Does Enterprise Resource Planning (ERP) Impact on Earnings Quality?

First Tania Putri Jovita[1], Linda Kusumaning Wedari[2]*

AFFILIATION:
[1]Accounting Department, Master of Accounting, School of Accounting, Bina Nusantara University, Jakarta
[2]Accounting Department, School of Accounting, Bina Nusantara University, Jakarta, 11480 Indonesia

***CORRESPONDENCE:**
linda.wedari@binus.edu

THIS ARTICLE IS AVAILABLE IN:
https://ojs.unud.ac.id/index.php/jiab

DOI:
10.24843/JIAB.2024.v19.i02.p04

CITATION:
Jovita, F. T. P. & Wedari, L. K. (2024). Does Enterprise Resource Planning (ERP) Impact on Earnings Quality? *Jurnal Ilmiah Akuntansi dan Bisnis*, *19(1)*, 250-263.

ARTICLE HISTORY
Received:
April 21 2024

Revised:
June 1 2024

Accepted:
July 3 2024

Abstract

With some benefits of Enterprise Resource Planning (ERP) implementation in improving data accuracy, efficiency, governance and decision support, it is assumed that it can improve the earnings quality. This study aims at examining the impact of ERP implementation on earnings quality of manufacturing listed companies on the Indonesia Stock Exchange during period 2018-2021. The earnings quality is measured by the absolute value of discretionary accruals the Kothari Model (2005). Of 484 observations, the results showed that ERP implementation has a significant positive impact on earnings quality. This finding may contribute to literature as empirical evidence of the ERP system's effectiveness. These results particularly indicate that ERP implementations enhance the quality of financial reporting by constraining opportunistic managerial behaviour. In addition, understanding this underlying benefit can help firms in choosing investments and actions to effectively improve earnings quality.

Keywords: enterprise resource planning (ERP), earnings quality, discretionary accruals

Introduction

The COVID-19 lockdown significantly impacted Indonesia and other countries by disrupting business operations and causing substantial economic losses across various sectors. These disruptions affected production, consumption, exports, and imports, while also exacerbating debt risks and inflation. Consequently, the global economy faced heightened uncertainty and risk (Yan et al., 2022). In Indonesia, most companies experienced a sharp decline in demand, particularly within the manufacturing sector, which disrupted the stability of industrial production. Many businesses were forced to temporarily halt operations, while others faced bankruptcy. These challenges led to reduced business turnover and declining revenues, which likely affected companies' net profit reports. According to CNN Indonesia (2020), the pandemic caused a nearly 50% decline in production utility rates among manufacturing companies, with the exception of those in the medical device and pharmaceutical sectors. This contraction is further evidenced by the drop in Indonesia's Manufacturing Purchasing Managers Index (PMI), which fell from 51.9 in February 2020 to 45.3 in March 2020. This decline highlights the significant slowdown and contraction experienced by Indonesian manufacturing companies during this period (CNN Indonesia, 2020).

Net income is a critical component of financial statements, serving as a key indicator of corporate performance and a vital tool for stakeholder decision-making (Hasanuddin et al., 2021; Menicucci, 2020). It reflects the results of a company's operations based on the accrual basis of accounting and provides a summary measure of profitability (Menicucci, 2020). Stakeholders, particularly investors, rely on net income to assess company growth and evaluate management performance. Accurate and reliable profit reporting is essential for portraying a company's true performance. However, in practice, some companies fail to present profit figures that align with their actual economic conditions. When reported profits fail to reflect reality, the reliability of earnings quality is undermined (Hasanuddin et al., 2021).

Earnings quality refers to the ability of reported earnings to accurately depict a company's financial performance and predict future earnings. Poor earnings quality often arises when management engages in earnings manipulation to serve specific interests, resulting in misleading financial information. To address these challenges, companies have adopted strategies, including leveraging advanced tools to enhance efficiency. Among these tools, Enterprise Resource Planning (ERP) systems have gained prominence for improving management processes. ERP implementation ensures timely invoice processing, provides accurate records of revenues, costs, and sales, and aligns financial reporting with accounting standards and stakeholder expectations, potentially improving earnings quality (Danao & Main, 2024). However, there remains a need for empirical evidence to confirm the positive value of investing in such technology.

High earnings quality benefits companies by enhancing market value and eliciting positive market responses (Wairisal & Hariyati, 2021). Conversely, low-quality earnings increase the risk of decision-making errors for financial statement users, such as investors and creditors (Helina & Permanasari, 2017; Kanti, 2021). When earnings fail to reflect the company's actual performance, they distort the market's valuation of the company, undermining confidence in financial reporting (Kanti, 2021).

ERP systems play a crucial role in maintaining earnings quality by streamlining and integrating business processes across various organizational divisions, such as finance, production, human resources, and logistics. The implementation of ERP systems allows for more efficient operations, enhanced competitiveness, and reduced operational costs (Hapsari, 2019). ERP systems also foster transparency and accountability within organizations, making it more difficult for managers to manipulate financial reports without detection. By linking all business processes, ERP systems facilitate accurate tracking of information and timely reporting, thereby reducing the risk of earnings management and enhancing earnings quality (Tsai et al., 2012).

