

IMPLEMENTATION OF ARTIFICIAL INTELLIGENCE (AI) IN FINANCIAL REPORTING OF LISTED COMPANIES JAKARTA ISLAMIC INDEX (JII)

Bella Thalia Winardi

School of Economics, Shanghai University

bellatha@shu.edu.cn

ABSTRACT

Artificial Intelligence (AI) refers to a system capable of mimicking or even exceeding human intelligence in performing specific tasks. AI has catalyzed changes across various sectors, including financial reporting. This study aims to analyze the factors influencing the implementation of AI in financial reporting for companies listed on the Jakarta Islamic Index (JII). The data utilized in this research consists of the financial statements from JII, specifically balance sheets and income statements. The study employs AI with variables such as efficiency, accuracy, and data analysis. This research is associative, utilizing a quantitative approach. The data collection technique involves documentation. Statistical analysis is employed for data analysis, and the research processes use formulas for efficiency, accuracy, and data analysis, along with the E-Views version 12 (X64) application. The study examines five companies that have published financial report data over three consecutive years. The findings reveal that: 1) The efficiency level does not significantly impact financial reporting, as evidenced by the t-test result of 0.8439, which is greater than 0.05, leading to the conclusion that H1 is rejected. 2) The accuracy level significantly affects financial reporting, demonstrated by the t-test result of 0.0089, which is less than 0.05, thus H2 is accepted. 3) The data analysis level also significantly impacts financial reporting, as shown by the t-test result of 0.0011, which is less than 0.05, concluding that H3 is accepted.

Keywords : *Artificial Intelligence in Financial Reporting*

INTRODUCTION

Financial reporting involves recording all monetary transactions within a company, providing crucial information for decision-making by investors, regulators, and other stakeholders. Initially, the management of transactional data depended on manual processes or ERP (Enterprise Resource Planning) systems (Pribadi, 2019). However, the rapid advancement of technology has led to transformations across all professional fields, prompting the development of efficient work practices to ensure competitiveness and achieve organizational goals. Similarly, in the realm of financial reporting, various financial analysis methods have been explored. This is evident in the increasing role of artificial intelligence (AI), which has been widely discussed in the context of financial reporting.

Artificial intelligence (AI) is defined as a cohesive system that effectively analyzes external inputs, learns from the information it receives, and utilizes that knowledge to achieve specific goals or tasks through adaptable methods (Haenlein, 2019). These systems are often termed computer intelligence because they are integrated into machines and computers to perform functions similar to those of humans (Siahan, 2020). AI integration allows companies to manage and store large amounts of big data while ensuring transparency and decentralization in financial

transactions through cloud computing and blockchain technology.

The application of AI in financial reporting has transformed how companies manage and communicate their financial information, enabling them to make more informed decisions by enhancing efficiency, accuracy, and the capacity to analyze extensive data. Its capability to process real-time information for decision-making parallels human abilities. Currently, KPMG, one of the Big Four professional services firms, has successfully incorporated AI into its systems by partnering with IBM and utilizing the Watson supercomputer. This supercomputer employs machine learning and AI technologies, allowing it to read and summarize thousands of pages of contracts and documents rapidly. Additionally, it can analyze deposit and withdrawal data to generate essential financial information.

As AI technology has become increasingly utilized in areas such as financial crises, fraud detection, stock market predictions, and auditing, it has transformed how companies manage and present their financial information. In this regard, this research seeks to explore the nuanced ways in which AI alters the foundational aspects of financial reporting. The essence of this study is encapsulated in the following question, designed to shed light on specific aspects of AI:

1. In what ways does the adoption of AI technology enhance the efficiency, accuracy, and data analytics of financial reporting?

LITERATURE REVIEW

In recent years, AI has emerged as a significant and transformative technological advancement with profound implications across various sectors, particularly in finance. The implementation of AI-based accounting information systems and internal controls can have both positive and negative effects on the occurrence of financial reporting errors in hotels. This indicates that an increase in the use of AI-based accounting systems correlates with a reduction in financial reporting errors, and conversely, fewer individuals utilizing these systems leads to more errors. By employing this technology, hotels can mitigate the risk of fraudulent financial reporting (Julianto, 2021).

