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Enhancing Financial Performance in the AI Era: A Model Integrating AI Attitudes, Management Accounting Systems, and AI-Driven Engagement

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ABSTRACT

This study assesses the extent to which artificial intelligence (AI) affects the performance of the banking and financial services industry by investigating managerial attitudes toward AI, management accounting systems (MAS), and AI related interaction, employing an integrated framework. The study utilizes the resource-based view as its basis for the hypothesis that positive manager attitudes towards AI correlate positively with MAS and performance, and that MAS acts as a mediating variable between attitude and performance. The study also explores whether AI-based engagement is a direct influence on performance and MAS, and whether AI-based engagement moderates the relationship between managerial attitudes toward AI, MAS, and financial performance. A total of 265 managers and professionals provided data through a structured questionnaire, and Smart PLS structural equation modeling was used to analyze the data. Results support the existence of a positive relationship between attitude and both financial performance and MAS, and MAS acts as an intermediary between attitude and financial performance, along with AI-based engagement significantly enhancing both MAS and financial performance. The findings provide theoretical and practical insights associated with obtaining sustainable financial value from the use of AI, accounting systems, and AI-based engagement.

KEYWORDS

Attitude Towards AI, AI-Driven Engagement, Management Accounting System, Financial Performance, Financial Services.

INTRODUCTION

As a result of the rapid evolution of artificial intelligence (AI) technology, the global banking & finance industry is undergoing major changes which are redefining how companies operate with their information processing, the way they interact with stakeholders as well as the methods that organizations utilize to



obtain long-term profitability. The use of multiple AI technologies including but not limited to machine learning, predictive analytics and intelligent automation in areas such as credit risk assessment, fraud detection, forecasting future performance, customer relationship management etc., has greatly embedded these AI elements in the core operation of what finance companies do each day (Komati, 2025). In addition to this, banks that operate in emerging markets are under increasing pressure to deliver improved operational performance as they face intensified competition, increasing regulatory standards and digital disruption; hence the banks have begun investing in AI solutions but the effectiveness of these investments was dependent upon not only on their level of technological infrastructure but on the level of the organization's beliefs regarding AI, the pace of readiness of internal systems and how effectively AI has been integrated into management processes and their interactions with employees (Omoge et al., 2022; Witts, 2024). Therefore, understanding how organizational beliefs or attitudes and how internal level systems interact to create significant improvements in financial performance for organizations has become a significant concern for researchers and managers operating in the AI era.

Many banks appear to be facing a large amount of difficulty managing the rapid digitalization which continues to take place - in addition to managing a consistent level of performance that results from the operational costs continuing to increase, suboptimal uses of their assets and very limited returns on the technology investments (Al-Ababneh et al., 2023). The dependent variable in this research study is financial performance, and it has been continuously identified as a significant challenge to organizations because having adopted AI does not mean that they necessarily have an increase in financial performance for the organizations that adopted AI (Gyau et al., 2024). Many firms are developing artificial intelligence systems to replace traditional management accounting systems and decision-making routines (Ionescu & Diaconita, 2023). While these firms are increasingly using artificial intelligence to create new products, services, and processes, they are often using these systems without integrating them with existing management accounting systems and day-to-day management processes (Țircovnicu & Hațegan, 2023). Consequently, firms struggle to get timely operational data needed for decision-making due to a lack of integrated systems. This results in a negative effect on their ability to improve profitability, increase overall efficiency, and ultimately achieve financial stability for the long term. These issues provide additional motivation for further studies examining how AI-related factors can improve financial performance by leveraging organizational mechanisms (Baker et al., 2023; Sabharwal et al., 2025). Most of the academic literature written about the application of AI within the financial services industry primarily concentrated on the technological and operational dimensions of AI's application and very few studies have examined what impact internal organizational factors have on the financial performance of those organizations adopting AI (Javaid et al., 2022; Mithas et al., 2022; Oyeniyi et al., 2024). Overall, previous research concerning AI has been relatively limited in nature and has not adequately acknowledged the fundamental role that management accounting systems play in transforming technological orientation into financial performance in organizations through direct and indirect effects on organizational performance (Mucsková, 2024; Oyegbade et al., 2022). This research also offers empirical findings to support the demand for additional research into how a firm's management accounting system influences its financial performance as well as how a firm's attitude towards AI may affect using AI to achieve financial results (Al-Hattami, 2025; Alnor, 2024). This research identifies an important gap in the literature regarding the concurrent influence of managerial attitudes toward AI, the effect of management accounting systems on financial performance, and AI engagement with management in banking and financial services.

The primary objective of this research study is to develop and empirically validate a comprehensive model that can explain financial performance via the relationships between managerial attitudes towards AI, management accounting systems, and AI engagement with management in firms operating in banking and financial services. This study specifically explores both the direct and indirect effects that management accounting systems have on financial performance while examining AI management



engagement as a moderating variable. This study aims to add to the theoretical body of knowledge around resource-based views of firms by providing a new way of looking at managerial attitudes toward artificial intelligence (AI) through the lens of AI engagement as an intangible resource; and then considering management accounting systems as a strategic resource that enables firms to create value through AI performance. This integrated perspective is intended to extend our understanding of AI performance by exploring how AI adoption affects AI performance relative to other performance-related variables in the environment of AI.

In addition, there are theoretical, practical, and policy-related implications arising from this study. From an academic standpoint, this study represents an extension of the existing literature on artificial intelligence (AI) in accounting by providing empirical evidence from a developing economy that has received little research attention until now. This study also identifies the different organizational mechanisms through which AI-related variables influence financial performance. From a practical standpoint, the findings provided organizations in both the banking and financial services sectors with valuable information about how positive management attitudes towards AI are complemented by a robust and well-functioning management accounting system, as well as high levels of managerial engagement with AI, to derive financial benefits. From a public policy standpoint, the research highlights that, to maintain long-term sustainability of financial performance in the rapidly evolving AI-centric global finance sector, there is a pressing need to build not only technological readiness but also sound management systems.