The manufacturing sector is particularly well-suited to ERP system implementation due to its large-scale operations. ERP systems assist manufacturing companies in managing, automating, and integrating processes, from customer order receipt to product delivery. Additionally, ERP systems streamline inventory management by automating the bill of materials, raw material tracking, and production scheduling, helping to prevent overproduction. This level of integration ensures data accuracy and operational efficiency.

Empirical research supports the positive impact of ERP systems on earnings quality. Morris & Laksmana (2010) found that companies implementing ERP systems experienced a significant reduction in the absolute value of discretionary accruals, a proxy for earnings management, compared to non-implementing companies. Similarly, Chen et

al. (2016) found that Chinese public companies with dominant shareholders showed reduced discretionary accruals following ERP implementation. These findings suggest that ERP systems can limit earnings management and improve financial reporting quality. Research by Tsai et al. (2012) dan Patnaik et al. (2019) further corroborates these results, demonstrating that ERP implementation contributes to better earnings quality by reducing managerial opportunism.

However, not all studies support these findings. Wibisono (2013) dan Roup & Purwanto (2022) observed that ERP implementation did not significantly reduce earnings management activities, resulting in lower earnings quality. These mixed results highlight the need for further investigation into the conditions under which ERP systems effectively enhance earnings quality. Factors such as company-specific characteristics, industry dynamics, and governance structures may influence the outcomes of ERP implementation on financial reporting.

Apart from Enterprise Resource Planning (ERP) system implementation, good corporate governance is another critical factor influencing earnings quality. Corporate governance is a management system built on principles such as equality, fairness, transparency, independence, responsibility, and accountability (Bursa Efek Indonesia, 2023). It serves as a mechanism to prevent fraud and foster public trust (Rochmawati et al., 2020). Consequently, strong corporate governance can significantly enhance earnings quality by ensuring ethical management and robust oversight.

This study utilizes the absolute value of discretionary accruals based on the Kothari Model (2005) to measure earnings quality. The Kothari Model is valued for its flexibility and robustness, allowing researchers to incorporate a wide range of control variables to account for factors influencing accruals, thereby minimizing bias in estimating discretionary accruals. By employing this model, the study aims to generate nuanced conclusions about the relationship between ERP implementation and earnings quality.

To the best of the researchers' knowledge, empirical investigations into the effect of ERP systems on earnings quality remain limited, particularly studies employing the Kothari Model as a measure of earnings quality. This study contributes to the literature by exploring this relationship in the context of Indonesia, an emerging market. The findings are expected to provide specific insights into the complex interplay between ERP adoption and earnings quality, enriching academic discourse and offering practical guidance for managerial decision-making in emerging economies.

Agency theory provides the theoretical framework for understanding the relationship between principals (shareholders or investors) and agents (company management). An agency relationship is defined as a contract in which shareholders delegate authority to management to perform services and make decisions on their behalf (Jensen & Meckling, 1976). Under this framework, agents are expected to act in the best interests of principals. However, conflicts of interest often arise when agents pursue personal motives that diverge from the principals' goals (Amos et al., 2016). These conflicts are exacerbated by information asymmetry, where one party—typically the agent—has access to more information than the other (Alzoubi, 2018).

In the context of agency theory, company management often has greater access to financial information due to their involvement in daily operations (Nugroho et al., 2022). This creates opportunities for agents to exploit their informational advantage, potentially engaging in fraudulent practices or manipulating financial data for personal

gain (Solomon et al., 2021). Information asymmetry, therefore, complicates principals' ability to monitor agents effectively, increasing the risk of earnings misrepresentation.

Earnings quality is a critical aspect of financial reporting, reflecting the financial health and performance of a company (Menicucci, 2020). High-quality earnings accurately depict a company's actual financial condition and provide reliable predictions of future profitability (Kepramareni et al., 2021). Reported net income serves as a vital criterion for evaluating performance, determining company value, and informing the decisions of various stakeholders, including investors, accountants, and financial managers (Broadstock et al., 2021).

The market places significant emphasis on earnings as an indicator of company value, making earnings quality a crucial factor for predicting future profits (Larrabee & Voss, 2012). However, the quality of earnings is called into question when reported profits fail to reflect a company's actual condition (Hasanuddin et al., 2021). Misrepresented earnings not only erode stakeholder trust but also lead to substantial investment losses and long-term economic damage for the company (Menicucci, 2020).

Enterprise Resource Planning (ERP) represents a significant advancement in information technology, offering companies the ability to collect, organize, integrate, and automate business processes and data efficiently (Acar et al., 2017; Sharda et al., 2018). ERP systems enhance business operations by enabling real-time information availability, thereby improving operational efficiency. One of the key benefits of ERP systems is their ability to provide greater information transparency across all organizational levels. Increased transparency can limit earnings management activities by making it more difficult for management to manipulate financial reports without detection (Morris & Laksmana, 2010).

ERP systems reduce information asymmetry by integrating operating processes and promoting transparency, resulting in higher-quality earnings information. Companies that adopt ERP systems are expected to outperform those that do not due to their enhanced operational and reporting capabilities (Hunton et al., 2003). Empirical evidence supports this notion; studies by (Morris & Laksmana, 2010) and Tsai et al. (2012) show that higher ERP system performance correlates with reduced earnings management. Patnaik et al. (2019) further demonstrate that firms implementing ERP systems are less likely to engage in real earnings management than non-adopters. Reduced earnings management directly contributes to improved earnings quality.