At the same time, AI technologies enhance the reliability of financial information by facilitating more comprehensive and impartial audit processes that extend beyond traditional accounting evaluations (Yubin Gao et al., 2021). AI-driven tools increase audit accuracy by employing intelligent data analysis, pattern recognition, and anomaly detection, which enable auditors to concentrate on high-risk areas and perform more in-depth analyses (Munoko, 2020). The integration of AI in accounting significantly improves the efficiency and effectiveness of audit operations, reducing the time and costs associated with assessments while enhancing the quality of audit outcomes (Ivakhnenkov, 2023).

AI can process vast amounts of financial data in real-time, offering companies valuable insights into their financial performance. A regression analysis of data from 15 Jordanian banks indicates that AI impacts the financial performance of these institutions. It positively influences accounting effectiveness in terms of return on investment and return on equity, but negatively affects overall costs (Fadi et al., 2023). The study, which examines various specific applications of artificial intelligence in financial management, such as credit risk assessment, portfolio management, and fraud detection, concludes that AI has the potential to revolutionize financial management by providing greater precision and efficiency in decision-making tools (Goel et al., 2023).

In summary, the application of AI in reporting significantly enhances the transparency and credibility of financial reporting. AI technologies improve audit accuracy, efficiency, and effectiveness, while also offering robust fraud detection systems and advanced data analysis capabilities. However, addressing ethical and regulatory challenges is essential to fully harness AI's potential in auditing.

METHOD

This study utilized a correlational quantitative research approach. Correlational research leverages existing data to identify and analyze causal relationships between two or more independent and dependent variables. Originating from positivist philosophy, quantitative research investigates specific samples. Data is gathered using survey instruments and subsequently processed and analyzed quantitatively or statistically to validate the proposed hypothesis (Sugiyono, 2013).

The research focused on companies listed on the Jakarta Islamic Index (JII) in accordance with the official website of the Indonesia Stock Exchange (www.idx.co.id). According to Sugiyono (2013), the population refers to a general area comprising elements that affect quantitative characteristics. In this study, the population consists of companies listed on the JII from 2021 to 2023, with data processing indicating that five companies were components of the JII during this period.

As illustrated in the table, these five companies have been continuously listed on the Jakarta Islamic Index (JII) and have prepared accurate financial reports for the last three years, specifically from 2021 to 2023. The data extracted from the financial statements includes balance sheets, income statements, and financial ratio reports, indicating that companies have easy access to obtain secondary data.

The sample comprises a small group of information that serves as a representative example of a specifically selected population, reflecting certain aspects of the population's size and characteristics. The sampling technique employed in this study is purposive sampling, where data is collected based on specific criteria. The sample includes shares from companies listed on the Jakarta Islamic Index (JII), specifically Cashlez Worldwide Indonesia Tbk, Digital Mediatama Maxime Tbk, Galva Technologies Tbk, Hansei Davest Indonesia Tbk, and Indointernet Tbk.

This study relies on secondary data, meaning that data is collected indirectly through a third party as an intermediary. The data collection technique utilized is documentation, which involves gathering information from books, journals, archives, and documents that support the research. The financial report data for the companies listed on the Jakarta Islamic Index (JII) for the years 2021 to 2023 was obtained from the official website of the Indonesia Stock Exchange.

RESULTS AND DISCUSSION

Research Results

1. Description of Research Data

The data utilized in this study consists of secondary data in the form of annual reports and stock prices, which were obtained from the Indonesia Stock Exchange website and Yahoo Finance. The gathered

data will be processed to derive results related to the research problem formulation, specifically examining the levels of efficiency, accuracy, and data analysis. The primary objective of this study is to evaluate companies that are constituents of the Jakarta Islamic Index (JII) during the years 2022-

2023. A total of five companies have been included in the Jakarta Islamic Index (JII) for three consecutive years and meet the purposive sampling criteria established by the researchers, which are as follows.

Table 1. Research Sample

No.	Kode	Company
1	CASH	Cashlez Worldwide Indonesia Tbk.
2	DMMX	Digital Mediatama Maxime Tbk.
3	GLVA	Galva Technologies Tbk.
4	HDIT	Hansei Davest Indonesia Tbk
5	EDGE	Indointernet Tbk.

This study utilizes financial report data from companies listed on the Jakarta Islamic Index (JII) as the dependent variable, which is evaluated using formulas for efficiency, accuracy, financial data analysis, and financial reporting.