LITERATURE REVIEW

Theoretical Foundation

This study employs the resource-based view (RBV) framework to determine which internal resources and abilities of the organization increase its level of success. AI management's attitude is a type of resource that reflects the company's management attitude, the degree of technological openness, and the overall strategic direction of the organization. Based on RBV theory, if these intangible resources have value, rarity, and difficulty imitating, their value provides the organization with a sustainable competitive advantage (Abdurrahman, 2025).

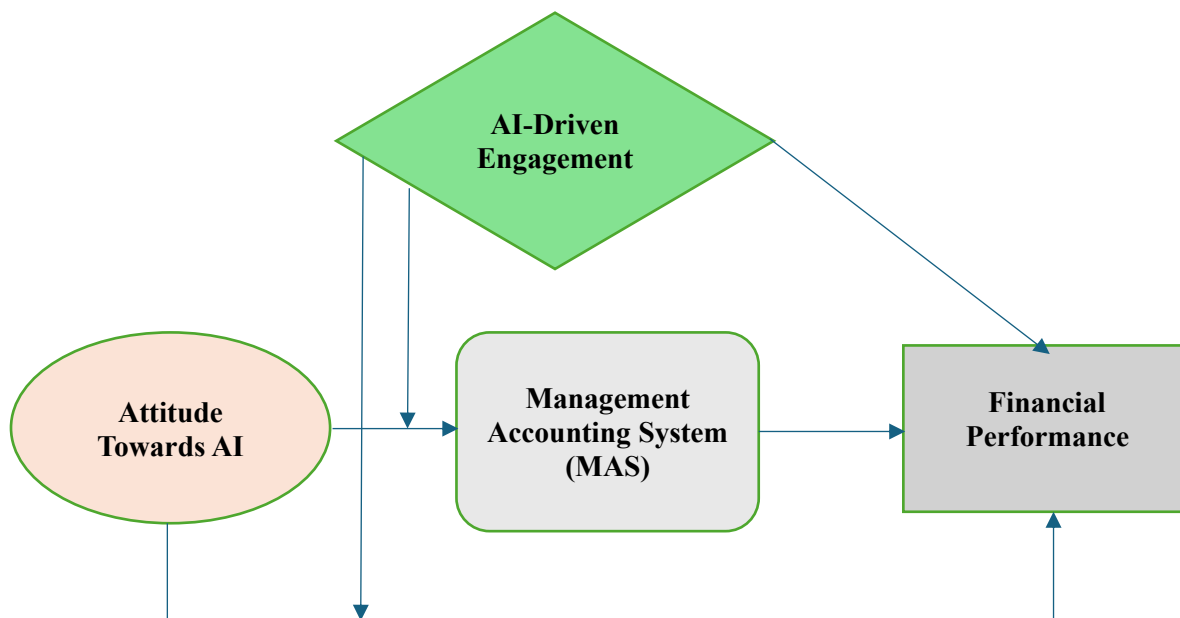


Figure 1. Framework of the Study.



Therefore, by having a positive attitude toward AI, organizations in the banking industry effectively use sophisticated technologies and incorporate them into their primary organizational systems. By maximizing the amount of data generated through AI-enabled analytic tools, a management accounting system (MAS), creates a level of insight into financial data that allows banks to make effective decisions, effectively manage costs, and control the overall performance of the bank (Pantea et al., 2024). The MAS is an additional capability or resource that mediates the relationship between banking organizations' attitudes toward AI and their financial performance by converting an organization's openness to technological innovations into structured managerial practices (Nugraha et al., 2024). Additionally, engagement that is driven by AI strengthens the link between the resources offered by AI and the capabilities of the MAS by increasing the level of employee participation, and involvement of customers, and increasing data-driven learning for organizations that are focused on the financial services sector and use AI to support their operational goals (Shen & Chen, 2025). As a moderating resource, AI impacts how well an organization with a positive attitude toward AI can generate positive MAS-related outcomes and overall financial performance. Because of this, RBV provides an explanation of how the alignment of attitudes toward AI, accounting systems, and engagement mechanisms support financial services organizations in using AI as a strategy to achieve improved levels of performance in an AI-driven world, as described in Figure 1.

Hypotheses Development

Attitude towards AI and Financial Performance

A good attitude towards AI is associated with managers being receptive and trusting in intelligent technologies entering organizational processes as part of a company's overall strategy. In financial services organizations, this type of attitude is a critical determinant of the degree to which AI-based tools are accepted and used for both strategic and operational purposes. The more managers and decision-makers view AI as useful and reliable, the more likely they are to invest in new analytics, automation, and data-driven decision-making systems (Wu et al., 2025). This creates a bias towards positive outcomes, enabling financial organizations to enjoy greater accuracy in their forecasts, to better manage risk, to improve efficiency in their operations, and to allocate resources effectively; all attributes that are strongly correlated with a company's financial performance (Dewasiri et al., 2024).

More efficient and competitive firms tend to be more innovative, as this helps them achieve their objectives better. The use of AI enables an organization to reduce costs, enhance service quality, and increase profitability by providing a more positive environment for using automated systems. Additionally, these types of attitudes encourage experimentation and learning, allowing organizations to better adapt to changing markets and regulatory requirements (Ezechi et al., 2025). Further, if senior managers of an organization are confident in the use of AI for making business decisions, then AI-generated insights are more likely to be incorporated into strategic decisions, thereby enhancing the alignment between the use of technology and the financial objectives of the firm (Meena et al., 2025). Therefore, it is expected that an organization's positive attitude toward AI results in increased levels of financial performance, enabling financial organizations to receive more economic value from the processes and decisions they make using AI.

Hypothesis 1. Attitude towards AI has a positive influence on financial performance.

