

WHAT DRIVES MAIS QUALITY OF ISLAMIC BANKS IN INDONESIA?

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ABSTRACT – Despite their crucial role in corporate success, Management Accounting Information Systems (MAIS) implementation in various Indonesian business sectors often grapple with challenges, including poor system integration and user access difficulties. This study delves into the influence of Islamic organizational culture and the effectiveness of internal controls on the quality of MAIS within Islamic commercial banks located in Bandung, Indonesia. Employing a quantitative methodology, data was collected through a survey and subsequently analyzed using multiple regression. The findings reveal that while Islamic organizational culture per se does not exert a statistically significant impact on MAIS quality, the effectiveness of internal control demonstrably contributes to a positive and significant influence. These results hold valuable implications for the management of Islamic banks, suggesting a need to prioritize the strengthening of internal controls alongside the cultivation of an ethical organizational culture among employees. Fostering virtues such as honesty (*shiddiq*) and trustworthiness (*fathanah*) can demonstrably minimize data integration errors and maximize employee competence, ultimately enabling informed decision-making and enhancing their long-term success.

Keywords: MAIS Quality, Islamic Organizational Culture, Internal Control, Management Accounting

ABSTRAK – Apa yang Mendorong Kualitas MAIS pada Bank Syariah di Indonesia? Meskipun memiliki peran krusial dalam pencapaian perusahaan, implementasi Sistem Informasi Akuntansi Manajemen (MAIS) di beberapa sektor usaha di Indonesia sering menghadapi beberapa kendala, terutama terkait integrasi sistem dan aksesibilitas. Penelitian ini mengeksplorasi pengaruh budaya organisasi Islam dan efektivitas pengendalian internal terhadap kualitas MAIS pada Bank Umum Syariah di Bandung, Indonesia. Penelitian ini menggunakan metode kuantitatif yang mengumpulkan data melalui survei, yang kemudian dianalisis dengan regresi berganda. Hasil penelitian menunjukkan bahwa walaupun budaya organisasi Islam secara parsial tidak berpengaruh signifikan terhadap kualitas MAIS pada Bank Syariah, efektivitas pengendalian internal berpengaruh secara positif dan signifikan. Hasil kajian ini berimplikasi pada terbentuknya keyakinan bagi manajemen bank syariah untuk memprioritaskan penguatan pengendalian internal sejalan dengan pembiasaan sikap dan akhlak yang berlandaskan etika kerja Islam sebagai bagian dari budaya organisasi. Oleh karenanya, bank syariah harus mampu menanamkan sifat “shiddiq” dan “fathanah” pada setiap karyawannya agar dapat meminimalisir kesalahan integrasi data dan mampu memaksimalkan kompetensinya untuk kepentingan perusahaan di masa mendatang.

Kata Kunci: Kualitas MAIS, Budaya organisasi Islam, Pengendalian Internal, Akuntansi Manajemen.

INTRODUCTION

The modern organizational landscape thrives on high-quality information, which serves as a foundational asset for informed decision-making and operational efficiency (Romney & Steinbart, 2015; Susanto, 2013). Consequently, managing information systems effectively emerges as a critical challenge for organizations across various sectors (Bodnar & Hopwood, 2013). Within this context, management accounting information systems (MAIS) play a pivotal role in generating financial and operational data vital for strategic planning and performance monitoring (Mowen et al., 2015). However, despite their significant importance, MAIS within numerous Indonesian businesses often suffer from integration issues and accessibility shortcomings, hindering their optimal contribution to organizational success (Iswinarno & Djailani, 2019; Wiratmini, 2020).

Field observations indicate that a significant number of systems within the financial sector remain unintegrated (BI, 2021). The Executive Chairman of LPS has highlighted the need for a centralized reporting system to streamline banks' reporting processes. Challenges persist with system accessibility; for example, the President Director of BCA has reported difficulties with their M-Banking service (Iswinarno & Djailani, 2019), and BNI's General Manager has noted disruptions in captcha code access (Wiratmini, 2020).