2. Panel Data Regression Estimation Model

This test is performed to assess three panel data regression estimation models. The two models for panel data regression estimation are as follows:

a. Comment Effect

Table 2. Comment Effect

Dependent Variable: Y		
Method: Panel Least Squares		
Date: 06/06/24 Time: 17:54		
Sample: 2021 2023		
Periods included: 3		
Cross-sections included: 5		
Total panel (balanced) observations: 15		

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-16492.21	29729.74	-0.554738	0.5902
X1	56962.30	46880.75	1.215047	0.2498
X2	3659.238	5212.124	0.702063	0.4972
X3	-2111.665	2709.777	-0.779276	0.4523

Root MSE	57324.09	R-squared	0.177798
Mean dependent var	16929.14	Adjusted R-squared	-0.046439
S.D. dependent var	65437.91	S.E. of regression	66940.12
Akaike info criterion	25.28416	Sum squared resid	4.93E+10
Schwarz criterion	25.47298	Log likelihood	-185.6312
Hannan-Quinn criter.	25.28215	F-statistic	0.792900
Durbin-Watson stat	2.206102	Prob(F-statistic)	0.522905

b. Fixed Effect

Table 3. Fixed Effect Table

Dependent Variable: Y		
Method: Panel Least Squares		
Date: 06/06/24 Time: 17:55		
Sample: 2021 2023		
Periods included: 3		
Cross-sections included: 5		
Total panel (balanced) observations: 15		

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	118724.2	57502.41	2.064682	0.0778
X1	24003.22	117429.1	0.204406	0.8439
X2	-11417.95	3187.287	-3.582342	0.0089
X3	-7724.260	1453.292	-5.315010	0.0011

	Effects Specification	
Cross-section fixed (dummy variables)		

Root MSE	20287.88	R-squared	0.897014
Mean dependent var	16929.14	Adjusted R-squared	0.794028
S.D. dependent var	65437.91	S.E. of regression	29698.42
Akaike info criterion	23.74010	Sum squared resid	6.17E+09
Schwarz criterion	24.11773	Log likelihood	-170.0508
Hannan-Quinn criter.	23.73608	F-statistic	8.710066
Durbin-Watson stat	1.664851	Prob(F-statistic)	0.005303

c. Random Effect

Table 4. Random Effect

Dependent Variable: Y		
Method: Panel EGLS (Cross-section random effects)		
Date: 06/06/24 Time: 17:55		
Sample: 2021 2023		
Periods included: 3		
Cross-sections included: 5		
Total panel (balanced) observations: 15		
Swamy and Arora estimator of component variances		

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-16492.21	13189.79	-1.250377	0.2371
X1	56962.30	20798.95	2.738710	0.0193
X2	3659.238	2312.393	1.582447	0.1419
X3	-2111.665	1202.210	-1.756486	0.1068

	Effects Specification	
		S.D. Rho

Cross-section random	0.000000	0.0000
Idiosyncratic random	29698.42	1.0000

Root MSE	57324.09	R-squared	0.177798
Mean dependent var	16929.14	Adjusted R-squared	-0.046439
S.D. dependent var	65437.91	S.E. of regression	66940.12
Sum squared resid	4.93E+10	F-statistic	0.792900
Durbin-Watson stat	2.206102	Prob(F-statistic)	0.522905

Unweighted Statistics			
-----------------------	--	--	--

R-squared	0.177798	Mean dependent var	16929.14
Sum squared resid	4.93E+10	Durbin-Watson stat	2.206102

3. Selection of Panel Data Regression Model

After analyzing the three panel data regression models, the next step is to determine which model is the most appropriate for this study.

The selection process for the common effect, fixed effect, and random effect models is conducted using the Chow test, Hausman test, and Lagrange multiplier test, with the following results:

a. Chow Test

Table 5. Chow Test

Redundant Fixed Effects Tests			
Equation: FEM			
Test cross-section fixed effects			

Effects Test	Statistic	d.f.	Prob.
Cross-section F	12.221369	(4,7)	0.0028
Cross-section Chi-square	31.160916	4	0.0000

Cross-section fixed effects test equation:			
Dependent Variable: Y			
Method: Panel Least Squares			
Date: 06/06/24 Time: 17:56			
Sample: 2021 2023			
Periods included: 3			
Cross-sections included: 5			
Total panel (balanced) observations: 15			

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-16492.21	29729.74	-0.554738	0.5902
X1	56962.30	46880.75	1.215047	0.2498
X2	3659.238	5212.124	0.702063	0.4972
X3	-2111.665	2709.777	-0.779276	0.4523

