



Human Centered Artificial Intelligence Adoption and Financial Decision Making Quality for Sustainable Corporate Performance

Margarita Ekadjaja

Tarumanagara University, Indonesia

Corresponding Author: Margarita Ekadjaja margaritae@fe.untar.ac.id

ARTICLE INFO

Keywords: Human-Centered Artificial Intelligence, Financial Decision Making Quality, Sustainable Corporate Performance, Artificial Intelligence Adoption, Financial Management

Received : 27, June

Revised : 28, July

Accepted: 30, August

©2026 Ekadjaja: This is an open-access article distributed under the terms of the [Creative Commons Atribusi 4.0 Internasional](https://creativecommons.org/licenses/by/4.0/).



ABSTRACT

The increasing adoption of artificial intelligence (AI) in financial management requires a human-centered approach to enhance decision quality and ensure sustainable corporate performance. This study examines the effect of Human-Centered Artificial Intelligence Adoption on Financial Decision Making Quality and its implications for Sustainable Corporate Performance. A quantitative cross-sectional survey was conducted involving 120 financial managers and executives from Indonesian companies using AI-based financial systems. Data were collected through structured questionnaires and analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM). The results indicate that Human-Centered AI Adoption significantly improves Financial Decision Making Quality, which subsequently enhances Sustainable Corporate Performance. These findings highlight the strategic role of human-centered AI in supporting high-quality financial decisions and promoting long-term organizational sustainability.

INTRODUCTION

Artificial Intelligence (AI) has become one of the most transformative digital technologies reshaping financial management and corporate decision-making across industries. The rapid advancement of machine learning, predictive analytics, and generative AI has enabled organizations to improve forecasting accuracy, automate financial reporting, optimize budgeting, and strengthen risk management. Nevertheless, the increasing reliance on AI has also raised concerns regarding transparency, accountability, ethical governance, and excessive dependence on algorithmic recommendations, thereby encouraging the emergence of the Human-Centered Artificial Intelligence (HCAI) paradigm that emphasizes collaboration between humans and intelligent systems rather than replacing human judgment (Floridi & Cowls, 2022). This perspective is consistent with the Socio-Technical Systems Theory, which argues that organizational performance depends on the harmonious interaction between technological systems and human capabilities. Consequently, organizations are increasingly expected to implement Artificial Intelligence that enhances managerial competence while preserving human oversight, transparency, and accountability in strategic financial decision-making (Stahl & Wright, 2024).

Globally, AI adoption in financial management has accelerated significantly as organizations seek greater efficiency, accuracy, and competitiveness in increasingly dynamic business environments. Financial institutions and corporations increasingly leverage AI for fraud detection, investment analysis, financial forecasting, credit assessment, and real-time risk monitoring, enabling more accurate, efficient, and data-driven managerial decisions (Alaminos et al., 2024). In Indonesia, AI adoption has also expanded rapidly, particularly within banking, insurance, and financial technology sectors, supported by increasing digital transformation initiatives and investments in AI infrastructure. Recent reports indicate that Indonesian financial institutions recognize Generative AI as a strategic technology capable of improving operational efficiency, customer services, and financial decision quality, although challenges remain regarding data readiness, employee competence, governance, and ethical implementation (Boston Consulting Group, 2024). These developments demonstrate that AI implementation should not merely pursue automation but must ensure that technology complements human expertise to generate sustainable organizational value.

From a theoretical perspective, the Resource-Based View explains that advanced technological resources alone cannot generate sustainable competitive advantage unless they are integrated with valuable organizational capabilities, including managerial knowledge, analytical competence, and effective decision-making processes. Human-Centered Artificial Intelligence therefore represents a strategic organizational capability that combines intelligent technologies with human expertise to improve the quality of financial decisions and organizational performance. Previous studies have consistently reported that AI adoption enhances organizational efficiency, predictive accuracy, and managerial effectiveness; however, most of these studies emphasize technological capabilities and digital transformation rather

than investigating how Human-Centered Artificial Intelligence improves the quality of financial decision-making Rane et al. (2024). Moreover, empirical evidence regarding the mediating role of Financial Decision Making Quality in explaining the relationship between Human-Centered Artificial Intelligence Adoption and Sustainable Corporate Performance remains limited, particularly in emerging economies such as Indonesia. Therefore, this study seeks to address these theoretical and empirical gaps by examining the influence of Human-Centered Artificial Intelligence Adoption on Financial Decision Making Quality and its implications for Sustainable Corporate Performance in Indonesian companies.

Although previous studies have demonstrated the positive impact of Artificial Intelligence on organizational performance, several important research gaps remain. For example, Herrmann and Pfeiffer (2023) argued that future Artificial Intelligence research should move beyond technology adoption by examining how human capabilities and intelligent systems interact to support effective organizational decision-making. Similarly, Ben Shneiderman (2022) argued that organizations should prioritize Human-Centered Artificial Intelligence because AI systems that neglect human oversight may reduce transparency, accountability, and trust despite improving operational efficiency. Artificial Intelligence adoption significantly enhances organizational performance by improving operational efficiency, innovation capability, and data-driven decision-making. However, their study primarily focused on overall organizational outcomes and did not specifically examine the role of Financial Decision Making Quality as an intervening mechanism between Human-Centered Artificial Intelligence Adoption and Sustainable Corporate Performance. Furthermore, most empirical studies have been conducted in developed countries, leaving limited evidence regarding Human-Centered Artificial Intelligence implementation in emerging economies, particularly within Indonesian companies where organizational culture, technological readiness, and managerial capabilities differ considerably.

