



Information Systems Success and Management Control Effectiveness in MSMEs: The Roles of System Use and User Satisfaction

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This study examines how Information Quality (IQ) and Service Quality (SQ) influence Management Control Effectiveness (MCE) in Micro, Small, and Medium Enterprises (MSMEs) in Cirebon City, by considering System Use (SU) as a mediating variable and User Satisfaction (US) as a moderating variable. Drawing on the DeLone and McLean IS Success Model, this study addresses the limited empirical evidence on how accounting information systems support management control practices in MSMEs. Data were collected from 180 MSME actors who use accounting information systems and analysed using Partial Least Squares–Structural Equation Modelling (PLS-SEM). The findings show that SU plays a central role in improving MCE and mediates the relationship between SQ and MCE. IQ has a direct positive effect on MCE, while its relationship with SU is moderated by US. User satisfaction also strengthens the role of service quality in encouraging system use. These findings highlight that the effectiveness of management control in MSMEs depends not only on the quality of information and services, but also on how actively users engage with the system. The study suggests that improving digital literacy and user-oriented system support can enhance the benefits of accounting information systems for MSME management control.

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INTRODUCTION

Indonesia's Micro, Small, and Medium Enterprises (MSMEs) play a central role in sustaining the national economy. MSMEs contribute more than 60% to Indonesia's Gross Domestic Product and absorb approximately 97% of the national workforce, or around 117 million workers ([Kadin Indonesia, 2023](#)). Despite this strategic role, many MSMEs still face persistent challenges in managing business information and developing effective management control practices. A major concern is the continued reliance on manual or conventional systems for recording financial transactions, inventory, and operational data. [EmitenNews \(2024\)](#) reported that around 80% of MSMEs in Indonesia still depend on manual recording systems, which may increase the risk of errors, delay information flow, and reduce the accuracy of business decisions. The limitations of manual information

management are particularly critical because management control depends on accurate, timely, and relevant information.

In MSMEs, weaknesses in information recording often create inconsistencies among inventory data, sales transactions, and financial reports, resulting in repeated verification, delayed decision-making, and less reliable business planning ([Rivandini et al., 2025](#); [Alazzeah & Uddin, 2025](#); [Santoso et al., 2025](#)). Under increasingly competitive market conditions, these limitations may weaken the ability of MSMEs to respond quickly to operational problems and market changes. Therefore, improving the quality and use of accounting information systems is essential for strengthening management control effectiveness.

Accounting information systems offer an important mechanism for improving data

accuracy, integrating business functions, and supporting managerial decision-making. Prior studies have shown that the effectiveness of accounting information systems is influenced by the quality of the system, the quality of the information produced, and the support services surrounding system implementation ([Abdelraheem et al., 2021](#); [Setyaningsih et al., 2021](#)). In this context, information quality and service quality are expected to contribute to better management control by providing reliable information and adequate system support. However, these qualities may not automatically improve management control if the system is not actively used by MSME actors. This indicates the importance of examining system use as a mechanism that connects information system quality with management control outcomes.

Although previous studies have examined the relationship between information quality, service quality, and management control effectiveness, much of the existing literature still focuses on direct effects ([Farida et al., 2022](#); [Taufik & Nugroho, 2024](#); [Taneja et al., 2024](#)). Limited attention has been given to how system use may mediate the influence of information quality and service quality on management control effectiveness. In addition, while user satisfaction has been widely recognised as an important factor in information system success and technology acceptance, its role as a moderating variable in the relationship between system quality dimensions and system use remains underexplored, particularly in the MSME context ([Firmansyah & Kusuma, 2023](#)). This creates a theoretical gap in understanding not only whether information and service quality influence management control effectiveness, but also how and under what conditions these effects occur.

