The Role of Forecasting and Budgeting Data Accuracy in Improving Organizational Performance

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ABSTRACT

This study investigates the impact of forecasting and budgeting accuracy on organizational performance in mid-to-large-sized firms from the manufacturing and service sectors. A quantitative, correlational research design was employed, integrating both primary data—collected via structured questionnaires from financial professionals—and secondary data from archival financial records. Stratified random sampling was used to ensure sectoral and organizational size representation. To ensure rigorous analysis, SPSS software was utilized for descriptive statistics, Pearson correlation, and multiple regression analysis, enabling a robust evaluation of relationships between financial planning accuracy and key performance indicators. Descriptive findings revealed that 72% of firms use time-series or regression-based forecasting, while 64% prefer flexible or rolling budgets. The average forecasting error (MAPE) was 12.4%, and the budgeting variance averaged 9.7%, indicating moderate precision levels. Correlation analysis revealed significant associations between forecasting and budgeting accuracy and financial performance metrics, including ROI, ROA, and operating margin. Regression results confirmed that planning accuracy significantly predicts organizational outcomes. These results support key theories, including Agency, Stakeholder, and Contingency Theory, and emphasise the importance of data-driven, adaptive financial planning. The findings advocate for broader adoption of modern forecasting tools and participative budgeting to enhance strategic decision-making and sustainable performance.

Keywords—Forecasting accuracy, budgeting variance, organizational performance, SPSS, financial planning, MAPE, regression analysis.

INTRODUCTION

Effective budgeting and forecasting processes are necessary in organisations that wish to achieve their financial objectives, maximise their resource planning, and remain financially sound in the modern fast and competitive business environment. Budgeting and forecasting are invaluable tools to financial planning, decision-making, and evaluation of performance as it details a path to be followed in the management of financial resources and the navigation of the volatile market conditions. This comprehensive guide will take you through the steps of developing and implementing an effective company budget and forecast by exploring the basic concepts, strategies and best practices within the discipline [1].

Budgeting and forecasting are two of the most important aspects of financial management that can help organisations better distribute resources, set goals, and tie financial plans to broader organisational goals. They assist businesses to anticipate possible issues, identify potential opportunities and refine their strategy by showing their financial performance in the future. They ensure that there is good utilisation of funds through fostering responsibility, openness, and discipline. It is paramount to collect data and analyse it. Analysis of past data and the application of modern analytics provide a good way to gain insightful information. Flexibility in resource distribution and objective setting is offered by many budgeting systems, including top-down, bottom-up, and zero-based budgeting. Organisations can benefit from scenario planning and sensitivity analysis in a number of ways, including the ability to foresee and plan for future events, assess the possible influence on financial outcomes, and develop efficient backup plans. Alignment with the priorities, goals, and objectives of the company cannot occur without stakeholder participation. Thanks to technological advancements, businesses

may now use cutting-edge analytical tools and complex software solutions, completely revolutionising the process. Improving financial performance, lowering risks, and taking advantage of opportunities all need a commitment to continuous improvement [2].

A. Research Problem

Despite the critical role of financial planning, many organizations struggle to align their forecasts and budgets with actual performance. The existence of this gap is usually due to the inability to deal with the changing market conditions, data quality concerns, or over-optimism. Budgeting errors may result in over- or under-allocation of resources, which ends up impacting on profitability as well as limiting strategic choices. Furthermore, unreliable forecasts and budgets can erode internal trust, introduce operational inefficiencies, and undermine stakeholder confidence in the organization's leadership.

B. Contribution and Objectives of the Paper

This study contributes to the growing literature on strategic financial planning by giving empirical evidence that direct links between planning accuracy and organisational performance. With its combination of quantitative performance outcomes alongside the organisational context variables, such as the use of technology and leadership relationships, it bridges the divide between the theory and practice.

The study is intended to fulfill the following main objectives:

- To analyze the relationships between how well organizations can forecast and budget and their performance, particularly their financial performance, ability to implement strategies and how competitive they are.

- To determine and assess things that can impact how accurate financial forecasting and budgeting are, for example, technological tools, the quality of data, the company's structure, the experience of leaders and changes in the external environment.

C. Significance of the Study

The findings of this research will provide valuable insights for financial managers, strategic planners, and policymakers in both the private and public sectors. By clarifying the link between planning accuracy and organizational outcomes, the study supports the development of more reliable, data-driven planning processes. Ultimately, this contributes to greater organizational flexibility, resilience, and long-term sustainability in an increasingly uncertain business landscape.

LITERATURE REVIEW

There is need to study the key theoretical foundations, practical tools and emerging trends of financial planning to understand the impact of precision forecasting and budgeting on the success of organisations.