Root MSE	57324.09	R-squared	0.177798
Mean dependent var	16929.14	Adjusted R-squared	-0.046439
S.D. dependent var	65437.91	S.E. of regression	66940.12
Akaike info criterion	25.28416	Sum squared resid	4.93E+10
Schwarz criterion	25.47298	Log likelihood	-185.6312
Hannan-Quinn criter.	25.28215	F-statistic	0.792900

Durbin-Watson stat	2.206102	Prob(F-statistic)	0.522905
--------------------	----------	-------------------	----------

The results of the Chow Test show that the iCross-section iChi-square probability value is $0.0000 > 0.05$, that the best model is Fixed effect.

b. Hausman Test

Table 6. Hausman Test

Correlated Random Effects - Hausman Test			
Equation: REM			
Test cross-section random effects			

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
--------------	-------------------	--------------	-------

Cross-section random	48.310657	3	0.0000
----------------------	-----------	---	--------

** WARNING: estimated cross-section random effects variance is zero.

Cross-section random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
----------	-------	--------	------------	-------

X1	24003.215829	56962.297538	13356986075.742361	0.7755
X2	-11417.953947	3659.237564	4811640.852298	0.0000
X3	-7724.259859	-2111.665422	666747.076281	0.0000

Cross-section random effects test equation:				
Dependent Variable: Y				
Method: Panel Least Squares				
Date: 06/06/24 Time: 18:00				
Sample: 2021 2023				
Periods included: 3				
Cross-sections included: 5				
Total panel (balanced) observations: 15				
Variable	Coefficient	Std. Error	t-Statistic	Prob.

C	118724.2	57502.41	2.064682	0.0778
X1	24003.22	117429.1	0.204406	0.8439
X2	-11417.95	3187.287	-3.582342	0.0089
X3	-7724.260	1453.292	-5.315010	0.0011

Effects Specification				
-----------------------	--	--	--	--

Cross-section fixed (dummy variables)

Root MSE	20287.88	R-squared	0.897014
Mean dependent var	16929.14	Adjusted R-squared	0.794028
S.D. dependent var	65437.91	S.E. of regression	29698.42
Akaike info criterion	23.74010	Sum squared resid	6.17E+09
Schwarz criterion	24.11773	Log likelihood	-170.0508
Hannan-Quinn criter.	23.73608	F-statistic	8.710066
Durbin-Watson stat	1.664851	Prob(F-statistic)	0.005303

The results of the Hausman test indicate that the random cross-section probability value is 0.0000, which is less than 0.05. This leads to the rejection of H₀ and acceptance of H_a. Consequently, the fixed effect model is deemed the most suitable based on the findings of both the Chow test and the Hausman test.

4. Classical Assumption Test

The classical assumption test is conducted to verify that the regression model adheres to the Best Linear Unbiased Estimate (BLUE) assumption. The classical assumption tests performed in this study include the following:

a. Normality Test

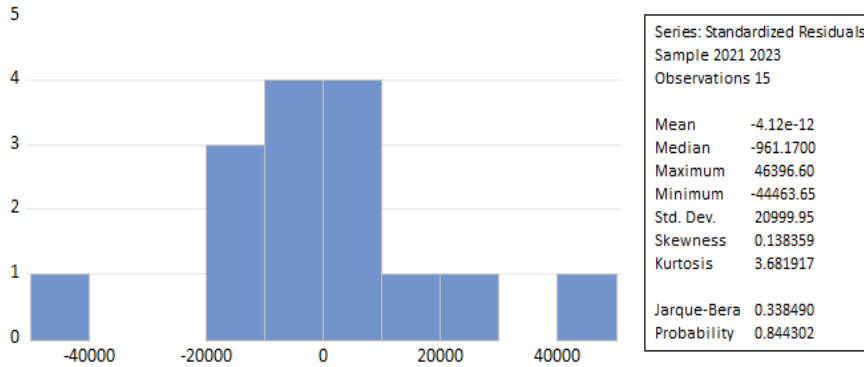


Figure 1. Normality Test

According to the results of the normality test presented in the table above, the probability value is 0.844302. This suggests that the probability

value of 0.84 is greater than 0.05, indicating that the data follows a normal distribution.

b. Multicollinearity Test

Table 7. Multicollinearity Test

	X1	X2	X3
X1	1.000000	0.435055	0.463864
X2	0.435055	1.000000	0.706326
X3	0.463864	0.706326	1.000000

Since none of the variables in the multicollinearity test shown in the table above have a value exceeding 0.9, it can be concluded that

there is either no multicollinearity problem or no correlation among the independent variables in this study.

