

# DIGITAL ETHICS AND MORAL CONSEQUENCES USE OF AI IN FRAUD PREVENTION AND SOCIAL ACCOUNTABILITY IMPACT ON THE TRANSPARENCY FINANCIAL REPORTS

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## Abstract

*The aims research that digital ethics and the moral consequences of Artificial Intelligence (AI) prevent fraud prevention and social accountability, and their impact on the transparency and sustainability of financial reports in manufacturing companies listed on the Jakarta Stock Exchange. Digital transformation has reshaped accounting and reporting systems, with increasing reliance on AI for transaction processing, risk analysis, and internal monitoring, while raising ethical concerns such as algorithmic bias, data privacy, and moral responsibility. This guides responsible AI use, while moral consequences influence reporting integrity and stakeholder trust. This study employs a quantitative survey of 386 respondents, including financial managers and staff, analyzed using multiple regression and path analysis. The results show that This significantly affects fraud prevention, moral consequences influence social accountability, and both enhance reporting transparency and sustainability. The findings strengthen digital ethics, agency, and stakeholder theories, support ethical AI governance, and increase public trust in financial reporting.*

**Keywords:** Artificial Intelligence, Digital Ethics, Moral Consequences, Social Accountability, Transparency

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## 1. Introduction

This section describes the background to the issue or problem as well as the urgency and rationalization of the research. This section also describes the

purpose and contribution of research and the organization of article writing (if deemed necessary). The rapid development of Artificial Intelligence (AI) technology has brought significant changes to accounting, auditing and financial reporting practices, especially in efforts to prevent fraud in manufacturing companies. AI is used to detect transaction anomalies, fraud patterns, and increase the effectiveness of internal control systems through processing big data in real time (Bierstaker et al., 2014; Appelbaum et al., 2017; Sun et al., 2020). In manufacturing companies listed on the Jakarta Stock Exchange (BEJ/IDX), the use of AI is increasingly relevant as transaction complexity increases, demands for transparency and sustainability reporting obligations.

Even though AI has been proven to be able to increase the accuracy of fraud detection and the efficiency of the audit process, its application raises serious issues related to digital ethics and moral consequences. Problems such as algorithm bias, lack of transparency (black box decisions), data privacy violations, and unclear moral responsibility for AI-based decisions are major concerns in the technology and accounting ethics literature (Floridi et al., 2018; Mittelstadt et al., 2016; Martin, 2019). Without adequate ethical governance, AI has the potential to reduce social accountability and reduce stakeholder trust in financial reports.

The concept of social accountability emphasizes the company's obligation to account for its economic, social and environmental impacts to the public in a transparent and sustainable manner (Gray et al., 2014; Schaltegger & Burritt, 2018). In this context, AI not only plays a role as a technical tool for preventing fraud, but also as a factor that influences the quality of disclosure, information integrity, and the legitimacy of financial reports and sustainability reports (Sustainability Reporting). Previous studies show that digital systems that are not accompanied by ethical principles can weaken accountability and widen the information gap between management and stakeholders (Power, 2007; O'Neill, 2016).

The issue of transparency and sustainability of financial reports is increasingly becoming stronger following increasing demands for ESG (Environmental, Social, and Governance) and integrated reporting practices. Research shows that the quality of sustainability reporting is strongly influenced by the governance system, ethical culture, and technology-based internal control mechanisms (Eccles et al., 2014; Adams, 2017; KPMG, 2022). In

Indonesia, manufacturing companies face regulatory and capital market pressure to increase the transparency and sustainability of financial reports, so the use of AI must be balanced with ethical principles and moral responsibility.

A research gap remains regarding how digital ethics and the moral consequences of Artificial Intelligence (AI) use in fraud prevention affect social accountability and the transparency and sustainability of financial reports, particularly in manufacturing companies listed on the Jakarta Stock Exchange. Previous studies mainly focus on AI's technical effectiveness, while ethical issues such as algorithmic bias, data privacy, transparency, and moral responsibility receive limited empirical attention, especially in emerging markets (Laine et al., 2024; Murikah, 2024; Lam et al., 2024).