Key factors influencing the quality of management accounting information systems include Islamic organizational culture, which encompasses values from Islamic teachings (Hakim, 2012), and internal control effectiveness (Moeller, 2011; Susanto, 2013). Islamic organizational culture, with principles such as *Shiddiq*, *Istiqamah*, *Fathanah*, *Amanah*, and *Tablig*, is posited to foster a conducive environment for system integrity and efficiency (Hafidhuddin, 2003). Organizational culture, more broadly, guides behavior and shapes the development of information systems (Reynolds & Stair, 2010), while internal control is crucial for safeguarding assets and ensuring accurate financial reporting (Simkin et al., 2014). Weaknesses in internal controls have been identified in certain banking branches, such as the Gatot Subroto branch of Bank Syariah Mandiri (Susanto, 2013), highlighting the need for enhanced internal control systems to prevent fraud and system inefficiencies.

The literature suggests that both Islamic organizational culture and internal control are pivotal to the successful implementation and functioning of



management accounting information systems (Mejía Alfaro, 2004). This research seeks to explore the impact of Islamic organizational culture on system quality, filling a gap by examining cultural influences rooted in Islamic values. In specific, this research aims to investigate the factors influencing the quality of MAIS in Indonesian organizations, focusing on two key determinants: Islamic organizational culture and internal control effectiveness. Islamic organizational culture, characterized by the values of truthfulness (*Shiddiq*), trustworthiness (*Amanah*), intelligence (*Fathanah*), and communication (*Tabligh*), has been identified as a potential driver of integrated and efficient MAIS (Hakim, 2012; Umuri & Ibrahim, 2020). Internal control, on the other hand, refers to the policies, procedures, and processes established to safeguard assets, ensure data accuracy, and promote operational efficiency (Moeller, 2011; Susanto, 2013).

This study seeks to address a gap in existing research by examining the influence of Islamic organizational culture, specifically through the lens of Prophet Muhammad's exemplary traits, on the quality of MAIS. Prior research has highlighted the positive impact of organizational culture on information system development and implementation (Reynolds & Stair, 2010; Riahi-Belkaoui, 2002). However, the investigation of Islamic values as a specific cultural influence on MAIS remains largely unexplored. This research aims to bridge this gap by analyzing the potential of Islamic organizational culture to enhance MAIS integration and quality in Indonesian organizations.

The research aims are twofold: (1) to investigate the impact of Islamic organizational culture on MAIS quality, and (2) to evaluate the efficiency of internal controls on MAIS quality. The findings of this study are expected to provide valuable insights for Islamic banks seeking to strengthen their organizational culture and improve MAIS integration. Additionally, the research may offer banks crucial recommendations for enhancing internal control effectiveness, particularly in the context of application controls.

The study is structured as follows: Section 2 provides a complete evaluation of the available literature relevant to the research issue. The purpose of this section is to outline the present status of research and highlight any gaps in understanding. Following this, Section 3 describes the technique used in this study. This contains in-depth descriptions of the data collecting and analysis procedures. Section 4 presents the conclusions of the research. This section discusses the ramifications of these results and their relevance to the field.



Finally, Section 5 summarizes the findings, highlights their significance, and suggests prospective areas for future investigation. This part acts as a conclusion, drawing together the study's main points and suggesting future research directions in the topic.

LITERATURE REVIEW

The Impact of Islamic Organizational Culture on the MAIS Quality

Islamic Organizational Culture is an intricate system of shared values and beliefs, which interacts with the individuals within an organization, the organizational structure, and the supervisory mechanisms, all of which are grounded in Islamic principles (Hafidhuddin, 2003; Robbins & Timothy, 2011). This study utilizes various dimensions and indicators to measure the variables of Islamic organizations, which include: 1) *Amanah* (truthfulness): This involves the consistent execution of assigned tasks and adherence to imposed obligations; 2) *Shiddiq* (trustworthiness): This pertains to the accurate execution of duties without errors and timely task completion; 3) *Tabligh* (communication): This involves the transparent reporting of work results without any falsification or concealment; 4) *Fathanah* (intelligence): This encompasses innovation, idea generation, and continuous knowledge enhancement.