The section discusses pertinent management theories, forecasting and budgeting approaches, and performance measurement systems that affect financial decision-making. It also gives some highlights of significant literature gaps and lack of empirical research on the relationship between planning accuracy and performance outcomes.

D. Theoretical Framework

To analyze the effect of accuracy in forecasting and budgeting data on performance of organizations it is important to look at a number of pre-existing theories:

1) Agency Theory

The Agency Theory reveals the conflicts that regularly occur between owners (principals) and managers (agents) due to their differing goals. These conflicts can occur in the budgeting context when managers

deliberately overstate or understate budget estimates in order to make the targets easier to achieve [3]. This kind of behaviour may hinder the performance of an organization because it misaligns the actions of managers with the overall objectives of the organization. These agency problems can be lessened by enhancing the accuracy and transparency of forecasting and budgeting so as to create a better fit between management and organizational goals. [4]

2) Stakeholder Theory

The Stakeholder Theory takes it a step further to include employees, customers, suppliers and the community at large [5]. The creation of confidence and responsibility among all stakeholders depends on the ability to generate accurate financial forecasting and budgeting. Open and consistent financial strategies are indicators that the management is responsible and this can boost the confidence and backing of stakeholders [6]. Recent studies indicate that not only does taking into account the interests of the stakeholders in financial planning and capital budgeting decision improve the subject of trust, but it also has a positive impact on long-term performance of an organization [7].

3) Contingency Theory

Contingency Theory assumes that different organizations cannot be controlled according to the same principles; the efficiency of forecasting and budgeting practices of organizations is determined by the environment and inner conditions [8]. Companies with very dynamic or uncertain nature of the industry find it easier to use flexible budget and rolling forecasts as opposed to rigid, traditional plan. Adaptive forecasting and budgeting techniques enable organizations to better respond to the changes in environment and thus enhance the performance results [9].

E. Forecasting in Management

Forecasting is a significant management role to predict the future events and guide planning and resource allocation. Proper forecasting would help organizations to predict changes, efficiently utilize resources, and come up with informed decisions that would help in improving performance [10]. There exist two main methods of forecasting that are normally used by managers:

1) Qualitative Forecasting

In situations where the past data is scarce or where the information is highly uncertain, the Delphi technique is usually applied by the managers. This strategy collects knowledge and opinion of a group of experts to help organizations take advantage of group wisdom and especially in new or fast-evolving environments.

2) Quantitative Forecasting

In the quantitative forecasting, mathematical calculations and historical data are employed to predict probable tendencies. Some of the most widespread methodologies include machine learning algorithms, regression approaches, and time series analysis [11]. These techniques employ past trends to produce objective and data-driven forecasts [12].

3) Evaluating Forecast Accuracy

In order to determine the reliability of the forecasting models, firms rely on a few important parameters, as shown in the Table I below:

TABLE I. FORECASTING MODELS

Metric	**Description**
Mean Absolute Percentage Error (MAPE)	This metric calculates the typical margin of error between predicted and observed values.

Root Mean Square Error (RMSE)	Calculates the root of the average squared difference between the expected and actual values.
Mean Absolute Deviation (MAD)	Calculates the average absolute difference between forecasted and actual outcomes.

The metrics provide an understanding of how accurate the forecasting models are, enabling managers to spot the areas of improvement [13].

F. Budgeting in Organizations

A budget is the most basic tool of management that helps companies organize their activities and maintain them in line with their strategic goals. Effective budgeting helps managers to implement resource allocation, performance targets and monitoring progress in their organizational goals [14].

1) Types of Budgets

The key element in organization planning and control is good budgeting. Variously specified budgeting models address different levels of environmental stability, operational complexity, and summon flexibility.

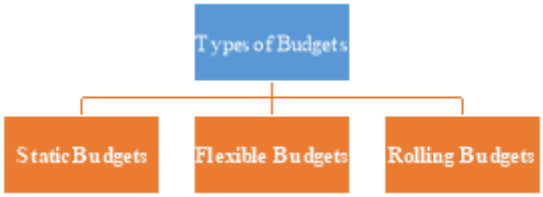

Fig. 1. Types of Budgets

Source: Self-Generated

Three main categories of budgets that are usually used by organizations are highlighted as static, flexible, and rolling, budgets (Figure 1):

- **Static Budgets:** Static budgets are fixed during the budget period and mainly work optimally in a stable environment where there are predictable activities and costs. They are easier to use as a gauge against which performance can be measured but are inflexible in the dynamic environments [15].

- **Flexible Budgets:** Flexible budgets enable organisations to respond to fluctuation in operations or in the market environment more easily since it responds to changes in the level of activity. This flexibility enables them to do more accurate management of the performance and efficiently utilize the available resources [15].

- **Rolling Budgets:** Rolling budgets are revised frequently (once a month or once in three months) in order to incorporate new data and forecasts. The method can help to increase organizational agility through quicker response to new opportunity and threats and more active planning [16].