This study addresses that gap by integrating system use as a mediating variable and user satisfaction as a moderating variable in the relationship between information quality, service quality, and management control effectiveness. Theoretically, this study extends the application of the DeLone and McLean Information Systems Success Model by linking information system success dimensions to management control effectiveness in MSMEs. The inclusion of mediation and moderation mechanisms provides a more comprehensive explanation of how accounting information systems contribute to managerial control, especially in organisations with limited resources and varying levels of digital capability.

Cirebon City is selected as the empirical setting because it represents a local MSME environment where digital transformation is increasingly relevant but resource constraints remain a major challenge. Unlike studies conducted in large corporations, banking institutions, or MSMEs in major metropolitan

areas, the Cirebon context allows this study to examine whether accounting information systems can support management control effectiveness in a smaller urban business ecosystem. This setting is theoretically relevant because MSMEs in such contexts often face uneven digital literacy, limited managerial capacity, and less formalised control systems, making system use and user satisfaction critical factors in determining the actual benefits of accounting information systems.

Therefore, this study aims to analyse the effects of information quality and service quality on management control effectiveness through system use, while also examining the moderating role of user satisfaction among MSMEs in Cirebon City. By doing so, this study contributes to the literature on information system success and management control by offering an integrated model that explains the mechanisms and conditions through which accounting information systems enhance control effectiveness in MSMEs.

Information Quality

Information quality constitutes a critical foundation of accounting information systems, particularly for MSMEs seeking to enhance performance and competitiveness in rapidly evolving markets. A recent study by [Mediatv et al., \(2025\)](#) shows that the implementation of digital-based accounting information systems improves operational efficiency and the accuracy of financial data among Indonesian MSMEs, which in turn enhances the effectiveness of managerial control. Service quality, including technical support, response speed, and service personalisation, is likewise regarded as an important element in encouraging system adoption and use. [Jufri et al. \(2024\)](#) found that the service quality of accounting information systems promotes system use and contributes to improved MSME performance through better financial and administrative practices. Meanwhile, [DeLone & McLean's \(2003\)](#) theory posits a direct relationship between information quality, service quality, and system use. However, the empirical literature remains limited in examining the role of system use as a mediator between quality dimensions and management control effectiveness. Accordingly, the hypotheses proposed in this study are as follows:

- H1: Information Quality has a positive and significant effect on System Use.
- H4: Information Quality has a positive and significant effect on Management Control Effectiveness.

Service Quality

Service quality has long been recognised as one of the key determinants of information system success, with its validity demonstrated across various fields such as marketing, operations

management, and information systems. In the context of technology, high service quality is capable of streamlining business processes, enhancing perceived value, and encouraging user retention as well as continued system use ([Akter et al., 2022](#)). Services that are prompt, reliable, and aligned with user needs contribute significantly to improving the quality of the products or services received by users.

Conceptually, [Gorla et al. \(2010\)](#) argue that service quality can be measured through the dimensions of reliability, responsiveness, assurance, and empathy, while other studies have added indicators such as security, understanding of user needs, and timeliness ([Chen & Cheng, 2009](#); [Taufik & Nugroho, 2024](#)). The [DeLone & McLean \(2003\)](#) information systems success model explicitly states that service quality has a positive effect on both user satisfaction and system use. Furthermore, optimal system use can support management control functions by providing accurate, timely, and relevant information for planning, monitoring, and decision-making processes ([Petter et al., 2013](#); [Mediatv et al., 2025](#)).

These findings are reinforced by empirical evidence showing that strong service quality increases the intensity of system use ([Firmansyah & Kusuma, 2023](#); [Mediatv et al., 2025](#)) and positively affects management control effectiveness, particularly in monitoring the operational and financial performance of MSMEs ([Taufik & Nugroho, 2024](#)). However, previous findings are not entirely consistent. Some studies report a significant relationship between service quality and both system use and management control effectiveness ([Akter et al., 2022](#); [Mediatv et al., 2025](#)), whereas others find weak or insignificant effects, particularly in organisations with limited resources such as MSMEs ([Firmansyah & Kusuma, 2023](#); [Alfaki, 2021](#)). This inconsistency may be attributed to differences in digital literacy, infrastructure readiness, and variations in business models across sectors or regions. In the context of MSMEs in Cirebon City, factors such as dependence on external service providers, limited technical training, and minimal budget allocation for service quality improvement may influence the relationship between service quality, system use, and management control effectiveness. Therefore, this study proposes the following hypotheses:

- H2: Service Quality has a positive and significant effect on System Use.
H5: Service Quality has a positive and significant effect on Management Control Effectiveness.

