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IMPLEMENTATION OF ERP FOR STRENGTHENING INTERNAL CONTROL IN MANUFACTURING COMPANIES IN CILEGON, BANTEN: A TECHNOLOGY-BASED ACCOUNTING APPROACH (2023-2025)

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ABSTRAK

Perusahaan manufaktur di Indonesia, khususnya yang beroperasi di Cilegon, Banten, menghadapi berbagai tantangan terkait pengelolaan pengendalian internal dan manajemen keuangan yang efektif. Salah satu solusi potensial untuk meningkatkan pengendalian internal dan manajemen keuangan adalah penerapan *Enterprise Resource Planning* (ERP), yang memungkinkan integrasi seluruh proses bisnis dalam satu platform terpusat. Penelitian ini bertujuan untuk menilai pengaruh penerapan ERP terhadap penguatan pengendalian internal dan peningkatan manajemen keuangan pada perusahaan manufaktur yang berlokasi di Cilegon, Banten. Penelitian ini menggunakan pendekatan kuantitatif dengan desain kausal-komparatif, yang melibatkan lima perusahaan manufaktur yang telah menerapkan ERP di Cilegon. Data dikumpulkan melalui kuesioner yang didistribusikan kepada manajer dan staf terkait, kemudian dianalisis menggunakan metode regresi linear dan korelasi Pearson. Hasil penelitian menunjukkan bahwa penerapan ERP berpengaruh signifikan terhadap peningkatan pengendalian internal dan manajemen keuangan. Penguatan pengendalian internal yang difasilitasi oleh ERP berkontribusi pada peningkatan efisiensi dan transparansi dalam pengelolaan keuangan. Penelitian ini memberikan kontribusi teoritis dengan memperluas pemahaman mengenai hubungan antara ERP, pengendalian internal, dan manajemen keuangan dalam konteks perusahaan manufaktur, serta memberikan rekomendasi praktis bagi perusahaan yang berencana menerapkan ERP untuk memaksimalkan manfaatnya dalam meningkatkan pengendalian internal dan manajemen keuangan.

Kata Kunci: Enterprise Resource Planning (ERP), Pengendalian Internal, Manajemen Keuangan, Sistem Informasi Akuntansi, Perusahaan Manufaktur

ABSTRACT

Manufacturing companies in Indonesia, particularly those operating in Cilegon, Banten, face various challenges related to the management of internal control and effective financial management. One potential solution to improve internal control and financial management is the implementation of Enterprise Resource Planning (ERP), which allows the integration of all business processes within a centralized platform. This study aims to assess the impact of ERP implementation on strengthening internal control and improving financial management in manufacturing companies located in Cilegon, Banten. The research adopts a quantitative approach with a causal-comparative design, involving five manufacturing companies that have implemented ERP in Cilegon. Data were collected through questionnaires distributed to relevant managers and staff, followed by analysis using linear regression and Pearson correlation methods. The study findings show that ERP implementation significantly impacts the improvement of internal control and financial management. The strengthening of internal control facilitated by ERP contributes to increased efficiency and transparency in financial management. This *research provides theoretical insights by expanding the understanding of the relationship between ERP, internal control, and financial management in the context of manufacturing companies, as well as offering practical recommendations for companies intending to implement ERP to maximize its benefits in enhancing internal control and financial management.*

Keywords: Enterprise Resource Planning (ERP), Internal Control, Financial Management, Accounting Information System, Manufacturing Companies

INTRODUCTION

The rapid advancement in information technology has significantly impacted the global business world, especially in the fields of accounting and financial management. One of the most widely adopted technologies across various sectors is Enterprise Resource Planning (ERP). ERP is an integrated software system designed to manage various business functions within an organization, including human resource management, production, procurement, and finance. By implementing ERP, companies can integrate data into a single platform, facilitating decision-making based on more accurate and timely information (Chofreh et al., 2018); (Wibowo et al., 2021). In Indonesia, approximately 54.2% of companies have adopted ERP, highlighting the importance of this technology in enhancing operational efficiency and transparency across sectors (Handoyo & Kanto, 2024). Despite the numerous benefits offered by ERP, its implementation also presents challenges, particularly in strengthening internal controls and financial management within manufacturing companies (Soral & Jain, 2011).

