involve all department members concerned in budget preparation and ensure the ease of transferring information between departments.
2. A designated department should exist that is solely concerned with budgets. It was highlighted that some businesses don't have a separate department for the budget and instead prepare their budgets through the financial and administrative divisions.
3. Saudi manufacturing firms should implement a computerized budget system that incorporates all departments due to the significance of cutting down on time and effort, lowering calculation errors, and connecting data from all departments.
4. Conduct future studies about preparing budgets in various economic fields.
5. Conduct further research on preparing budgets for various economic sectors.
6. The budgeting process should be taught in Saudi universities' accounting programs, and students should visit businesses to gain knowledge and expertise.

5. RESEARCH LIMITATIONS AND FUTURE RESEARCH SUGGESTIONS

5.1. Limitations

1. The research only selected manufacturing companies listed on the Saudi Exchange at the end of 2022 that generate raw materials.

2. Staff members (general managers, assistant managers, financial managers, and accountants) employed in manufacturing companies make up the study population (154 respondents).

5.2. Suggestions for Future Research

It is suggested that future researchers increase the number of objects to collect more samples so that the data will not significantly decrease if some of the data are not regularly distributed. It is strongly suggested that the study period be extended to reflect the long-term state of firms and conduct an additional study using a sample of manufacturing firms along with other industries to ensure that the findings are accurate.

Funding: This study received no specific financial support.
Institutional Review Board Statement: The Ethical Committee of the University of Business and Technology, Saudi Arabia has granted approval for this study on 5 January 2023 (Ref. No. UBT/CBA-05/01/2023).
Transparency: The author states that the manuscript is honest, truthful, and transparent, that no key aspects of the investigation have been omitted, and that any differences from the study as planned have been clarified. This study followed all writing ethics.
Data Availability Statement: Upon a reasonable request, the supporting data of this study can be provided by Mohammed Abdullah Al-Mekhlafi.
Competing Interests: The author declares that there are no conflicts of interests regarding the publication of this paper.

REFERENCES

Agbenyo, W., Danquah , F. O., & Shuangshuang , W. (2018). Budgeting and its effect on the financial performance of listed manufacturing firms: Evidence from manufacturing firms listed on Ghana stock exchange. *Research Journal of Finance and Accounting*, *9*(8), 12–21.

Al-Ramahi , N. M. (2017). The use of planning budgets to improve planning, control, and evaluation of performance in Jordanian industrial joint stock companies. *Journal of Accounting Thought, Ain Shams University - Faculty of Commerce - Department of Accounting and Auditing*, *21*(1), 197 – 212.

Anajdi, A.-l. (2016). *The effect of budgets on planning, monitoring and performance evaluating of the Kuwaiti industrial sector*. Master Thesis, Al al-Bayt University.

Atkinson, A. A., Kaplan , R. S., Matsumura , E. M., & Young , S. M. (2019). *Management accounting: Information for decision-making and strategy execution* (7th ed.). Westmont, USA: Cambridge Business Publishers.

Aworinde , O., Ogundipe , S. A., & Oluyombo , H. D. (2021). Budget process and financial performance of selected quoted manufacturing companies in Lagos State, Nigeria. *Global Scientific Journal*, *9*(7), 3635–3648.

Bhimani, A., Horngren , C. T., Datar , S. M., & Rajan , M. V. (2019). *Management and cost accounting* (7th ed.). Harlow, United Kingdom: Pearson Education Limited.

Büyüközkan, G., & Karabulut, Y. (2018). Sustainability performance evaluation: Literature review and future directions. *Journal of Environmental Management*, *217*, 253-267. https://doi.org/10.1016/j.jenvman.2018.03.064

Cambalikova, A., & Misun, J. (2017). *The importance of control in managerial work*. Paper presented at the International Conference Socio-Economic Perspectives In the Age of XXI Century Globalization, Tirana, Republic of Albania: University of Tirana, Faculty of Economy, Department of Economics.

Celestin, M. (2021). *Planning budgeting and budgetary control techniques and essentials* (1st ed.). USA: International Journal of Scientific Advances.