However, not all findings align. Studies by Wibisono (2013), Weshah et al. (2021), and Roup & Purwanto (2022) argue that ERP implementation does not always mitigate earnings management, which can result in lower earnings quality. These conflicting results highlight ongoing debate within the academic literature regarding the impact of ERP systems on earnings quality. To address this uncertainty, the following hypothesis is proposed:

H_1: Enterprise Resource Planning has a positive effect on earnings quality.

Corporate governance is a critical mechanism for ensuring effective oversight of management behavior and preventing fraud (Magnanelli et al., 2021). It ensures that companies are managed responsibly, equitably, and transparently, safeguarding stakeholder interests (Arniati et al., 2019). Strong corporate governance reduces the opportunities for earnings manipulation and facilitates the production of high-quality financial and earnings reports (Asogwa et al., 2019). Effective governance mitigates

agency problems by enhancing monitoring mechanisms that prevent management from prioritizing personal interests over stakeholder goals.

Good corporate governance also ensures active oversight by the board of directors, who are responsible for disciplining managers and ensuring accurate financial reporting (El Diri et al., 2020). Directors with extensive tenure bring valuable experience and a deep understanding of the company's business processes, which strengthens their ability to monitor earnings management effectively (Asogwa et al., 2019; El Diri et al., 2020). Additionally, board members with financial and accounting expertise are better equipped to oversee the financial reporting process, curbing earnings manipulation and improving earnings quality (Alzoubi, 2018; Githaiga et al., 2022; Lin & Hwang, 2010).

Empirical studies confirm the positive impact of corporate governance, particularly board financial expertise and tenure, on earnings quality. Alzoubi (2018) found that financial expertise on the board negatively correlates with earnings management, leading to better earnings quality. Similar findings by Lin & Hwang (2020) and Githaiga et al. (2022) reinforce this conclusion. Moreover, El Diri et al. (2020) and Putri & Darmayanti (2021) demonstrate that board tenure is effective in preventing earnings management.

Nonetheless, not all studies align with these findings. Nugroho & Eko (2011) argue that board tenure does not significantly affect earnings management and thus cannot guarantee higher earnings quality. Similarly, Mardianto & Carin (2021) found no relationship between board financial expertise and earnings management, suggesting that earnings quality may remain low regardless of expertise. These contrasting results underscore the need for further exploration of the role of corporate governance in earnings quality. Based on these considerations, the following hypotheses are proposed:

H_{2a}: Corporate governance, as measured by board financial expertise, has a significant positive effect on earnings quality.

H_{2b}: Corporate governance, as measured by board tenure, has a significant positive effect on earnings quality.

Research Method

This study adopts a quantitative research approach. The population consists of companies listed on the Indonesia Stock Exchange (IDX) from 2018 to 2021, totaling 213 companies. Using a purposive sampling method, 141 manufacturing companies meeting the research criteria were selected. Purposive sampling involves selecting samples based on specific criteria set by the researcher to ensure relevant and reliable data (Sekaran & Bougie, 2016). This study focuses on manufacturing companies listed on the IDX during the specified period.

With a four-year observation period, the initial dataset included 564 observations from the 141 selected companies. However, during data processing using SPSS version 25, 80 outlier data points were identified and excluded. As a result, the final dataset consisted of 484 observations for analysis.

The data collection method employed in this study is documentation. Secondary data, including annual reports and audited financial statements from 2018 to 2021, were obtained through the official company websites and the IDX website (www.idx.co.id). Additional data sources included Yahoo Finance (www.finance.yahoo.com) and IDN Financials (www.idnfinancials.com). ERP implementation data were gathered from annual reports, financial reports, company prospectuses, official websites, LinkedIn profiles, and

relevant news articles. Supplementary references such as academic articles and journals were also utilized.

The analysis process begins with descriptive statistics, followed by classical assumption tests, including normality, multicollinearity, autocorrelation, and heteroscedasticity tests. Linear regression analysis is then conducted to assess the strength and significance of the relationships between independent and dependent variables (Ghozali, 2018). Finally, hypothesis testing is performed to evaluate the proposed relationships.

The measurement of variables in this study follows established methodologies. ERP system implementation is measured using a dummy variable, consistent with previous studies (Akbar & Harahap, 2021; Brazel & Dang, 2008; Chen et al., 2016; Hapsari, 2019; Patnaik et al., 2019). Dummy variables are categorical variables coded as 0 or 1 to represent the absence or presence of a characteristic (Sekaran & Bougie, 2016). In this study, a value of 1 is assigned to companies that disclosed ERP system implementation, while a value of 0 is assigned to those that did not.

Earnings quality is proxied by discretionary accruals, following the model proposed by Kothari et al. (2005), which refines the Modified Jones model by incorporating Return on Assets (ROA) as a control for performance. This model is widely used in prior research (Chen et al., 2016; Ferentinou & Anagnostopoulou, 2016; Kothari et al., 2005; Morris & Laksmana, 2010; Mulchandani et al., 2020; Obeng et al., 2020). In this study, the discretionary accruals value is transformed into an absolute value to capture both income-increasing and income-decreasing earnings management activities. The Kothari model equation is as follows:

$$\frac{TAC_{it}}{TA_{it-1}} = a_1\left(\frac{1}{TA_{it-1}}\right) + a_2\left(\frac{\Delta \mathrm{REV}_{it} - \Delta \mathrm{REC}_{it}}{TA_{it-1}}\right) + a_3\left(\frac{PPE_{it}}{TA_{it-1}}\right) + a_4(ROA_{it}) + \varepsilon_{it} \text{................} \quad (1)$$

Where,

TAC_{it} = Total Accrual of company i in the year period t (*Net Income – Cash Flow from Operation*).