System Use

System Use reflects the extent to which users utilise the capabilities of an Information System (IS), as indicated by the frequency,

duration, depth of use, degree of dependence, and their ability to generate reports independently ([Almazán et al., 2017](#); [Wang & Liao, 2008](#)). In the MSME environment, the consistent use of accounting information systems (AIS) has been shown to improve both operational efficiency and the quality of decision-making ([Mediatv et al., 2025](#)). According to the [DeLone & McLean \(2003\)](#) IS success model, system use functions as an important bridge that transmits the effects of information quality and service quality towards net benefits. Empirical evidence supports this role: high levels of AIS use not only strengthen management control effectiveness, but also enhance financial and operational performance through faster and more accurate reporting ([Al-Hattami & Kabra, 2024](#); [Taufik & Nugroho, 2024](#)).

However, previous studies have produced inconsistent findings. Some studies have found that system use has a significant effect on management control effectiveness ([Al-Hattami & Kabra, 2024](#); [Taufik & Nugroho, 2024](#)), whereas others have reported a weak or insignificant relationship, particularly in MSME settings characterised by limited resources and low levels of digital literacy ([Firmansyah & Kusuma, 2023](#)). This inconsistency highlights the importance of conducting research that incorporates the context of MSMEs in Cirebon City within a more comprehensive mediation framework. Therefore, this study seeks to examine more closely the relationship between system use and management control effectiveness, and the following hypothesis is proposed:

- H3: System Use has a positive and significant effect on Management Control Effectiveness.
H6: System Use mediates the relationship between Information Quality and Management Control Effectiveness.
H7: System Use mediates the relationship between Service Quality and Management Control Effectiveness.

User Satisfaction

User satisfaction refers to the extent to which users feel satisfied with the ability of an information system to meet their information needs and support the completion of their tasks ([Le et al., 2018](#)). In the context of Accounting Information Systems (AIS), user satisfaction not only reflects a subjective evaluation of system performance, but also serves as an important indicator of successful system implementation ([DeLone & McLean, 2003](#)). Satisfied users are more likely to use the system consistently, explore its available features, and rely on it as a primary source of information for decision-making ([Floropoulos et al., 2010](#); [Mediatv et al., 2025](#)).

The Information Systems Success Model explains that user satisfaction has a reciprocal relationship with system use, in which satisfaction encourages the frequency and depth of system usage, while positive usage experiences enhance satisfaction ([Petter et al., 2013](#)). Several recent studies suggest that user satisfaction can strengthen the effects of information quality and service quality on system use ([Firmansyah & Kusuma, 2023](#); [Taufik & Nugroho, 2024](#)). However, other studies report that this moderating effect is not always significant, particularly among MSMEs with low levels of digital literacy ([Rahman et al., 2024](#)).

These differing findings highlight the need for further investigation within the context of MSMEs in smaller cities such as Cirebon. Therefore, the following hypotheses are proposed:.

- H8: User Satisfaction moderates the relationship between Information Quality and System Use.
- H9: User Satisfaction moderates the relationship between Service Quality and System Use.