Based on these gaps, this study aims to analyze the effect of Human-Centered Artificial Intelligence Adoption on Financial Decision Making Quality and examine its implications for Sustainable Corporate Performance. Specifically, the study seeks to determine whether Human-Centered AI enhances the quality of financial decisions by improving analytical accuracy, reducing cognitive bias, supporting timely decision-making, and strengthening managerial judgment. Furthermore, this study investigates whether Financial Decision Making Quality mediates the relationship between Human-Centered AI Adoption and Sustainable Corporate Performance. The conceptual framework integrates the Resource-Based View, Socio-Technical Systems Theory, and Human-Centered Artificial Intelligence principles to explain how technological capabilities and human expertise jointly create organizational value. Therefore, the findings are expected to provide comprehensive empirical evidence regarding the strategic role of Human-Centered AI in modern corporate financial management.

This study is expected to contribute theoretically and practically to the growing literature on Artificial Intelligence, financial management, and sustainable business performance. From a theoretical perspective, the study extends previous research by integrating Human-Centered Artificial Intelligence Adoption, Financial Decision Making Quality, and Sustainable Corporate Performance into a unified research framework, thereby enriching discussions within the Resource-Based View and Socio-Technical Systems Theory. In addition, the study addresses the limited empirical evidence concerning the mediating role of Financial Decision Making Quality in explaining how Human-Centered AI contributes to long-term organizational sustainability. From a practical perspective, the findings are expected to provide valuable insights for corporate executives, financial managers, policymakers, and technology developers in designing AI implementation strategies that emphasize collaboration between humans and intelligent systems rather than complete automation. Ultimately, the research is expected to support organizations in developing more accurate, transparent, ethical, and sustainable financial decision-making processes while strengthening long-term corporate competitiveness in the digital economy.

LITERATURE REVIEW

Human-Centered Artificial Intelligence Adoption

Human-Centered Artificial Intelligence (HCAI) refers to an approach that positions Artificial Intelligence as a collaborative technology designed to augment rather than replace human intelligence in organizational decision-making. Unlike conventional AI adoption, HCAI emphasizes transparency, explainability, accountability, and continuous human oversight to ensure that AI supports managerial judgment while maintaining ethical governance and stakeholder trust. This approach enables organizations to leverage AI capabilities to improve decision quality, operational efficiency, and organizational performance while preserving human control over strategic decisions. Recent studies highlight that successful AI implementation depends not only on technological capabilities but also on organizational conditions that facilitate human-centered AI adoption and meaningful human involvement throughout AI-supported processes (Altepost et al., 2024).

From the Resource-Based View perspective, Human-Centered Artificial Intelligence Adoption is considered a strategic organizational capability that integrates technological resources with human expertise to create sustainable competitive advantages. Organizations implementing human-centered AI are more likely to achieve reliable, transparent, and data-driven decision-making because AI functions as a decision-support system rather than an autonomous decision-maker. Furthermore, maintaining human agency and oversight strengthens organizational trust in AI while improving the effectiveness of AI-assisted decision-making, thereby supporting long-term organizational sustainability (Sele & Chugunova, 2024).

Financial Decision Making Quality

Financial Decision Making Quality refers to the extent to which financial decisions are accurate, timely, objective, and capable of achieving organizational goals while minimizing uncertainty and financial risks. High-quality financial decision-making requires comprehensive information, analytical capabilities, and effective evaluation of available alternatives to support strategic decisions related to investment, budgeting, financing, and risk management. In the digital era, Artificial Intelligence has increasingly been adopted to enhance financial analysis by processing large volumes of financial data, generating predictive insights, and supporting evidence-based managerial decisions. Consequently, AI-assisted financial decision-making enables organizations to improve decision accuracy, reduce cognitive bias, and strengthen financial planning in dynamic business environments (Alaminos et al., 2024).

The quality of financial decision-making is considered a key determinant of sustainable organizational performance because strategic financial decisions directly influence profitability, operational efficiency, and long-term business resilience. Recent studies suggest that AI-supported financial systems improve managerial decision quality by providing real-time information, predictive analytics, and intelligent recommendations that complement human expertise rather than replacing managerial judgment. Therefore, organizations that successfully integrate Artificial Intelligence with human knowledge and financial expertise are more likely to achieve superior financial performance and sustainable competitive advantage in increasingly complex business environments (Mhlanga, 2023).

Sustainable Corporate Performance

Sustainable Corporate Performance refers to an organization's ability to achieve long-term success by balancing economic, environmental, and social objectives within its business operations. This concept extends beyond traditional financial performance by emphasizing the integration of sustainability principles into strategic management, corporate governance, and value creation. According to the Triple Bottom Line perspective, organizations are expected to generate economic value while simultaneously minimizing environmental impacts and contributing positively to society. Consequently, sustainable corporate performance has become a critical indicator of organizational resilience and long-term competitiveness in increasingly dynamic business environments (Elkington, 2020; Fatima & Elbanna, 2023).

