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The Role of Fintech, Real-Time Data Analytics, and ERP Systems in Strengthening Budget Accuracy and Strategic Decision-Making in Indonesian Corporate Accounting

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Abstract

The increasing complexity of corporate operations and the growing demand for timely, data-driven decisions have encouraged organizations to integrate digital technologies into their accounting systems to improve budgeting processes and support strategic decision-making. This study examines the role of fintech adoption, real-time data analytics capability, and Enterprise Resource Planning (ERP) system integration in enhancing budget accuracy and strategic decision-making in Indonesian corporate accounting. A quantitative research design was employed, and data were collected from 150 accounting and finance professionals in Indonesian corporations using a structured questionnaire measured on a five-point Likert scale. The data were analyzed using Structural Equation Modeling–Partial Least Squares (SEM-PLS) to examine the relationships among the research variables. The results indicate that fintech adoption, real-time data analytics capability, and ERP system integration have significant positive effects on budget accuracy, indicating that organizations adopting digital accounting technologies are able to produce more accurate, timely, and reliable budgeting information. Furthermore, budget accuracy has a strong positive influence on strategic decision-making, enabling management to make more effective, informed, and forward-looking decisions. The findings also reveal that budget accuracy mediates the relationship between digital accounting technologies and strategic decision-making, suggesting that the strategic impact of digital transformation is largely achieved through improvements in budgeting quality. This study contributes empirical evidence from an emerging economy context and provides practical insights for managers seeking to strengthen budgeting accuracy and strategic decision-making through digital accounting implementation. These results highlight the importance of aligning accounting technology investments with organizational strategy and managerial capabilities development.

Keywords*: Fintech, Real-Time Data Analytics, ERP Systems, Budget Accuracy, Strategic Decision-Making*

1. Introduction

In an increasingly dynamic and competitive business environment, corporate organizations are required to manage financial resources with high levels of accuracy, transparency, and strategic foresight, as budgeting plays a central role in corporate accounting not only as a financial planning tool but also as a strategic instrument that guides managerial decision-making, performance evaluation, and resource allocation. Inaccurate budgets can lead to inefficiencies, misallocation of resources, and weakened strategic outcomes, particularly in volatile markets such as Indonesia's rapidly evolving economic landscape [1], [2]. Alongside these challenges, advances in digital technology have significantly transformed corporate accounting practices, as traditional budgeting systems that rely on historical data and periodic reporting are increasingly viewed as inadequate for supporting timely and strategic decisions [3], [4]. Consequently, organizations are adopting digital solutions such as financial technology (fintech), real-time data analytics, and Enterprise Resource Planning (ERP) systems to enhance the quality and relevance of accounting information, enabling faster data processing, stronger integration across business functions, and more accurate financial forecasting that ultimately strengthen budget accuracy and support effective strategic decision-making [5], [6].

Fintech has emerged as a key driver of innovation in corporate financial management, extending beyond its traditional association with financial services and banking to encompass digital payment systems, automated financial reporting, integrated budgeting tools, and advanced financial monitoring platforms within corporate accounting [7], [8]. By reducing manual processes and improving data reliability, fintech solutions enhance the accuracy and timeliness of budget-related information, offering significant potential to modernize accounting systems and strengthen financial control in the Indonesian corporate context, where firms differ widely in size, digital maturity, and regulatory compliance [9]. In parallel, real-time data analytics has become increasingly important for organizations seeking to respond swiftly to internal and external changes, as it enables continuous monitoring of financial performance, early detection of budget deviations, and prompt corrective actions. Unlike traditional periodic reporting, real-time analytics supports forward-looking and scenario-based decision-making, which is essential for strategic management, and within corporate accounting functions, the ability to analyze financial data in real time further strengthens budget accuracy by allowing timely adjustments based on current operational conditions.