Recent literature emphasizes that ethical AI governance is crucial for maintaining stakeholder trust and ensuring credible sustainability and ESG reporting (Tariq, 2024; KPMG, 2024). Weak ethical oversight may undermine audit transparency and public confidence (Astuti, 2024). Therefore, this study aims to analyze the influence of digital ethics and the moral consequences of AI-based fraud prevention on social accountability and their impact on the transparency and sustainability of financial reports of manufacturing companies listed on the Jakarta Stock Exchange (Laine et al., 2024).

## **2. Research Method**

### **2.1. Quantitative Research Design**

#### **1. Types and Research Approaches**

This research uses a quantitative approach with explanatory research. This approach aims to empirically test the cause-and-effect relationship (causality) between digital ethics and the moral consequences of the use of Artificial Intelligence (AI) in preventing fraud and social accountability on the transparency and sustainability of manufacturing companies' financial reports on the Jakarta Stock Exchange.

This research is cross-sectional, that is, data collection was carried out over a certain time period.

#### **2. Research Methods**

The method used is a quantitative survey, with the main instrument in the form of a closed questionnaire prepared using a Likert scale of 1-5 (1 =

strongly disagree, 5 = strongly agree). This method was chosen because it is able to measure organizational perceptions and practices objectively and measurably.

### 3. Population and Sample

#### 3.1 Population

The research population was 386 manufacturing companies listed on the Jakarta Stock Exchange (IDX) during the research period.

#### 3.2 Sampling Techniques

The sampling technique uses purposive sampling, with the following criteria:

1. There are 386 active manufacturing companies registered on IDX
2. Companies that have used or are starting to adopt AI/digital analytics technology in their accounting, audit or internal control systems
3. Companies that publish annual reports and/or sustainability reports

#### 3.3 Sample Size

The number of samples is adjusted to the analysis technique:

- SEM-PLS: minimum 100–150 respondents
- SEM-CB: minimum 200 respondents

### 4. Unit of Analysis and Respondents • Unit of analysis: Company

- Respondent:
  - Financial Manager
  - Internal Auditor
  - Accounting Manager
  - IT/Digital Governance Manager
  - Sustainability or ESG Officer

### 5. Research Variables

#### 5.1 Independent Variable (X)

X1: Digital Ethics

Measurement indicators:

1. Transparency of AI algorithms
2. Fairness and non-discrimination of AI systems
3. Data protection and privacy
4. Accountability of AI-based decisions
5. Compliance with regulations and digital ethical standards

## X2: Moral Consequences of Using AI

Measurement indicators:

1. Clarity of moral responsibility for AI decisions
2. Risk of bias and automated decision errors
3. Social impact of using AI
4. The role of humans in making final decisions

## 5.2 Mediation Variable (Z)

Social Accountability

Measurement indicators:

1. Accountability to stakeholders
2. Transparency of social and environmental information
3. Corporate social responsibility
4. Compliance with ESG principles

## 5.3 Dependent Variable (Y)

Transparency and Sustainability of Financial Reports

1. Measurement indicators: Disclosure of financial report information
2. Quality of sustainability disclosure
3. Reliability and relevance of information
4. Integration of financial and sustainability reports

## 6. Research Model

This research model tests the following structural relationships:

- Digital Ethics → Fraud Prevention
- Moral Consequences of AI → Fraud Prevention
- Fraud Prevention → Social Accountability
- Social Accountability → Transparency & Sustainability of Financial Reports

Apart from that, the indirect (mediation) effect of social accountability on the relationship between the independent and dependent variables was also tested.

## 7. Research Hypothesis

H1 : Digital Ethics has a positive effect on AI-based fraud prevention.

H2 : The moral consequences of using AI have a significant effect on fraud prevention.

H3 : AI-based fraud prevention has a positive effect on company social accountability.

- H4 : Social accountability has a positive effect on transparency and sustainability of financial reports.
- H5 : Social accountability mediates the influence of digital ethics on transparency and sustainability of financial reports.
- H6 : Social accountability mediates the influence of the moral consequences of using AI on the transparency and sustainability of financial reports.