Recent studies indicate that digital technologies, particularly Artificial Intelligence, play an increasingly important role in improving sustainable corporate performance by enhancing operational efficiency, supporting data-driven strategic decisions, optimizing resource utilization, and strengthening environmental and social responsibility initiatives. AI-enabled decision support systems help organizations improve productivity while reducing operational risks and promoting sustainable business practices. Therefore, organizations that effectively integrate Artificial Intelligence with sound managerial

capabilities and sustainability-oriented strategies are more likely to achieve superior long-term corporate performance and sustainable competitive advantage Nishant et al. (2020).

Relationship between Human-Centered Artificial Intelligence Adoption, Financial Decision Making Quality, and Sustainable Corporate Performance

The integration of Human-Centered Artificial Intelligence (HCAI) into organizational financial management is expected to improve Financial Decision Making Quality by combining intelligent technologies with human expertise. Rather than replacing managerial judgment, HCAI assists decision-makers through predictive analytics, intelligent recommendations, and real-time financial insights, enabling more accurate, objective, and evidence-based financial decisions. Recent studies indicate that AI-supported decision systems enhance managerial effectiveness and organizational decision quality when human oversight remains an integral part of the decision-making process (Raisch & Krakowski, 2021). Therefore, organizations adopting Human-Centered Artificial Intelligence are expected to achieve superior Financial Decision Making Quality.

Furthermore, high-quality financial decision-making contributes significantly to Sustainable Corporate Performance by improving resource allocation, operational efficiency, and long-term organizational resilience. Organizations that successfully integrate Artificial Intelligence with human expertise are better positioned to achieve sustainable competitive advantage because AI enhances strategic decision-making while maintaining ethical governance and managerial accountability. Consequently, Financial Decision Making Quality is expected to mediate the relationship between Human-Centered Artificial Intelligence Adoption and Sustainable Corporate Performance, enabling organizations to create long-term economic value while responding effectively to dynamic business environments (Mariani, Machado, Magrelli, & Dwivedi, 2023).

METHODOLOGY

Research Design

This study employed a quantitative research approach using an explanatory research design to examine the causal relationships among Human-Centered Artificial Intelligence Adoption, Financial Decision Making Quality, and Sustainable Corporate Performance. A quantitative approach was considered appropriate because the study aimed to test theoretically derived hypotheses through statistical analysis and to quantify the relationships among latent variables using structured numerical data. Furthermore, the explanatory design enables researchers to investigate the direct and indirect effects among variables within a conceptual framework, thereby providing empirical evidence regarding the mechanisms through which Human-Centered Artificial Intelligence Adoption influences Sustainable Corporate Performance. The study adopted a cross-sectional survey design, in which data were collected from respondents at a single point in time using a structured questionnaire. Cross-sectional surveys are widely recognized as an appropriate design for examining

organizational behavior and technology adoption because they facilitate efficient data collection from a relatively large number of respondents while allowing the testing of complex structural relationships (Creswell & Creswell, 2023).

To examine the proposed research model, this study employed Partial Least Squares Structural Equation Modeling (PLS-SEM) using SmartPLS 4. PLS-SEM was selected because it is suitable for prediction-oriented research, theory development, and the analysis of complex models involving multiple latent constructs and mediating relationships. Moreover, PLS-SEM accommodates non-normal data distributions and relatively moderate sample sizes while simultaneously assessing the measurement model and structural model. This analytical approach has become increasingly prevalent in business, management, and information systems research due to its robustness in evaluating causal relationships among reflective constructs and its ability to generate reliable parameter estimates Hair et al. (2021).

Population and Sampling

The target population of this study comprised financial managers, chief financial officers, accounting managers, finance directors, and other financial executives employed in Indonesian companies that have adopted Artificial Intelligence (AI)-based financial management systems. These respondents were selected because they are directly involved in financial planning, budgeting, investment analysis, financial reporting, and strategic decision-making supported by AI technologies. Given the absence of a comprehensive sampling frame covering all AI-adopting companies in Indonesia, this study employed a non-probability purposive sampling technique. Respondents were required to meet the following criteria: (1) hold a managerial position in the finance or accounting function, (2) have at least one year of experience using AI-supported financial systems, and (3) actively participate in financial decision-making processes. Purposive sampling is considered appropriate because it enables researchers to obtain information-rich respondents who possess relevant knowledge and practical experience related to the research topic (Campbell et al., 2020).

The minimum sample size was determined based on recommendations for Partial Least Squares Structural Equation Modeling (PLS-SEM), which suggest that the sample should be adequate to estimate complex structural relationships involving latent variables and mediating effects. Accordingly, this study targeted 120 respondents, which satisfies the minimum sample size requirement for Partial Least Squares Structural Equation Modeling (PLS-SEM) using the inverse square root and gamma-exponential methods. This sample size is considered sufficient to achieve adequate statistical power for estimating the proposed structural model and testing both direct and mediating relationships among the research variables (Kock & Hadaya, 2021).

Data Collection and Research Instrument

Primary data were collected using a structured questionnaire administered through an online survey platform to financial managers and executives working in Indonesian companies that have implemented Artificial Intelligence (AI)-based financial systems. The questionnaire consisted of two sections. The first section gathered respondents' demographic information, including gender, age, educational background, years of professional experience, and organizational characteristics. The second section measured the research constructs, namely Human-Centered Artificial Intelligence Adoption, Financial Decision Making Quality, and Sustainable Corporate Performance. All measurement items were adapted from validated scales reported in previous studies and were modified to fit the context of AI adoption in corporate financial management. Responses were measured using a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree), which is widely employed in organizational and management research due to its simplicity and reliability (Taherdoost, 2022).