c. Heteroscedasticity Test

Table 8. Heteroscedasticity Test

Heteroskedasticity Test: White			
Null hypothesis: Homoskedasticity			
F-statistic	51.25422	Prob. F(9,5)	0.0002
Obs*R-squared	14.83916	Prob. Chi-Square(9)	0.0954
Scaled explained SS	32.29747	Prob. Chi-Square(9)	0.0002
Test Equation:			
Dependent Variable: RESID^2			

Method: Least Squares				
Date: 06/06/24 Time: 18:20				
Sample: 1 15				
Included observations: 15				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-1.39E+10	5.40E+09	-2.563187	0.0505
X1^2	2.32E+09	7.07E+09	0.327896	0.7563
X1*X2	-1.59E+10	4.79E+09	-3.323593	0.0209
X1*X3	2.35E+10	4.87E+09	4.832487	0.0047
X1	6.19E+09	1.15E+10	0.536578	0.6146
X2^2	-3.86E+09	1.09E+09	-3.555289	0.0163
X2*X3	4.91E+09	1.42E+09	3.458698	0.0181
X2	1.76E+10	5.41E+09	3.256017	0.0225
X3^2	-1.37E+09	3.11E+08	-4.400753	0.0070
X3	-1.37E+10	5.11E+09	-2.677578	0.0439

R-squared	0.989277	Mean dependent var	3.28E+09
Adjusted R-squared	0.969976	S.D. dependent var	9.67E+09
S.E. of regression	1.68E+09	Akaike info criterion	45.55110
Sum squared resid	1.40E+19	Schwarz criterion	46.02313
Log likelihood	-331.6332	Hannan-Quinn criter.	45.54607
F-statistic	51.25422	Durbin-Watson stat	2.274129
Prob(F-statistic)	0.000216		

The results of the heteroscedasticity test yielded an Obs*R-squared Prob. Chi-Square (3) value of 0.0954. Since this value is greater than 0.05, it can be concluded that there is no

heteroscedasticity present. Therefore, the data is evenly distributed or exhibits a consistent distribution.

d. Hypothesis Testing

1) Partial Test (T-Test)

Table 9. Partial Test (T-Test)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	118724.2	57502.41	2.064682	0.0778
X1	24003.22	117429.1	0.204406	0.8439
X2	-11417.95	3187.287	-3.582342	0.0089
X3	-7724.260	1453.292	-5.315010	0.0011

The value of variable X1 on y is 0.8439 which exceeds 0.05. Therefore, it can be concluded that H1 is rejected since X1 does not affect the value of financial reporting. The value of variable X2 on y is 0.0089 which is less than 0.05. Hence H2 is

approved since X2 affects the value of financial reporting. The value of variable X3 corresponding to y is 0.0011 below 0.05. Consequently, H3 is recognized since X3 affects the value of financial reporting.

2) Simultaneous Test (F Test)

Tabel 10. Simultaneous Test (F Test)

Root MSE	20287.88	R-squared	0.897014
Mean dependent var	16929.14	Adjusted R-squared	0.794028

S.D. dependent var	65437.91	S.E. of regression	29698.42
Akaike info criterion	23.74010	Sum squared resid	6.17E+09
Schwarz criterion	24.11773	Log likelihood	-170.0508
Hannan-Quinn criter.	23.73608	F-statistic	8.710066
Durbin-Watson stat	1.664851	Prob(F-statistic)	0.005303

The Simultaneous Test is conducted to verify that the regression model satisfies the Best Linear Unbiased Estimate (BLUE) assumption. The classical assumption tests in this study are as follows:

3) Panel Data Regression Equation

$$Y = 118724.1 + 24003.2 * X1 - 11417.9 * X2 - 7724.2 * X3$$

The constant value of 118724 indicates that, in the absence of variables X1, X2, and X3, the Y variable will increase by 118724.1%.

The beta coefficient for variable X1 is 24003.2, which means that if all other variables remain constant and variable X1 increases by 118724.1%, the Y variable will increase by 240032%. Conversely, if all other variables are constant and variable X1 decreases by 240032%, the Y variable will decrease.