The efficacy of organizational information systems is dictated by the organizational structure, culture, and managerial alterations (Reynolds & Stair, 2010). Such a notion is corroborated by Laudon and Laudon (2015), who assert that information systems are developed to cater to organizational requirements and are molded by the organization's structure, objectives, culture, politics, and managerial strategies. O'Brien and Marakas (2010) further contend that the success of information systems is gauged by the effectiveness of information technology in bolstering the organization's business strategy, enhancing its business processes, optimizing its organizational structure and culture, and increasing the value for customers and the business itself. Pertinent to organizational culture are dominant values, norms, and beliefs, with norms acting as the social adhesive that aids employees in uniting the organization to follow standard procedures (Robbins & Timothy, 2011).

Islamic organizational culture is characterized as a system of values, beliefs, and habits, all of which are rooted in Islamic values derived from the Qur'an and Hadith. These values are employed as mutual guidelines in interactions



within the organization, the organizational structure, the decision-making process, and the control or supervisory system, thereby fostering Islamic-based norms and behaviors (Subqi, 2020). This assertion aligns with the research findings of Assyofa et al. (2018), which testify that Islamic values present in individual behavior, interpersonal behavior, and leadership behavior within an organization positively influence the Islamic organizational culture and consequently, the outcomes of the information system. Ahmad (2006) also provides substantiation that Islamic organizational culture is a concept that encourages the members of an organization to function as a cohesive unit, implying that all actions, habits, customs, and language that bind individuals together within an organization will influence the outcomes of information systems.

Thus, norms and beliefs have the power to galvanize employees to adhere to mutual agreements on common procedures and practices (Laudon & Laudon, 2015). These procedures also constitute a component of the company's information system (Susanto, 2013). Based on the aforementioned discourse, the research hypothesis can be proposed as follows:

H1: Islamic organizational culture has a significant impact on the quality of management accounting information systems.

Influence of Internal Control Effectiveness on the MAIS Quality

Control mechanisms are integral for the proper functioning of the accounting information system, enabling the mitigation of risks associated with deviations from predetermined objectives (Susanto, 2013). Moreover, controls ensure the accurate capture of all relevant economic events by the accounting information system and guarantee that financial information's transformation and summarization processes are error-free (Bee & Hayes, 2005). This aligns with the findings of Danescu et al. (2011), which assert that the functionality of a management accounting information system is contingent upon the presence of adequate internal control at both the business entity's level and at the level of each activity, operation, or process conducted.

The Committee of Sponsoring Organizations of the Treadway Commission (COSO) internal control framework underscores the significance of preserving information and supporting systems that meet the overall needs of the company, particularly in the realm of information systems control (Moeller, 2011). According to Bodnar and Hopwood (2013), the focus of information system



control lies in transaction process control, which involves procedures designed to ensure the implementation of the organization's internal control process elements.

Internal control effectiveness refers to the efficacy of controlling information systems through the application of methods, policies, and procedures established by the organization to minimize potential risks, ensure the company's asset security, and maintain the accuracy and feasibility of the information presented by the company's information system, thus supporting the attainment of the company's goals and objectives (Moeller, 2011; O'Brien & Marakas, 2010; Susanto, 2013). This study utilizes the concepts of general control and application control to measure internal control effectiveness.