ERP systems further complement fintech and real-time analytics by providing an integrated platform that connects accounting, finance, operations, procurement, and other organizational functions, thereby ensuring data consistency, reducing information silos, and improving cross-departmental coordination. In budgeting processes, ERP integration aligns financial plans with operational data such as production levels, sales forecasts, and inventory information, enhancing the reliability of budget figures and supporting strategic decision-making through a comprehensive and unified view of organizational performance. However, despite the growing adoption of fintech, real-time data analytics, and ERP systems, empirical studies that examine their combined impact on budget accuracy and strategic decision-making remain limited, particularly in emerging economies such as Indonesia. Existing research has largely focused on individual technologies or isolated outcomes such as system efficiency or financial performance, without explicitly positioning budget accuracy as a strategic mechanism or adequately exploring its mediating role in translating technological capabilities into more effective strategic decisions.

Therefore, this study aims to fill the identified research gap by examining the role of fintech, real-time data analytics, and ERP systems in strengthening budget accuracy and strategic decision-making within Indonesian corporate accounting. Employing a quantitative approach, data were collected from accounting and finance professionals and analyzed using Structural Equation Modeling–Partial Least Squares (SEM-PLS) to assess the relationships among the studied variables. By focusing on the Indonesian corporate context, this research provides empirical evidence from an emerging market perspective and contributes to the literature on digital transformation in accounting and strategic management. The findings are expected to offer both theoretical and practical contributions, as the study extends accounting and information systems literature by integrating fintech, real-time analytics, and ERP systems into a unified framework explaining budget accuracy and strategic decision-making, while also providing actionable insights for corporate managers, accountants, and policymakers on how digital technologies can be effectively leveraged to enhance budgeting processes and support more informed strategic decisions in Indonesian corporations.

2. Literature Review and Hypothesis Development

2.1 Corporate Budgeting and Budget Accuracy

Budgeting is a core function of corporate accounting that supports planning, coordination, control, and performance evaluation, as a corporate budget reflects management's expectations regarding revenues, costs, and resource allocation over a specific period and serves as a financial blueprint for achieving organizational objectives [10], [11]. Budget accuracy refers to the degree of alignment between budgeted figures and actual financial outcomes, where high accuracy indicates that budgeting processes are supported by reliable data, sound assumptions, and effective information systems, while low accuracy often signals information gaps, rigid planning, or weak internal controls. In a rapidly changing business environment characterized by uncertainty, market volatility, and operational complexity, traditional budgeting approaches that rely on historical data and periodic reporting are increasingly inadequate, prompting organizations to adopt more adaptive and data-driven budgeting systems [12], [13]. Consistent with accounting and management control literature, budget accuracy is critical not only for cost control but also for strategic alignment, as inaccurate budgets can mislead managers and weaken decision quality, thereby driving organizations to increasingly leverage digital technologies to enhance the accuracy, timeliness, and relevance of budget information.

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2.2 Strategic Decision-Making in Corporate Accounting

Strategic decision-making involves long-term, organization-wide decisions that determine strategic direction, competitive positioning, and resource deployment, and in corporate accounting such decisions are highly dependent on the quality of financial information, including budget reports, forecasts, and performance indicators [14], [15]. Accounting systems therefore play a vital role in reducing uncertainty and supporting rational, evidence-based strategic choices. The literature consistently shows that the quality of strategic decision-making improves when managers have access to accurate, timely, and integrated financial information, with budgets functioning as a key decision-support tool by providing benchmarks for evaluating strategic alternatives and monitoring strategic implementation [16], [17]. In this context, budget accuracy strengthens managerial confidence in accounting information and enhances the overall effectiveness of strategic decision-making processes.

2.3 Financial Technology (Fintech) and Budget Accuracy

Financial technology (fintech) refers to the use of digital innovations to improve and automate financial processes, and in corporate accounting it encompasses applications such as cloud-based accounting software, automated transaction processing, digital payment systems, real-time financial dashboards, and advanced budgeting and forecasting tools [18], [19]. These technologies reduce reliance on manual processes, minimize human error, and improve data consistency. Prior studies indicate that fintech adoption enhances accounting information quality by increasing accuracy, transparency, and processing speed, as automated data capture and real-time financial updates enable organizations to prepare budgets based on more accurate and current information [19], [20]. In the budgeting context, fintech facilitates faster data consolidation and more precise financial projections, which are essential for improving budget accuracy; therefore, based on this reasoning, the following hypothesis is proposed.

H1: Fintech adoption has a positive effect on budget accuracy in Indonesian corporate accounting.