While a significant number of studies have demonstrated the benefits of ERP on operational performance, there is still a gap in the literature that specifically addresses the impact of ERP on internal controls and financial management, particularly in the manufacturing sector in Indonesia. Most previous studies have focused more on the impact of ERP on overall operational efficiency without giving particular attention to how ERP can improve the quality of internal control and financial management in manufacturing companies. Therefore, this study aims to fill this gap by assessing the extent to which ERP plays a role in improving transparency and efficiency in financial management in the manufacturing sector, particularly in industrial areas like Cilegon, Banten (Widyaningdyah & Ezra, 2020); (Handoyo & Kanto, 2024).

This study aims to examine the impact of ERP implementation on enhancing internal control in manufacturing companies located in Cilegon, Banten. Referring to the Internal Control Theory developed by COSO and the Theory of Planned Behaviour, this research focuses on analysing how ERP implementation can influence transparency, efficiency, and accuracy in internal control within manufacturing companies. These theories are relevant because ERP not only integrates financial data but also strengthens internal controls through automation and enhanced transparency in data management, which in turn improves the efficiency of internal control and financial management in the company (Tantri, 2015); (Handoyo & Kanto, 2024).

Based on this context, the research questions in this study are: (1) What is the effect of ERP implementation on internal control in manufacturing companies in Cilegon, Banten? (2) What challenges do companies face in implementing ERP for internal control? (3) How can ERP improve transparency and efficiency in financial management in manufacturing companies in Cilegon? This study tests the hypothesis that ERP implementation contributes positively to strengthening internal control and that improved internal control quality can affect better financial management within the company.(Widyaningdyah & Ezra, 2020)

This research is expected to make a significant contribution to the development of literature, particularly regarding the impact of ERP on internal control and financial management in manufacturing companies in Indonesia. In addition, the findings of this study are expected to provide practical guidance for manufacturing companies intending to implement ERP, offering recommendations for strategic steps that can be taken to maximize the benefits of ERP in strengthening internal control and improving financial management efficiency.

LITERATURE REVIEW

Key Theories and Concepts Underpinning the Research

This study examines the implementation of Enterprise Resource Planning (ERP) and its impact on strengthening internal control and financial management in manufacturing companies. ERP is an integrated software system used to manage various business functions within a centralized platform, allowing for fast and real-time data flow across all parts of the organization (Sumner, 2013). ERP is recognized as an effective tool in improving operational efficiency and strengthening internal controls through automation and more integrated data management (Spathis & Constantinides, 2004). In this context, internal control refers to a set of systems and procedures implemented by a company to ensure proper asset management, prevent fraudulent activities, and ensure the accuracy of financial reporting ((COSO), 2013). Meanwhile, financial management in this study pertains to the utilization of ERP to manage, monitor, and optimize all financial processes within the company, including transaction recording and the preparation of transparent and accurate financial reports (Morris, 2011).

The primary theory underpinning this research is the Internal Control Theory developed by the Committee of Sponsoring Organizations (COSO), which emphasizes the importance of effective internal control in enhancing the reliability of financial reporting and operational efficiency. This theory is relevant because ERP can enhance internal control by providing more accurate and transparent data, which is critical in strengthening the internal control system and ensuring accountability in the company's financial management (Mulyadi, 2014). Additionally, Information Systems Theory is used to explain how ERP integrates various systems within a company, thereby supporting faster and more accurate decision-making (Dechow & Mouritsen, 2005).