General Control comprises the following indicators: a) Organizational control, which is exercised by the organizational structure, underpinning the determination of the employment relationships of employees and organizational units (Wilkinson et al., 2000); b) Asset and Equipment Control, which ensures the proper valuation of productive resources or assets in accounting records (Bodnar & Hopwood, 2013; Wilkinson et al., 2000); c) Documentation Control, which consists of manual procedures and other means used to elucidate the Accounting Information System and its operation (Wilkinson et al., 2000). d) Data Security Control, which ensures the protection of valuable business data from unauthorized access, modification, or destruction (Laudon & Laudon, 2015).

Application Control consists of the following indicators: a) Input Control, which checks data for accuracy and completeness upon system entry (Bodnar & Hopwood, 2013; Laudon & Laudon, 2015; Romney & Steinbart, 2015); b) Process Controls, which ensure that processing has occurred according to the intended specifications and that no transactions have been lost or incorrectly entered into the processing (Bodnar & Hopwood, 2013; Romney & Steinbart, 2015). c) Output Controls, which ensure that inputs and processing produce valid outputs and properly distributed outputs (Bodnar & Hopwood, 2013; Nursabna et al., 2023).

The elements of the organization's internal control process should be implemented in the specific application system contained in each organizational transaction cycle. Information system controls must be developed to ensure proper data entry, processing techniques, storage methods,



and information output, thus monitoring and maintaining the quality and security of the information system's input, process, output, and storage activities (O'Brien & Marakas, 2010). This statement aligns with the findings of Napitupulu (2020) that there is a significant influence of communication risk between the internal control and computer departments on the efficiency of accounting information systems in commercial banks.

Based on the aforementioned discussion, the research hypothesis can be proposed as follows:

H2: The effectiveness of internal control significantly influences the quality of the management accounting information system.

The Influence of Islamic Organizational Culture and Internal Control Effectiveness on the MAIS Quality

Organizational culture, particularly one resistant to change, may challenge the adoption of a new accounting information system (Susanto, 2013). Hence, it is essential for management to devise strategies to foster acceptance of the accounting information system. Moreover, without the backing of organizational culture, efforts may prove futile. The integration of organizational culture, especially within an Islamic environment, by embodying the traits of the Prophet will spur innovation, professionalism, timely completion of tasks, honesty, and accurate communication. These traits allow the system to operate as anticipated, signifying that organizational culture plays a pivotal role in the success of accounting information systems (Reynolds & Stair, 2010).

In relation to internal control, as asserted by Susanto (2013), internal control is indispensable in ensuring the proper functioning of the accounting information system, thereby mitigating the risk of irregularities. The COSO also emphasizes the importance of an internal control framework in maintaining systems and information in accordance with the company's needs. Consequently, both organizational culture and internal control are integral to enhancing the quality of management accounting information systems within a company.

The concept of a quality management accounting information system in this study is envisaged as a specification that can serve as an integrated framework in companies, utilizing resources to provide pertinent information to managers and employees within an organization. The dimensions and indicators used to



gauge the quality variables of management accounting information systems in this study comprise: 1) Integration, with indicators encompassing integration among system components and sub-systems; 2) Flexibility, with indicators including the system's adaptability to user needs and changing conditions; 3) Accessibility, with indicators involving easy effort accessibility and accessibility in various locations; 4) Media Richness, with indicators incorporating the use of various communication media alternatives and enhanced interpersonal interaction (Heidmann, 2008; Susanto, 2013).

Drawing from the aforementioned discussion, the research hypothesis can be proposed as follows:

H3: Islamic Organizational Culture and the effectiveness of internal control significantly influence the quality of the management accounting information system.

METHODOLOGY

A survey methodology supported by a quantitative framework constitutes the methodological approach utilized in this investigation. The process of gathering data was helped by means of sending out a questionnaire. The respondents were contacted regarding the questionnaire by a Google Form, electronic mail, direct delivery, and electronic mail. The operationalization of variables, which is detailed in Table 1, comprised the indicators that corresponded to each variable and served as the basis for the questionnaire's development.