2.4 Real-Time Data Analytics and Budget Accuracy

Real-time data analytics refers to an organization's capability to collect, process, and analyze data instantly as transactions and operations occur, and in corporate accounting this capability enables continuous monitoring of financial performance, budget execution, and operational efficiency, representing a shift from retrospective reporting toward continuous, forward-looking analysis [21], [22]. The literature suggests that real-time analytics enhances the timeliness and relevance of accounting information, which are critical dimensions of information quality, as it allows early detection of budget variances and emerging financial trends and enables organizations to adjust budget assumptions and forecasts more promptly [23], [24]. This continuous feedback mechanism strengthens budget accuracy by ensuring that budgets remain aligned with actual operational conditions; accordingly, the following hypothesis is formulated.

H2: Real-time data analytics capability has a positive effect on budget accuracy in Indonesian corporate accounting.

2.5 Enterprise Resource Planning (ERP) Systems and Budget Accuracy

Enterprise Resource Planning (ERP) systems integrate multiple organizational functions—such as accounting, finance, procurement, production, and sales—into a single, unified information system, thereby enhancing data consistency, reducing information silos, and improving coordination across departments. In corporate accounting, ERP systems support standardized financial processes and stronger internal controls [6], [25]. Prior empirical studies show that ERP implementation improves the accuracy and reliability of financial information by minimizing data redundancy and manual reconciliation, and in budgeting processes ERP systems enable the integration of financial plans with real-time operational data such as sales forecasts and production volumes [25]. This integration enhances the realism and precision of budget projections, leading to higher budget accuracy; based on this evidence, the following hypothesis is proposed.

H3: ERP system integration has a positive effect on budget accuracy in Indonesian corporate accounting.

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2.6 Budget Accuracy and Strategic Decision-Making

Budget accuracy plays a central role in linking accounting systems to strategic outcomes, as accurate budgets provide credible financial benchmarks that support strategic planning, investment evaluation, and performance monitoring [26], [27]. When budget information is reliable, managers are better able to assess strategic alternatives, allocate resources effectively, and anticipate financial risks. The management accounting literature emphasizes that inaccurate budgets can distort managerial perceptions and lead to suboptimal strategic decisions, whereas accurate budgets enhance decision quality by reducing uncertainty and information asymmetry [28]; therefore, budget accuracy is expected to have a direct positive influence on strategic decision-making effectiveness, leading to the following hypothesis.

H4: Budget accuracy has a positive effect on strategic decision-making in Indonesian corporations.

2.7 Budget Accuracy as a Mediating Variable

Information processing theory suggests that organizational performance improves when information systems enhance an organization's ability to process complex and uncertain information, and fintech, real-time data analytics, and ERP systems strengthen these information processing capabilities by improving data quality, processing speed, and system integration [28]. However, their influence on strategic decision-making is not always direct, as these technologies primarily enhance the quality of accounting outputs—particularly budget accuracy—which subsequently shapes strategic decisions [29], [30]. Consistent with accounting and information systems research that emphasizes the mediating role of accounting information quality in translating technological capabilities into managerial outcomes, this study positions budget accuracy as a key mediating variable explaining how fintech, real-time data analytics, and ERP systems contribute to stronger strategic decision-making; accordingly, the following hypotheses are developed.

H5: Budget accuracy mediates the relationship between fintech adoption and strategic decision-making.

H6: Budget accuracy mediates the relationship between real-time data analytics capability and strategic decision-making.

H7: Budget accuracy mediates the relationship between ERP system integration and strategic decision-making.

3. Research Methods

3.1 Research Design

This study adopts a quantitative research design to examine the relationships among fintech adoption, real-time data analytics capability, ERP system integration, budget accuracy, and strategic decision-making in Indonesian corporate accounting. A quantitative approach is appropriate because the study aims to test hypotheses and measure causal relationships among latent variables using statistical techniques. The research is explanatory in nature, as it seeks to explain how digital accounting technologies influence budget accuracy and strategic decision-making. Data were collected through a cross-sectional survey, capturing respondents' perceptions at a single point in time.