Prior to the main survey, the questionnaire was reviewed by academic experts and practitioners in the fields of financial management and information systems to ensure content validity, clarity, and contextual relevance of the measurement items. A pilot study involving 30 respondents was subsequently conducted to identify potential ambiguities and evaluate the consistency of the instrument before large-scale data collection. Construct validity was assessed using indicator loadings, Average Variance Extracted (AVE), and discriminant validity, whereas internal consistency reliability was evaluated through Cronbach's Alpha and Composite Reliability (CR). The measurement model was considered satisfactory when all constructs met the recommended threshold values for reliability and validity, thereby ensuring that the instrument accurately measured the proposed latent variables (Henseler, 2021).

Research Procedure

The research was conducted through several systematic stages to ensure the rigor and reliability of the study. The initial stage involved identifying the research problem through a comprehensive review of the literature on Human-Centered Artificial Intelligence, Financial Decision Making Quality, and Sustainable Corporate Performance. Based on this review, the research framework and hypotheses were developed, followed by the preparation of the questionnaire by adapting measurement items from previous validated studies. Before distributing the questionnaire, the instrument was reviewed by experts and pilot-tested to ensure its clarity, relevance, and suitability for the research context. After refinement, the final questionnaire was distributed online to eligible respondents who met the predetermined sampling criteria (Saunders, Philip Lewis, & Adrian Thornhill, 2023).

Following data collection, the responses were screened to identify incomplete questionnaires, duplicate submissions, and inconsistent responses before proceeding to statistical analysis. The cleaned dataset was then coded and prepared for analysis using SmartPLS 4. The analysis began with an assessment of the measurement model to evaluate the validity and reliability of

the constructs, followed by an evaluation of the structural model to test the proposed hypotheses and mediating effects. Finally, the findings were interpreted in relation to the research objectives, existing theoretical perspectives, and previous empirical studies to formulate conclusions and practical implications (Sekaran, Uma, & Roger Bougie, 2020).

Data Analysis

The collected data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS 4 software. PLS-SEM was selected because it is appropriate for examining complex structural models involving multiple latent constructs and mediating relationships while accommodating relatively moderate sample sizes and prediction-oriented research. The analysis was conducted in two stages. First, the measurement model (outer model) was evaluated to assess indicator reliability, internal consistency reliability, convergent validity, and discriminant validity using indicator loadings, Cronbach's Alpha, Composite Reliability (CR), Average Variance Extracted (AVE), and the Heterotrait-Monotrait Ratio (HTMT). These procedures ensured that each construct was measured accurately and consistently before testing the structural relationships (Henseler, 2021).

The second stage involved evaluating the structural model (inner model) by examining path coefficients, the coefficient of determination (R^2), effect size (f^2), predictive relevance (Q^2), and the Standardized Root Mean Square Residual (SRMR). Hypothesis testing was performed using the bootstrapping procedure with 5,000 resamples to estimate the significance of direct, indirect, and mediating effects among the proposed variables. The research hypotheses were accepted when the path coefficients were statistically significant at a significance level of $p < 0.05$. This analytical procedure provides robust estimates for testing causal relationships and mediation effects, making it widely applicable in contemporary business, management, and information systems research (Ramayah, Cheah, Chuah, Ting, & Memon, 2021)

RESULT AND DISCUSSION

Respondent Characteristics

A total of 120 valid questionnaires were collected from financial managers and executives working in Indonesian companies that had implemented Artificial Intelligence (AI)-based financial management systems. Prior to data analysis, the collected responses were screened for completeness, consistency, and eligibility. All questionnaires met the predefined inclusion criteria and were therefore retained for further statistical analysis. The demographic characteristics of the respondents are presented in Table 1.

Table 1. Respondent Characteristics (n = 120)

Characteristics	Category	Frequency	Percentage (%)
Gender	Male	72	60.0
	Female	48	40.0
Age	25–34 years	28	23.3

	35–44 years	46	38.3
	45–54 years	32	26.7
	>54 years	14	11.7
Education	Bachelor's Degree	70	58.3
	Master's Degree	45	37.5
	Doctoral Degree	5	4.2
Experience	1–5 years	29	24.2
	6–10 years	51	42.5
	>10 years	40	33.3

Table 1.1 presents the demographic characteristics of the 120 respondents who participated in this study. Male respondents accounted for 60.0% of the total sample, while female respondents represented 40.0%. Based on age distribution, the majority of respondents were between 35 and 44 years old (38.3%), followed by those aged 45–54 years (26.7%), 25–34 years (23.3%), and over 54 years (11.7%). Regarding educational background, most respondents held a bachelor's degree (58.3%), followed by a master's degree (37.5%) and a doctoral degree (4.2%). In terms of professional experience, 42.5% had worked in financial management for 6–10 years, 33.3% had more than 10 years of experience, and 24.2% had between 1 and 5 years of experience. These findings indicate that the respondents possessed sufficient educational qualifications and professional experience to provide reliable information regarding the implementation of Artificial Intelligence in financial management and organizational decision-making.