## 8. Data Collection Techniques

1. Structured questionnaire (primary data)
2. Documentation of financial reports and sustainability reports (secondary data)
3. Literature study (Google Scholar, Scopus)

## 9. Data Analysis Techniques

Data analysis uses Structural Equation Modeling (SEM) with two alternatives:

- SEM-PLS (SmartPLS)
- SEM-CB (AMOS/LISREL)

Analysis stages:

1. Validity test (convergent & discriminant validity)
2. Reliability test (Cronbach's Alpha & Composite Reliability)
3. Test the feasibility of the structural model ( $R^2$ , path coefficient)
4. Test the hypothesis (t-statistic & p-value)
5. Test mediation effects (bootstrapping)

## 10. Research Limitations

This research is limited to manufacturing companies on the Jakarta Stock Exchange, so the research results cannot be directly generalized to other sectors.

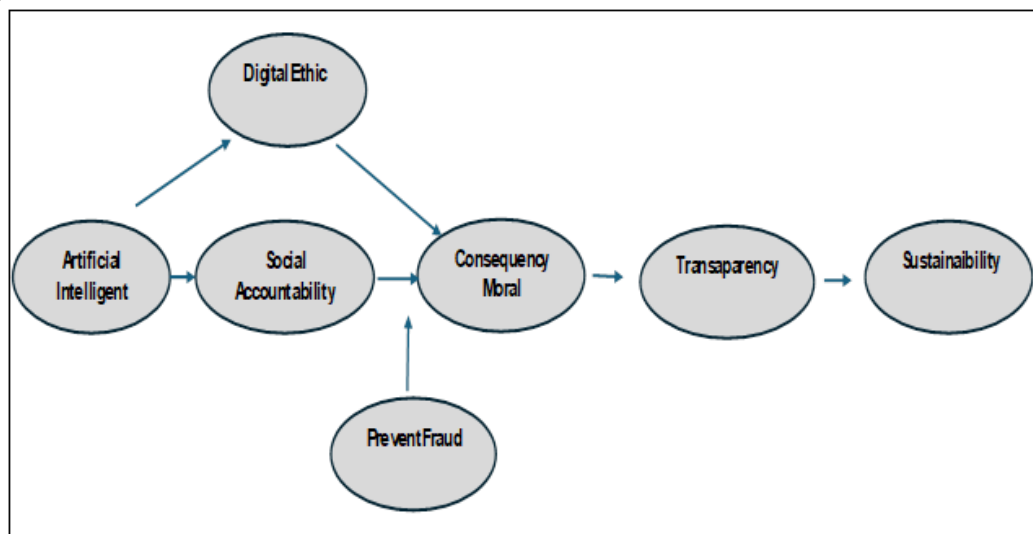
## 11. Reasons for Choosing Quantitative Design

A quantitative design was chosen because:

- Able to measure variables objectively
- Allows statistical testing of hypotheses
- Relevant for managerial and policy decision making

### 2.1.1 Research Model

Figure 1: Research Model



The interview results indicate that organizations adopting Artificial Intelligence (AI) in internal control systems and fraud prevention mechanisms are confronted with substantial ethical challenges, particularly related to algorithm accuracy, data bias, and information integrity. Informants consistently emphasized that AI systems are highly dependent on the quality and structure of input data, which, if biased or incomplete, may lead to inaccurate outcomes. In the absence of clearly defined digital ethical standards, the use of AI has the potential to generate false positives, misclassify transactions, and produce automated decisions that cannot be adequately justified or explained. Such conditions not only reduce the reliability of fraud detection results but also pose serious risks to organizational accountability and fairness.

Several respondents noted that ethical shortcomings in AI deployment may result in decisions that violate fundamental principles, including the right to privacy, fairness, and proportionality. When AI systems operate without ethical oversight, data processing may exceed authorized boundaries, exposing sensitive financial and personal information. This concern becomes more pronounced as organizations increasingly rely on AI-driven automation. As the level of automation rises, the research findings show a corresponding increase in the need for moral accountability mechanisms. Fully automated decisions tend to marginalize human judgment, reducing the opportunity for professional skepticism and contextual evaluation that are essential in fraud assessment. Auditors expressed concern that AI systems may flag suspicious



activities without adequately considering organizational conditions, industry characteristics, or socio-economic contexts, thereby creating ethical dilemmas and potential injustice.