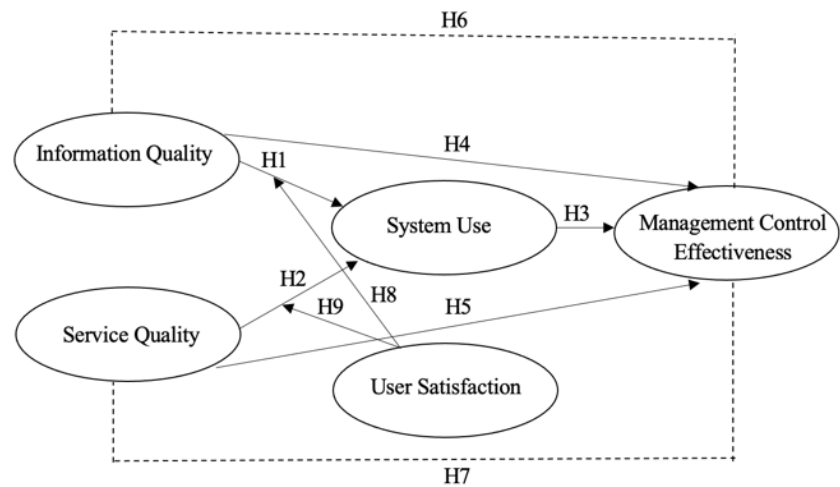


Figure 1. Research Model

METHOD

This study employed a quantitative explanatory approach to examine the causal relationships among information quality, service quality, system use, user satisfaction, and management control effectiveness. The research was conducted among MSME actors in Cirebon City, a local business setting where the need for digital-based accounting practices is increasing, while many MSMEs still face limitations in digital literacy, financial recording, and managerial control capacity. This context is therefore relevant for examining the role of accounting information systems in strengthening management control effectiveness in resource-constrained MSMEs.

The population consisted of MSME actors in Cirebon City who had used accounting information systems or digital financial recording applications in their business activities. Since the exact number of MSMEs meeting these criteria was unknown, the population was considered indefinite. The sample size was determined based on [Hair & Alamer \(2022\)](#) for PLS-SEM analysis, resulting in 180 respondents.

Respondents were selected using purposive sampling, as this study required participants with direct experience in using accounting information systems. The criteria for respondents were: MSME owners, managers, or employees involved in financial recording, administration, or

decision-making; MSMEs actively operating in Cirebon City; experience using an accounting information system or digital financial recording application; and willingness to participate voluntarily. Respondents were identified through MSME communities, business networks, and direct contact with eligible MSME actors.

Data were collected using a structured questionnaire with a five-point Likert scale, ranging from strongly disagree to strongly agree. The instrument was adapted from established measurement scales. Information Quality was measured using four items from [Abugabah & Sanzogni \(2010\)](#), Service Quality using four items from [Gorla et al. \(2010\)](#), System Use using three items from [Wang & Liao \(2008\)](#), Management Control Effectiveness using four items from [Papiorek & Hiebl \(2024\)](#), and User Satisfaction using three items from [Floropoulos et al. \(2010\)](#). These items captured respondents' perceptions of information relevance and accuracy, service responsiveness, system usage intensity, management control support, and satisfaction with the accounting information system.

RESULT AND DISCUSSION

Respondent's Demographic

A total of 185 MSME owners in Cirebon City participated in this study, all of whom met

the selection criteria established by the researcher. Based on the demographic data, the 31–40 age group was the most dominant (42.70%), indicating that MSME actors in Cirebon are largely within a mature age range and possess relatively stable business experience.

The types of businesses operated by the respondents were fairly diverse, with the largest proportion engaged in the culinary sector (37.84%), followed by retail trade (28.11%), garment and confection production (19.46%), and creative services (14.59%). In terms of business age, most MSMEs had been operating for 5–10 years (46.49%), suggesting a considerable level of business resilience in facing local market dynamics. Viewed from the perspective of annual income, the majority of MSMEs earned between less than IDR 100 million and IDR 300 million per year (70.51%), reflecting the scale of micro-to-medium enterprises whose markets remain relatively limited to Cirebon and its surrounding areas.