Attitude towards AI and Management Accounting System (MAS)

Attitudes toward artificial intelligence indicate how managers view the usefulness, dependability, and compatibility of AI technologies to their existing processes. Barreto et al. (2025) proposed that in the banks and financial services, quality, timeliness and analytical detail of the data used for planning, controlling and evaluating performance in management accounting systems (MAS) are critical. Managers who have a positive attitude towards AI are likely to advocate for the incorporation of intelligent technology into their accounting and controlling processes, thereby creating an environment which encourages the adoption of



AI-enabled analyses, automated reports and real-time monitoring in MAS, thus enhancing the sophistication and efficiency of MAS (Vărzaru, 2022).

When considering the financial industry, traditional management accounting has often been unable to keep up with the amount of data that is both complex and moving at a rapid pace. A positive attitude toward AI gives rise to managers updating their MAS through the application of predictive modelling, anomaly detection, and data visualization tools that ultimately allow for greater accuracy in budgeting, improved cost control and more informed strategic decisions (Adhikari & Shrestha, 2024). Also, a positive attitude towards AI reduces resistance to change and builds greater allow to algorithm-based decision making in the managerial routines of the organization (Bratu, 2023). Ultimately, MAS goes from being a static, compliant function of the organization to being a fluid, decision-enable capability of the organization. Thus, it is expected that the positive attitude of management towards AI will have a strong and positive impact on the growth, use and effectiveness of MAS within banking and financial services.

Hypothesis 2. Attitude towards AI has a positive influence on management accounting system (MAS).

Management Accounting System (MAS) and Financial Performance

Management accounting systems are key in turning the data captured throughout an organization into actionable insights to assist with planning, control and making strategic decisions. In the banking and finance sector, a functioning MAS delivers timely, accurate and forward-looking financial and non-financial data to improve cost control, budgeting accuracy, risk management and performance evaluation (Edunjobi & Odejide, 2024). By enhancing management's visibility of operational and strategic initiatives, developing a strong MAS enables banks to allocate their resources efficiently, adjust quickly to changes in the marketplace and ultimately enhance their profitability and operational efficiency. As a result, stronger management accounting systems are likely to have a direct impact on improving financial performance (Sultan & Sultan, 2024).

In addition to its direct impact, MAS is also a vital means by which a manager's attitude towards AI affects the financial performance of the firm. A positive attitude toward AI indicates that the manager views intelligent technology as being beneficial, however; a positive attitude alone does not lead to financial gains unless the attitude is embedded in formal managerial and accounting processes (Adiguzel et al., 2023). The MAS provides the framework in which AI-driven information is systematically incorporated into the budgeting process and performance measurement and strategic control (Cheng et al., 2025). Thus, MAS converts technological openness into disciplined, data-driven decisions. Therefore, management accounting systems mediate the relationship between a manager's attitude toward AI and financial performance by putting AI-driven insights into the day-to-day management practice of managers and enhancing financial performance.

Hypothesis 3. Management accounting system (MAS) has a positive influence on financial performance.

Hypothesis 4. Management accounting system (MAS) mediates the relationship between attitude towards AI and financial performance.

AI-Driven Engagement, Management Accounting System (MAS) and Financial Performance

Artificial Intelligence engagement is the way that Artificial Intelligence improves how employees, managers, and customers interact through intelligent platforms, real-time feedback systems, and data-driven communication tools. Therefore, it is anticipated that AI-enhanced engagement produces positive impacts on organizational performance (Yang et al., 2023). In addition to the positive effects on performance, artificial intelligence-enhanced engagement was instrumental in strengthening management accounting (MA) systems. Continuous interacting and capturing data through artificial intelligence-enhanced



engagement produces rich, instantaneous operational data, employee performance data, and customer behavior data (Tad et al., 2023). The current data produced through Artificial intelligence-enhanced engagement improves both the breadth and quality of information available to MA systems; thus, MA systems can evolve from strictly historical, to predictive and interactive decision-support (Pavlovic et al., 2024). Additionally, artificial intelligence-enhanced engagement motivates both managers and employees to use artificial intelligence-generated insights, increasing the relevance of and usefulness of accounting information for their day-to-day decision-making (Ashurov, 2025). Therefore, MA systems have become much more dynamic, responsive, and strategic in nature as a direct result of AI-enhanced engagement and, thus, it is likely that AI-enhanced engagement will have positive impacts on the effectiveness and sophistication of MA systems within banks and financial services companies.

Hypothesis 5. AI-driven engagement has a positive influence on business performance.

Hypothesis 6. AI-driven engagement has a positive influence on management accounting system (MAS).

Moderating role of AI-Driven Engagement

There are many different factors that influence the degree to which an organization can successfully adopt artificial intelligence (AI). One important factor is the extent to which positive organizational attitudes that exist toward AI translate into tangible organizational results. A key driver of this translation is the level of active integration of AI into everyday engagement processes. According to Mogaji and Nguyen (2022), AI-enabled engagement reinforces the likelihood that positive attitudes toward AI lead to higher financial performance by continually connecting managers and employees with AI-supported insights through intelligent dashboards, automated alerts, and interactive decision-support systems. In conclusion, where AI-enabled engagement is sizable, positive feelings about AI are likely to be achieved through the usage of intelligent tools to streamline cost efficiency while increasing revenue and decreasing risk and thus increasing the overall impact of AI on financial performance (Alzeghoul & Alsharari, 2024). When AI-enabled engagement is limited, even if there is a positive view toward AI, the financial gain from AI often is nothing tangible. Therefore, the intensity of engagement with the AI platform is expected to lower the degree to which the attitude toward AI affects financial performance (Limajatini et al., 2025).

AI-enabled engagement also serves as a key moderator in understanding the extent to which an organization's positive attitude toward AI affects its management accounting systems (MAS). In general, a positive attitude toward AI fosters openness to innovation, but the effect of that openness on MAS depends on the extent to which managers and employees actively engage with the AI-enabled accounting tools and analytics (Odonkor et al., 2024). High levels of AI-enabled engagement facilitate the integration of AI-derived insights into organizations' budgeting, performance measurement, and control routines, thereby enhancing the effects of positive attitudes toward AI on both the development and application of sophisticated MAS. Conversely, low levels of AI-enabled engagement diminish the effects of positive attitudes toward AI by limiting their practical application in MAS (Rautiainen et al., 2024). Therefore, we expect AI-enabled engagement to positively moderate the relationships between attitudes toward AI and both MAS and financial performance.

