

# ANALYSIS OF MANAGEMENT ACCOUNTING SYSTEM IMPLEMENTATION IN SUPPORTING THE COMPETITIVE ADVANTAGE OF THE AGRITECH KOPITANI.ID STARTUP

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## Abstract

*This descriptive qualitative study investigates the implementation of a Management Accounting System (MAS) via the Paper.id digital platform at Kopitani.id, an agritech startup. The research aims to evaluate how digital accounting information supports strategic decision-making and fosters competitive advantage. Data were collected through interviews, observation, and documentation with the company's management. The findings indicate that Paper.id significantly enhances operational efficiency by streamlining receivable management, automating weekly inventory control, and providing organized financial reports compared to manual methods. These outputs allow management to maintain liquidity and optimize stock levels effectively. Although the study identified operational challenges, such as inconsistent data entry during 2024–2025 due to human resource limitations, the system remains a vital tool for the company. In conclusion, the integration of a digital MAS is crucial for creating the operational agility necessary to sustain a competitive edge in the dynamic agritech industry.*

**Keywords:** *Management Accounting System, Paper.id, Competitive Advantage, Agritech Startup.*

## INTRODUCTION

Digital transformation has revolutionized the conventional agricultural sector in Indonesia through the emergence of agritech startups adopting IoT technology, data analytics, and digital systems. This innovation has created a smart farming ecosystem proven to strengthen supply chain resilience and sustainably boost agricultural productivity (Prima & Putri, 2020). As a bridge between farmers and the market, this business model not only provides technical assistance, but also integrates financial services to increase the economic value of agricultural commodities. (Aziz et al., 2024). However, this technological acceleration has not been fully matched by mature internal governance in many agritech startups (Ariningrum et al., 2026; Shavinna Putri & Akhmad Saebani, 2026). Managerial challenges remain a major obstacle, particularly in managing crucial accounting information. Yet, the availability of accurate accounting data is essential as a foundation for management to make informed strategic decisions in the face of market dynamics and ensure future business sustainability (Lastriana Sihotang et al., 2024).

The reality on the ground shows that the majority of startups in Indonesia still rely on intuition for business decision-making rather than measurable management accounting data. This weakness in managerial information systems hampers the effectiveness of organizational planning, control, and performance evaluation. The implementation of strategic management accounting is crucial in providing relevant data to strengthen company decisions and performance. This is emphasized by Fazri's findings which highlight that the implementation of the Management Accounting System (MAS) in the local startup environment is still partial and unstructured. (Manel et al., 2023). Therefore, strengthening SAM is urgent for startups to build sustainable competitiveness and competitive advantage.

Kopitani.id is an agritech startup or an agricultural technology startup from Makassar that integrates a specialized digital ecosystem for coffee farmers. As an entity that bridges the relationship between farmers and the market, this company does not only focus on service digitalization but also operates in providing training, technical assistance, and the distribution of coffee seedlings. One growing agritech startup is Kopitani.id, a Makassar-based platform that integrates a digital ecosystem for coffee farmers through training services, seed distribution, and the "DokterKopi" app. Despite its focus on service digitization, the implementation of a Management Accounting System (MAS) in its internal operations, particularly in aspects of budgeting, costing, and performance measurement, remains largely unknown. Yet, mastery of these three components is crucial as an instrument for strategic planning, cost control, and objective performance evaluation, ensuring organizational sustainability amidst the dynamics of the agricultural technology industry.

In its operations, Kopitani.id has adopted the Paper.id application to digitize transaction recording, expense management, and cash flow monitoring, which functionally supports the main pillars of SAM such as budgeting, costing, and performance measurement. However, as a growing entity, the company is suspected of still facing classic startup obstacles such as limited accounting human resources and a suboptimal performance reporting structure, which risks triggering inefficiencies and inaccurate decision-making (Shabrina et al., 2023). This phenomenon aligns with Fazri's (2021) findings that many startups in Indonesia prioritize technology development over management accounting system integration. Therefore, the effectiveness of digital-based SAM implementation in building competitive advantage at Kopitani.id is crucial for further study.