TA_{it} = Total Assets of company i in the year period t.

ΔREV_{it} = Revenue of company i in year t is reduced by revenue of company i in year t-1.

ΔREC_{it} = Receivables of company i in year t are reduced by receivables of company i in year t-1.

PPE_{it} = *Net Property, Plant, dan Equipment* of company i in year t.

ROA_{it} = *Return on Assets* of company i in year t.

E = Error

In this study, corporate governance is assessed through the characteristics of the board of directors, specifically board tenure and board financial expertise. Board tenure is measured as the cumulative years of service of all directors as reported in the selected annual report (El Diri et al., 2020; Magnanelli et al., 2021; B. Y. Nugroho & Eko, 2011). Board financial expertise is calculated as the ratio of board members with financial expertise to the total number of board members (Githaiga et al., 2022).

Following Chen et al. (2016), this study incorporates Firm Size (SIZE), Leverage (LEV), and Operating Cash Flow (OCF) as control variables. Firm size is proxied by the natural logarithm of total assets. Leverage is calculated as the ratio of total liabilities to

total assets (Bryan & Mason, 2016; Morris & Laksmana, 2010). Operating Cash Flow is measured by dividing cash flow from operations by total assets (Brazel & Dang, 2008; Chen et al., 2016; Morris & Laksmana, 2010; Wibisono, 2013).

Result and Discussion

Earnings quality, the dependent variable, is measured using Absolute Discretionary Accruals (ABSDA). According to the descriptive statistical test results presented in Table 1, the mean value of ABSDA is 0.065. A lower discretionary accruals value indicates higher earnings quality, with values approaching zero reflecting minimal earnings management (Melyana & Rohman, 2015; Y. P. Nugroho et al., 2022).

The independent variable, Enterprise Resource Planning (ERP), is implemented by 66.5% of the sampled companies, as shown in the descriptive statistics in Table 1. This finding underscores the widespread adoption of ERP systems within the sample.

Board financial expertise (FE), a key characteristic of corporate governance, shows a mean value of 0.440, indicating that 44% of the sampled companies have directors with expertise in finance and accounting. This highlights the moderate prevalence of financial expertise among board members in the sample.

Board tenure, another governance characteristic, has a mean value of 7.63, signifying that, on average, board members have a total tenure of seven years. This measure reflects the extent of directors' experience and familiarity with the company's operations.

Table 1. Descriptive Statistics Test Results and ERP Frequency Table

Descriptive Statistics

Dependent Variable	N	Min	Max	Mean	Std. Dev
ABSDA	484	0.006	0.246	0.065	0.048
Independent Variable					
FE	484	0.000	1.000	0.440	0.215
TENURE	484	1.000	36.667	7.630	6.992
Control Variable					
SIZE	484	25.31	33.537	28.730	1.563
LEV	484	0.004	2.183	0.469	0.272
OCF	484	-0.255	0.386	0.060	0.0861

ERP Frequency Table

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	162	33.5	33.5	33.5
	1	322	66.5	66.5	100
	Total	484	100	100	

Among the control variables, Firm Size (SIZE) has a mean value of 28.73, representing the natural logarithm of total assets. Leverage (LEV), as measured by the debt-to-asset ratio (DAR), shows a mean value of 0.469, indicating that, on average, 46.9% of the companies' assets are financed through debt. Operating Cash Flow (OCF), calculated as the ratio of cash flow from operations to total assets, has a mean value of 0.060681, reflecting the operational cash generation capability of the sample firms.

The preliminary testing data shows that data has normal distribution and fee of high correlation. Furthermore, based on the results of the multicollinearity test, depics that all variables have tolerance values above 10 and VIF values below 10. Therefore, it can be concluded that all variables in the regression model do not detect multicollinearity symptoms.

Table 2. Multiple Linear Regression Test Results

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	-1.541	.701		-2.199	.028
	ERP	-.304	.090	-.172	-3.366	.001
	FE	-.044	.169	-.011	-.261	.794
	TENURE	.001	.005	.012	.269	.788
	SIZE	-.057	.026	-.106	-2.221	.027
	LEV	0.243	0.135	0.079	1.794	0.073
	OCF	3.955	0.432	0.408	9.158	0.000
	Adjusted R Square		0.160			
	F		16.303			
	Sig. F		0.000			

a. Dependent Variable: ABSDA

The results of the regression analysis are in the form of coefficients for each independent variable, where the coefficients are obtained by predicting the value of the dependent variable with an equation (Ghozali, 2018). Based on the results of the multiple linear regression test in Table 6, the following multiple linear regression equations are obtained:

LNABSDA = -1.541 – 0.304 ERP – 0.044 FE + 0.001 TENURE – 0.057 SIZE + 0.243 LEV + 3.955 OCF + ε

Based on the results of the coefficient of determination test in Table 2, it shows that the Adjusted R Square value meets the criteria ($0 < R^2 < 1$) of 0.160, meaning that the earnings quality variable, proxied by absolute discretionary accruals as the dependent variable, can be explained by ERP and corporate governance as independent variables, as well as firm size, leverage, and operating cash flow as control variables by 16%. Meanwhile, the remaining 84% is influenced by other variables that are not included in the regression model in this study.