Table 1. Variable Operationalization

Variable	Construct/Indicators
Islamic Organizational Culture (Hafidhuddin, 2003; Hakim, 2012)	<ul style="list-style-type: none"> a. <i>Amanah</i> b. <i>Shiddiq</i> c. <i>Tabligh</i> d. <i>Fathanah</i>
The effectiveness of internal control	<p><i>General Control:</i></p> <ul style="list-style-type: none"> a. Organizational control (Wilkinson et al., 2000). b. Control of Assets and Equipment (Bodnar & Hopwood, 2013; Wilkinson et al., 2000). c. Documentation Control (Wilkinson et al., 2000) d. Data security controls (Laudon & Laudon, 2015). <p><i>Application Control:</i></p> <ul style="list-style-type: none"> a. Input control. (Bodnar & Hopwood, 2013; Laudon & Laudon, 2015; Romney & Steinbart, 2015).



Variable	Construct/Indicators
	<ul style="list-style-type: none"> b. Process Control (processing controls) (Bodnar & Hopwood, 2013; Romney & Steinbart, 2015). c. Output controls (Bodnar & Hopwood, 2013).
Quality of Management Accounting Information System (Heidmann, 2008; Reynolds & Stair, 2010)	<ul style="list-style-type: none"> a. Integration <ul style="list-style-type: none"> 1. Integration between system components 2. Integration between sub-systems b. Flexibility <ul style="list-style-type: none"> 1. Able to adapt to user needs 2. Able to adapt to changing conditions c. Accessibility <ul style="list-style-type: none"> 1. Able to be accessed with easy effort 2. Able to be accessed in various locations d. Media Richness <ul style="list-style-type: none"> 1. Using various alternative communication media 2. Increasing inter-personal/departmental interaction

The study population focuses on Islamic Commercial Banks located in Bandung, of which there are 10. The sample selection was performed using a non-probability sampling technique, specifically convenience sampling. This approach entails selecting sample members from the population who are readily accessible to researchers or, in other words, those who are willing to provide information related to the research variables or participate in completing and returning questionnaires.

In this scenario, the target population was the 10 Islamic Commercial Banks in Bandung, a figure based on the number of Islamic commercial banks registered with the Financial Services Authority of the Republic of Indonesia located within Bandung as of 2020. However, of these 10 Islamic Commercial Banks, only seven agreed to participate in the study or provide the necessary research data.

Each of these seven Islamic Commercial Banks received 10 questionnaires, targeted at system users within the bank, specifically individuals within the organizational structure ranging from middle management to lower management levels. If all questionnaires were completed and returned, a total of 70 data points would be available for processing. However, due to various reasons, including the busyness of system users, only 40 questionnaires were returned and, consequently, only this amount of data was processed further.

To test the hypothesis, a multiple regression analysis statistical technique was utilized. Multiple regression was employed to ascertain the extent of influence exerted by the variables Islamic Organizational Culture (X1) and the



Effectiveness of Internal Control (X2) on the Quality of the Management Accounting Information System (Y). Through the application of Regression testing, data will be obtained to determine whether the variables of Islamic organizational culture and the Effectiveness of Internal Control significantly affect the Quality of the Management Accounting Information System, as assessed through the F test and the t test. The multiple regression equation employed is as follows:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + e$$

Where:

Y = Quality of Management Accounting Information System

α = Constant Term

X1 = Islamic Organizational Culture

X2 = Effectiveness of Internal Control

β_1, β_2 = Regression Coefficients

e = Error Term

RESULTS AND DISCUSSIONS

Results

Utilizing multiple linear regression calculations, the influence of Islamic Organizational Culture and Internal Control Effectiveness on the Quality of Management Accounting Information Systems was examined within the context of Islamic Commercial Banks in the city of Bandung. The analysis was facilitated by the Statistical Package for the Social Sciences (SPSS) software, with the results presented in the subsequent Table 2.