Chong, V. K., & Chong, K. M. (2002). Budget goal commitment and informational effects of budget participation on performance: A structural equation modeling approach. *Behavioral Research in Accounting*, *14*(1), 65-82. https://doi.org/10.2308/bria.2002.14.1.65

Crosson, S. V., & Needles, B. E. (2011). *Managerial accounting* (9th ed.). USA: South-Western, Cengage Learning.

Datar, S. M., & Rajan, M. V. (2021). *Horngren's cost accounting a managerial emphasis* (17th ed.). USA: Pearson Education.

Dopson, L. R., & Hayes, D. K. (2017). *Managerial accounting for the hospitality industry* (2nd ed.). USA: John Wiley & Sons, Inc.

Garrison, R. H., Noreen, E. W., & Brewer, P. C. (2021). *Managerial accounting* (17th ed.). New York, USA: McGraw-Hill Education.

Gupta, M., & Deena, P. (2021). Impact of budgeting, planning and controlling on the profitability of manufacturing company. *International Journal of Aquatic Science*, *12*(02), 2641-2650.

Hilton , R. W., & Platt , D. E. (2020). *Managerial accounting: Creating value in a dynamic business environment* (12th ed.). New York, USA: McGraw-Hill Education.

Ibrahim , R. S. (2014). *The role of budgetary planning as a tool for planning, control, motivation in performance evaluation (Middle East University Case Study)*. Master Thesis, Middle East University.

Indrani, M. W., Wickremasinghe, G., & Naidoo, M. (2019). Patterns of executing budgeting as a tool of planning and control: with special reference to listed companies in Sri Lanka. *International Journal of Accounting & Business Finance*, *5*(2), 46-75.

Isaac, L., Lawal, M., & Okoli, T. (2015). A systematic review of budgeting and budgetary control in government owned organizations. *Research Journal of Finance and Accounting*, *6*(6), 1-11.

Jonick , C. (2017). *Principles of managerial accounting*. Dahlonega, Georgia: University of North Georgia Press.

Lawal , B. A. (2014). Budgeting and budgetary control in the manufacturing sector of Nigeria. *Research Journal of Social Science and Management*, *4*(1), 7–17.

Mir, M. S., Yatoo, G. H., Khan, A., & Kumar, S. (2021). *Management science, theory, and practice (for Hospital and Hospital Admenstrator)*. New Delhi, India: Scripown Publications.

Mohamed, A. I., Ahmed, A. H., & Nor, A. M. (2022). The impact of budgetary control on manufacturing firms' financial performance Mogadishu - Somalia. *Neuro Quantology*, *20*(6), 4741-4755.

Narkunienė, J., & Ulbinaitė, A. (2018). Comparative analysis of company performance evaluation methods. *Entrepreneurship and Sustainability Issues*, *6*(1), 125-138. https://doi.org/10.9770/jesi.2018.6.1(10)

Odetoyinbo, Y. O., Adeyemi, A. A., Hassan, A. E., Adebisi, R. O., & Adegbola, M. M. (2020). Effect of budget on internal control of manufacturing. *International Journal of Academic and Applied Research*, *4*(9), 51-66.

Robbins , S. P., & Coulter, M. A. (2017). *Management* (14th ed.). U.K: Pearson.

Saudiexchange. (2018). *ESG guidelines*. Retrieved from https://www.saudiexchange.sa

Simidi, J. W., Ojera, P., & Odhiambo, A. (2021). Effect of budgetary control on financial performance: A comparative study of sugar manufacturing companies in Western Kenya. *IOSR Journal of Economics and Finance*, *12*(5), 58-68.

Taber, K. S. (2018). The use of Cronbach's alpha when developing and reporting research instruments in science education. *Research in Science Education*, *48*(2), 1273-1296.

Van Griethuijsen, R. L., Van Eijck , M. W., & Haste, H. (2015). Global patterns in students' views of science and interest in science. *Research in Science Education*, *45*(4), 581–603.

Warren, C. S., & Tayler, W. B. (2020). *Managerial accounting* (15th ed.). USA: Cengage, Boston.

Whitecotton, S., Libby, R., & Phillips, F. (2020). *Managerial accounting* (4th ed.). New York, USA: McGraw-Hill Education.

Williams, C., Champion, T., & Hall, I. (2018). *MGMT: principles of management* (3rd ed.). Ontario, Canada: Nelson Education Ltd, W. Ross MacDonald School Resource Services Library.