Based on the results of the F-test in Table 2, it shows that the F-test value is 16.303 and is significant at 0.000. It can be concluded that the model is fit and can be utilized in the next examination.

Based on the results of the partial statistical test (t-test) in Table 2, the following results are obtained. It can be seen that the ERP coefficient is -0.304, and the significance value obtained is 0.001. These results indicate that ERP has a significant negative effect on the absolute value of discretionary accruals. With a company implementing an ERP system, the level of discretionary accruals will be lower, so that it can improve the quality of company profits. Therefore, it can be concluded that H1 is accepted, meaning that ERP implementation has a significant positive effect on earnings quality.

Board financial expertise is one measure of corporate governance. Based on the results, it can be seen that the FE coefficient is -0.044, and the significance value is 0.794. Therefore, it can be concluded that H2a is rejected, meaning that corporate governance

as measured by the board of financial expertise has no significant effect on earnings quality.

Board tenure is one measure of corporate governance. It can be seen that the TENURE coefficient is 0.001, and the significance value is 0.788. Therefore, it can be concluded that H2b is rejected, meaning that corporate governance as measured by board tenure has no significant effect on earnings quality.

As control variables, Firm size (SIZE), Leverage (LEV), and Operating Cash Flow (OCF) show that the significant values are 0.027, 0.073, and 0.000, respectively. This means that firm size, leverage, and operating cash flow have a significant effect on earnings quality.

Based on the results, it shows H1 is accepted, that the application of Enterprise Resource Planning has a significant positive effect on earnings quality. In data processing, it was found that the ERP system had a significant negative effect on absolute discretionary accruals. The concept of discretionary accruals can provide an understanding that management manipulates accrual income to achieve personal interests (Sisdianto et al., 2019). This relates to agency theory, where there is a difference between the personal interests of management and the goals of shareholders, which creates a conflict of interest or is known as the agency problem. Agency problems occur due to information asymmetry, in which company management usually has more complete information than shareholders. This condition can cause management to have the opportunity to carry out earnings management or not report company activities that actually occur, which aims to eliminate the failures experienced by managers in fulfilling their obligations to shareholders. Therefore, earnings management activity can also result in the company's earnings quality being low.

To generate good quality earnings, companies can implement an Enterprise Resource Planning system. This is because the ERP system can collect and integrate all data from all company units and significantly increase information transparency at all levels of the company's organization. With high transparency, it can reduce management activities in manipulating profits, considering that management will find it difficult to do this without being detected by their superiors (Morris & Laksmana, 2010). In addition, all business information can be produced instantly through the ERP system, thereby making business processes more effective and efficient.

The results obtained in this study are in line with research conducted by Morris & Laksmana (2010), Tsai et al. (2012), and Patnaik et al. (2019), where the results show that the application of Enterprise Resource Planning has a significant negative effect on earnings management, so that it can produce good earnings quality. The research results of Chen et al. (2016) also found that the implementation of Enterprise Resource Planning has a positive effect on earnings quality.

Based on the results, H2a was rejected, meaning that corporate governance as measured by the board of financial expertise has no significant effect on earnings quality, which is proxied by absolute discretionary accruals. In addition, H2b was rejected, meaning that corporate governance as measured by board tenure did not significantly influence earnings quality as proxied by absolute discretionary accruals.

Based on the results obtained, it can be concluded that corporate governance as measured either by the board of financial expertise or by the board of tenure cannot ensure that the company's earnings management decreases, so it cannot ensure that the company will generate quality profits. The company's directors have not been able to

significantly reduce misrepresentations in the financial statements. Directors who have financial and accounting expertise in a company are very limited and there may only be one or more individuals. Directors also have many tasks, so they are unable to monitor financial reports in detail, even though they have financial and accounting expertise. In addition, directors who have a long tenure can enable directors to carry out earnings management aimed at maintaining the good name and reputation of internal parties in the view of stakeholders.

The long tenure of the directors gains the trust of the company's internal parties. This trust can lead to cooperation, which may trigger earnings management activities within the company. This is related to agency theory because the company's management acts as agents, so they have opportunities to manipulate profits for their personal interests. This situation arises because the practice of corporate governance with the characteristics of the board of directors is not optimal in disciplining managers when reporting company finances and conducting active monitoring to mitigate earnings management. This is possible due to information asymmetry between management and shareholders, wherein management possesses more detailed and complete information about the company's financial condition.

The results obtained in this study align with research conducted by Nugroho & Eko (2011), which found that board tenure has no significant effect on earnings management. Additionally, the research results of Mardianto & Carin (2021) showed that the board's financial expertise has no significant effect on earnings management. Therefore, the conclusion from these findings is that corporate governance, as measured by the characteristics of the board of directors, cannot guarantee quality earnings.