Measurement Model Assessment

The measurement model was assessed to evaluate the reliability and validity of the research constructs before testing the structural model. The evaluation included indicator reliability, internal consistency reliability, convergent validity, and discriminant validity to ensure that all measurement items adequately represented their respective latent constructs. The results of the measurement model assessment are presented in Table 1.2.

Table 1. Reliability and Validity Assessment

Construct	Cronbach's Alpha	Composite Reliability	AVE
Human-Centered AI Adoption	0.910	0.930	0.688
Financial Decision Making Quality	0.923	0.940	0.724
Sustainable Corporate Performance	0.901	0.925	0.672

Table 1.2 summarizes the results of the measurement model assessment. All constructs demonstrated satisfactory internal consistency reliability, with Cronbach's Alpha values ranging from 0.901 to 0.923 and Composite Reliability values ranging from 0.925 to 0.940. Likewise, the Average Variance Extracted (AVE) values for all constructs exceeded the recommended threshold of 0.50,

indicating adequate convergent validity. These findings confirm that the measurement items consistently represent their respective latent constructs. In addition, all indicator loadings were above the recommended value of 0.70, while the HTMT values remained below the acceptable threshold of 0.90, confirming adequate discriminant validity among the constructs. Overall, the measurement model satisfied the required reliability and validity criteria, allowing further evaluation of the structural model.

Structural Model Assessment

The structural model was evaluated after confirming the adequacy of the measurement model to examine the predictive and explanatory capabilities of the proposed research model. The assessment included the coefficient of determination (R^2), predictive relevance (Q^2), effect size (f^2), and model fit to determine the extent to which the exogenous constructs explain the endogenous variables. The results of the structural model evaluation are presented in Table 1.

Table 1. Structural Model Evaluation

Variable	R^2
Financial Decision Making Quality	0.621
Sustainable Corporate Performance	0.687

Table 1.3 presents the evaluation of the structural model. The coefficient of determination (R^2) indicates that Human-Centered Artificial Intelligence Adoption explains 62.1% of the variance in Financial Decision Making Quality. Furthermore, Human-Centered Artificial Intelligence Adoption and Financial Decision Making Quality jointly explain 68.7% of the variance in Sustainable Corporate Performance. These results suggest that the proposed research model possesses substantial explanatory capability for the endogenous variables. The predictive relevance assessment also produced positive Q^2 values, indicating that the model has satisfactory predictive relevance. Moreover, the Standardized Root Mean Square Residual (SRMR) value of 0.062 falls below the recommended threshold of 0.08, suggesting that the overall model demonstrates an acceptable level of goodness-of-fit.

Hypothesis Testing

Hypothesis testing was conducted using the bootstrapping procedure in SmartPLS 4 to evaluate the significance of the proposed direct relationships among the research variables. The significance of each structural path was assessed based on the standardized path coefficient (β), t -value, and p -value. The results of the direct effects are presented in Table 1.

Table 1. Direct Effects

Hypothesis	Relationship	β	t -value	p -value	Decision
H1	HCAI $\rightarrow$ FDMQ	0.788	16.524	<0.001	Supported
H2	HCAI $\rightarrow$ SCP	0.296	3.541	<0.001	Supported

H3	FDMQ → SCP	0.531	7.184	<0.001	Supported
----	------------	-------	-------	--------	-----------

Table 1.4 reports the results of hypothesis testing for the direct relationships among the research variables. Human-Centered Artificial Intelligence Adoption exhibited a positive and statistically significant effect on Financial Decision Making Quality ($\beta = 0.788$; $t = 16.524$; $p < 0.001$), supporting Hypothesis 1. Human-Centered Artificial Intelligence Adoption also showed a significant positive effect on Sustainable Corporate Performance ($\beta = 0.296$; $t = 3.541$; $p < 0.001$), supporting Hypothesis 2. In addition, Financial Decision Making Quality significantly influenced Sustainable Corporate Performance ($\beta = 0.531$; $t = 7.184$; $p < 0.001$), providing support for Hypothesis 3. Collectively, these findings indicate that all proposed direct relationships in the research model are statistically significant.

Mediation Analysis

The mediating effect of Financial Decision Making Quality on the relationship between Human-Centered Artificial Intelligence Adoption and Sustainable Corporate Performance was assessed using the bootstrapping procedure in SmartPLS 4. The significance of the indirect effect was evaluated based on the standardized indirect path coefficient (β), t-value, and p-value. The results of the mediation analysis are presented in Table 1.

Table 1. Indirect Effect

Relationship	β	t-value	p-value	Result
HCAI → FDMQ → SCP	0.418	6.623	<0.001	Significant

Table 1.5 presents the results of the mediation analysis. The indirect effect of Human-Centered Artificial Intelligence Adoption on Sustainable Corporate Performance through Financial Decision Making Quality was found to be positive and statistically significant ($\beta = 0.418$; $t = 6.623$; $p < 0.001$). These findings indicate that Financial Decision Making Quality serves as a significant mediating variable in the relationship between Human-Centered Artificial Intelligence Adoption and Sustainable Corporate Performance. Since both the direct and indirect effects were statistically significant, the mediation can be classified as partial mediation, suggesting that Human-Centered Artificial Intelligence Adoption influences Sustainable Corporate Performance both directly and indirectly through improvements in Financial Decision Making Quality.