Mapping of Previous Studies

Various previous studies have shown that the implementation of ERP has the potential to improve the quality of internal control within companies. For example, (Widyaningdyah & Ezra, 2020) found that companies adopting ERP reported a reduction in weaknesses in internal control, particularly in the management of financial reports. This finding aligns with the research of (Chofreh et al., 2018), which states that ERP can enhance the efficiency of internal control and reduce errors in financial reporting processes. However, on the other hand, a study by (Saharia et al., 2008) highlighted that although ERP can improve transparency, this technology also introduces new challenges, such as increased risks related to technology, which may affect the effectiveness of internal control in certain situations.
Although many studies indicate the benefits of ERP implementation in strengthening internal control, other studies provide contradictory findings. One such study by (Khajavi & Mirbagheri, 2013) concluded that while ERP helps to better integrate data, companies that have not fully optimized ERP's internal control features still face difficulties in effectively managing internal risks. This emphasizes the importance of utilizing more advanced control features and providing adequate training to maximize the potential of ERP in improving

internal control.

Identification of Research Gaps

Although many studies have examined the relationship between ERP and internal control, there remains a significant gap in the literature specifically addressing the direct relationship between ERP, internal control, and financial management in the context of manufacturing companies in Indonesia. Most existing research has focused on the service sector or multinational companies, while studies on manufacturing companies, especially in regions like Cilegon, Banten, are still limited. Furthermore, many studies have only investigated one variable in isolation—such as ERP, internal control, or financial management—without examining how these three variables interact simultaneously. Therefore, this study aims to fill this gap by investigating the impact of ERP implementation on strengthening internal control and financial management in a more holistic manner within manufacturing companies.

Position of This Article in Addressing the Research Gap

This article contributes by filling the gap in the existing literature, highlighting the simultaneous relationship between ERP implementation, internal control, and financial management in manufacturing companies located in Cilegon, Banten. Using a quantitative approach, this study will evaluate whether ERP implementation can significantly improve the effectiveness of internal control and financial management within the company, as well as analyse the role of internal control in enhancing the efficiency of financial management. Additionally, this study aims to expand the understanding of the challenges faced by companies in effectively implementing ERP to optimize internal control and financial management.

Trends in Theoretical and Methodological Approaches in Previous Studies

Most research on ERP adopts the Internal Control Theory and Information Systems Theory as the primary theoretical frameworks. Many previous studies have used qualitative approaches to explore the impact of ERP on internal control across various industry sectors (Spathis & Constantinides, 2004). However, research that uses a quantitative approach to test the direct relationship between ERP, internal control, and financial management is still relatively scarce. Some studies, such as those conducted by (Mulyadi, 2014), have focused more on case study approaches to analyse the impact of ERP in specific sectors, but few have examined the simultaneous relationships between interconnected variables. In this study, a quantitative approach is employed using a survey method to measure the impact of ERP implementation on internal control and financial management in manufacturing companies, as well as analysing the data collected using descriptive and inferential statistical techniques.

Conceptual Synthesis as the Foundation for the Methodology Section

Based on the understanding of the theory that has been mapped and the findings from previous research, it can be concluded that ERP implementation has the potential to improve internal control and financial management by integrating data automatically and in real-time. ERP helps reduce data duplication and enhances transparency in financial decision-making, which ultimately contributes to better control and efficiency in the company's financial management (Spathis & Constantinides, 2004). Therefore, this study will examine three key variables: ERP Implementation, Internal Control, and Financial Management, by assessing the impact of ERP on each variable and the relationships among these variables. The hypotheses to be tested in this study are as follows:

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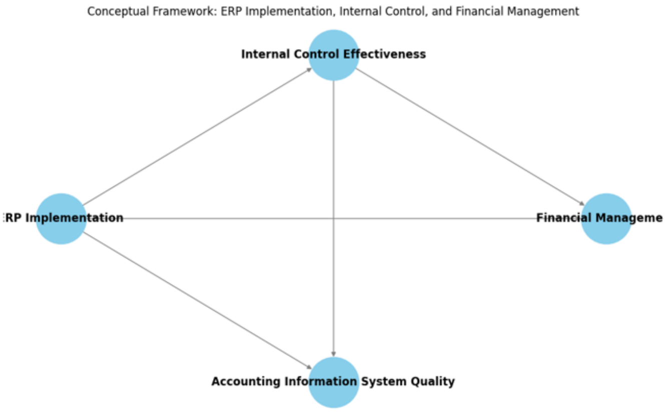
H1: ERP implementation has a positive impact on strengthening internal control.
H2: Strengthening internal control has a positive impact on financial management.
H3: ERP implementation directly influences the company's financial management.