Hypothesis 7. AI-driven engagement moderates the relationship between attitude towards AI and financial performance.

Hypothesis 8. AI-driven engagement moderates the relationship between attitude towards AI and management accounting system (MAS).

METHODOLOGY

Research Design

The research design of the present study employs a cross-sectional, quantitative design to analyze the



relationship between attitudes toward artificial intelligence and management accounting systems, AI-related employment, and the financial performance of the banking and financial services industries. A quantitative research approach is appropriate for this study as it tested the hypothesized relationships and identify direct, mediating and moderating effects of artificial intelligence and management accounting systems via a theory-driven approach. A cross-sectional design enabled researchers to collect data at the same time reflects organization's perceptions and practices in the financial sector regarding AI and MA. The target population for this study consists of the managers, executives and staff of banks and other organizations that provide financial services, as they are directly involved in accountancy, finance, operations management, and digital transformation. Therefore, the targeted population is appropriate and relevant in terms of their experience and familiarity with artificial intelligence, management accounting systems, and organizations' performance. A structured and self-administered questionnaire was used as the data collection method for the study. The questionnaire was designed to capture all dimensions of the study constructs and expectations utilizing established and contextually modified measurement scales. The instrument employed a Likert scale to enable respondents to provide consistent, quantitative evaluations of their experience and perceptions.

The data collection for the study used a non-probability sampling approach, specifically purposive sampling, to acquire respondents with adequate exposure to management accounting systems and artificial intelligence-related applications in their organizations. The analyses of the data collected used structural equation modeling (SEM), which allows the researcher to evaluate the multiple complexity that occurs simultaneously with mediation and moderated relationships. The research design used for this study provides a rigorous and systematic approach to examining AI-related attitudes and the mechanisms of engagement of management accounting systems influencing the financial performance of the banking and financial services industries.

Population and Sampling

The target population for this research includes all employees working within the banking and financial services industry. However, the focus of this research was on employees involved with some aspects of decision-making for their organizations in the areas of managerial, financial, accounting, operational, or technology-related decisions. This would include middle and senior managers; finance officers; management accountants; auditors; branch managers; operations managers; and digital transformation executives at commercial banks, Islamic banks, micro-finance banks and other regulated institutions. These individuals are appropriate participants for this research study because they are knowledgeable about and have had experience with artificial intelligence initiatives; management accounting systems; and firm performance within their organizations. Due to the highly specialized nature of the independent and dependent variables, the researchers employed non-probability sampling to find participants for this study. More specifically, purposeful sampling was chosen as an appropriate method of choosing study participants who have direct experience with AI-enabled systems and management accounting processes within their organizations. The use of purposeful sampling ensures that the data collected was relevant and reliable because of the targeted selection of individuals who can provide credible answers.

Questionnaires distributed to research participants through both physical and electronic means to maximize the chances of obtaining responses from individuals working in a wide variety of banks situated throughout multiple geographical regions. The sample size met the requirements necessary for structural equation modeling and needed for adequate statistical power to test direct, mediating and moderating relationships. The research design allows the investigators to provide meaningful and generalizable findings regarding the banking and financial services industries.

Questionnaire Development

Table 1 highlighted the variable measures of Attitude towards AI, Management Accounting System, AI-driven



engagement, and financial performance. Attitude towards AI was measured through three scale items adapted from Lau-Gesk (2003). Management accounting system (MAS) was measured through seven scale items adapted from Zuhroh et al. (2025), AI-driven engagement was measured through six scale items adapted from Fan et al. (2020) and Scott and Walczak (2009), and financial performance was measured through six scale items adapted from Bacidore et al. (1997), Mondal and Ghosh (2012) and Zuhroh et al. (2024).

A pilot study was undertaken to confirm the clarity, content validity, and reliability of the research instrument prior to proceeding to the main data collection phase. This pilot study was conducted using two stages of validation. In the first stage, expert validation was used to establish both content validity and face validity of the research instrument. To this end, three expert reviewers were solicited to provide feedback on the research questionnaire; 1) An academic expert in accounting and management information systems; 2) an academic expert in AI and digital transformation; and 3) a senior practitioner from the banking and financial services industry. These experts evaluated the scale items within the research questionnaire for relevancy, clarity of wording, appropriateness for the context in which they used, as well as completeness of the scale items. Minor wording changes were made to enhance clarity of the scale items; however, the conceptual meaning of the scale items did not change.

Table 1: Scale Items.

Variables	Items	Source
Attitude Towards AI	<ol style="list-style-type: none"> 1. AI is bad versus good 2. I do not like versus like AI 3. My opinion on AI is negative versus positive. 	Lau-Gesk (2003)
Management Accounting System (MAS)	<ol style="list-style-type: none"> 1. The importance of accounting records for supporting business management. 2. The importance of the accounts receivable book in business management. 3. The importance of the general ledger in the preparation of profit and loss reports. 4. The importance of cost records in supporting decision making and controlling the business. 5. The importance of sales records for knowing business revenue. 6. The importance of cost and price records in determining the selling price in business activities. 7. The importance of payroll records for labor cost management and employee performance. 	Zuhroh et al. (2025)
AI-Driven Engagement	<ol style="list-style-type: none"> 1. AI technology keeps me totally absorbed in what I am doing. 2. AI technology holds my attention. 3. AI technology is fun. 4. The AI technology is interesting. 5. AI technology is engaging. 6. When using AI technology, I was totally absorbed in what I was doing. 	Fan et al. (2020); Scott and Walczak (2009)
Financial Performance	<ol style="list-style-type: none"> 1. We have sufficient capital for business management 2. Continuous generation of profit is required for performance. 3. Reinvesting the profits enhances financial health. 4. Monthly income contributes to financial stability. 5. No significant decline in profit was noticed. 6. No debt financing from financial institutions is required. 	Bacidore et al. (1997); Mondal and Ghosh (2012); Zuhroh et al. (2024)