Conclusion

Based on the results of the research analysis, it is evident that the implementation of Enterprise Resource Planning (ERP) systems has a significant positive effect on earnings quality. These findings suggest that companies utilizing ERP systems can improve the quality of their earnings. However, the analysis also reveals that corporate governance, as measured by board tenure and the financial expertise of directors, does not significantly influence earnings quality. This indicates that corporate governance characteristics, such as financial expertise and long tenure, are not sufficient to ensure the generation of high-quality earnings.

Based on the findings, several recommendations are proposed. Companies should fully leverage the advantages of ERP systems to enhance business processes and support informed decision-making. In addition, it is critical for firms to implement robust controls to prevent earnings disclosures from being manipulated by management, thereby ensuring the generation of high-quality earnings.

Investors are advised to remain cautious when making investment decisions, even when a company has implemented an ERP system. While ERP systems can reduce earnings management and improve profit quality, some instances of earnings management may still go undetected in specific companies.

Future researchers are encouraged to explore alternative measures of corporate governance, such as the frequency and duration of training programs for directors and regular performance assessments. Additionally, research could examine the potential benefits of limiting board tenure and incorporating independent directors to strengthen governance practices and enhance earnings quality.

This study primarily investigates the short- to medium-term impact of ERP implementation on earnings quality. While this provides valuable insights, longitudinal studies are recommended to assess whether improvements in earnings quality persist or diminish over time as ERP systems mature. Understanding these long-term effects can help companies evaluate the return on investment (ROI) associated with ERP implementation, particularly in terms of sustained improvements in earnings quality.

References

Acar, M. F., Tarim, M., Zaim, H., Zaim, S., & Delen, D. (2017). Knowledge Management and ERP: Complementary or Contradictory? *International Journal of Information Management*, *37*(6), 703–712. https://doi.org/10.1016/j.ijinfomgt.2017.05.007

Akbar, D. M., & Harahap, K. (2021). Pengaruh Implementasi Sistem Enterprise Resource Planning (ERP) Terhadap Kualitas Informasi Akuntansi. *Jurnal Akuntansi, Keuangan & Perpajakan Indonesia (JAKPI)*, *9*(1).

Alzoubi, E. S. S. (2018). Audit Quality, Debt Financing, and Earnings Management: Evidence from Jordan. *Journal of International Accounting, Auditing and Taxation*, *30*, 69–84. https://doi.org/10.1016/j.intaccaudtax.2017.12.001

Amos, B., Ibrahim, G., Nasidi, Dr. M., & Ibrahim, K. Y. (2016). The Impact of Institutional Ownership Structure on Earnings Quality of Listed Food/Beverages and Tobacco Firms in Nigeria. *Journal of Arts, Science and Commerce*, *7*(1(1)), 20–30. https://doi.org/10.18843/rwjasc/v7i1(1)/03

Arniati, T., Puspita, D. A., Amin, A., & Pirzada, K. (2019). The Implementation of Good Corporate Governance Model and Auditor Independence in Earnings Quality Improvement. *Entrepreneurship and Sustainability Issues*, *7*(1), 188–200. https://doi.org/10.9770/jesi.2019.7.1(15)

Asogwa, C. I., Ofoegbu, G. N., Nnam, J. I., & Chukwunwike, O. D. (2019). Effect of Corporate Governance Board Leadership Models and Attributes on Earnings Quality of Quoted Nigerian Companies. *Cogent Business and Management*, *6*(1). https://doi.org/10.1080/23311975.2019.1683124

Brazel, J. F., & Dang, L. (2008). The Effect of ERP System Implementations on the Management of Earnings and Earnings Release Dates. *Journal Of Information Systems*, *22*(2), 1–21. https://doi.org/10.2308/jis.2008.22.2.1

Broadstock, D. C., Chan, K., Cheng, L. T. W., & Wang, X. (2021). The Role of ESG Performance During Times of Financial Crisis: Evidence From COVID-19 in China. *Finance Research Letters*, *38*. https://doi.org/10.1016/j.frl.2020.101716

Bryan, D. B., & Mason, T. W. (2016). Extreme CEO Pay Cuts and Audit Fees. *Advances in Accounting*, *33*, 1–10. https://doi.org/10.1016/j.adiac.2016.02.001

Bursa Efek Indonesia. (2023). *Tata Kelola Perusahaan*. Retrieved June 20, 2023, from https://idx.co.id/id/tentang-bei/tata-kelola-perusahaan

Chen, S., Harris, L., Lai, J., & Li, W. (2016). ERP Systems and Earnings Quality: The Impact of Dominant Shareholdings in China. *Journal of Emerging Technologies in Accounting*, *13*(2), 49–69. https://doi.org/10.2308/jeta-51547

CNN Indonesia. (2020, April 2). *Imbas Corona, Utilitas Manufaktur Anjlok Hampir Separuh*. CNN Indonesia. https://www.cnnindonesia.com/ekonomi/20200402183754-92-489761/imbas-corona-utilitas-manufaktur-anjlok-hampir-separuh

Danao, M., & Main, K. (2024). What Is SAP ERP? Retrieved from https://www.forbes.com/advisor/business/what-is-sap-erp/

El Diri, M., Lambrinoudakis, C., & Alhadab, M. (2020). Corporate Governance and Earnings Management in Concentrated Markets. *Journal of Business Research*, *108*, 291–306. https://doi.org/10.1016/j.jbusres.2019.11.013

Fama, E. F., & Jensen, M. C. (1983). Separation of Ownership and Control. *Journal of Law and Economics*, *26*(2). http://www.journals.uchicago.edu/t-and-c

Ferentinou, A. C., & Anagnostopoulou, S. C. (2016). Accrual-based and Real Earnings Management Before and After IFRS Adoption The Case of Greece. *Journal of Applied Accounting Research*, *17*(1), 2–23. https://doi.org/10.1108/JAAR-01-2014-0009

Ghozali, I. (2018). *Aplikasi Analisis Multivariate Dengan Program IBM SPSS 25* (9th ed.). Badan Penerbit Universitas Diponegoro.