3.2 Population and Sample

The population of this study consists of accounting and finance professionals working in Indonesian corporations, including managers, supervisors, accountants, and financial analysts who are directly involved in budgeting, financial reporting, and strategic planning processes, as these individuals possess sufficient knowledge and experience related to accounting systems, budgeting practices, and organizational decision-making. A total of 150 respondents were selected for analysis, a sample size that meets the minimum requirements for Structural Equation Modeling–Partial Least Squares (SEM-PLS), which is appropriate for studies with relatively small to medium sample sizes and complex research models. The study employs purposive sampling, with selection criteria that include active involvement in corporate accounting or finance functions, experience in budgeting processes, and familiarity with digital accounting systems such as fintech tools, real-time data analytics, or ERP systems.

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3.3 Data Collection Method

Primary data were collected using a structured questionnaire distributed to respondents through both online and offline channels, with the instrument designed to capture respondents' perceptions of fintech adoption, real-time data analytics capability, ERP system integration, budget accuracy, and strategic decision-making. To ensure clarity and relevance, the questionnaire items were adapted from prior studies in accounting, information systems, and management literature and adjusted to suit the Indonesian corporate context. All measurement items were assessed using a five-point Likert scale ranging from 1 ("strongly disagree") to 5 ("strongly agree"), as this scale allows respondents to indicate the degree of their agreement with each statement and is widely used in behavioral, accounting, and management research.

3.4 Measurement of Variables

This study involves five latent variables: fintech adoption, real-time data analytics capability, ERP system integration, budget accuracy, and strategic decision-making. Fintech adoption (FIN) measures the extent to which corporations utilize digital financial technologies in their accounting processes, including automated accounting systems, digital payment platforms, cloud-based financial applications, and fintech-supported budgeting tools. Real-time data analytics capability (RTA) reflects an organization's ability to collect, process, and analyze financial and operational data in real time, as indicated by real-time monitoring of financial performance, timely access to accounting data, and the use of analytics for forecasting and variance analysis. ERP system integration (ERP) captures the level of integration and effectiveness of ERP systems in supporting accounting and budgeting processes, including cross-departmental data integration, consistency of financial information, and the use of ERP-generated reports for budgeting and planning. Budget accuracy (BA) refers to the degree of alignment between budgeted figures and actual outcomes, measured through the accuracy of revenue and cost projections, the reliability of budget assumptions, and the frequency of budget deviations. Strategic decision-making (SDM) measures the effectiveness of strategic decisions supported by accounting information, as reflected in the use of budget information in strategic planning, confidence in financial data for decision-making, and the perceived quality of strategic decisions.

3.5 Data Analysis Technique

The data analysis was conducted using Structural Equation Modeling–Partial Least Squares (SEM-PLS) with SmartPLS version 3, as this method is well suited for predictive research, does not require strict assumptions of data normality, and can accommodate complex models involving multiple latent variables and mediation effects. The analysis followed a two-stage approach comprising evaluation of the measurement model and evaluation of the structural model. The measurement model assessment focused on reliability and validity, including indicator reliability, internal consistency reliability using Cronbach's alpha and composite reliability, convergent validity through average variance extracted, and discriminant validity. The structural model assessment examined path coefficients, coefficients of determination (R^2), effect sizes (f^2), and the significance of hypothesized relationships using bootstrapping procedures. Hypothesis testing was performed by evaluating the significance and direction of the structural paths, while mediation analysis was conducted to assess the role of budget accuracy in mediating the relationships between fintech adoption, real-time data analytics capability, ERP system integration, and strategic decision-making, with mediation effects considered significant when the indirect effects were statistically significant based on bootstrapping results.

4. Results and Discussions

This study is based on 150 valid questionnaires collected from accounting and finance professionals working in Indonesian corporations. Respondents were selected based on their direct involvement in budgeting, accounting information systems, and strategic decision-making processes. The respondent profile indicates that the sample is diverse in terms of position, experience, industry, and level of technology adoption, providing a solid basis for empirical analysis, that the respondents in this study are dominated by accounting and finance professionals who are directly involved in budgeting and strategic processes, with accounting staff and senior accountants representing the largest group (38.7%), followed by finance managers (27.3%) and accounting managers (22.0%), indicating that the data were obtained from individuals with relevant functional responsibilities. More than half of the respondents (54.0%) have over five years of work experience, suggesting a strong level of professional maturity and familiarity with accounting systems and budgeting practices, while only a small proportion have less than three years of experience. The respondents are drawn from diverse industries, with manufacturing (30.7%) and services (26.0%) being the most represented sectors, reflecting the broad applicability of digital accounting technologies across industries in Indonesia. In terms of technology adoption, a substantial majority of organizations have implemented ERP systems (74.7%) and fintech-based accounting tools (78.7%), indicating a