In the second stage of the validation process, the newly revised research instrument was piloted with a limited number of respondents from the target population - namely managers and professionals who work within banks and banks that use AI systems. The purpose of this stage was to test internal consistency reliability of



the measurement scales before conducting the main data collection phase. Cronbach's alpha was used to determine the internal consistency reliability of each of the items within each of the constructs in the research instrument. The reliability of these measurement scales produced satisfactory levels of internal consistency. When Lau-Gesk's three-item attitude towards AI scale was investigated, the reliability results showed strong evidence to state that these three items accurately represent how much all participants have on overall evaluation perception of AI as a result of the three item from 1 - 7 (5 being strong) in the evaluation of respondent's perception on the degree (importance) of associating accounting records (7) towards:

The MAS (management accounting system)- 7-item scale, adapted from Zuhroh et al. (2025) demonstrated strong evidence of reliability, which indicates that each individual item from the MAS collectively represents how these seven items help represent/analyze the quantity of accounting records in assisting decision-making by management. The AI-driven engagement scale demonstrates strong evidence of reliability, indicating that these four items illustrate cognitive and emotional connection of AI technology for each respondent. Finally, the financial performance scale achieved an acceptable level of reliability, thus indicating that these five items consistently measure participant's perceptions of financial quality and performance outcomes consistently throughout all 40 participants. Overall, the results of the pilot study confirmed that the research instrument is reliable, contextually valid, and suitable for the purposes of the main study.

Data Collection and Response Rate

A structured, self-administered questionnaire was used to collect data for this study from managers, executives and professionals within the banking & financial services industry. The target respondents were individuals who are directly involved in decision making, finance, accounting, operations or digital transformation initiatives, as they would have the most knowledge regarding the adoption of AI, management accounting systems and organizational performance. The questionnaire was distributed to respondents both physically and electronically to provide maximum coverage across all banks and banks. Each respondent was approached with prior consent, and the purpose of the study was made clear to them to promote accurate & thoughtful responses. Data collection for this study lasted six weeks, allowing adequate time for respondents to provide complete and reliable answers to the questions contained in the questionnaire. A total of 350 questionnaires were distributed; of these, 278 have been returned, producing a response rate of approximately 79.4%. After the screening of incomplete and inconsistent responses, 265 usable questionnaires were subjected to further analysis, for an effective response rate of 75.7%. The high response rate demonstrates the degree of engagement that this target population has with this study, thus supporting that the sample could be considered representative of the banking industry with respect to the examination of the relationship between the different variables.

VIF was assessed for multicollinearity among constructs before examining the formulated hypotheses. VIF was calculated for all independent & moderating variables. Therefore, no severe multicollinearity exists that may distort the regression coefficients or otherwise affect the validity of the study's results. The calculated VIF for attitude towards AI, AI driven engagement and MAS ranged between 1.12 and 1.78, which are all below the commonly used cut off value of 5.0. Therefore, multicollinearity is not considered to be a problem for this dataset, confirming that there is sufficient distinction among the independent variables to support their use in the SEM for testing direct relationships, indirect relationships (via mediation), & moderating relationships.

Statistical Tool

Smart PLS was employed in the analysis of the data obtained for this study, following analysis based on partial least squares structural equation modelling ("PLS-SEM"). Smart PLS is appropriate for analyzing the data of this research as the research aims to use a complex theoretical model to test multiple relationships among latent variables, which creates complexity and requires the testing of multiple relationships using



PLS-SEM. With PLS-SEM, both the measurement and structural model may be estimated simultaneously, and the hypothesized relationships of the model may be tested. The basis of using Smart PLS for the analysis is based on its benefits for data from a smaller to moderate sample sizes, when using non-normally distributed data, and when the model represents a complex model that includes multiple latent variables. Smart PLS does not require as strict assumptions with respect to normality than covariance-based SEM and is then better suited than covariance-based SEM to predictive modelling, allowing for examination of both mediational and mode rational effects in the model as developed by the current study. The measurement model was evaluated by Smart PLS by assessing the reliability of the constructs, convergent validity, and discriminant validity. The first analysis was the evaluation of the measurement model, utilizing the assessment of the reliability of the constructs and the convergent validity of all constructs. The last component of the measurement model analysis to be assessed was the overall discriminant validity of the constructs. In addition, the predictive nature of the model was also be evaluated using R^2 for the explanatory power of the model and variance inflation factor (VIF) to evaluate multicollinearity.

DATA ANALYSIS AND FINDINGS

Demographic Profile of Respondents

Of the people surveyed, most of the sample were male (72%) with the remaining respondents (28%) being female in gender representation for the banking industry. In terms of age, most participants (74%) were between 25 and 44 years of age, corresponding to the mid-career demographic for this study. The overall highest level of education reported was a master's degree for 46% of respondents and a bachelor's for 42% of respondents. Therefore, we can conclude that the overall respondents are well-educated; thus, they should provide good data regarding the technical and management aspects of AI related to accounting systems. The work experience of the subject sample was relatively balanced, with the majority working between 6–10 years (33%) or 11–15 years (27%); thus, they were sufficiently exposed to AI use and management accounting practices through their respective organizations. In terms of type of position held, the most significant number were managers at (38%) and executives at (37%), providing sufficient opportunity for respondents to participate in decisions involving AI utilization, MAS, and their financial performance, shown in Table 2. Overall, from the above analysis, the demographic profile appears to depict an appropriate and knowledgeable sample with respect to achieving the purpose of this study.

Table 2: Demographic Profile of Respondents.