Geographically, the respondents were distributed across several districts, with the highest concentration located in Kejaksan District (25.95%) and Harjamukti District (23.24%), followed by Lemahwungkuk (18.38%), Pekalipan

(17.84%), and Kesambi (14.59%). The educational background of MSME actors shows that most had completed education up to the senior high school or vocational high school level (51.89%), followed by diploma or bachelor's degree holders (38.38%), while a smaller proportion had only completed junior high school (9.73%). This indicates that, although formal educational attainment varies, many MSME actors are still able to develop their businesses by relying on practical experience and local business networks.

Validity and Reliability Construct

Based on the results of the indicator reliability analysis (outer loadings), all statement items across the five research variables exhibited values above the threshold recommended by [Hair & Alamer \(2022\)](#), namely > 0.708; therefore, no items were eliminated. The highest loading factor was found in the User Satisfaction variable, with indicator US1 (0.974), which represents satisfaction with the support provided by the accounting information system. This finding confirms that the quality of support is a dominant factor in shaping user satisfaction.

Table 1. Results of the Construct Validity and Reliability Test

Variable	Code	Item	Loading Factor	Crinbach's Alpha	Composite Reliability		AVE
					Rho_A	Rho_C	
Information Quality	IQ1	The information provided by the accounting information system is relevant to my business.	0.905	0.947	0.972	0.961	0.861
	IQ2	The information provided by the accounting information system is accurate.	0.955				
	IQ3	The information provided by the accounting information system is consistently updated and available whenever needed.	0.908				
	IQ4	The information provided by the accounting information system is complete.	0.943				

Management Control Effectiveness	MCE1	Company management monitors the implementation of activities and plans at all stages of the business by relying on the information available from the accounting information system.	0.779	0.849	0.853	0.898	0.689
	MCE2	The accounting information system provides management performance monitoring reports, enabling management to take corrective action and make decisions.	0.811				
	MCE3	The accounting information system provides monitoring standards and indicators that enable management to identify deviations, analyse their causes, and address them.	0.866				
	MCE4	Company management considers monitoring the implementation of plans through the accounting information system to be an important tool for completing tasks and achieving objectives.	0.861				
Service Quality	SQ1	The accounting information system provides prompt service to users.	0.778	0.886	0.936	0.917	0.735

	SQ2	The accounting information system personnel possess adequate expertise and knowledge.	0.921				
	SQ3	The accounting information system provides reliable and accurate service.	0.792				
	SQ4	The accounting information system service provider gives personal attention and service to users/customers.	0.926				
System Usage	SU1	I frequently use the accounting information system.	0.921	0.878	0.882	0.925	0.805
	SU2	I depend on the accounting information system.	0.844				
	SU3	I use the accounting information system to support business decision-making.	0.925				
User Satisfaction	US1	I am satisfied with the support provided by the accounting information system	0.974	0.966	0.966	0.978	0.936
	US2	The accounting information system meets my expectations	0.969				
	US3	Overall, I am satisfied with the accounting information system	0.960				

Within the Information Quality variable, indicator IQ2 (0.955) emerged as the most influential, indicating that information accuracy is the primary element in the perception of information quality. Meanwhile, in the Management Control Effectiveness variable, indicator MCE3 (0.866) was the most prominent, suggesting that the availability of effective monitoring standards and indicators is a key

factor in the success of the management control function.

For Service Quality, indicator SQ4 (0.926) made the greatest contribution, indicating that personal attention and service from the service provider strongly influence perceptions of service quality. For System Usage, indicator SU3 (0.925) was the most dominant, showing that the use of the accounting information system for business

decision-making is a key aspect of system usage intensity. Construct reliability testing showed that all variables met the required criteria, with Cronbach's Alpha values above 0.6 and Composite Reliability values above 0.7. The Information Quality variable recorded the highest Cronbach's Alpha (0.947) and a Composite Reliability value of 0.972, indicating very strong internal consistency. User Satisfaction achieved the highest Composite Reliability value (0.978), confirming the stability of the instrument in measuring user satisfaction. Meanwhile, Management Control Effectiveness was the variable with the lowest Cronbach's Alpha (0.849), although it still remained within the reliable category. In terms of convergent validity, all variables satisfied the required criterion, with Average Variance Extracted (AVE) values above 0.5.