Githaiga, P. N., Kabete, P. M., & Bonareri, T. C. (2022). Board Characteristics and Earnings Management. Does Firm Size Matter? *Cogent Business and Management*, *9*(1). https://doi.org/10.1080/23311975.2022.2088573

Hapsari, D. P. (2019). Pengaruh Enterprise Resource Planning terhadap Kinerja Keuangan Perusahaan. *Owner: Riset Dan Jurnal Akuntansi*, *3*(2), 108–116. https://doi.org/10.33395/owner.v3i2.175

Hasanuddin, R., Darman, D., Taufan, M. Y., Salim, A., Muslim, M., & Putra, A. H. P. K. (2021). The Effect of Firm Size, Debt, Current Ratio, and Investment Opportunity Set on Earnings Quality: An Empirical Study in Indonesia. *Journal of Asian Finance, Economics and Business*, *8*(6), 179–188. https://doi.org/10.13106/jafeb.2021

Helina, & Permanasari, M. (2017). Faktor-Faktor yang Mempengaruhi Kualitas Laba Pada Perusahaan Publik Manufaktur. *Jurnal Bisnis Dan Akuntansi*, *19*(1a), 325–334.

Hunton, J. E., Lippincott, B., & Reck, J. L. (2003). Enterprise Resource Planning Systems: Comparing Firm Performance of Adopters and Nonadopters. *International Journal of Accounting Information Systems*, *4*(3), 165–184. https://doi.org/10.1016/S1467-0895(03)00008-3

Jensen, M. C., & Meckling, W. H. (1976). Theory of The Firm: Managerial Behavior, Agency Costs and Ownership Structure. *Journal of Financial Economics*, *3*, 305–360.

Kanti, A. (2021). Kualitas Laba Sebagai Pemoderasi Hubungan Antara Tata Kelola dan Kinerja Keuangan Terhadap Return Saham. *E-Journal Akuntansi TSM*, *1*(1), 97–116.

Kepramareni, P., Pradnyawati, S. O., & Swandewi, N. N. A. (2021). Kualitas Laba Dan Faktor-Faktor Yang Berpengaruh (Studi Kasus Pada Perusahaan Manufaktur Tahun 2017-2019). *WACANA EKONOMI (Jurnal Ekonomi, Bisnis Dan Akuntansi)*, *20*(2), 170–178. https://doi.org/10.22225/we.20.2.2021.170-178

Kothari, S. P., Leone, A. J., & Wasley, C. E. (2005). Performance Matched Discretionary Accrual Measures. *Journal of Accounting and Economics*, *39*(1), 163–197. https://doi.org/10.1016/j.jacceco.2004.11.002

Larrabee, D. T., & Voss, J. A. (2012). *Valuation Techniques: Discounted Cash Flow, Earnings Quality, Measures of Value Added, and real Options* (1st ed.). John Wiley & Sons, Inc.

Lin, J. W., & Hwang, M. I. (2010). Audit Quality, Corporate Governance, and Earnings Management: A Meta-Analysis. *International Journal of Auditing*, *14*(1), 57–77. https://doi.org/10.1111/j.1099-1123.2009.00403.x

Magnanelli, B. S., Paolucci, G., & Pirolo, L. (2021). Diversity in Boardrooms and Firm Performance: The Role of Tenure and Educational Level of Board Members.

Corporate Board Role Duties and Composition, *17*(3), 31–41. https://doi.org/10.22495/cbv17i3art3

Mardianto, & Carin, L. (2021). Pengaruh Tata Kelola Perusahaan Terhadap Manajemen Laba Pada Perusahaan Manufaktur yang Terdaftar di BEI Tahun 2016-2019. *Forum Ekonomi*, *23*(3), 523–538. http://journal.feb.unmul.ac.id/index.php/FORUMEKONOMI

Melyana, L., & Rohman, A. (2015). Analisis Pengaruh Konvergensi International Financial Reporting Standart (IFRS) Terhadap Earnings Management. *Diponegoro Journal Of Accounting*, *5*(3), 1–10. http://ejournal-s1.undip.ac.id/index.php/accounting

Menicucci, E. (2020). Earnings Quality: Definitions, Measures, and Financial Reporting. In *Earnings Quality: Definitions, Measures, and Financial Reporting*. Palgrave Macmillan. https://doi.org/10.1007/978-3-030-36798-5

Morris, J. J., & Laksmana, I. (2010). Measuring The Impact of Enterprise Resource Planning (ERP) Systems on Earnings Management. *Journal of Emerging Technologies in Accounting*, *7*(1), 47–71. https://doi.org/10.2308/jeta.2010.7.1.47

Mulchandani, K., Mulchandani, K., & Wasan, P. (2020). Dividends and Earnings Quality: Evidence From India. *IIMB Management Review*, *32*(2), 166–176. https://doi.org/10.1016/j.iimb.2019.10.001

Nugroho, B. Y., & Eko, U. (2011). Board Characteristics and Earnings Management. *Bisnis & Birokrasi, Jurnal Ilmu Administrasi Dan Organisasi*, *18*(1).