Demographic Variable	Category	Frequency	Percentage (%)
Gender	Male	191	72
	Female	74	28
Age (years)	25–34	96	36
	35–44	102	38
	45–54	52	20
	55+	15	6
	Bachelor's	112	42
Education Level	Master's	123	46
	MPhil/PhD	30	12
	1–5	57	22
Experience (years)	6–10	88	33
	11–15	71	27
	16+	49	18
Job Role	Manager	101	38
	Executive	97	37
	Officer	67	25



Partial Least Squares Structural Equation Modeling (PLS-SEM) Results

Strong reliability and validity are exhibited by the measuring model when tested against all constructs. For the items to be considered a part of their respective latent constructs they must be greater than the recommended threshold of 0.70 with respect to factor loadings and all the factor loadings for these items are greater than 0.70. Cronbach's alpha coefficients are between 0.85 and 0.90 for all the items confirming high internal consistency within each scale, as shown in Table 3. Furthermore, all the composite reliability (CR) coefficients for the scales are between 0.90 and 0.93 and well above the recommended minimum coefficient of 0.70 providing evidence that all constructs are measured reliably. Average variance extracted (AVE) for each construct is greater than 0.61 and less than 0.74 thus providing evidence of adequate convergent validity; therefore, evidence has been shown that attitude toward AI, MAS, AI driven engagement, and financial performance are all reliably and validly measured resulting in their further usage to analyze structural equations within Smart PLS, .

Table 3: Factor Loading, Cronbach Alpha, Composite Reliability (CR) and AVE.

Construct	Item	Factor Loading	Cronbach's Alpha	Composite Reliability (CR)	AVE
Attitude towards AI	AI1	0.82	0.85	0.90	0.74
	AI2	0.87			
	AI3	0.86			
	MAS1	0.78			
	MAS2	0.80			
Management Accounting System (MAS)	MAS3	0.84	0.90	0.93	0.61
	MAS4	0.81			
	MAS5	0.79			
	MAS6	0.77			
	MAS7	0.82			
	AIDE1	0.83			
	AIDE2	0.85			
AI-Driven Engagement	AIDE3	0.84	0.89	0.92	0.65
	AIDE4	0.80			
	AIDE5	0.82			
	AIDE6	0.81			
	FP1	0.79			
	FP2	0.81			
Financial Performance	FP3	0.82	0.88	0.91	0.63
	FP4	0.77			
	FP5	0.80			
	FP6	0.78			

HTMT

The HTMT scores in Table 4, above, range from 0.59 to 0.67, which are all below the conservative threshold of 0.85, indicating that these constructs have adequate discriminant validity. This means that each of the constructs, attitude toward AI, management accounting system (MAS), AI-driven engagement, and financial performance measures were shown empirically to measure different concepts so long as they relate to each other theoretically. The HTMT values also indicate that the measurement items for each construct capture adequately separate dimensions. Thus, multicollinearity and construct overlap should not be of concern. The results validate each of the constructs as distinctive from all other constructs; therefore, the measurement model is considered reliable, and the structural model is interpretable and can be used for hypothesis testing utilizing Smart PLS.



Table 4: HTMT.

Constructs	Attitude towards AI	MAS	AI-Driven Engagement	Financial Performance
Attitude towards AI				
Management Accounting System (MAS)	0.63			
AI-Driven Engagement	0.67	0.65		
Financial Performance	0.59	0.61	0.66	

Path Coefficient

The findings of the structural model, highlighted in Table 5, suggested that the relationships hypothesized in the proposed model are mostly supported by the data collected. H1 confirms a significant and positive relationship between the attitudinal variables of AI and financial performance ($\beta = 0.32, t = 4.00, p < 0.001$) suggesting that the openness of management to AI contributes to financial performance within banks. H2 and H3 also suggest that there is a positive relationship between positive attitudes toward AI and MAS ($\beta = 0.41, t = 5.86$) and that MAS positively impacts financial performance ($\beta = 0.37, t = 4.11$). H4 supports the mediation effect with MAS serving as a partial mediator of the relationship between AI attitude and financial performance, indicating that the positive effects associated with the positive attitude toward AI occur because of having a structured accounting system. Furthermore, H5 and H6 support the assumption that the engagement driven by AI directly impacts both financial performance and MAS. H8 found substantial evidence of an interaction between AI engagement and AI attitude as managers increase their engagement with AI, which strengthens the effect that their positive attitudes toward AI have on the effectiveness of their accounting system ($\beta = 0.12, t = 2.40$).

However, H7 is not supported ($\beta = 0.08, t = 1.60, p = 0.110$), indicating that AI engagement does not significantly influence the relationship between AI attitudes and financial performance. Therefore, the positive relationships among MAS and, therefore, financial performance, result from AI engagement; therefore, while AI engagement enhances MAS and, indirectly, financial performance, AI engagement alone does not appear to be effective for producing direct improvements in financial performance affected by AI attitudes. All the findings from this study point toward a collective positively correlated relationship between the variables of AI attitude and financial performance; there is no doubt that MAS is an important channel through which this relationship occurs. Additionally, there were several unique areas that resulted from this research which helped establish the boundaries of this relationship, including instances where AI engagement was only assist in producing financial performance, rather than translating into financial performance itself.

The structure of the current research model allows for its strong explanations and predictions. R^2 values measure the proportion of variance in the endogenous constructs that are explained by their predictors, where an R^2 value of 0.48 for financial performance indicates that AI attitude, management accounting system (MAS), and AI engagement explain approximately 48% of the variance in financial performance. Similarly, an R^2 value of 0.52 for MAS indicates that AI attitude and AI engagement explain approximately 52% of the variance in MAS. Overall, these R^2 values suggest that the model has substantial explanatory ability suggesting that AI attitude and engagement mechanisms substantially influence managerial systems as well as the overall financial outcome of organizations in the banking sector. Effect size (f^2) was measured to determine the relative impact of individual exogenous constructs on endogenous constructs. The results indicate that the attitude toward AI has a moderate effect on MAS ($f^2 = 0.12$), while the AI engagement has a moderate effect on MAS ($f^2 = 0.14$), and that the AI engagement was have a smaller though meaningful effect on financial performance ($f^2 = 0.08$); furthermore, the influence of MAS on financial performance is also moderate ($f^2 = 0.09$). The moderate effect size (f^2) results demonstrate the practical importance of each



of the predictor variables, consequently both AI attitude and AI engagement contribute meaningfully to the enhancement of management accounting systems and financial performance. Lastly, Q^2 predictive relevance was estimated using blindfolding with financial performance $Q^2 = 0.32$ and with MAS $Q^2 = 0.34$ and because both Q^2 values are greater than zero, the model is satisfactory predictive and formed reliably predicts out-of-sample data. Overall, the results of the R^2 , f^2 , and Q^2 collectively demonstrate that the proposed framework explains significant amounts of variance in both examined key constructs; as well as provides meaningful insights into how AI attitude and AI engagement mechanism influence management accounting systems and ultimately financial performance.