2) Monitoring and Analysing Budget Performance

Budget performance monitoring is necessary frequently. This is the process of analysing variances i.e. differences between actual and budgeted results and taking corrective actions as and when required. The variance analysis will help the managers to point out areas of concern, the root cause, and also put effective measures to improve the performance in the future [17].

The study by Jordan and Messner, (2020) is one of the latest accounting studies that have emphasized on the use of rolling forecasts as a dynamic planning tool to facilitate the improvement of planning quality. Correspondingly, we explore the prospects of performance control mechanism premised on indications of forecast accuracy. The case study of a manufacturing firm that began to monitor the accuracy of the sales

forecasts that they made enabled them to trace two main barriers, which included the uncontrollability of the measure, as well as goal congruence issues. Their findings emphasise the significance of organisational setting and adjustment in identification of the effectiveness of forecast accuracy as performance dictate [18].

G. Organizational Performance

The performance of an organization is measured using a number of financial and non-financial indicators that presents a complete picture of how well the organization performs against its strategic and operational goals [19]. The financial measures gauge the profitability and cost effectiveness whereas the non-financial measures determine the capabilities and satisfaction of the internal stakeholders which are the key factors to maintain the long term sustainability and attainment of a competitive advantage.

Table II describes the general indicators of the key performance (KPIs) that are typically applied to assess the effectiveness of the organizational work according to both categories.

TABLE II. KEY FINANCIAL AND NON-FINANCIAL PERFORMANCE METRICS USED TO EVALUATE ORGANIZATIONAL PERFORMANCE

Performance Category	**Metric**	**Description**
Financial	Return on Investment (ROI)	Measures the return generated on invested capital.
	Return on Equity (ROE)	Indicates how efficiently shareholder equity is used to generate profits.
	Cost Efficiency	Assesses how well expenses are managed relative to output.
	Revenue Growth	Tracks the year-over-year increase in sales or income, reflecting market growth.
Non-Financial	Customer Satisfaction	Evaluates how well customer needs and expectations are fulfilled.
	Employee Engagement	Gauges employee motivation, commitment, and retention levels.
	Innovation Capability	Measures the development of new products, services, or internal processes.
	Operational Effectiveness	Assesses process efficiency and alignment with strategic objectives.

Table II reflects that in their performance management systems, organizations need to develop both the financial as well as the non-financial indicators to provide a well-rounded perspective. Effective resource allocation, performance benchmarking, and data-based decision-making are most valuable results that can be achieved with accurate forecasting and budgeting [20].

1) The Role of Accurate Forecasting and Budgeting

Corporate accounting has become an imperative part of the contemporary operation of a company as the backbone of the contemporary financial management and reporting. It involves strict accounting of financial activities of a company and subsequent analysis and interpretation of the documents to come to a correct conclusion concerning the financial position of a company. Financial accounting is the part of accounting, in which the focus is only on activities and transactions occurring within a company or other legal entity [20].

To experience good performance on these measures, precise forecasting and budgeting is crucial. Accurate predictions help organisations prepare in advance, plan their resources strategically, and act in advance to the

changes by the business environment. Effective cost management is possible using realistic budgets which make sure that financial resources are kept in line with organisational strategies.

Precise financial planning can help organisations to attain their Key Performance Indicators (KPIs) and strategic goals by giving a sound base on their planning and decisions. On the other hand, the inaccuracies in forecasting and budgeting may result to the improper decisions, mis-allocation of resources, and unreliable performance evaluation, which negatively affects the sense of accountability and organisational direction [21].

H. Limitations in Existing Literature

Despite a substantial body of research on forecasting and budgeting processes, several important gaps persist:

1) Limited Direct Evidence Linking Accuracy to Performance Outcomes

Although a large number of studies consider forecasting and budgeting to be two distinct processes, there is a dearth of research ascribing accuracy of the corresponding processes to certain performance outcomes in an organisation. Most of the available literature offers descriptive or methodological information but lacks substantial empirical evidence on the effect of enhancing the level of forecasting and budgeting accuracy leading to quantitative increases in performance.

2) Insufficient Industry-Specific Analysis:

There are no detailed evaluation reports that take into consideration the peculiarities of quickly evolving and innovative industries, including technology, healthcare, and energy. This could be a weakness that may compromise the applicability and current models because the volatility and the rate of innovation in the industry largely determines how accurate the financial planning will be.

3) Underrepresentation of Technological Advancements:

The emerging technologies such as artificial intelligence, machine learning and the developed ERP systems are frequently not mentioned in the classical literature. The technologies have been quickly reshaping the forecasting and budgeting processes but its impacts on the accuracy and organizations performances are under-researched empirically.