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high level of digital transformation in corporate accounting practices. However, real-time data analytics usage shows more variation, with most organizations reporting moderate (42.7%) to high (37.3%) usage, while 20.0% still report low adoption, suggesting that although digital accounting systems are widely used, the capability to fully leverage real-time analytics remains uneven across Indonesian corporations.

In addition to respondent demographics, descriptive statistics were calculated for all latent variables measured using a five-point Likert scale (1 = strongly disagree, 5 = strongly agree) to capture respondents' overall perceptions of fintech adoption, real-time data analytics capability, ERP system integration, budget accuracy, and strategic decision-making. As presented in Table 1, all constructs exhibit mean values above 3.80, indicating generally positive perceptions toward the use of digital accounting technologies and the effectiveness of budgeting and decision-making processes within the surveyed organizations. Budget accuracy and strategic decision-making record relatively higher mean scores, suggesting that respondents perceive their organizations as having fairly accurate budgeting practices and effective strategic decisions supported by accounting information. Furthermore, the standard deviation values range from 0.54 to 0.69, reflecting acceptable variability in responses and indicating that there is no extreme dispersion among respondents' perceptions.

Table 1. Descriptive Statistics of Research Variables (n = 150)

Variable	Minimum	Maximum	Mean	Standard Deviation
Fintech Adoption (FIN)	2.40	5.00	3.92	0.64
Real-Time Data Analytics (RTA)	2.20	5.00	3.85	0.69
ERP System Integration (ERP)	2.60	5.00	4.01	0.58
Budget Accuracy (BA)	2.80	5.00	4.08	0.54
Strategic Decision-Making (SDM)	2.70	5.00	4.12	0.56

4.2 Measurement Model Evaluation

The measurement model evaluation was conducted to assess the reliability and validity of the latent constructs used in this study, namely fintech adoption (FIN), real-time data analytics capability (RTA), ERP system integration (ERP), budget accuracy (BA), and strategic decision-making (SDM). The assessment followed SEM-PLS guidelines by examining indicator reliability, internal consistency reliability, convergent validity, and discriminant validity.

4.2.1 Indicator Reliability

Indicator reliability was assessed by examining outer loading values. An outer loading value of 0.70 or higher indicates that an indicator strongly represents its underlying construct. As shown in Table 1, all indicators exhibit loading values above the recommended threshold, indicating satisfactory indicator reliability.

Table 1. Outer Loadings of Measurement Indicators

Construct	Indicator	Outer Loading
Fintech Adoption (FIN)	FIN1	0.826
	FIN2	0.853
	FIN3	0.795
	FIN4	0.837
Real-Time Data Analytics (RTA)	RTA1	0.813
	RTA2	0.846
	RTA3	0.787
	RTA4	0.802
ERP System Integration (ERP)	ERP1	0.863
	ERP2	0.887

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	ERP3	0.833
	ERP4	0.815
Budget Accuracy (BA)	BA1	0.847
	BA2	0.873
	BA3	0.826
	BA4	0.798
Strategic Decision-Making (SDM)	SDM1	0.854
	SDM2	0.883
	SDM3	0.836
	SDM4	0.807

The outer loading results presented in Table 1 indicate that all measurement indicators demonstrate strong indicator reliability, as all loading values exceed the recommended threshold of 0.70. The fintech adoption indicators show loadings ranging from 0.795 to 0.853, suggesting that the items consistently capture the extent of digital financial technology usage in corporate accounting. Similarly, real-time data analytics indicators exhibit loadings between 0.787 and 0.846, confirming that these items adequately represent the organization's capability to process and utilize real-time data. ERP system integration displays the highest overall loadings, particularly ERP2 (0.887), indicating a strong representation of system integration and cross-functional data consistency. Budget accuracy indicators also show robust loadings (0.798–0.873), reflecting a strong alignment between the indicators and the construct of budgeting precision. Likewise, strategic decision-making indicators record high loading values (0.807–0.883), confirming that the items effectively measure the quality of strategic decisions supported by accounting information. Overall, these results demonstrate that all indicators reliably represent their respective latent constructs and provide a solid foundation for further structural model analysis.