For variable X2, the beta coefficient is 11417.9, meaning that if all other variables are held constant and variable X2 increases by 118724.1%, the Y variable will rise by 114179%. Similarly, if all other variables are constant and variable X2 decreases by 114179%, the Y variable will decrease by that same amount.

The beta coefficient for variable X3 is 7724.2; thus, if the other variables are held constant and variable X3 increases by 118724.1%, the Y variable will increase by 77242%. Likewise, if all other variables remain constant and variable X3 decreases by 77242%, the Y variable will also decrease by that amount.

3) Coefficient of Determination (R2)

Table 11. Coefficient of Determination (R2)

Root MSE	20287.88	R-squared	0.897014
Mean dependent var	16929.14	Adjusted R-squared	0.794028
S.D. dependent var	65437.91	S.E. of regression	29698.42
Akaike info criterion	23.74010	Sum squared resid	6.17E+09
Schwarz criterion	24.11773	Log likelihood	-170.0508
Hannan-Quinn criter.	23.73608	F-statistic	8.710066
Durbin-Watson stat	1.664851	Prob(F-statistic)	0.005303

Based on the results of the R2 test in table 4.15, it shows that the Adjusted R-squared value is 0.794028 or 79%. This suggests that the independent

variables in this study have 79% impact on the dependent variable, while the remaining 21% is explained by other variables outside this study.

DISCUSSION

1. The Impact of Efficiency Level on Financial Reporting in Companies Listed on the Jakarta Islamic Index (JII)

Efficiency is defined as the ability to carry out tasks promptly and effectively (Amirullah, 2011). It is a dynamic concept that requires ongoing efforts for maintenance and enhancement. The efficiency level is represented by variable X1. The findings from the research conducted on companies listed on the Jakarta Islamic Index (JII) aimed to determine whether the efficiency level influences financial reporting during the 2021-2023 period. The results of the partial test (t-test) indicate a negative and insignificant

relationship between the efficiency level and financial reporting among companies on the Jakarta Islamic Index (JII) for the same period. These findings differ from previous studies conducted by Franycia Maria Pangkey, M Furkan, and Edy Herman in 2019, as well as Roida Pakpahan in 2021, which suggested that AI positively impacts human life and consumer purchasing behavior as measured by digital expert systems. Conversely, this research asserts that X1 (efficiency level) does not affect financial reporting in companies listed on the Jakarta Islamic Index (JII).

2. The Impact of Accuracy Level on Financial Reporting in Companies Listed on the Jakarta Islamic Index (JII)

Accuracy refers to how closely the outcomes of estimates, calculations, or details align with correct values or standards (Tedi, 2023). The accuracy level is represented by variable X2. The results of the study conducted on companies listed on the Jakarta Islamic Index (JII) aimed to assess the influence of accuracy level on financial reporting during the 2021-2023 period. The results from the partial test (t-test) indicate that the X2 value significantly impacts financial reporting. The beta coefficient for X2 demonstrates a positive effect on financial reporting outcomes. These findings align with research conducted by Putri Ayunda Dipta Arviollisa, Arianis Chan, and Healthy Nirmalasari in 2021, which concluded that AI positively affects customer experience and operational accuracy in businesses. In this study, it is established that X2 (accuracy level) does influence financial reporting in companies listed on the Jakarta Islamic Index (JII).

3. The Impact of Data Analysis Level on Financial Reporting in Companies Listed on the Jakarta Islamic Index (JII).

Data analysis in financial reporting involves examining an entity's financial status, past performance, and future projections to assess its current performance and potential future outcomes (Sujarweni, 2019). The data analysis level is represented by variable X3. The research conducted on companies listed on the Jakarta Islamic Index (JII) aimed to determine whether the level of data analysis influences financial reporting during the 2021-2023 period. The results from the partial test (t-test) reveal that the X3 value has a significant

impact on financial reporting. The beta coefficient for X3 indicates a positive effect on financial reporting outcomes. These findings are consistent with research by Muhammad Abyan Ramadhana & Ananda Sabil Hussein in 2022, which asserts that AI positively influences companies and enhances their image. However, this study contradicts the findings of I Putu Jordy Pratama Widiasta & I Putu Julianto in 2021, which stated in their second hypothesis that the implementation of an AI-based accounting system negatively affects tendencies toward fraudulent financial reporting. In contrast, this research establishes that X3 (data analysis level) does affect financial reporting in companies listed on the Jakarta Islamic Index (JII). Accountants, auditors, and all parties involved in financial reporting must possess integrity, honesty, fairness, and reliability. Those responsible for financial reporting must present financial information transparently and clearly while maintaining the trust placed in them. AI can enhance transparency and accountability in the financial reporting process by providing more accurate and objective data analysis. However, its application must be approached with caution to prevent any unethical manipulation or concealment of information. The integration of AI in financial reporting should adhere to principles of business ethics and financial integrity, including transparency, fairness, honesty, trust, and responsibility. To ensure these principles are upheld, the use of AI must be accompanied by rigorous oversight and evaluation.