Under these gaps, there is an urgent need to conduct modern studies that can utilize the current data and approaches in order to quantify the effectiveness and precision of financial planning under various organizational settings, and in various industries. These limitations will be addressed to offer clear information on how forecasting and budgeting accuracy can spur organizational performance under the dynamic environment of the current business environment.

METHODOLOGY

The section presents the research method employed in researching the relation between accuracy in forecasting and budgeting and performance in organizations. It includes the information on the design and target population of the study, describing the data collecting methods and variables, as well as the techniques of the analytical part to provide a controlled and consistent procedure to extract the meaningful data that could be generalized in the future.

Research Design

This research will use a correlational and quantitative type of research design that will be exploring the association that exists between the quality of forecasting and budgeting with organisational performance. This is non-experimental and observational approach, which makes it possible to analyze the strength and direction of associations without controlling variables. The evidence is obtained through primary sources (perceptual data of financial experts) and secondary sources (historical data on financial records and past performance data) hence improving the validity and reliability of the results.

Population and Sample

The research is focused on medium-sized to large companies working in manufacturing and service industries, as such institutions normally have developed financial planning and reporting systems. These sectors were selected to examine the accuracy of planning in environments of different complexity and stability of operations [22].

A stratified random sampling method was applied to ensure representation across:

- Industry (Manufacturing vs. Services)
- Firm size (Mid-sized vs. Large)

This stratification improves the generalizability of results and reduces sampling bias, ensuring that key organisational contexts are reflected in the analysis [23].

I. Data Collection Methods

Data collection involved both primary and secondary sources:

- **Primary Data Collection:** Primary data was derived using structured questionnaires which were administered to Chief Financial Officers (CFOs), finance controllers and senior finance analysts. The survey was also composed of Likert-scale questions to assess the perception of the rates of accuracy in forecasting and budgeting, and the facilitating factors of accuracy technology adoption, market volatility, and team dynamics experience.

- **Secondary Data Collection:** As a secondary data, we used historical financial data that would allow us to make an objective comparison of how well organizations have performed through their forecasts and budgets over a period of time. Such a two-sided strategy provides blanket evaluation of perceived and actual accuracy in financial planning.

Ethical standards of research were all followed such as voluntary participation, confidentiality, and informed consent.

J. Variables of the Study

In the study, we are using a series of the independent and dependent variables whose summary Table III will outline. The key predictors are the accuracy of forecasting and budgeting, whereas the performance of the organization is evaluated using the generally accepted financial measures as ROA, profit margin, revenue increase, and cost effectiveness [24].

TABLE III. SUMMARY OF KEY VARIABLES AND THEIR INTERPRETATIONS

Variable Type	Variable Name	Measurement Method	Interpretation
Independent Variable	**Forecasting Accuracy**	Mean Absolute Percentage Error (MAPE) between forecasted and actual financial results.	Lower MAPE indicates more accurate forecasting, reflecting better planning and market anticipation. [25]
Independent Variable	**Budgeting Accuracy**	Variance analysis between planned vs. actual revenues and expenses.	Smaller variance signifies greater budgeting precision and financial discipline.
Dependent Variable	**Return on Assets (ROA)**	Net income / Total assets	Indicates how efficiently a company uses its assets to generate profits.

Dependent Variable	**Profit Margins**	Net profit / Revenue	Reflects the profitability of the organisation after covering costs.
Dependent Variable	**Revenue Growth Trends**	Year-over-year revenue change (%)	Captures the company's ability to expand operations and market share.
Dependent Variable	**Revenue-to-COGS Ratio**	Revenue / Cost of Goods Sold	Measures operational efficiency; a higher ratio implies better cost control relative to revenue.[24]

K. Methods for Data Analysis

The collected data were analysed with a combination of the descriptive and inferential statistical methods:

1) Descriptive Statistics

The descriptive statistics was employed in summarising and organising various data associated with forecasting and budgeting practices.

2) Sector-Based Comparative Analysis

In order to measure the disparities between industries, within industry (sector-wise) comparisons have been made based on mean values in terms of forecasting and budgeting accuracy. These comparisons facilitated the determination of the differences existing in the planning practices in manufacturing and service industries.

3) Correlation Analysis

The strength and the direction of relationships between differences in single-point scale estimates of different variables was determined by using Pearson correlation analysis between:

- The accuracy in forecasting, and the indicators of financial performance.
- Accuracy of budgeting and organisational results.

This method helped explore linear associations between variables without implying causality.

4) Multiple Linear Regression

Multiple regression analysis was used to evaluate the predictive influence of forecasting and budgeting accuracy on organisational performance metrics. This enabled the identification of statistically significant predictors while accounting for potential confounding variables.

RESULTS

This section provides an empirical research of the study, examining the impacts of forecasting and budgeting accuracy to organizational performance. It contains descriptive statistics, correlation table, multiple regression results and industry comparisons.