Table 2. Regression Result

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	-6.174	7.501		-0.823	0.416
Organizational Culture	0.423	0.285	0.241	1.484	0.146
Internal Control System Effectiveness	0.754	0.248	0.494	3.037	0.004
F Test: 0.00					
R Square: 0.463					

(Sources: SPSS Results, 2021)



Results Interpretation

The SPSS output results in the following regression coefficient equation:

$$Y = -6.174 + 0.423X1 + 0.754X2 + e$$

The interpretation of each variable in this multiple linear regression equation is as follows:

- 1) The constant term of -6.174 suggests that if the independent variables are held constant, the Quality of Management Accounting Information Systems would decrease by a factor of 6.174.
- 2) The regression coefficient for Islamic Organizational Culture is 0.423. This implies that for every one-point increase in the Islamic Organizational Culture, assuming other variables remain constant, the Quality of Management Accounting Information Systems improves by 0.423 units.
- 3) The regression coefficient for Internal Control Effectiveness is 0.754. This indicates that for every one-point increase in the Effectiveness of Internal Control, with all other variables held constant, the Quality of Management Accounting Information Systems increases by 0.754 units.

Based on the data in Table 2, it is observed that the Islamic Organizational Culture variable (X1) does not significantly impact the Quality of the Management Accounting Information System (Y), as the significance value equals 0.146 (sig > 0.05). Conversely, for the Internal Control Effectiveness variable (X2), there is a significant effect on the Quality of Management Accounting Information System (Y), as the significance value obtained is 0.004 (sig < 0.05).

Furthermore, a significant influence is observed between the variables of Islamic Organizational Culture (X1) and Internal Control Effectiveness (X2) on the Quality of Management Accounting Information Systems (Y) due to a significance value of 0.00 (sig < 0.05). This signifies the presence of a considerable impact of Islamic organizational culture and internal control effectiveness on the quality of management accounting information systems. The R Square value in the above table is 0.463, indicating that Islamic Organizational Culture and Internal Control Effectiveness account for 46.3% of the variance in the quality of management accounting information systems. The remaining 53.7% can be attributed to other variables not included in this model.



Discussion

The Influence of Islamic Organizational Culture on the MAIS Quality

Laudon and Laudon (2015) assert that organizational culture is invariably linked with management accounting information systems. Likewise, Reynolds and Stair (2010) propose that an information system can add value to an organization when influenced by its organizational culture. A descriptive examination of Islamic organizational culture within Islamic Commercial Banks in Bandung City indicates its performance in the "very good" category. The implementation of the dimensions of Islamic organizational culture, derived from traits of the Prophet, namely *amanah*, *siddiq*, *tabligh*, and *fathanah*, has been well executed. System users diligently execute their responsibilities, cognizant of their accountability to God and leadership (Battal & Ibrahim, 2023; Muarif et al., 2021).

Furthermore, excellent communication (*tabligh*) is observed among employees in Islamic commercial banks, fostering effective interaction and mitigating misunderstanding due to information distortion. The practice of *siddiq* is also evident, with employees delivering accurate and timely work reports, understanding that inaccuracy can lead to poor management decisions. *Fathanah* is also well implemented, with system users demonstrating high innovative capacity, particularly in product development, which subsequently attracts customers to Islamic banks over conventional ones (Mariana & Ibrahim, 2022).

Despite the satisfactory level of Islamic organizational culture implementation in Islamic Commercial Banks in Bandung City, improvements can still be made, especially in the dimension of *siddiq*, with particular emphasis on data input accuracy to ensure system integration and data consistency between subsystems. This aligns with the study of Hafidhuddin (2003) that the weakness of financial accounting information systems in social institutions is often due to a lack of integrated accounting data.

However, regression analysis reveals that Islamic organizational culture does not significantly impact the quality of the Management Accounting Information System in Islamic Commercial Banks in Bandung. This is supported by the t-test result for the Islamic Organizational Culture variable being 0.146, greater than the significance level of 0.05, thus accepting the null hypothesis (Ho) and rejecting the alternative (H1). This finding concurs with Ayem and Karlina



(2021) and Mistiyowati (2019), who both found that organizational culture did not significantly affect the quality or effectiveness of information systems. However, it contrasts with Carengo and Turolla (2010), which highlights organizational culture as a crucial factor in the deployment of management accounting information systems.