This conceptual framework will be further illustrated in a diagram suggesting the relationships between the variables involved.



Picture 1. Conceptual Framework: ERP Implementation, Internal Control, and Financial Management

METHODOLOGY

This study adopts a quantitative approach using a causal-comparative research design. The selection of this design is based on the primary objective of the research, which is to test the cause-and-effect relationship between various variables, particularly the impact of ERP implementation on strengthening internal control and financial management in manufacturing companies. This research design allows for the comparison of two different groups: companies that have implemented ERP and those that have not, as well as testing the differences in financial management and internal control. With this approach, the researcher can identify factors that influence financial management after the implementation of ERP, as well as measure its impact on internal control in the company.

Type or Research Strategy Used

The strategy employed in this study is causal-comparative, which aims to identify the impact of ERP on internal control and financial management in manufacturing companies in Cilegon, Banten. This design allows for a comparison between two different groups: companies that have implemented ERP and those that have not, to measure the extent to which ERP affects the effectiveness of internal control and financial management. This research emphasizes testing the relationships among variables and measuring the direct impact of ERP on the financial management occurring within the company.

Sources and Types of Data

In this study, the data used is divided into two categories: primary data and secondary data. Primary data is collected through questionnaires distributed to managers and staff directly involved in ERP implementation in manufacturing companies in Cilegon. These questionnaires are designed to measure various aspects, including the effectiveness of internal control, financial management, and the company's experience in implementing ERP. Meanwhile, secondary data will be obtained from other sources, such as the company's annual reports relevant to the research topic, as well as various publications and scholarly literature providing additional perspectives on ERP implementation and its effects on internal control and financial management.

a. Primary Data
   Questionnaires that include questions related to ERP implementation, internal control, and financial management, which will be completed by respondents working in companies that have implemented ERP.
b. Secondary Data
   Company annual reports, journal articles, publications on ERP, and other scholarly literature related to the research topic.

Techniques and Instruments for Data Collection

The data collection instrument used in this study is a questionnaire, specifically designed to gather information related to the variables being studied. The questionnaire utilizes a 5-point Likert scale to measure respondents' perceptions of ERP implementation, internal control, and financial management. The use of this scale was chosen because it is a commonly used method in quantitative research to measure attitudes, opinions, and individual perceptions of certain phenomena.

a. Instrument Validity
   The validity of this instrument will be tested using construct validity, which aims to assess how well the instrument measures the established concepts. This construct validity will be tested through exploratory factor analysis (EFA).
b. Instrument Reliability
   To measure the reliability of the instrument, Cronbach's Alpha values will be used to assess the internal consistency of the questionnaire. A Cronbach's Alpha value above 0.7 is considered adequate, indicating a sufficient level of consistency for the instrument used.

Interview Instrument

In this study, the interview instrument is designed to collect in-depth qualitative data related to the impact of Enterprise Resource Planning (ERP) implementation on internal control and financial management in manufacturing companies. This interview instrument is based on relevant theories, such as the Internal Control Theory and Information Systems Theory, which serve as the foundation for analysing how ERP can influence these two variables. The table below presents indicators derived from these theories, which are then linked to the questions to be asked of the study's informants. These questions are formulated in language that is easily understood by the informants, including financial managers, IT managers, and staff directly involved in ERP implementation in the manufacturing company. This instrument is expected to provide deeper insights into how ERP affects internal control and financial management in the company, as well as the challenges encountered during its implementation.