Table 5: Path Coefficient.

Hypothesis	Path	β	SD	t-value	p-value	Decision
H1	Attitude towards AI → Financial Performance	0.32	0.08	4.00	0.000	Supported
H2	Attitude towards AI → MAS	0.41	0.07	5.86	0.000	Supported
H3	MAS → Financial Performance	0.37	0.09	4.11	0.000	Supported
H4	Attitude towards AI → MAS → Financial Performance (Mediation)	0.15	0.06	2.50	0.013	Supported
H5	AI-Driven Engagement → Financial Performance	0.29	0.08	3.63	0.000	Supported
H6	AI-Driven Engagement → MAS	0.35	0.07	5.00	0.000	Supported
H7	AI-Driven Engagement × Attitude towards AI → Financial Performance	0.08	0.05	1.60	0.110	Not Supported
H8	AI-Driven Engagement × Attitude towards AI → MAS	0.12	0.05	2.40	0.017	Supported

DISCUSSION

This study provides essential insights into how artificial intelligence (AI) affects financial performance and management systems, in the banking and financial services industry. The first hypothesis that attitude toward AI positively affects financial performance was supported. This indicates that when IT managers and executives have a positive attitude toward AI, they are more inclined to implement intelligent technologies within their strategic and operational processes. As a result, developing a positive attitude and belief towards AI enabled managers and executives to take proactive actions, create efficiency, and allocate resources efficiently, all contributing to improved financial performance (Theiri & Hadoussa, 2024). This finding demonstrates the importance of a managerial mindset in converting technology investments into tangible business values and suggests that banks should place a high priority on developing positive attitudes towards AI for improved financial performance in an increasingly competitive market (Agrawal et al., 2024).

The second hypothesis regarding Attitude toward AI and its influence on MAS was also confirmed. The evidence from this study suggests the importance for managers to be receptive to adopting AI in their efforts to improve their accounting practices. managers with positive attitudes toward AI are likely to include predictive analytics, automation, and real-time reporting to their MAS that provide timely and accurate budget, performance measurement, and strategic decision-making information (Al-Surmi et al., 2022). In the banking and bank context, where accounting systems have difficulty processing complex financial data, a manager with a positive attitude toward AI support these organizations in modernizing their MAS and enabling managers to use data-driven decision-making practices across their entire organization (Thiruma Valavan, 2023). Third hypothesis proved that MAS positively influences financial performance and illustrates how internal accounting systems can be used as mediating factors to create organizational value (Pillai, 2023).

An effective management accounting system provided managers with structured information that can



support their decision-making process and improve their internal control over costs and effective revenue generation through the utilization of technology. The results of this realization provided increased operational efficiency through improved decision making. The findings support this hypothesis by suggesting that managers must view their management accounting system beyond just a measurement tool of performance; it must be viewed as a strategic asset to convert managerial knowledge and technology input into measurable financial performance (Ionescu & Diaconita, 2023; Wu et al., 2025). In essence, banks that spend money on developing strong accounting systems and ensuring the alignment of their accounting systems to their artificial intelligence (AI)-driven processes have a greater ability to achieve sustainable financial performance (Al-Hattami, 2025).

The fourth hypothesis examined the mediating effect of an MAS on the relationship between an individual's attitude towards AI and financial performance and found it significant. The results indicate that a positive attitude toward AI enhances performance directly; however, the presence of a sophisticated MAS increased the performance enhancement (Al-Surmi et al., 2022). MAS serves as the means through which AI-generated insights are systematically applied to decision-making and resource allocation activities, converting management willingness to embrace AI into quantifiable financial benefits. Therefore, organizations must not only create positive perceptions of AI; they must also integrate AI technologies into well-designed and structured management systems to gain maximum value from them (Alnor, 2024; Barreto et al., 2025).

Hypotheses five and six were supported in their examination of the direct effects of AI-based engagement on both financial performance and MAS. Results indicate that using AI improves both the results of the organization and the skill levels of management and staff in using AI effectively to achieve better service quality, operational efficiency and more effective use of MAS (Edunjobi & Odejide, 2024; Nugraha et al., 2024). This finding makes a strong argument for AI having engagement as the primary factor in enhancing the benefits received from using AI because technology adoption alone does not provide benefits unless there is active engagement by members of the organization.

Mixed results emerged from the analysis of the moderating hypotheses. Specifically, hypothesis eight supporting the proposition that AI engagement enhances the relationship between positive attitudes toward AI and MAS was supported. This indicates that the higher the level of engagement an employee has with AI, the more likely the positive attitude the employee has toward AI was translated into effectiveness in MAS and that the transfer of information from AI into management processes occur more rapidly (Bratu, 2023). In contrast, hypothesis seven, which proposed that AI engagement would moderate the relationship between attitude and financial performance, was not supported (Baker et al., 2023; Gyau et al., 2024). Thus, while there are some improvements in accounting due to AI engagement, it cannot be fully explained how those improvements were monetarily realized. Similarly to other aspects of an organization, such as being aligned strategically and having optimal market conditions, we anticipate that we also interact to produce superior financial outcomes given a positive attitude toward AI (Adiguzel et al., 2023; Meena et al., 2025).