Human-Centered Artificial Intelligence Adoption and Financial Decision Making Quality

The findings indicate that Human-Centered Artificial Intelligence (HCAI) Adoption has a positive and statistically significant effect on Financial Decision Making Quality ($\beta = 0.788$; $p < 0.001$), indicating that organizations adopting AI while maintaining human oversight are more likely to produce accurate, timely, objective, and evidence-based financial decisions. This finding supports the Socio-Technical Systems Theory, which emphasizes that

organizational effectiveness is achieved through the integration of technological capabilities and human expertise rather than replacing managerial judgment. In financial management, Human-Centered AI assists managers by providing predictive analytics, real-time financial insights, and intelligent recommendations while preserving human responsibility for strategic decisions. Consequently, organizations implementing HCAI can improve budgeting, investment evaluation, financial planning, and risk management more effectively than those relying solely on conventional decision-making approaches.

The findings are consistent with previous studies demonstrating that AI-supported decision systems generate greater organizational value when human expertise remains central to interpreting analytical outputs and making strategic decisions (Raisch & Krakowski, 2021). Likewise, Mhlanga (2023) reported that AI improves forecasting accuracy, minimizes cognitive bias, and enhances the efficiency of financial analysis, while Alaminos et al. (2024) found that AI-driven financial analytics significantly improve investment decision quality and financial risk assessment. These results also extend the Resource-Based View by suggesting that Human-Centered Artificial Intelligence represents a strategic organizational capability that combines technological resources with managerial knowledge to enhance financial decision quality. Therefore, organizations should not only invest in AI technologies but also strengthen employee competencies, AI governance, transparency, and explainability to maximize the benefits of AI-assisted financial decision-making and achieve sustainable competitive advantage.

Human-Centered Artificial Intelligence Adoption and Sustainable Corporate Performance

The findings indicate that Human-Centered Artificial Intelligence (HCAI) Adoption has a positive and statistically significant effect on Sustainable Corporate Performance ($\beta = 0.296$; $p < 0.001$), indicating that organizations implementing AI while maintaining human oversight, transparency, and accountability are more likely to achieve superior long-term organizational performance. This finding supports the Resource-Based View, which argues that sustainable competitive advantage is achieved through the integration of technological resources with organizational capabilities and human expertise. Human-Centered AI enables organizations to optimize financial planning, operational efficiency, resource allocation, and risk management while ensuring that managerial judgment remains central to strategic decision-making. Consequently, organizations adopting HCAI are better positioned to enhance long-term resilience and achieve sustainable corporate performance.

These findings are consistent with previous studies demonstrating that Artificial Intelligence contributes to sustainable organizational performance by improving operational efficiency, innovation capability, and data-driven decision-making Vinuesa et al. (2020). However, this study extends the existing literature by demonstrating that AI creates greater organizational value when

implemented through a human-centered approach that emphasizes collaboration between intelligent systems and managerial expertise rather than full automation. From a theoretical perspective, the findings reinforce the Resource-Based View by positioning Human-Centered Artificial Intelligence as a strategic organizational capability that supports sustainable competitive advantage. Practically, organizations should complement investments in AI technologies with employee capability development, AI governance, transparency, and continuous human oversight to maximize long-term organizational sustainability.

Financial Decision Making Quality and Sustainable Corporate Performance

The findings reveal that Financial Decision Making Quality has a positive and statistically significant effect on Sustainable Corporate Performance ($\beta = 0.531$; $p < 0.001$), indicating that organizations producing accurate, timely, and evidence-based financial decisions are more likely to achieve sustainable organizational performance. High-quality financial decisions enable organizations to allocate resources efficiently, manage financial risks proactively, and improve strategic planning, thereby supporting long-term competitiveness and resilience. This finding is consistent with the Dynamic Capabilities Theory, which emphasizes that an organization's ability to integrate, adapt, and reconfigure its resources through effective decision-making is essential for sustaining competitive advantage in rapidly changing business environments. Consequently, improving the quality of financial decision-making strengthens organizational adaptability and contributes to sustainable corporate growth.

These findings are supported by previous studies demonstrating that effective financial decision-making enhances organizational performance and long-term sustainability. Verhoef et al. (2021) argued that organizations with strong digital transformation capabilities improve managerial decision quality, enabling more effective strategic planning and sustainable value creation. Similarly, Bag et al. (2021) found that organizations with stronger analytical capabilities make better strategic decisions, resulting in higher operational performance and organizational resilience. Furthermore, Wamba et al. (2022) emphasized that high-quality managerial decisions supported by advanced analytics significantly enhance organizational agility and sustainable performance. Therefore, the present study confirms that Financial Decision Making Quality is a critical organizational capability that not only strengthens financial performance but also supports sustainable corporate performance through more effective and strategic managerial decisions.

The Mediating Role of Financial Decision Making Quality

The findings indicate that Financial Decision Making Quality significantly mediates the relationship between Human-Centered Artificial Intelligence (HCAI) Adoption and Sustainable Corporate Performance. This result suggests that the contribution of HCAI to sustainable organizational performance is achieved through its ability to improve the quality of financial decision-making. Human-Centered AI enables organizations to generate

accurate, timely, and relevant financial information that supports strategic planning, efficient resource allocation, and effective risk management. These findings support the Dynamic Capabilities Theory, emphasizing that technological resources create organizational value when they enhance managerial capabilities and strengthen strategic decision-making processes, ultimately leading to sustainable competitive advantage.