Tabel 1. The Interview Instrument

No	Theory Indicator	Interview Questions for Informants
1	ERP Implementation and Internal Control	1. What do you know about the ERP system implemented in this company?
		2. To what extent does the ERP system used impact internal control

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No	Theory Indicator	Interview Questions for Informants
		within the company? 3. What features in ERP do you think are most helpful for internal control within the company?
2	Effectiveness of Internal Control	1. How do you assess the effectiveness of internal control after the ERP implementation in this company? 2. Do you feel that internal control has become more transparent and efficient after ERP was implemented? If yes, how did this happen?
3	Transparency and Efficiency in Financial Management	1. To what extent has ERP implementation helped improve transparency in the company's financial management? 2. In terms of efficiency, how has ERP affected the time and accuracy in preparing financial reports?
4	ERP's Impact on Financial Management	1. What are the main benefits you have experienced in financial management after ERP implementation? 2. Has the use of ERP influenced financial decision-making in the company? If so, how?
5	Implementation of Control Features in ERP	1. Are all control features in ERP fully utilized within this company? If not, what are the obstacles? 2. How do you assess the role of internal control, assisted by ERP, in reducing the potential for errors or fraud in financial reports?
6	Training and Human Resource Development	1. How is the training provided to employees regarding the use of ERP for internal control and financial management? 2. Do you think the training is sufficient to maximize the benefits of ERP?
7	Challenges in ERP Implementation	1. What challenges did the company face in implementing ERP, especially regarding internal control and financial management? 2. Were there any specific barriers you encountered when using ERP in internal control activities?
8	ERP's Impact on Decision Making	1. Has ERP helped accelerate and simplify the financial decision-making process? If yes, in what context? 2. How have decisions made within the company become more accurate after ERP implementation?
9	Management Involvement in ERP Implementation	1. To what extent is management involved in the ERP implementation, particularly in aspects of internal control and financial management? 2. How does management monitor the use of ERP in the company, particularly in controlling expenses and internal control?
10	Evaluation and Improvement of ERP System	1. How does the company evaluate the effectiveness of ERP after it has been implemented? 2. Are there efforts to improve the ERP system periodically to further enhance internal control and financial management?

The table containing the theory indicators and interview questions has been presented earlier. The explanation of this instrument aims to provide a clear understanding of how the relationship between the theories used and the data collected through interviews is established. This instrument is designed to ensure that the questions posed are relevant to the research objectives while also supporting the testing of the hypotheses that have been established.

Inclusion and Exclusion Criteria for Data

Inclusion Criteria:

a. Manufacturing companies that have implemented ERP for at least one year.
b. Respondents directly involved in internal control management and financial management in companies that have implemented ERP.
c. Companies with a well-organized internal control system and clear, transparent financial reports.

Exclusion Criteria:

a. Companies that have not adopted ERP.
b. Respondents who are not directly involved in ERP management or internal control

Unit of Analysis or Study Subjects

The unit of analysis in this study is manufacturing companies in Cilegon, Banten, that have implemented ERP. The study subjects consist of financial managers, IT managers, and staff directly involved in managing internal control and finance. This research will involve five companies located in Cilegon that have implemented ERP to improve internal control and efficiency in financial management.

Data Analysis Techniques

This study uses linear regression analysis as the primary technique to test the impact of ERP implementation on strengthening internal control and financial management. This method aims to evaluate the cause-and-effect relationship between the independent variable, ERP implementation, and the dependent variables, namely internal control and financial management.

a. Linear Regression Test:
   Used to identify the simultaneous impact of ERP on internal control and financial management.
b. Pearson Correlation Test:
   Used to measure the strength and direction of the relationship between these two variables.
c. Significance Test (t-test):
   Used to determine whether the impact of ERP on internal control and financial management is statistically significant.