The highest AVE value was found for the User Satisfaction variable (0.936), indicating that 93.6% of the variance in its indicators can be explained by the construct, followed by Information Quality (0.861), which also demonstrates a very high level of explanatory power over its indicators. The lowest AVE value was observed for Management Control Effectiveness (0.689); however, it still exceeds the minimum acceptable threshold. Overall, these results indicate that all research instruments have satisfied the requirements of reliability and convergent validity and can therefore be used for the subsequent stage of analysis. The prominence of indicators such as system support (US1), information accuracy (IQ2), and personal service (SQ4) provides a strong empirical basis for assessing the role of accounting information systems in enhancing information quality, management control effectiveness, service quality, system usage intensity, and user satisfaction.

Validity Discriminant Result

Table 2. Results of the Discriminant Validity Test Based on HTMT Values

	HTMT
Management Control Effectiveness ↔ Information Quality	0.459
Service Quality ↔ Information Quality	0.525
Service Quality ↔ Management Control Effectiveness	0.711
System Use ↔ Information Quality	0.250
System Use ↔ Management Control Effectiveness	0.777
System Use ↔ Service Quality	0.841
User Satisfaction ↔ Information Quality	0.400
User Satisfaction ↔ Management Control Effectiveness	0.752
User Satisfaction ↔ Service Quality	0.485
User Satisfaction ↔ System Use	0.810

Based on the results of the discriminant validity test using the Heterotrait–Monotrait ratio (HTMT), all inter-construct values were below the 0.900 threshold in accordance with the criterion proposed by [Hair & Alamer \(2022\)](#), indicating that the constructs satisfy the requirement for discriminant validity. The highest HTMT value was recorded for the relationship between System Use and Service Quality (0.841), which, although close to the upper threshold, still demonstrates adequate construct distinctiveness. The relationships between System Use and Management Control Effectiveness (0.777) and between User Satisfaction and System Use (0.810) were also relatively high, yet remained within the acceptable range. Meanwhile, several inter-construct relationships showed relatively low HTMT values, such as System Use and Information Quality (0.250) and User Satisfaction

and Information Quality (0.400), indicating clear differentiation between these constructs. Other relationships, including Service Quality and Information Quality (0.525) and User Satisfaction and Service Quality (0.485), fell within the moderate range, further reinforcing the evidence that the constructs under examination possess unique characteristics and do not overlap.

Table 3. Results of the R-Square Test

	R-square adjusted
Management Control Effectiveness	0.778
System Use	0.826

Based on the results of the adjusted R-square analysis, the Management Control Effectiveness variable obtained a value of 0.778, indicating that 77.8% of the variance in this variable can be explained by the independent variables in the model. Meanwhile, the System Use variable recorded an adjusted R-square value of 0.826, meaning that 82.6% of its variance can be explained by the constructs influencing it. Both

values fall within the strong category according to [Chin's \(1998\)](#) criteria, in which an R-square value above 0.75 indicates high predictive power of the model. These findings suggest that the research model possesses very strong explanatory power, and that the relationships among the variables in the model make a significant contribution to the formation of Management Control Effectiveness and System Use.

Table 4. Results of the F-Square Test

	F-square
Information Quality → Management Control Effectiveness	0.262
Information Quality → System Use	0.175
Service Quality → Management Control Effectiveness	0.038
Service Quality → System Use	1.507
System Use → Management Control Effectiveness	1.489
User Satisfaction → System Use	1.223
User Satisfaction x Information Quality → System Use	0.025
User Satisfaction x Service Quality → System Use	0.026

The f-square analysis indicates that the largest effects were found in the relationships between Service Quality and System Use (1.507), System Use and Management Control Effectiveness (1.489), and User Satisfaction and System Use (1.223), all of which fall into the very large effect size category. Information Quality exerts a moderate effect on Management Control Effectiveness (0.262) and a small effect on System Use (0.175). Meanwhile, the effect of Service

Quality on Management Control Effectiveness (0.038), as well as the interaction effects of User Satisfaction × Information Quality (0.025) and User Satisfaction × Service Quality (0.026) on System Use, are categorised as very small. These findings confirm that service quality, system use, and user satisfaction are the dominant factors in the model, whereas information quality and the interaction effects play a comparatively minor role.