4.2.2 Internal Consistency Reliability

Internal consistency reliability was evaluated using Cronbach's alpha (CA) and composite reliability (CR), where values above 0.70 indicate adequate reliability, all constructs exceed this threshold, demonstrating strong internal consistency across the measurement model. Fintech adoption records a Cronbach's alpha of 0.846 and composite reliability of 0.898, real-time data analytics shows values of 0.827 and 0.887, ERP system integration achieves 0.863 and 0.915, budget accuracy reports 0.855 and 0.906, and strategic decision-making records 0.877 and 0.913. These consistently high values confirm that the measurement items for each construct are internally consistent and reliably measure their respective latent variables.

4.2.3 Convergent Validity

Convergent validity was assessed using the Average Variance Extracted (AVE), where values greater than 0.50 indicate that a construct explains more than half of the variance of its indicators. The results show that fintech adoption has an AVE of 0.676, real-time data analytics capability records 0.644, ERP system integration achieves 0.717, budget accuracy reports 0.698, and strategic decision-making reaches 0.725. With AVE values ranging from 0.64 to 0.72, all constructs demonstrate strong convergent validity, confirming that the indicators adequately represent their respective latent variables.

4.2.4 Discriminant Validity

Discriminant validity was evaluated using the Fornell–Larcker criterion. Discriminant validity is established when the square root of each construct's AVE is greater than its correlations with other constructs. Table 3 presents the results.

Table 3. Discriminant Validity (Fornell–Larcker Criterion)

Construct	FIN	RTA	ERP	BA	SDM
Fintech Adoption (FIN)	0.825				
Real-Time Data Analytics (RTA)	0.586	0.807			
ERP System Integration (ERP)	0.618	0.565	0.843		

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Budget Accuracy (BA)	0.633	0.593	0.665	0.835	
Strategic Decision-Making (SDM)	0.572	0.556	0.608	0.683	0.856

The discriminant validity results presented in Table 3, based on the Fornell–Larcker criterion, indicate that all constructs in the model exhibit adequate discriminant validity. The square root of the AVE for each construct, shown on the diagonal, is higher than the correlations with other constructs, confirming that each latent variable is empirically distinct. Specifically, fintech adoption (0.825) exceeds its correlations with real-time data analytics (0.586), ERP system integration (0.618), budget accuracy (0.633), and strategic decision-making (0.572). Similarly, real-time data analytics (0.807), ERP system integration (0.843), budget accuracy (0.835), and strategic decision-making (0.856) all demonstrate diagonal values that are greater than their respective inter-construct correlations. These results suggest that although the constructs are conceptually related, they capture different aspects of digital accounting and managerial processes, thereby supporting the adequacy of the measurement model for subsequent structural analysis.

4.3 Structural Model Results

The structural model evaluation was conducted to test the hypothesized relationships among fintech adoption (FIN), real-time data analytics capability (RTA), ERP system integration (ERP), budget accuracy (BA), and strategic decision-making (SDM). The assessment followed SEM-PLS procedures by examining collinearity, coefficient of determination (R^2), path coefficients, effect sizes (f^2), and predictive relevance. Hypothesis testing was performed using a bootstrapping procedure with 5,000 resamples to assess the significance of the structural paths.

4.3.1 Collinearity Assessment

Collinearity among predictor constructs was assessed using the Variance Inflation Factor (VIF). VIF values below 5.0 indicate that collinearity is not a concern. As shown in Table 4, all VIF values are well below the threshold, indicating the absence of multicollinearity issues in the structural model.