Recent research by Chindi Wahyu Sandika Br Pasaribu et al., (2025) This further reinforces the urgency by finding that SAM plays a strategic role in planning, evaluating, and collaborating on business process innovations in technology companies. In a dynamic environment, SAM support through cost analysis and effectiveness measurement becomes a crucial instrument for innovation validation. Thus, the mature adoption of SAM allows startups to ensure that every innovative step remains measurable and managerially sustainable. Research from Malik Ibrahim & Silvino Violita, also emphasized that the Management Control System (MSS), as part of the SAM, plays a vital role in directing and controlling startup performance. Through the Four Levers of Control framework, this system not only measures organizational performance but also encourages innovation and adaptability. This is key for startups to maintain a competitive edge amidst rapid market changes. Research by Nurhidayah

et al., (2025) The study demonstrated that implementing MAS significantly improves the quality of strategic decision-making and business performance. The study's findings emphasize that an integrated accounting system helps business owners better understand operational dynamics. Furthermore, the study recommends further qualitative approaches to explore how MAS is technically implemented in an organization's daily activities. Research by Nur Rachma,(2024) highlights that financial risk management is a crucial aspect of startup business sustainability. This study recommends SAM as the primary tool for monitoring, assessing, and controlling financial risk. With robust system support, managerial decision-making becomes more efficient because it is based on accurate data, mitigating market uncertainty.

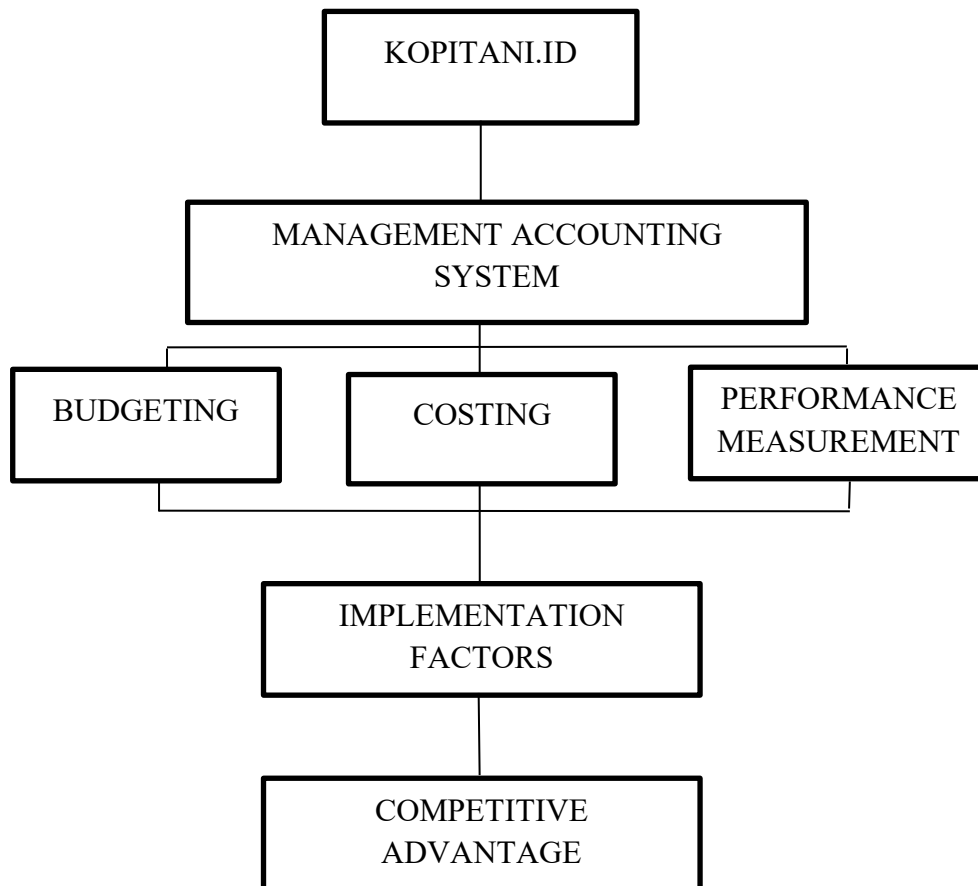
This phenomenon shows the existence of a research gap, because studies on SAM have so far been dominated by the manufacturing and MSME sectors. (Ratmono & Zuhrohtun, 2023), Meanwhile, the effectiveness of digital applications like Paper.id in supporting the competitive advantage of agritech startups has not been widely explored. Given the unique characteristics of agritech, which demands high adaptability, this study aims to analyze the role of Paper.id-based SAM as a strategic instrument for Kopitani.id. The main focus of this study is to evaluate the extent to which this technology integration can optimize cost management, operational efficiency, and decision-making quality, strengthening the company's competitive strategy.