Hypotesis Testing Result

Table 5. Results of the Hypothesis Testing

		Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
H1	Information Quality → System Use	-0.198	-0.193	0.038	5.215	0.000
H2	Service Quality → System Use	0.595	0.592	0.056	10.649	0.000
H3	System Use → Management Control Effectiveness	0.906	0.908	0.058	15.571	0.000
H4	Information Quality → Management Control Effectiveness	0.263	0.262	0.059	4.450	0.000
H5	Service Quality → Management Control Effectiveness	-0.153	-0.154	0.084	1.815	0.035
H6	Information Quality → System Use → Management Control Effectiveness	-0.179	-0.176	0.037	4.793	0.000
H7	Service Quality → System Use → Management Control Effectiveness	0.539	0.538	0.067	8.079	0.000

H8	User Satisfaction x Information Quality → System Use	-0.069	-0.070	0.038	1.817	0.035
H9	User Satisfaction x Service Quality → System Use	0.067	0.067	0.034	1.987	0.023

The path analysis results indicate that nearly all hypotheses are significant ($p < 0.05$). The strongest effect was found in the relationship between System Use and Management Control Effectiveness (H3, $\beta = 0.906$; $t = 15.571$), followed by Service Quality and System Use (H2, $\beta = 0.595$; $t = 10.649$), as well as the indirect effect of Service Quality on Management Control Effectiveness through System Use (H7, $\beta = 0.539$; $t = 8.079$). Information Quality exerts a positive direct effect on Management Control Effectiveness (H4, $\beta = 0.263$; $t = 4.450$), but shows a negative direction in its relationship with System Use (H1, $\beta = -0.198$; $t = 5.215$) and in its indirect effect (H6, $\beta = -0.179$; $t = 4.793$). The direct effect of Service Quality on Management Control Effectiveness (H5) is also significant, but negative ($\beta = -0.153$; $t = 1.815$). The moderating effects of User Satisfaction are small yet significant in its interaction with Information Quality (H8, $\beta = -0.069$; $t = 1.817$) and Service Quality (H9, $\beta = 0.067$; $t = 1.987$).

Information Quality

The results indicate that information quality has a negative effect on the use of accounting information systems among MSMEs in Cirebon City. This may occur when the information generated by the system is already complete, accurate, and relevant, leading MSME owners to feel that they do not need to access the system intensively because the information they require is already available and does not change frequently. This condition is consistent with the findings of [McGill et al. \(2003\)](#), who suggest that high information quality may reduce the frequency of access when users' information needs have already been fulfilled. In the context of MSMEs in Cirebon, some business owners still rely on manual records or periodic reports prepared by administrative staff, resulting in less than optimal direct use of the system.

Nevertheless, high information quality remains proven to support effective management control. Accurate, relevant, and up-to-date information helps MSME owners make data-driven decisions, such as adjusting inventory levels or modifying promotional strategies. This finding supports the argument of [Gorla et al. \(2010\)](#) that information quality is a core component of information system success. In practice, MSMEs in Cirebon that maintain well-organised and structured financial reports are better able to avoid errors in budget planning and respond more

effectively to market changes, even when the frequency of system use is not necessarily high.