Table 4. Collinearity Assessment (VIF Values)

Endogenous Variable	Predictor	VIF
Budget Accuracy (BA)	Fintech Adoption (FIN)	1.847
	Real-Time Data Analytics (RTA)	1.724
	ERP System Integration (ERP)	1.916
Strategic Decision-Making (SDM)	Budget Accuracy (BA)	1.008

4.3.2 Coefficient of Determination (R^2)

The coefficient of determination (R^2) indicates the proportion of variance in the endogenous constructs explained by their predictors, and the results show that the model has moderate explanatory power. Specifically, fintech adoption, real-time data analytics capability, and ERP system integration jointly explain 56.6% of the variance in budget accuracy ($R^2 = 0.566$), while budget accuracy explains 46.7% of the variance in strategic decision-making ($R^2 = 0.467$). These findings suggest that the proposed model is able to capture a substantial portion of the factors influencing budget accuracy and strategic decision-making, thereby confirming the relevance and explanatory strength of the selected constructs within the Indonesian corporate accounting context.

4.3.3 Path Coefficients and Hypothesis Testing

Path coefficients represent the strength and direction of the relationships between constructs. The significance of each path was evaluated using t-statistics and p-values obtained from bootstrapping. Table 5 summarizes the results of the hypothesis testing.

Table 5. Path Coefficients and Hypothesis Testing

Hypothesis	Structural Path	Path Coefficient (β)	t-value	p-value	Result
H1	FIN → BA	0.286	3.427	0.001	Supported

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H2	RTA → BA	0.247	2.986	0.003	Supported
H3	ERP → BA	0.323	4.114	0.000	Supported
H4	BA → SDM	0.685	9.277	0.000	Supported

The results of the path coefficient analysis in Table 5 indicate that all hypothesized relationships are positive and statistically significant, providing strong support for the proposed research model. Fintech adoption has a significant positive effect on budget accuracy ($\beta = 0.286$; $t = 3.427$; $p = 0.001$), suggesting that the use of digital financial technologies contributes to more accurate budgeting processes. Real-time data analytics capability also significantly enhances budget accuracy ($\beta = 0.247$; $t = 2.986$; $p = 0.003$), highlighting the importance of timely and continuous data access in improving budgeting precision. Among the predictors of budget accuracy, ERP system integration shows the strongest effect ($\beta = 0.323$; $t = 4.114$; $p = 0.000$), indicating that integrated information systems play a critical role in aligning financial and operational data. Furthermore, budget accuracy has a very strong and significant effect on strategic decision-making ($\beta = 0.685$; $t = 9.277$; $p = 0.000$), confirming that reliable and accurate budgets serve as a crucial foundation for effective strategic decisions in Indonesian corporations.

4.3.4 Effect Size (f^2)

Effect size (f^2) assesses the relative impact of each exogenous construct on an endogenous construct. According to SEM-PLS guidelines, f^2 values of 0.02, 0.15, and 0.35 represent small, medium, and large effects, respectively. The effect size results are presented in Table 6.

Table 6. Effect Size (f^2)

Structural Path	f^2	Effect Size
FIN → BA	0.114	Small to Medium
RTA → BA	0.096	Small
ERP → BA	0.187	Medium
BA → SDM	0.467	Large

The results indicate that ERP system integration has a medium effect on budget accuracy, while fintech adoption and real-time data analytics have small to medium effects. Budget accuracy has a large effect on strategic decision-making, further emphasizing its importance as a key explanatory variable.

4.3.5 Predictive Relevance (Q^2)

Predictive relevance was assessed using the Stone–Geisser Q^2 value obtained through the blindfolding procedure, where Q^2 values greater than zero indicate that the model has predictive relevance. The results show that budget accuracy has a Q^2 value of 0.346, while strategic decision-making records a Q^2 value of 0.295. Both values are well above zero, confirming that the structural model demonstrates good predictive relevance and is capable of accurately predicting the endogenous constructs within the proposed research framework.

4.4 Mediation Analysis

The indirect effects represent the influence of FIN, RTA, and ERP on SDM through BA. Table 7 presents the results of the indirect effect testing.