L. Descriptive Statistics on Forecasting and Budgeting Practices

This section provides an overview of the forecasting and budgeting approaches employed by mid-to-large-sized firms in the manufacturing and service sectors. The data highlights key patterns in methodology, adoption levels of modern planning tools, and performance variance across industries.

1) Forecasting Methodologies Used

Organizations vary in their approach to forecasting and budgeting, influenced by internal capacity and environmental volatility. Figure 2 below summarizes the distribution of methods adopted by firms.

As can be seen in the above fig 2. results indicate that 72% of organisations prefer time-series or regression models, reflecting a strong reliance on data-driven forecasting. Flexible or rolling budgets are used by 64%, indicating a shift toward adaptable planning methods, while 36% still adhere to traditional annual budgeting. Qualitative forecasting is less common (28%) and is typically used in uncertain environments. The average forecasting error (MAPE) of 12.4% and budgeting variance of 9.7% suggest moderate accuracy levels, highlighting opportunities to further improve precision in financial planning and execution.

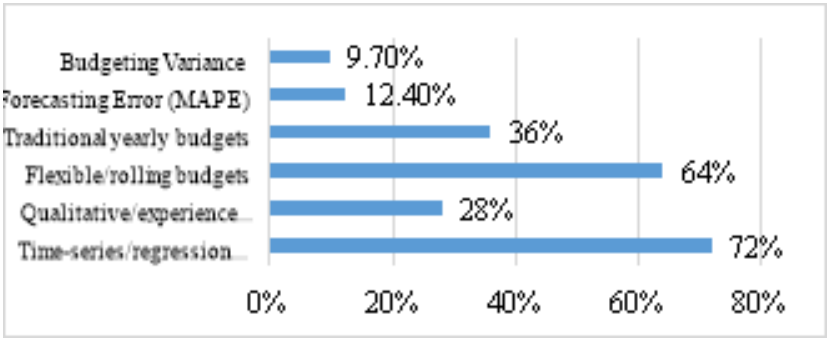

Fig. 2. Forecasting and Budgeting Approaches (%)

2) Forecasting Accuracy Across Sectors

The accuracy of forecasting significantly varied across sectors. As measured by Mean Absolute Percentage Error (MAPE) (Table IV):

- Manufacturing firms reported a mean MAPE of 10.2%
- Service firms exhibited a higher mean MAPE of 14.5%

TABLE IV. FORECASTING ACCURACY BY INDUSTRY SECTOR (MAPE)

Sector	**Mean MAPE (%)**
Manufacturing	10.2
Services	14.5

This variation reflects the relative predictability of input variables and demand trends in manufacturing compared to the often volatile, intangible-driven nature of service industries. The visual representation of this can be seen in the following Fig. 3:

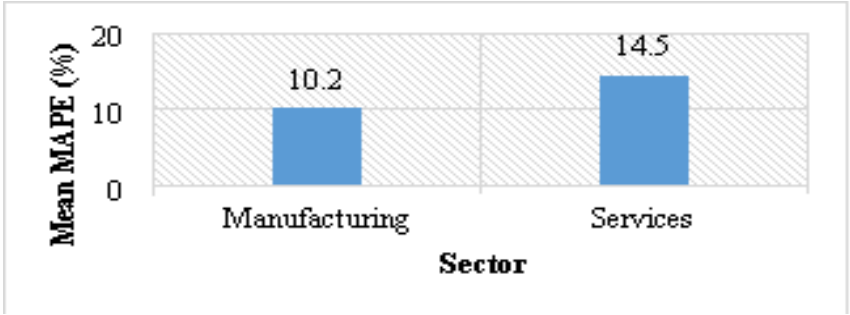

Fig. 3. Mean Forecast Error (MAPE) by Sector

The descriptive analysis reveals a distinct organizational preference for quantitative forecasting and flexible budgeting methods. However, the forecasting and budgeting accuracy remains variable, with manufacturing sectors consistently outperforming services in both domains. [26]

M. Correlation Analysis

This section explores the relationships between forecasting and budgeting accuracy and key organizational performance metrics. Pearson correlation analysis was used to quantify the direction and strength of these associations.

Table V presents the correlation coefficients (r-values) along with the corresponding p-values, indicating the statistical significance of each relationship.