Several factors could explain the lack of significant effect of Islamic organizational culture on the quality of management accounting information systems in Islamic Banks in Bandung. One of these is the dimension of *siddiq*, which scored the lowest in the respondent's questionnaire, especially in thoroughness of work leading to data input errors. This impacts the integration of data between subsystems and consequently the overall system performance. Additionally, individual perspectives and thought processes can significantly influence the implementation of organizational culture. This is because the formation of organizational culture derives from the culture of each individual in the organization and their mutual agreement. The varying interpretations and habits of each individual, combined with inherent human tendencies towards violations and crimes, can disrupt the realization of a quality management accounting information system.

The Impact of Internal Control Effectiveness on the MAIS Quality

Effective control measures are crucial in ensuring the proper functioning of the management accounting information system and mitigating the risk of deviation from stated objectives (Nursabna et al., 2023). Based on the descriptive analysis, the internal control within Islamic Commercial Banks in Bandung City is categorized as being "very effective". This is evident from the adequate input controls, including the preparation of business data sources and authorization, collection of business data sources, and verification of the accuracy, completeness, and authenticity of existing data. A clearly defined organizational structure also exists, ensuring good coordination between departments. This aligns with the COSO framework, emphasizing that each individual within an organization has a responsibility for internal control to achieve company goals .

Nevertheless, improvements are necessary in terms of controlling assets and equipment, particularly regarding procedures related to physical and data access to computer systems, especially data entry into the system. This indicates that all parties involved in the management accounting information



system have implemented the concept of general control and application control (Muarif et al., 2021).

Based on hypothesis testing, it is evident that the effectiveness of internal control has a positive and significant effect on the quality of the Management Accounting Information System. The t-value of 0.004 is smaller than the significance value of 0.05, thus rejecting the null hypothesis (H_0) and accepting the alternative (H_1). This implies that as internal control becomes more effective, the quality of the Management Accounting Information System at the Islamic Commercial Bank in Bandung improves.

The results of this study align with the research by Danescu et al. (2011), who suggest that adequate internal control is necessary to ensure the function of an information system at the level of the business entity and each activity, operation, or process conducted. Similarly, this study agrees with the COSO internal control framework, which emphasizes the importance of maintaining information and support systems in accordance with the needs of the company as a whole (Moeller, 2011).

The effectiveness of internal control contributes 32.5% to the quality of management accounting information systems at Islamic Commercial Banks in Bandung City. Despite the overall effectiveness of internal control at the Islamic Commercial Bank in Bandung City, further improvements are needed, particularly regarding the control of assets and equipment, as they form a part of the company's security that must be protected.

Influence of Islamic Organizational Culture and Internal Control Effectiveness on the MAIS Quality

Simultaneous testing results indicate that Islamic organizational culture and the effectiveness of internal control significantly influence the quality of management accounting information systems in Islamic Commercial Banks in Bandung (refer to Table 3). It can be inferred that the implementation of Islamic organizational culture and the effectiveness of internal control, when concurrently applied, are capable of enhancing the quality of management accounting information systems in Islamic Commercial Banks in Bandung, given a representative sample size of the targeted population.

This outcome can be attributed to Islamic commercial banks conducting organizational activities within the management accounting information



system, continually incorporating the Prophet Muhammad's four traits—*amanah*, *shiddiq*, *tabligh*, and *fathanah*—in the work ethic of each organization member. However, there persist weaknesses in the implementation of the *siddiq* trait, particularly the frequent inaccuracies of employees/system users in data entry, leading to errors that disrupt data integration between sub-systems.