Nugroho, Y. P., Setiawan, D., & Wedari, L. K. (2022). The Role of The Audit Committee in Accounting and Finance Expertise On Earnings Quality. *Corporate Governance and Organizational Behavior Review*, *6*(2), 41–51. https://doi.org/10.22495/cgobrv6i2p4

Obeng, V. A., Ahmed, K., & Miglani, S. (2020). Integrated Reporting and Earnings Quality: The Moderating Effect of Agency Costs. *Pacific Basin Finance Journal*, *60*. https://doi.org/10.1016/j.pacfin.2020.101285

Patnaik, B. C. M., Satpathy, I., & Debnath, N. C. (2019). The Effect of ERP System Implementation on Real Earnings Management: Evidence From an Emerging Economy. *International Journal of Civil Engineering and Technology (IJCIET)*, *10*(3), 588–603.

Putri, L. E., & Darmayanti, Y. (2021). Pengaruh Usia, Pendidikan, Etnis, Tenure dan Board Ownership Terhadap Manajemen Laba pada Perusahaan Manufaktur di Bursa Efek Indonesia 2014-2018. *Jurnal Kajian Akuntansi Dan Auditing*, *16*(2).

Rochmawati, N. E., Tarjo, & Musyarofah. (2020). The Implementation of Good Corporate Governance and Efforts to Prevent Fraud in Banking Companies. *Jurnal Reviu Akuntansi Dan Keuangan*, *10*(1). https://doi.org/10.22219/jrak.v10i1.10268

Roup, A., & Purwanto, E. (2022). Dampak Implementasi Enterprise Resource Planning Terhadap Kualitas Informasi Keuangan, Manajemen Laba, dan Return of Equity. *Jurnal Ilmiah Akuntansi Kesatuan*, *10*(3). https://doi.org/10.37641/jiakes.v10i3.1464

Sekaran, U., & Bougie, R. (2016). *Research Methods for Business: A Skill-Building Approach* (7th ed.). John Wiley & Sons Ltd.

Sharda, R., Delen, D., & Turban, E. (2018). *Business Intelligence, Analystics, and Data Science: A Managerial Perspective* (4th ed.). Pearson.

Sisdianto, E., Ramdani, R. F., & Fitri, A. (2019). Pengaruh Discretionary Accrual Terhadap Earnings Management: Studi Pada Perusahaan Otomotif yang Terdaftar di Bursa

Efek Indonesia Periode 2012 – 2016. *Jurnal Akuntansi, Keuangan, Dan Manajemen*, *1*(1), 27–38. https://doi.org/10.35912/jakman.v1i1.4

Solomon, S. J., Bendickson, J. S., Marvel, M. R., McDowell, W. C., & Mahto, R. (2021). Agency Theory and Entrepreneurship: A Cross-Country Analysis. *Journal of Business Research*, *122*, 466–476. https://doi.org/10.1016/j.jbusres.2020.09.003

Syahrul, Y. (2003, December 8). *Bapepam: Kasus Kimia Farma Merupakan Tindak Pidana*. Tempo.Co. https://bisnis.tempo.co/read/33339/bapepam-kasus-kimia-farma-merupakan-tindak-pidana

Tsai, W. H., Lee, K. C., Liu, J. Y., Lin, S. J., & Chou, Y. W. (2012). The Influence of Enterprise Resource Planning (ERP) Systems Performance on Earnings Management. *Enterprise Information Systems*, *6*(4), 491–517. https://doi.org/10.1080/17517575.2011.622414

Wairisal, R. J. A. I., & Hariyati. (2021). Pengaruh Kualitas Laba Terhadap Nilai Perusahaan Dengan Variabel Moderasi Corporate Governance. *Jurnal Pendidikan Akuntansi (JPAK)*, *9*(1), 71–78.

Weshah, S., Elessa, M., Shanti, A., Salameh, R., & Al-Tahat, S. (2021). Earning Management Practices Within ERP Environment: A Case Study of ERP's Companies Listed in Amman Stock Exchange. *WSEAS Transactions on Business and Economics*, *18*, 846–854. https://doi.org/10.37394/23207.2021.18.80

Wibisono, A. F. (2013). Dampak Implementasi Sistem ERP Terhadap Manajemen Laba dan Ketetapan Waktu Penyampaian Laporan Keuangan (Studi Empiris Pengguna SAP yang Terdaftar di BEI). *Jurnal Analisis Bisnis Ekonomi*, *11*(2), 106–117.

Yan, H., Liu, Z., Wang, H., Zhang, X., & Zheng, X. (2022). How Does The COVID-19 Affect Earnings Management: Empirical Evidence From China. *Research in International Business and Finance*, *63*. https://doi.org/10.1016/j.ribaf.2022.101772