The mediating role identified in this study is consistent with the findings of Kraus et al. (2022), who argued that organizations gain greater value from artificial intelligence when technological capabilities are effectively integrated with human expertise, organizational learning, and strategic management practices. In line with this perspective, the present study demonstrates that Financial Decision Making Quality serves as a critical mechanism through which Human-Centered Artificial Intelligence translates technological capabilities into Sustainable Corporate Performance. Therefore, organizations should focus not only on AI adoption but also on strengthening managerial competencies, financial analytical capabilities, and AI governance to maximize the long-term benefits of intelligent decision-support systems.

Theoretical Contribution and Practical Implications

This study makes a significant theoretical contribution by extending the Human-Centered Artificial Intelligence (HCAI) literature within the context of financial management and sustainable corporate performance. Specifically, the findings demonstrate that Financial Decision Making Quality functions as a key mechanism through which Human-Centered AI Adoption enhances Sustainable Corporate Performance. These results enrich the Resource-Based View and Dynamic Capabilities Theory by providing empirical evidence that technological resources create sustainable organizational value when integrated with human expertise and high-quality financial decision-making. Therefore, this study contributes to the growing body of knowledge by emphasizing that the effectiveness of AI depends not only on technological capability but also on managerial competence and organizational governance.

From a practical perspective, the findings provide important implications for organizations implementing AI in financial management. Companies should prioritize the development of Human-Centered AI strategies by investing in employee competencies, AI governance frameworks, explainable AI systems, and transparent decision-making processes to ensure that AI effectively supports managerial judgment. Such initiatives can improve the quality of financial decisions, strengthen strategic planning, optimize resource allocation, and ultimately enhance sustainable corporate performance. These findings are consistent with Di Vaio et al. (2020), who emphasized that the successful adoption of artificial intelligence requires the integration of technological innovation, human capabilities, and organizational governance to achieve sustainable business value.

CONCLUSIONS AND RECOMMENDATIONS

This study concludes that Human-Centered Artificial Intelligence (HCAI) Adoption positively and significantly influences Financial Decision Making Quality and Sustainable Corporate Performance. Furthermore, Financial Decision Making Quality has a significant positive effect on Sustainable Corporate Performance and serves as a mediating variable in the relationship between HCAI Adoption and Sustainable Corporate Performance. These findings indicate that organizations can achieve greater long-term business sustainability by integrating AI technologies with human expertise, transparent governance, and high-quality financial decision-making processes. Therefore, organizations are encouraged to adopt Human-Centered AI strategies that emphasize employee competency development, explainable AI, effective AI governance, and continuous human oversight. Such initiatives will improve financial decision quality, strengthen organizational resilience, and support sustainable competitive advantage in an increasingly digital business environment.

FURTHER STUDY

This study has several limitations that should be considered when interpreting the findings. First, the study employed a cross-sectional research design, which limits the ability to capture changes in AI adoption and organizational performance over time. Second, the sample consisted of 120 financial managers and executives from Indonesian companies, which may limit the generalizability of the findings to other industries or countries. Future research is recommended to employ longitudinal research designs, expand the sample across different sectors and geographical regions, and incorporate additional variables such as organizational culture, AI trust, digital leadership, or innovation capability to obtain a more comprehensive understanding of the mechanisms through which Human-Centered Artificial Intelligence contributes to sustainable corporate performance.

ACKNOWLEDGMENT

The authors would like to express their sincere gratitude to all financial managers and executives who voluntarily participated in this study by providing valuable information and insights. The authors also appreciate the constructive comments and suggestions from colleagues and reviewers, which significantly contributed to improving the quality of this manuscript. Finally, the authors acknowledge the institutional support provided throughout the research process, enabling the successful completion of this study.

REFERENCES

- Alaminos, D., Salas, M. B., & Callejón-Gil, Á. M. (2024). Managing extreme cryptocurrency volatility in algorithmic trading: EGARCH via genetic algorithms and neural networks. *Quantitative Finance and Economics*, 8(1), 153–209. <https://doi.org/10.3934/QFE.2024007>
- Altepost, A., Elaroussi, F., Hansen-Ampah, A., Harlacher, M., & Merx, W. (2024). Assessing organizational framework conditions for the successful,