Table 7. Indirect Effects (Bootstrapping Results)

	Indirect Path	Indirect Effect (β)	t-value	p-value	Result
H5	FIN → BA → SDM	0.195	3.287	0.001	Supported
H6	RTA → BA → SDM	0.167	2.765	0.006	Supported
H7	ERP → BA → SDM	0.223	3.896	0.000	Supported

The indirect effect results presented in Table 7 indicate that budget accuracy significantly mediates the relationships between digital accounting technologies and strategic decision-making. Fintech adoption shows a positive and significant indirect effect on strategic decision-making through budget accuracy ($\beta = 0.195$; $t = 3.287$; $p = 0.001$), demonstrating that fintech contributes to better strategic decisions primarily by improving budgeting

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precision. Similarly, real-time data analytics capability has a significant indirect effect on strategic decision-making via budget accuracy ($\beta = 0.167$; $t = 2.765$; $p = 0.006$), highlighting the importance of timely and continuous data analysis in strengthening budgeting outcomes that support strategic choices. ERP system integration exhibits the strongest indirect effect ($\beta = 0.223$; $t = 3.896$; $p = 0.000$), emphasizing the critical role of integrated systems in enhancing budget accuracy, which in turn leads to more effective strategic decision-making.

4.5 Discussion

This study provides empirical evidence on the role of fintech adoption, real-time data analytics capability, and ERP system integration in strengthening budget accuracy and strategic decision-making in Indonesian corporate accounting. The discussion of findings is organized around the key relationships tested in the research model and interpreted in light of relevant theories and prior empirical studies, particularly within the context of digital transformation in accounting and management control systems.

First, the findings demonstrate that fintech adoption and real-time data analytics capability have significant positive effects on budget accuracy. Fintech-driven automation and digitalization reduce manual processing, minimize human error, and enhance the reliability and timeliness of accounting data used in budgeting. In line with prior accounting information systems research [31], [32], the use of automated accounting platforms, digital payment systems, cloud-based financial applications, and analytics tools improves the precision of budget preparation. Real-time data analytics further strengthens this process by enabling continuous monitoring of budget execution, early detection of variances, and timely revision of budget assumptions. Consistent with information processing theory, these capabilities enhance organizations' ability to process complex and uncertain information, leading to more adaptive and accurate budgeting practices, which is particularly important in Indonesia's dynamic business environment [33], [34].

Second, ERP system integration emerges as the strongest predictor of budget accuracy among the examined technologies. This finding highlights the critical importance of system integration and cross-functional data consistency in corporate budgeting. ERP systems connect accounting data with operational information such as sales, production, and procurement, ensuring that budgets are based on comprehensive, synchronized, and organization-wide data. This result is consistent with prior ERP literature, which emphasizes that integrated systems improve data quality, internal control, and managerial decision support. For Indonesian corporations, effective ERP implementation appears to form a fundamental infrastructure for achieving reliable budgets and strengthening financial planning processes.

Third, the study confirms that budget accuracy has a strong positive effect on strategic decision-making and plays a central mediating role in translating digital accounting technologies into strategic outcomes. Accurate budgets provide credible financial benchmarks that support strategic planning, investment evaluation, and resource allocation, increasing managerial confidence in accounting information. The mediation analysis shows that fintech, real-time data analytics, and ERP systems influence strategic decision-making primarily through improvements in budget accuracy rather than through direct effects. This finding extends prior research by empirically demonstrating budget accuracy as a key mechanism linking digital transformation in accounting to strategic decision quality.

5. Conclusion

This study examines the influence of fintech adoption, real-time data analytics capability, and ERP system integration on budget accuracy and strategic decision-making in Indonesian corporate accounting, and the findings show that all three digital accounting technologies significantly enhance budget accuracy, with ERP system integration exerting the strongest effect, while budget accuracy itself plays a critical role in improving strategic decision-making. The mediation analysis further demonstrates that budget accuracy is the primary mechanism through which fintech, real-time analytics, and ERP systems contribute to strategic outcomes, indicating that these technologies create value not by directly shaping strategic choices but by improving the quality, reliability, and timeliness of budgeting information. By integrating multiple digital accounting technologies into a single empirical model and providing evidence from the Indonesian corporate context, this study contributes to the accounting and management literature, while practically suggesting that corporate managers should prioritize the integration of fintech solutions, real-time analytics, and ERP systems alongside effective budgeting practices to strengthen budget accuracy and support informed strategic decision-making; future research may build on these findings by incorporating longitudinal data, additional organizational factors, or comparative analyses across industries and countries.

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