Service Quality

Service quality has a positive effect on the use of accounting information systems. MSME owners who receive prompt technical support, personalised assistance, and effective after-sales service tend to use the system more frequently. This finding is consistent with the DeLone and McLean IS Success Model, which emphasises service quality as a key factor in encouraging system acceptance and use. In Cirebon City, the ease of contacting service providers when technical problems arise has proven to be a decisive factor in building MSME owners' trust to continue using the system actively in their daily operational activities. However, service quality may exert a negative effect on management control effectiveness when it is not accompanied by optimal system utilisation. This situation occurs when MSME owners become overly dependent on technical assistance from service providers, so that their internal capability to operate the system and make effective use of its features does not develop. In practice, in Cirebon, some MSMEs rely more on contacting service providers to request reports or analyses rather than independently using the performance monitoring features available within the system. As a result, the system's potential to support management control is not utilised to its fullest extent.

System Use

The use of accounting information systems has proven to be the strongest factor in enhancing management control effectiveness. Consistent system utilisation enables MSME owners to monitor cash flow, sales performance, and operational efficiency in real time. This finding is in line with [Alzoubi \(2011\)](#), who demonstrated that the intensity of system use has a direct effect on improving the quality of decision-making. Among MSMEs in Cirebon, this is reflected in their ability to respond more rapidly to fluctuations in market demand because they have access to up-to-date sales data that can serve as a basis for business strategy.

However, the indirect effect of information quality on management control effectiveness through system use tends to be negative. Although the information generated by the system is of high

quality, a low intensity of system use may reduce its benefits for management control. This situation arises when information is presented in a format that does not sufficiently motivate users to access it actively, particularly among MSMEs that are accustomed to receiving reports in printed form from administrative staff, and therefore rarely engage directly with the operation of the system.

By contrast, strong service quality can indirectly improve management control effectiveness through increased system use. Prompt service, adequate personal support, and responsiveness to user needs make MSME owners more confident in using the system independently. This is consistent with the findings of [Petter et al. \(2013\)](#), who emphasised that service quality promotes successful system implementation. In the context of MSMEs in Cirebon, adequate support from service providers not only helps to resolve technical constraints, but also strengthens business owners' confidence in relying on the system as the primary tool for business control.

User Satisfaction

User satisfaction has been shown to moderate the relationship between information quality and system use, although the magnitude of this effect is relatively small. Among MSMEs in Cirebon, users who are satisfied with system support, both in terms of technical assistance and ease of use, tend to continue using the system even when the quality of the available information is not yet fully optimal. In other words, user satisfaction functions as a "buffer" that weakens the negative effect of information limitations on the intention or intensity of system use. For example, when the reports generated by the system are incomplete or do not fully meet users' needs, their positive experience with the service and usability of the system may still motivate them to access and utilise it on a regular basis. User satisfaction also moderates the relationship between service quality and system use, in which a high level of satisfaction strengthens the positive effect of service quality on usage intensity. For MSMEs in Cirebon, this satisfaction is created when the services provided by the system vendor—such as prompt responses, personalised assistance, and effective problem resolution—make users feel valued and well supported. Under these conditions, even when service quality is already high, its effect on system use becomes substantially stronger when users are genuinely satisfied. Conversely, when user satisfaction is low, even good service quality is insufficient to encourage users to utilise the system consistently over time.

CONCLUSION

This study concludes that system use is the key factor in improving management control

effectiveness among MSMEs in Cirebon City. While information quality and service quality remain important, their impact becomes more effective when accounting information systems are used consistently in daily business activities. The findings also indicate that user satisfaction strengthens the role of system quality dimensions in encouraging system use. The main contribution of this study is the extension of the DeLone and McLean Information Systems Success Model by integrating system use as a mediating variable and user satisfaction as a moderating variable in the context of MSME management control. This model provides a clearer understanding of how accounting information systems can support control effectiveness in resource-limited business settings. Practically, MSME actors need to improve their ability to use accounting information systems independently and routinely for monitoring, evaluation, and decision-making. System providers should focus not only on improving information and service quality, but also on providing user support, simple guidance, and features that encourage active system use. Future research may examine additional organisational and external factors, as well as test the model in different sectors and regions.

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