The results of this research advance our understanding of the interaction between AI attitudes, managerial accounting systems (MAS), and employee engagement in determining the success and performance of banks that implement AI. In addition, the results provide evidence that a multi-faceted approach to adopting AI is required. Collectively, management mindset, technology, and employee engagement play critical roles in successful AI initiatives. For practitioners, it is essential to remember that promoting positive attitudes toward AI, investing in sophisticated MAS and providing active engagement with AI are key strategies to create a continual benefit to the organization through financial and operational means. Finally, the results of this study add to the theoretical knowledge of how attitudes, systems, and engagement interact with and mediate or moderate the impact of AI on performance and provide a comprehensive basis for future research in technology oriented financial management settings.



CONCLUSION

This research study shows there was an improvement in how organizations create value through their use of artificial intelligence (AI). They were do this if managers have the right attitude, their companies' internal systems provide the right level of support, and their methods for engaging employees with AI tools are appropriate. The right managerial attitude toward AI contributes to positive outcomes when managers choose and use intelligent technologies. A positive attitude toward AI promotes the adoption of intelligent technologies and, therefore, serves to influence the design of management accounting (MA) systems and the financial results produced by those MA systems. On the one hand, MA is used to build a pathway between AI-based insights and actionable decisions, and, on the other hand, MA is used to optimize costs and measure performance and, thus, mediates the relationship between AI attitudes and financial outcomes. The study also found that AI-based employee engagement is an important factor that facilitates the relationship between AI attitudes, MAS, and the effective use of AI tools. However, AI-based engagement was not found to moderate the direct relationship between attitudes toward AI and financial results, indicating that engaged employees did not create value if there are perceptions of AI as a positive tool. The conclusion is that AI produced value if organizations have managers with a proactive attitude toward AI, effective MA systems, and meaningful engagement with AI tools. The implications from this study suggest that financial organizations need to integrate technology with the right employee attitude and organizational processes to obtain sustainable improvements in performance.

Theoretical Implications

This article explores how AI is being adopted across different industries within the banking and financial services (BFS) sector. Specifically, this paper identifies 4 main theoretical implications of AI adoption in the BFS sector. First, it shows how an organization's attitude toward adopting AI is an intangible resource that contributes to organizational performance and demonstrates how there are managerial perceptions to accepting AI which serve as drivers of technology adoption and business outcomes when used in a structured system. Second, it identifies the role of management accounting systems (MAS) as an operationalization (use) of AI-generated insights capitalizing on the empirical evidence supporting the mediating role of MAS between AI attitudes and financial performance, by enhancing the resource-based view (RBV) with an association of AI attitude and formal managerial capability.

Third, this study highlights the importance of AI-generated engagement as a boundary condition, where engagement enhances the effect of AI attitudes on MAS; therefore, providing a more nuanced view of a moderating effect bridging the behavioral and systems perspectives. Finally, there is partial non-significance of the engagement moderating effect on the direct link between attitude and performance indicates that attitude alone does not result in business performance without complementary system-level integration. As such, the findings contribute to the refinement of existing theoretical models that postulate an immediate relationship between AI perceptions and their consequent business performance. In summary, the paper provides a coherent theoretical framework integrating attitude, system and engagement into the context of specific RBV and innovation, as well as providing a structured explanation of how AI ultimately contributes to value creation across the various emerging financial markets.

Practical Implications

The results of this research carry several useful results for banking and financial organizations that seek to enhance their performance using AI. To illustrate, the positive relationship between management's attitude toward AI and how well the organization performs financially, as well as the way management accounting systems operate, provide a solid reason to implement educational programs that create a favorable disposition toward AI by highlighting its reliability, usefulness, and strong strategic potential. The role of management accounting systems as mediators also helps justify appropriate investment in advanced accounting, reporting, and reporting systems with features such as AI-embedded analytics, predictive



modelling, and real-time dashboards that convert unsorted data into useful information so businesses can develop more precise budgets, control costs, and make strategic decisions. The importance of AI-enabled engagement to supplement and strengthen management accounting systems indicates that banks should develop interactive AI systems that promote employee and management interaction with artificial intelligence through gamification, real-time feedback, and collaboration. The fact that engagement has no effect on financial performance indicates that companies need to integrate AI outputs across all business operations, including strategic and operational processes, rather than simply relying on the level of engagement or user excitement about the output. This study illustrates how attitudes, systems and engagement interact with each other. Banks should adopt a comprehensive approach for their AI implementation; one that includes human, technology and process dimensions to create lasting success as the bank continues to evolve into an AI-based banking environment.

Limitations and Future Directions

This study has many limitations which can be used to inform future studies. First, this study only looked at managers or professionals from the banking and financial services industry, so the findings can't be generalized to other industries or regions. Future studies should also revisit this study and look at different types of banks in developing countries to see if these findings hold true in those financial climates. The second limitation to this study is that all the financial performance data from the study's participants was self-reported; therefore, there may be a bias in the way participants evaluated their organizations' financial performance. Future studies should obtain objective data about the financial performance of these organizations, such as profit margins, return on asset ratios, and metrics related to operational efficiency, to enhance the validity of their findings. This study utilized the model to measure how participants feel about two important factors that influence productivity at work: artificial intelligence (AI) and management accounting systems (MAS). As a result, this study did not examine other organizational technology-related areas that could impact the adoption and success of AI. Future studies need to identify and analyze the influence of other organizational factors in the use of AI in businesses to develop a more comprehensive view of how AI is utilized in organizations. This research used a cross-sectional methodology; therefore, only one level of the relationship between AI usage, MAS use, and financial results was examined. A longitudinal approach would allow researchers to measure the changing nature of the relationship over time. Finally, while the author examined how much AI-driven engagement exists in the organizations surveyed, the author did not describe what types of AI tools are being used by the surveyed organizations. Future studies should examine the extent to which specific types of AI technology impact MAS and performance differently based on AI application type, thus providing managers with more specific and practical insight into how to utilize AI in their organization.

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