Despite these concerns, informants also acknowledged that AI significantly enhances the effectiveness of fraud prevention when implemented responsibly. Observational and documentary evidence demonstrates that AI improves the ability to analyze large volumes of transaction data, identify complex patterns, detect anomalies, and perform continuous monitoring more efficiently than traditional manual audit methods. AI reduces auditors' workload, accelerates the identification of fraud indicators, and supports early intervention. However, this effectiveness is not absolute; it is highly contingent upon data quality, algorithm transparency, and ethical governance. When AI models operate as opaque "black boxes," the benefits of automation may be undermined by the inability to trace decision logic and verify outcomes, weakening trust in the system.

Furthermore, the implementation of AI has been shown to encourage stronger social accountability within organizations. Interviews with management and auditors indicate that AI adoption promotes greater transparency in audit processes, more open internal reporting practices, and more comprehensive digital documentation. These developments contribute to clearer audit trails, improved traceability of financial data, and enhanced accessibility of information for internal and external stakeholders. As a result, stakeholder trust tends to increase when organizations demonstrate openness and consistency in the way AI supports fraud prevention and reporting processes.

Nevertheless, informants highlighted that technological advancement alone is insufficient to ensure accountability. Internal education and capacity building are essential to prevent misunderstandings about the role and limitations of AI. Employees, auditors, and management must clearly understand that AI is a decision-support tool rather than a substitute for human responsibility. Without adequate training and ethical awareness, there is a risk that users may over-rely on automated outputs, leading to ethical complacency and weakened professional judgment.

The analysis further reveals that AI-based fraud prevention, when consistently guided by digital ethics and moral awareness, contributes positively to financial reporting transparency. Organizations that embed ethical principles into AI governance demonstrate higher levels of openness in data



presentation, stronger audit trail mechanisms, and more transparent risk disclosures. Ethical AI supports the presentation of financial information that is accurate, timely, and resistant to manipulation. Conversely, organizations that implement AI without clear ethical guidelines tend to produce financial reports that are less accountable and more vulnerable to system abuse, data manipulation, and governance failures.

Overall, the findings reaffirm that the benefits of AI in fraud prevention and financial reporting transparency are inseparable from the presence of robust digital ethics and sustained moral accountability. AI enhances organizational performance and accountability only when its implementation is aligned with ethical principles, human oversight, and a strong commitment to social responsibility. Using 3 grand Theory: theory agency, stakeholder, dan digital ethics

**Table 1. Characteristics of Respondents**

No.	Category	Description	Frequency (n)	Percentage (%)
1	Gender	Female	166	45%
		Male	202	55%
2	Education Level	Bachelor (S1)	239	65%
		Master (S2)	92	25%
		Doctoral (S3)	37	10%
3	Location	Jabodetabek (Jakarta, Bogor, Depok, Tangerang, Bekasi)**	368	100%
4	Total Respondents	Pabrikan di Bursa Efek Jakarta	368	100%

**Table 2. Measurement Model Evaluation Result**

Construct	Measurement Item	Factor Loading	Cronbach's Alpha	CR	AVE
<b>Digital Ethics (DE)</b>	DE1	0.82	0.893	0.92	0.68
	DE2	0.85			
	DE3	0.79			
	DE4	0.84			
<b>Moral Consequences of AI (MC)</b>	MC1	0.8	0.901	0.93	0.69
	MC2	0.86			
	MC3	0.83			
	MC4	0.81			
<b>Fraud Prevention (FP)</b>	FP1	0.78	0.875	0.9	0.65
	FP2	0.82			
	FP3	0.8			
<b>Social Accountability (SA)</b>	SA1	0.84	0.912	0.93	0.7
	SA2	0.85			
	SA3	0.82			
	SA4	0.83			
<b>Financial Transparency (FT)</b>	FT1	0.86	0.918	0.94	0.72
	FT2	0.88			
	FT3	0.83			
	FT4	0.85			