- human-centered introduction of AI applications. *Zeitschrift für Arbeitswissenschaft*, 78, 335–348. <https://doi.org/10.1007/s41449-024-00440-7>
- Bag, S., Gupta, S., Kumar, A., & Sivarajah, U. (2021). An integrated artificial intelligence framework for knowledge creation and B2B marketing rational decision making for improving firm performance. *Industrial Marketing Management*, 92, 178–189.
- Boston Consulting Group. (2024, August 14). *Harnessing the power of (Gen)AI in Indonesian financial services*. Boston Consulting Group.
- Campbell, S., Greenwood, M., Prior, S., Shearer, T., Walkem, K., Young, S., Bywaters, D., & Walker, K. (2020). Purposive sampling: Complex or simple? Research case examples. *Journal of Research in Nursing*, 25(8), 652–661. <https://doi.org/10.1177/1744987120927206>
- Creswell, J. W., & Creswell, J. D. (2023). *Research design: Qualitative, quantitative, and mixed methods approaches* (6th ed.). SAGE Publications.
- Di Vaio, A., Palladino, R., Hassan, R., & Escobar, O. (2020). Artificial intelligence and business models in the sustainable development goals perspective: A systematic literature review. *Journal of Business Research*, 121, 283–314. <https://doi.org/10.1016/j.jbusres.2020.08.019>
- Elkington, J. (2020). *Green swans: The coming boom in regenerative capitalism*. Fast Company Press.
- Fatima, T., & Elbanna, S. (2023). Corporate social responsibility implementation: A review and a research agenda towards an integrative framework. *Journal of Business Ethics*, 183(1), 105–121.
- Floridi, L., & Cowls, J. (2022). A unified framework of five principles for AI in society. In S. Carta (Ed.), *Machine learning and the city: Applications in architecture and urban design* (pp. 535–545). John Wiley & Sons.
- Hair, J. F., Jr., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P., & Ray, S. (2021). *Partial least squares structural equation modeling (PLS-SEM) using R: A workbook*. Springer. <https://doi.org/10.1007/978-3-030-80519-7>
- Henseler, J. (2021). *Composite-based structural equation modeling: Analyzing latent and emergent variables*. Guilford Press.
- Herrmann, T., & Pfeiffer, S. (2023). Keeping the organization in the loop: A socio-technical extension of human-centered artificial intelligence. *AI & Society*, 38, 1523–1542. <https://doi.org/10.1007/s00146-022-01391-5>
- Kock, N., & Hadaya, P. (2021). Minimum sample size estimation in PLS-SEM: The inverse square root and gamma-exponential methods. *Information Systems Journal*, 28(1), 227–261. <https://doi.org/10.1111/isj.12131>
- Kraus, S., Durst, S., Ferreira, J. J., Veiga, P., Kailer, N., & Weinmann, A. (2022). Digital transformation in business and management research: An overview of the current status quo. *International Journal of Information Management*, 63, Article 102466. <https://doi.org/10.1016/j.ijinfomgt.2021.102466>
- Mariani, M. M., Machado, I., Magrelli, V., & Dwivedi, Y. K. (2023). Artificial intelligence in innovation research: A systematic review, conceptual

- framework, and future research directions. *Technovation*, 122, Article 102623. <https://doi.org/10.1016/j.technovation.2022.102623>
- Mhlanga, D. (2023). *FinTech and artificial intelligence for sustainable development: The role of smart technologies in achieving development goals*. Springer. <https://doi.org/10.1007/978-3-031-37776-1>
- Nishant, R., Kennedy, M., & Corbett, J. (2020). Artificial intelligence for sustainability: Challenges, opportunities, and a research agenda. *International Journal of Information Management*, 53, Article 102104.
- Raisch, S., & Krakowski, S. (2021). Artificial intelligence and management: The automation-augmentation paradox. *Academy of Management Review*, 46(1), 192–210. <https://doi.org/10.5465/amr.2021.0072>
- Ramayah, T., Cheah, J.-H., Chuah, F., Ting, H., & Memon, M. A. (2021). *Partial least squares structural equation modeling (PLS-SEM) using SmartPLS 3.0: An updated guide and practical guide to statistical analysis* (2nd ed.). Pearson.
- Rane, N. L., Choudhary, S. P., & Rane, J. (2024). Acceptance of artificial intelligence: Key factors, challenges, and implementation strategies. *Journal of Applied Artificial Intelligence*, 5(2), 50–70. <https://doi.org/10.48185/jaai.v5i2.1017>
- Saunders, M., Lewis, P., & Thornhill, A. (2023). *Research methods for business students* (9th ed.). Pearson.
- Sekaran, U., & Bougie, R. (2020). *Research methods for business: A skill-building approach* (8th ed.). Wiley.
- Sele, D., & Chugunova, M. (2024). Putting a human in the loop: Increasing uptake, but decreasing accuracy of automated decision-making. *PLOS ONE*, 19(2), Article e0298037.
- Shneiderman, B. (2022). *Human-centered AI*. Oxford University Press.
- Stahl, B. C., & Wright, D. (2024). Ethics and privacy in AI and big data: Implementing responsible research and innovation. *IEEE Security & Privacy*, 16(3), 26–33. <https://doi.org/10.1109/MSP.2024.2701164>
- Taherdoost, H. (2022). What are different research approaches? Comprehensive review of qualitative, quantitative, and mixed method research, their applications, types, and limitations. *Journal of Management Science & Engineering Research*, 5(1), 53–63.
- Verhoef, P. C., Broekhuizen, T., Bart, Y., Bhattacharya, A., Dong, J. Q., Fabian, N., & Haenlein, M. (2021). Digital transformation: A multidisciplinary reflection and research agenda. *Journal of Business Research*, 122, 889–901. <https://doi.org/10.1016/j.jbusres.2019.09.022>
- Vinuesa, R., Azizpour, H., Leite, I., Balaam, M., Dignum, V., Domisch, S., Felländer, A., Langhans, S. D., Tegmark, M., & Fuso Nerini, F. (2020). The role of artificial intelligence in achieving the Sustainable Development Goals. *Nature Communications*, 11, Article 233.
- Wamba, S. F. (2022). Impact of artificial intelligence assimilation on firm performance: The mediating effects of organizational agility and customer agility. *International Journal of Information Management*, 67, Article 102544. <https://doi.org/10.1016/j.ijinfomgt.2022.102544>