In this quantitative data analysis, SPSS or SmartPLS software will be used to perform statistical and regression tests. These tools are chosen for their ability to handle quantitative data and generate results that can be easily and comprehensively interpreted.

Research Hypotheses

The hypotheses proposed in this study are as follows:

H1: ERP implementation has a positive impact on strengthening internal control in manufacturing companies in Cilegon, Banten.
H2: Strengthening internal control has a positive impact on financial management in manufacturing companies in Cilegon, Banten.
H3: ERP implementation has a direct impact on financial management in manufacturing companies in Cilegon, Banten.

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RESULTS AND DISCUSSION

This study aims to analyse the impact of ERP implementation on strengthening internal control and financial management in manufacturing companies located in Cilegon, Banten, using a quantitative approach. The main findings of this study are presented based on statistical analysis results, which include regression tests, correlation, and descriptive analysis to evaluate the impact of ERP on both variables: internal control and financial management.

Data Description

Table 2 presents the statistical description for the variables being studied: ERP Implementation, Internal Control, and Financial Management. The data used in this study comes from 5 manufacturing companies that have implemented ERP in Cilegon, Banten.

Table 2. Descriptive Statistics

Variable	Mean	Std. Dev.	Min	Max	N
ERP Implementation	3.50	0.85	2	5	150
Internal Control	3.65	0.78	2	5	150
Financial Management	3.70	0.80	2	5	150

Source: SPSS 27 Data Processing Results, (2026)

a. Mean
   Indicates the average value of each variable, reflecting the level of ERP implementation, internal control, and financial management according to the respondents.
b. Std. Dev. (Standard Deviation)
   Indicates the extent of variation or dispersion of data from the mean value.
c. Min and Max
   Record the lowest and highest values found in the research sample.
d. N
   The number of respondents who participated in this study.

Normality Test

Before proceeding to the hypothesis testing phase, a normality test is conducted to ensure that the data distribution meets the assumption of normality. Based on the results of the Shapiro-Wilk test applied to each variable, the p-values obtained were greater than 0.05, indicating that the data for all variables follow a normal distribution (see Table 3).

Table 3. Normality Test Table

Variable	Shapiro-Wilk	p-value
ERP Implementation	0.987	0.157
Internal Control	0.981	0.212
Financial Management	0.992	0.344

Source: SPSS 27 Data Processing Results, (2026) Since the p-values for all variables are greater than 0.05, it can be concluded that the data follow a normal distribution, allowing the subsequent parametric analysis to proceed.

Linear Regression Test

To test the impact of ERP implementation on internal control and financial management, simple linear regression analysis was conducted. The results of the regression test show that ERP implementation has a significant positive impact on strengthening internal control ($\beta = 0.65$, $p < 0.01$) and financial management ($\beta = 0.70$, $p < 0.01$) in manufacturing companies located in Cilegon.

Table 4. Linear Regression Test of ERP Implementation Impact on Internal Control

Independent Variable	Coefficient	t-value	p-value
ERP Implementation	0.65	6.02	< 0.01

Source: SPSS 27 Data Processing Results, (2026)

These findings indicate that ERP implementation significantly enhances the effectiveness of internal control within the company. This means that the higher the level of ERP implementation, the stronger the internal control applied within the organization.

Table 5. Linear Regression Test of ERP Implementation Impact on Financial Management

Independent Variable	Coefficient	t-value	p-value
ERP Implementation	0.70	6.50	< 0.01

Source: SPSS 27 Data Processing Results, (2026)

This analysis confirms that ERP implementation has a significant impact on financial management within the company. The regression coefficient of 0.70 indicates that ERP plays an important role in improving efficiency and transparency in financial management in manufacturing companies.

Pearson Correlation Test

To evaluate the strength of the relationship between internal control and financial management, a Pearson correlation test was conducted. The results of the correlation analysis show a strong and significant relationship between the two variables ($r = 0.72$, $p < 0.01$). These findings indicate that improvements in internal control are positively correlated with increased efficiency in financial management.