TABLE V. PEARSON CORRELATION BETWEEN ACCURACY MEASURES AND PERFORMANCE METRICS

Performance Metric	**Forecasting Accuracy (r)**	**p-value**	**Budgeting Accuracy (r)**	**p-value**
Return on Investment (ROI)	-0.68	0.001	-0.55	0.005
Revenue Growth	-0.61	0.004	-0.50	0.008
Operating Margin	-0.48	0.015	-0.59	0.003
Return on Assets (ROA)	-0.52	0.010	-0.63	0.002

The results indicate that organizations with more accurate forecasts (lower Mean Absolute Percentage Error) tend to report higher ROI (r = -0.68) and greater revenue growth (r = -0.61). Similarly, better budgeting accuracy (lower variance) correlates with stronger operating margins (r = -0.59) and higher ROA (r = -0.63). Figure 4 visually represents the strength of these relationships using a heatmap.

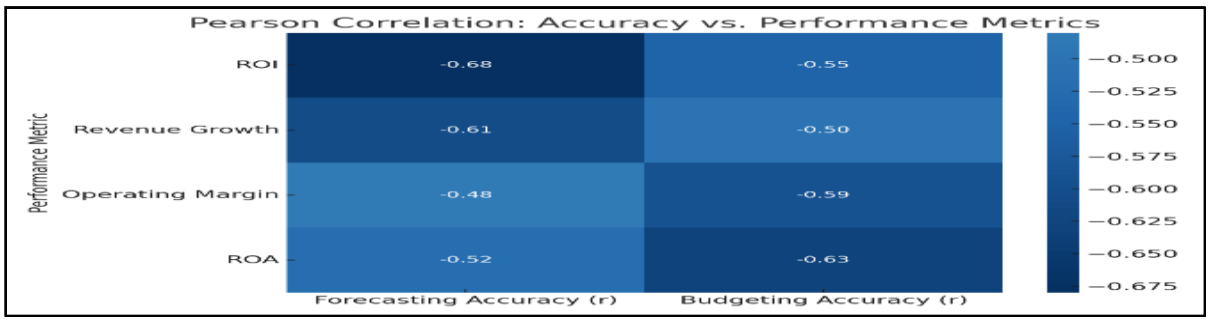

Fig. 4. Pearson Correlation Heatmap – Accuracy vs. Performance

These statistically significant relationships suggest that enhancing financial planning accuracy may be a viable strategy for improving organisational performance across both manufacturing and service sectors. These findings are consistent with prior empirical studies that associate precise financial planning with superior performance outcomes [27] [28].

1) Findings of Multiple Linear Regression

This section presents the findings from multiple regression analysis conducted to examine the predictive power of forecasting and budgeting accuracy on organizational performance metrics.

TABLE VI. REGRESSION ANALYSIS - FORECASTING AND BUDGETING ACCURACY AS PREDICTORS OF ORGANIZATIONAL PERFORMANCE

Predictor Variable	**Dependent Variable**	**β (Beta Coefficient)**	**p-value**
Forecasting Accuracy	ROI	**-0.45**	< 0.01
Forecasting Accuracy	Revenue Growth	**-0.39**	< 0.01
Budgeting Accuracy	ROA	**-0.41**	< 0.01
Budgeting Accuracy	Operating Margin	**-0.44**	< 0.01

The regression results confirm that forecasting and budgeting accuracy are statistically significant predictors of organizational performance. Specifically, forecasting accuracy shows the strongest influence on ROI (β = -0.45) and revenue growth (β = -0.39). Budgeting accuracy has a significant influence on ROA (β = -0.41) and operating margin (β = -0.44), both at the 5% significance level.

These results affirm previous research that links planning precision with superior financial outcomes [29] [30]. Additionally, the regression model found that service firms, particularly smaller ones, benefit from improved forecasting accuracy when leveraging technology. In contrast, larger manufacturing organizations exhibited greater predictive stability due to structured planning systems and investment in forecasting tools.

2) Industry Comparisons

A cross-industry analysis was conducted to examine how forecasting and budgeting accuracy, as well as their corresponding impact on performance, varied between manufacturing and service firms. This analysis found that manufacturing companies outperformed service companies in terms of forecasting and budgeting accuracy, as well as overall financial performance. This is because they had more precisely defined cost structures, a history of production, and lower input volatility. There were, nonetheless, several high-performing service companies employing AI-based planning platforms whose accuracy is comparable to the best-performing producers. Key outputs of this can be seen in the following Table VII:

TABLE VII. INDUSTRY COMPARISONS – FORECASTING/BUDGETING ACCURACY AND PERFORMANCE

Industry Sector	**Manufacturing**	**Services**
Forecasting or Budgeting Accuracy	Higher	Lower (on average)
Financial Performance	Stronger	Weaker (on average)
Key Factors/Notes	More precise cost structures, stable production, lower input volatility	Greater volatility, less predictable inputs; however, some high performers use AI-based planning platforms to achieve accuracy comparable to top manufacturers

CONCLUSION AND DISCUSSION

This study examined the relationship between forecasting and budgeting accuracy and organizational performance among medium and large-sized companies in both the manufacturing and service sectors. The results revealed that the majority of organisations employ quantitative forecasting methods and increasingly

favour flexible or rolling budgets over traditional annual budgets. Manufacturing firms generally demonstrated higher forecasting and budgeting accuracy, attributed to stable operations and well-defined cost structures, while some service firms matched this performance by leveraging advanced AI-based planning tools. Statistical analyses confirmed that greater accuracy in forecasting and budgeting is strongly associated with improved financial outcomes, including higher ROI, ROA, operating margins, and revenue growth. Effective financial planning and precise forecasting were shown to be critical drivers of superior performance, regardless of company size or sector.