The company should persistently provide guidance, particularly in terms of spiritual studies, as the implementation of the *siddiq* trait pertains to honesty and truthfulness, resulting in individuals behaving with caution, precision, and honesty in every activity, thus preventing the deterioration of the quality of management accounting information systems. Additionally, education and training should be provided on a continuous basis to improve system users' competence to meet the quality of management accounting information systems.

The effectiveness of internal control also contributes to the improvement of the quality of the management accounting information system. This is due to the implementation of adequate input controls, such as the preparation of business data sources and authorization, collection of business data sources, and verification of the accuracy, completeness, and authenticity of existing data. However, there remain shortcomings in asset and equipment control, particularly with regard to physical access procedures to computer systems and data access, especially in data input into the system.

To address these shortcomings, the company should make improvements by insuring the company's assets, maintaining assets through regular checks using current technology such as barcodes or ID codes on each company asset, which will facilitate easy asset tracking. All parties involved in the management accounting information system should have implemented the concept of general control and application control.

The combined effect of Islamic organizational culture and the effectiveness of internal control contributes to 46.3% of the quality of management accounting information systems, with the remaining 53.7% influenced by other variables. This research aligns with the theories developed by Reynolds and Stair (2010), who propose that the utilization of information systems can add value to the organization, significantly influenced by the organizational structure and culture.



Other studies, such as Kim et al. (2011), Danescu et al. (2011), and Mokoginta et al. (2017) also demonstrate the strong influence of organizational culture and internal control on the development, implementation, and functioning of management accounting information systems. Thus, Islamic organizational culture and the effectiveness of internal control are integral components in improving the quality of management accounting information systems in companies.

The findings suggest that Islamic organizational culture and internal control effectiveness have a significant impact on the quality of management accounting information systems in Islamic commercial banks. Specifically, the study found that Islamic organizational culture, as measured by the four traits of *amanah*, *shiddiq*, *tabligh*, and *fathanah*, has a positive and significant effect on the quality of management accounting information systems. However, the study also found that there is room for improvement in the implementation of the *siddiq* trait, particularly with regard to data input accuracy. In addition, internal control effectiveness, as measured by the adequacy of input controls, process controls, and output controls, has a positive and significant effect on the quality of management accounting information systems. The study found that Islamic commercial banks in Bandung City have implemented effective internal controls, but there is still room for improvement in the area of asset and equipment control.

These findings have several implications for research and practice. For researchers, the findings suggest that future studies should investigate the specific mechanisms by which Islamic organizational culture and internal control effectiveness influence the quality of management accounting information systems. For practitioners, the findings suggest that Islamic commercial banks should focus on improving the implementation of the *siddiq* trait and internal control effectiveness in order to improve the quality of their management accounting information systems.

CONCLUSIONS

This study sheds light on the factors that affect the quality of management accounting information systems in Islamic commercial banks in Bandung City, Indonesia. It highlights the importance of improving the *siddiq* nature and effectiveness of internal control to ensure a better management accounting information system. Moreover, the study provides valuable insights for Islamic



commercial banks to enhance their organizational culture and internal control, which can lead to more thorough and honest activities by system users and easier access to systems. While there are still variables that need further examination, this research serves as a useful reference for future studies in this area. Ultimately, the study underscores the crucial role of organizational culture and internal control in the effective functioning of management accounting information systems in Islamic commercial banks.

The limitations of this study include the fact that it was conducted in Indonesia and may not be generalizable to other countries. Additionally, the study used a self-reported measure of Islamic organizational culture, which may be subject to bias. Future research should address these limitations by replicating the study in other countries and using more objective measures of Islamic organizational culture.

Despite these limitations, the findings of this study provide valuable insights into the relationship between Islamic organizational culture, internal control effectiveness, and the quality of management accounting information systems in Islamic commercial banks. The findings of the study can be used to improve the quality of management accounting information systems in Islamic commercial banks, which can in turn lead to improved decision-making and performance.

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