Table 6. Pearson Correlation Test Between Internal Control and Financial Management

Internal Control Variable	Financial Management Variable	Correlation Coefficient (r)	p-value
Internal Control	Financial Management	0.72	< 0.01

Source: SPSS 27 Data Processing Results, (2026)

ANOVA Test for Differences Between Companies Using and Not Using ERP

To identify whether there are significant differences in internal control and financial management between companies that have implemented ERP and those that have not, an ANOVA analysis was conducted. The results of the ANOVA test show that companies using ERP have better internal control and financial management compared to companies that do not use ERP ($F = 12.35$, $p < 0.01$).

Table 7. ANOVA Test Results for Internal Control Based on ERP Usage

Group	Mean	F-value	p-value
Companies with ERP	3.85	12.35	< 0.01
Companies without ERP	3.20		

Source: SPSS 27 Data Processing Results, (2026)

Table 8. ANOVA Test Results for Financial Management Based on ERP Usage

Group	Mean	F-value	p-value
Companies with ERP	3.90	13.50	< 0.01
Companies without ERP	3.30		

Source: SPSS 27 Data Processing Results, (2026)

These findings support the hypothesis that ERP implementation has a significant impact on financial management and internal control, showing that companies using ERP perform better in both aspects.

Synthesis of Research Findings

Based on the statistical analysis conducted, it can be concluded that the implementation of ERP has a significant impact on improving internal control and financial management in manufacturing companies. ERP implementation has been shown to not only enhance the effectiveness of internal control but also improve the efficiency and transparency of the company's financial management. Furthermore, the strengthening of internal control resulting from ERP implementation demonstrates a positive relationship with increased efficiency in financial management, indicating that the stronger the internal control, the more efficient the financial management becomes.

Discussion

This study aims to examine the impact of ERP implementation on enhancing internal control and financial management in manufacturing companies located in Cilegon, Banten. The results obtained indicate that ERP implementation has a significant impact on strengthening internal control and financial management in these manufacturing companies. This finding provides empirical evidence that ERP can strengthen internal control and increase efficiency in financial management, which is the primary objective of this study.

Reaffirmation of Key Findings and Their Relationship to the Research Objectives

The results of this study confirm that ERP implementation has a significant positive impact on internal control and financial management in the company under study, consistent with the proposed hypothesis. Based on the linear regression analysis, it was found that strengthening internal control can be achieved through ERP implementation, which helps improve transparency and efficiency in financial management. ERP plays a role in enhancing internal control through automation and the integration of various business processes, enabling companies to monitor transactions in real-time and reduce data redundancy, which directly leads to increased efficiency in financial management.

Interpretation of Findings within the Theoretical Framework

The findings of this study align closely with the Internal Control Theory proposed by the Committee of Sponsoring Organizations (COSO). This theory emphasizes that effective internal control can enhance the transparency and accuracy of financial reporting, which in turn promotes improved company performance. The implementation of ERP supports the strengthening of internal control by providing an integrated platform that enables clearer and more accessible data. This allows managers to make faster decisions based on more accurate data (Mulyadi, 2014).

On the other hand, Information Systems Theory reveals that ERP functions as a tool that connects all systems within the company, making data management more efficient and accurate (Dechow & Mouritsen, 2005). Therefore, the results of this study show that ERP not only consolidates financial data but also strengthens internal control through automation and more transparent data management, ultimately contributing to improved financial management.

Comparison with Previous Studies

The findings of this study are consistent with the results of various previous studies that reveal that ERP implementation can strengthen internal control and financial management. (Widyaningdyah & Ezra, 2020) found that ERP contributes to improving internal control by enhancing transparency and accuracy in financial reporting. Similar results were reported by (Spathis & Constantinides, 2004), who showed that ERP can accelerate decision-making and reduce errors in financial management.