Overall, this research demonstrates that accurate forecasting and budgeting are not only technical necessities but strategic imperatives that drive organizational success. Companies that invest in data-driven, adaptive planning processes are better equipped to achieve superior financial results and maintain a competitive edge in dynamic environments.

N. Theoretical and Practical Implications

The study offers both theoretical and practical contributions. By demonstrating how accurate forecasting and budgeting reduce managerial slack and align actions with organisational goals, it supports Agency Theory. The positive effects of open and participatory budgeting on organisational engagement and trust strengthen stakeholder theory. Companies employing flexible, rolling projections performed better in risky situations, validating contingency theory. Practically, the findings emphasise the importance of using AI-powered tools and adaptable planning models to enhance accuracy, responsiveness, and strategic decision-making, while also fostering accountability and organisational flexibility.

O. Limitations and Future Work

There are various restrictions on this study. Its focus on mid-to-large manufacturing and service enterprises, along with its geographical and sectoral limitations, may limit its wider usefulness. Accurate planning may have long-term effects on performance that are not reflected in the short-to-medium time frame. Furthermore, response bias may be introduced by using financial professionals' self-reported data.

In order to enable comparative study across economic situations, future research should broaden to encompass a variety of industries and global contexts. It is advised to conduct longitudinal research to document the long-term impacts of careful planning. Utilising AI-based forecasting tools or real-time, system-generated data from ERP systems could enhance objectivity. More research into cutting-edge technologies like predictive analytics and machine learning would provide more light on how well they work in contemporary financial planning “.

REFERENCES

1. M. K. Madiba, “Relationship Between Sales Budget And Profitability At,” 2023.
2. A. Sargeant and J. George, Fundraising Management, 4th Editio. London: Routledge, 2021. doi: 10.4324/9781003097433.
3. R. Mulenga and C. Kelvin, “Examining perceived effectiveness of budgetary allocation and resource management in public institutions: A case study of the Zambia corrections services headquarters,” Int. J. Humanit. Educ. Res., vol. 7, no. 1, pp. 247–259, Jan. 2025, doi: 10.33545/26649799.2025.v7.i1c.154.
4. K. O. Praskah, K. A. Abdullah, R. Daoud, Y. Moulana, and M. T. Matriano, “The Budgeting and Forecasting Analysis and The Impact on Company Financial Performance and Strategic Decision-Making,” Glob. Sci. Journals, vol. 12, no. 6, pp. 2133–2157, 2024.
5. M. G. Danielson, K. M. Hogan, and G. T. Olson, “Shareholder theory, stakeholder theory, and the capital budgeting decision,” Corp. Ownersh. Control, vol. 21, no. 2, pp. 37–44, 2024, doi: 10.22495/cocv21i2art3.
6. H. Ji, S. Sheng, and J. Wan, “Corporate Social Responsibility Practices and Financial Performance of New Ventures: The Moderating Role of Government Support,” Sustain., vol. 16, no. 3, p. 1328, Feb. 2024, doi: 10.3390/su16031328.
7. J. V. Dossa, C. C. Ukwuoma, D. Thomas, J. M. Dossa, and A. A. Gopang, “Prediction of nexus among