CONCLUSION

This study investigates the impact of efficiency, accuracy, and data analysis levels on financial reporting in companies listed on the Jakarta Islamic Index (JII). Using a research sample of five companies from 2021 to 2023, the study aims to assess the role of AI through the metrics of

efficiency, accuracy, and data analysis. The analysis and hypothesis testing conducted using the R² test, t-test, and F-test reveal that efficiency, accuracy, and data analysis do not significantly influence financial reporting among the companies listed on the Jakarta Islamic Index (JII) during the 2021-2023 period.

REFERENCES

- Amirullah. (2011). *Pengantar Manajemen*, Cetakan Kedua. Yogyakarta: Graha Ilmu.
- Dr. Sugiyono. (2013). *Metode Penelitian Pendidikan Pendekatan Kuantitatif, Kualitatif Dan R&D*.
- Gao, Y., & Han, L. (2021). Implications of Artificial Intelligence on the Objectives of Auditing Financial Statements and Ways to Achieve Them. *Microprocessors and Microsystems*. <https://doi.org/10.1016/J.MICPRO.2021.104036>.
- Griffin, Oliver. (2019). *How Artificial Intelligence Will Impact Accounting*. ICAEW: *Economia*.
- Kuswara, Z., Pasaribu, M., Fitriana, F., & Santoso, R. (2024). Artificial Intelligence in Financial Reports: How it Affects the Process's Effectiveness and Efficiency. **Jurnal Ilmu Keuangan Dan Perbankan (JIKA)**, 13(2), 257-272. <https://doi.org/10.34010/jika.v13i2.12730>.
- Kaplan, Andreas, and Michael Haenlein. (2019). "Siri, Siri. In My Hand: Who's the Fairest in the Land? On the Interpretations, Illustrations, and Implications of Artificial

- Intelligence.” *Business Horizons**, 62.1, 15–25.
- Munoko, I., Brown-Liburd, H., & Vasarhelyi, M. (2020). The Ethical Implications of Using Artificial Intelligence in Auditing. *Journal of Business Ethics*, 1-26. <https://doi.org/10.1007/s10551-019-04407-1>.
- Prihadi, Toto. (2019). *Analisis Laporan Keuangan*. Ed. by Fajarianto. Jakarta: PT Gramedia Pustaka Utama.
- Putu Jordy Pratama Widiyasa, I., & Putu Julianto, I. (2021). “Pengaruh Penerapan Sistem Pengendalian Internal dan Sistem Informasi Akuntansi Berbasis Artificial Intelligence Terhadap Kecenderungan Fraudulent Financial Reporting (Studi Empiris Pada Hotel Berbintang di Bali).” *Jurnal Ilmiah Mahasiswa Akuntansi Universitas Pendidikan Ganesha*, Vol. 12, Issue 01.
- Shiyyab, F. S., Alzoubi, A. B., Obidat, Q. M., & Alshurafat, H. (2023). The Impact of Artificial Intelligence Disclosure on Financial Performance. *International Journal of Financial Studies*, 11(3), 115.
- Siahan, Mangapul, et al. (2020). “Penerapan Artificial Intelligence (AI) Terhadap Seorang Penyandang Disabilitas Tunanetra.” *Journal of Information System and Technology (JOINT)*, 1.2, 186–93.
- Sujarweni, V. Wiratna. (2019). *Analisis Laporan Keuangan (Teori, Aplikasi Dan Hasil Penelitian)*. Yogyakarta: Pustaka Baru Press.
- Tedi. (2023). “Perbedaan Akurasi Dan Presisi.” 14 March. <https://perbedaan.budisma.net/perbedaan-akurasi-dan-presisi.html>.
- Ivakhnenkov, S. (2023). Artificial Intelligence Application in Auditing. *Scientific Papers NaUKMA. Economics*. <https://doi.org/10.18523/2519-4739.2023.8.1.54-60>.