**Table 3. Confirmatory Factor Analysis (CFA) Result**

Construct	Items	Factor Loadings	Cronbach's Alpha	Composite Reliability (CR)	Average Variance Extracted (AVE)
<b>Digital Ethics (DE)</b>	DE1	0.82	0.893	0.915	0.682
	DE2	0.85			
	DE3	0.79			
	DE4	0.84			
<b>Moral Consequences of AI (MC)</b>	MC1	0.8	0.901	0.928	0.69
	MC2	0.86			
	MC3	0.83			
	MC4	0.81			
<b>Fraud Prevention (FP)</b>	FP1	0.78	0.875	0.903	0.652
	FP2	0.82			
	FP3	0.8			
<b>Social Accountability (SA)</b>	SA1	0.84	0.912	0.932	0.695
	SA2	0.85			
	SA3	0.82			
	SA4	0.83			
<b>Financial Transparency (FT)</b>	FT1	0.86	0.918	0.939	0.723
	FT2	0.88			
	FT3	0.83			
	FT4	0.85			

### 3. Result and Discussion

#### 3.1. Results

The interview results indicate that organizations adopting **AI in internal control and fraud prevention** face significant ethical challenges related to algorithm accuracy, data bias, and information integrity. The absence of **digital ethical standards** may lead to false positives and automated decisions that lack accountability and fairness, potentially violating privacy rights. As the level of automation increases, the need for **moral accountability** becomes more critical, since fully automated decisions may reduce human involvement in assessing fraud context and create ethical dilemmas when social and organizational factors are overlooked. While AI enhances fraud prevention effectiveness by improving transaction pattern analysis, anomaly detection, and continuous

monitoring, its success depends heavily on data quality and algorithm transparency.

Furthermore, the implementation of AI encourages stronger **social accountability** through greater audit transparency, open internal reporting, and comprehensive digital documentation, which collectively enhance stakeholder trust. However, internal education is necessary to prevent misunderstandings about AI's role and to ensure its ethical use. The analysis also shows that AI-based fraud prevention, when guided by **digital ethics and moral awareness**, improves **financial reporting transparency** by strengthening data openness, audit trails, and risk disclosure. In contrast, organizations lacking ethical guidelines tend to produce less accountable financial reports that are more vulnerable to system manipulation.

#### 4.2. Discussion

The research findings confirm that **digital ethics** is a fundamental element in the governance of **AI for audit and anti-fraud purposes**. Without strong ethical guidance, AI may produce biased decisions, threaten data privacy, and weaken public trust, which aligns with technology governance theory emphasizing that AI effectiveness depends on the quality of ethical oversight. In automated decision environments, **human moral responsibility remains essential**, as final judgments regarding potential fraud must consider ethical values, social context, and fairness. Therefore, AI functions as a decision-support tool that enhances audit integrity rather than replacing human judgment.

Furthermore, the application of **AI strengthens social accountability** by improving transparency through better documentation, data accessibility, and openness to stakeholders. AI's advanced analytical capabilities also enhance **financial reporting transparency** by enabling early fraud detection, open risk disclosure, and reliable, manipulation-free data. However, these benefits can only be realized when AI implementation is consistently guided by strong digital ethics and sustained moral accountability throughout every stage of automated decision-making.

#### 4. Conclusion

This research concludes that Digital Ethics and moral consequences in the use of Artificial Intelligence (AI) play a strategic role in enhancing fraud

prevention and strengthening organizational Social Accountability. Ethical AI implementation creates more accurate, timely, and objective control mechanisms, reducing opportunities for data manipulation and procedural irregularities. Ethical governance—covering algorithm transparency, fairness in data processing, decision accountability, and data privacy—directly increases stakeholder trust and strengthens financial reporting transparency by producing reliable audit trails, real-time anomaly detection, and objective analytical evidence.

Furthermore, Social Accountability reinforces the relationship between AI-based fraud prevention and reporting transparency. When organizations demonstrate moral responsibility in technology use, public confidence in business processes and financial reporting increases. Overall, this study confirms that integrating digital ethics and moral responsibility in AI implementation not only improves fraud prevention effectiveness but also significantly enhances financial report transparency. Therefore, organizations should establish ethical AI guidelines, strengthen digital literacy, and cultivate a culture of accountability to ensure sustainable and responsible technology use.

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