ESG disclosure and firm Performance: Applicability, explainability and implications," Innov. Green Dev., vol. 4, no. 4, p. 100261, Aug. 2025, doi: 10.1016/j.igd.2025.100261.
8. B. Vaszkun and S. Koczkas, "Contingency Theory," 2024, pp. 22–31.
9. J. S. Armstrong, "Evaluating forecasting methods BT - Principles of forecasting: A handbook for researchers and practitioners," in Principles of forecasting: A handbook for researchers and practitioners, no. 14, 2001. [Online]. Available: http://link.springer.com/chapter/10.1007/978-0-306-47630-3_20%5Cnpapers2://publication/uuid/5C8EB5C8-D580-4BF9-8997-07C52A8E2288
10. A. Bacia and K. P. Extension, "Developing Effective Budgeting and Forecasting Techniques," Res. Invent. J. Curr. Res. Humanit. Soc. Sci., vol. 3, no. 1, pp. 71–75, 2024.
11. R. Polkampally, "The Impact of AI on Economic Forecasting Accuracy: A Study of Recent Innovations and Their Limitations," Int. J. Multidiscip. Res., vol. 7, no. 1, pp. 1–31, 2025, doi: 10.36948/ijfmr.2025.v07i01.33302.
12. C. S. Bojer, "Understanding machine learning-based forecasting methods: A decomposition framework and research opportunities," Int. J. Forecast., 2022, doi: 10.1016/j.ijforecast.2021.11.003.
13. J. Hope and R. Fraser, "How Managers can break free from the annual performance trap," Exec. B. Summ., 2003.
14. A. Aidoo-Anderson, Y. Polychronakis, S. (Stelios) Sapountzis, and S. Kelly, "Investigating demand forecasting practices and challenges in Ghana's Manufacturing Pharmaceutical (MPharma) small and medium enterprises (SMEs): insights and recommendations," Int. J. Prod. Res., pp. 1–22, Jun. 2025, doi: 10.1080/00207543.2025.2508335.
15. S. Mannes, A. B. Frare, and I. M. Beuren, "Effects of using static and flexible budgets on process and product innovation," Rev. Contab. e Organ., 2021, doi: 10.11606/issn.1982-6486.rco.2021.180829.
16. A. Bhimani, P. Sivabalan, and K. Soonawalla, "A study of the linkages between rolling budget forms, uncertainty and strategy," Br. Account. Rev., 2018, doi: 10.1016/j.bar.2017.11.002.
17. W. A. V. der S. Kenneth A. Merchant, Management Control Systems: Performance Measurement, Evaluation and Incentives, Illustrate. Financial Times/Prentice Hall, 2007, 2007.
18. S. Jordan and M. Messner, "The Use of Forecast Accuracy Indicators to Improve Planning Quality: Insights from a Case Study," Eur. Account. Rev., vol. 29, no. 2, pp. 337–359, Mar. 2020, doi: 10.1080/09638180.2019.1577150.
19. A. Gutterman, "Organizational Performance and Effectiveness," 2023.
20. A. S. D. Lakshmi V, "Assessing the Influence of Budgeting and Forecasting Accuracy on Financial Performance in Corporate Accounting using SPSS Statistics," Trends Financ. Econ., vol. 1, no. 3, pp. 26–36, Sep. 2023, doi: 10.46632/tfe/1/3/4.
21. 2017. Creswell, J.W. and Creswell, J.D., "Research design: Qualitative, quantitative, and mixed methods approaches," 2017.
22. J. F. Hair, W. C. Black, B. J. Babin, and R. E. Anderson, "Multivariate Data Analysis," 2010. doi: 10.1016/j.ijpharm.2011.02.019.
23. T. D. Nguyen, M. H. Shih, D. Srivastava, S. Tirthapura, and B. Xu, "Stratified random sampling from streaming and stored data," Distrib. Parallel Databases, 2021, doi: 10.1007/s10619-020-07315-w.
24. E. Shenurti, D. Erawati, and S. Nur Kholifah, "Analisis Return on Asset (ROA) , Return on Equity (ROE) dan Corporate Social Responsibility (CSR) yang mempengaruhi Nilai Perusahaan pada Perusahaan Manufaktur," J. Akunt. dan Manaj., 2022, doi: 10.36406/jam.v19i01.539.
25. M. F. Khan, S. Asghar, M. I. Tamimi, and M. A. Noor, "Multi-Objective Transport System Based on Regression Analysis and Genetic Algorithm Using Transport Data," IEEE Access, 2019, doi: 10.1109/ACCESS.2019.2918217.
26. D. N. Gujarati and D. C. Porter, "Basic Econometrics," 2009.
27. E. R. Laurent Ndatimana, "Effect of a Budgetary Control System on the Financial Performance of Manufacturing Companies in Rwanda. A Case Study of Kinazi Cassava Plant," J. Res. Innov. Implic. Educ., Apr. 2025, doi: 10.59765/48207rg.
28. A. S. Hussein and O. Fredrick, "Effect of Financial Planning on Financial Performance of Parastatals in

Mombasa County Kenya," Int. J. Res. Innov. Soc. Sci., vol. VIII, no. XII, pp. 4577–4586, 2025, doi: 10.47772/IJRISS.2024.8120384.

29. C. T. Horngren, G. Foster, S. M. Datar, M. Rajan, C. Ittner, and A. A. Baldwin, "Cost Accounting: A Managerial Emphasis," Issues Account. Educ., 2010, doi: 10.2308/iace.2010.25.4.789.
30. E. Theodorou, E. Spiliotis, and V. Assimakopoulos, "Forecast accuracy and inventory performance: Insights on their relationship from the M5 competition data," Eur. J. Oper. Res., vol. 322, no. 2, pp. 414–426, Apr. 2025, doi: 10.1016/j.ejor.2024.12.033.