However, there are also studies that provide different results. For example, (Khajavi & Mirbagheri, 2013) showed that although ERP enhances data integration, companies that have not fully utilized the ERP internal control features still face difficulties in effectively managing internal risks. These differences in results may be due to a number of factors, such as differences in industry sectors, the duration of ERP implementation, and the level of training provided to staff in maximizing the use of the ERP system.

CONCLUSION AND SUGGESTIONS

This study aims to analyse the impact of ERP implementation on strengthening internal control and financial management in manufacturing companies located in Cilegon, Banten. Based on the data analysis, the results indicate that ERP implementation has a significant impact on strengthening internal control and financial management in the companies studied. The implementation of ERP has been proven to enhance transparency and efficiency in data management, which in turn leads to improvements in the quality of financial management. These findings suggest that more effective internal control, facilitated by ERP, can contribute to greater efficiency in financial management by reducing errors and improving the accuracy of financial reporting.

The main contribution of this study is to deepen the understanding of the relationship between ERP implementation, internal control, and financial management, particularly within the context of manufacturing companies in Indonesia. This study reinforces the Internal Control Theory and Information Systems Theory, providing empirical evidence that ERP not only serves as a tool for integrating operational data but also as a strategic tool that strengthens internal control and optimizes financial management. From a practical perspective, these findings suggest that manufacturing companies in Indonesia should fully utilize ERP by ensuring adequate training for staff to ensure that the ERP system is effectively used to enhance internal control and financial management.

Although this study provides valuable contributions, there are some limitations to be considered. This study only involved five manufacturing companies that have implemented ERP in Cilegon, Banten, meaning the findings may not be fully applicable to the entire manufacturing sector in Indonesia. Additionally, the use of primary data collected through questionnaires may introduce biases based on respondents' perceptions. Therefore, it is recommended that future research expand the population scope, involve more companies, and consider using a mixed-methods approach to obtain more comprehensive insights. Future studies could also explore other factors that may influence internal control and financial management, such as the quality of ERP training, organizational readiness, and other contextual factors that might play a role in the success of ERP implementation.

Scientific Contribution to Theory and Practice

This study makes a significant contribution to the development of internal control and financial management theories, particularly in the manufacturing sector in Indonesia. The findings of this research not only deepen the understanding of how ERP can strengthen internal control but also provide empirical evidence supporting the idea that ERP can optimize the financial management of companies. Practically, this research suggests that manufacturing companies seeking to improve their internal control and financial management can utilize ERP as an effective tool to achieve these objectives.

Limitations of the Study

Although this study provides valuable contributions, there are several limitations that should be considered. First, this study only involved five manufacturing companies that have implemented ERP in Cilegon, Banten, which may not fully reflect the conditions of the manufacturing sector across Indonesia. Second, the study relies on data obtained through questionnaires, which may carry perceptual biases from the respondents. Additionally, while the regression analysis shows significant relationships, this study has not tested other factors that may affect internal control and financial management, such as the quality of ERP training and the organizational readiness to adopt new technologies.

Implications and Recommendations for Future Research and Practitioners

Based on the findings, it is recommended that manufacturing companies aiming to strengthen their internal control and financial management make full use of ERP. Companies should ensure that all ERP features are utilized optimally and provide adequate training to staff involved in ERP implementation. For future research, it is recommended to expand the research sample and consider other variables that may influence internal control and financial management, such as organizational culture, technological readiness, and the impact of industry sectors. Future studies could also adopt a mixed-methods approach to combine qualitative and quantitative data, as well as compare the differences between large and small companies in ERP implementation.

Ethical Statement of the Research

This study will be conducted in compliance with strict ethical principles, which include several key aspects, namely:

a. Informed Consent

Each respondent will be provided with a complete explanation of the research objectives and how their data will be used in this study.

b. Anonymity
The identities of the respondents will be fully protected, and the collected data will not be published individually.

c. Confidentiality of Data
All information obtained during the research will be securely stored and used solely for the purposes of this study.

d. Preparation of the Research Report
The report generated from this research will be compiled with academic integrity and will avoid plagiarism.

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