## **METHODS**

This research uses a descriptive qualitative approach to examine, describe, and analyze in depth how the Paper.id application-based Management Accounting System (MAS) is implemented by the agritech startup Kopitani.id. The research focuses on three main components: budgeting, costing, and performance measurement, and how each contributes to supporting the company's competitive advantage. Furthermore, this study also identifies internal factors influencing the effectiveness of the system's implementation, such as the constraints on human resources (HR) data input that occurred during the 2024–2025 period.

The data used in this study consists of primary and secondary data. Primary data was obtained directly through field observation and in-depth interviews with purposive sampling of key informants. These informants include Kopitani.id's leadership as strategic policymakers; Heri Kurniawan, Operations Manager who monitors costs and invoices; and Abd. Rahman, Financial Administration Staff responsible for daily transaction input. Meanwhile, secondary data was collected through documentation techniques, including drafts of internal company documents, Paper.id menu interfaces, and relevant digital transaction evidence.

Data analysis techniques in this study were conducted interactively and continuously, from before, during, and after field data collection. The analysis process began with data reduction, which included all interview and observation results. The data was then presented (data display) in a structured manner, using descriptive narratives and interview quotation matrices to facilitate understanding of the relationship patterns. The final stage of this method was drawing conclusions and verifying them to produce valid findings regarding the concrete role of management accounting technology in creating operational efficiency and competitiveness at Kopitani.id.



**Figure 1. Conceptual Framework**

The diagram illustrates the research flow of thought that views the implementation of MAS as an adaptive process within the company's internal environment. Departing from the complexity of cost and information management in the agritech industry, Kopitani.id integrated the Paper.id application to meet its managerial needs. The process of implementing this digital technology is explored in depth through three pillars of management accounting: budgeting, costing, and operational performance assessment. Qualitative analysis in this study focused on various factors that influence the system's operation, including aspects of human resource capacity, technological device availability, organizational structure, and work procedures. The final result of this mapping leads to strategic outputs in the form of increased work efficiency, accurate financial information, and responsiveness to the market, which are key indicators in supporting Kopitani.id's competitive advantage.

The Resource-Based View (RBV) is a strategic management framework that argues that a company's competitive advantage lies in the ownership and management of its internal resources, not solely in the external environment or industry in which it competes. This theory was first developed in depth by Jay Barney in 1991. While traditional strategy theories (such as Porter's Five Forces) look outward to identify market opportunities, the RBV looks inside the organization (inside-out approach) to identify assets, capabilities, and core competencies

that can give the company an edge over its competitors (Münter, 2026). In the context of strategic management and accounting, the primary role of the Resource-Based View (RBV) is as an internal analysis tool to understand how companies can create and sustain long-term competitive advantage through managing their assets and capabilities.

A Management Accounting System (MAS) provides comprehensive financial and non-financial data that is crucial for planning, controlling, and managerial decision-making. Implementing this system enables management to monitor operational efficiency and ensure the company's strategy aligns with long-term goals. Therefore, research ((Prima & Putri, 2020) revealed that the digitalization of SAM in MSMEs in Indonesia effectively improves the quality of information and the accuracy of decisions, which has a direct impact on strengthening competitive advantage (Deliani et al., 2021). A Management Accounting System (MAS) serves more than just a technical infrastructure or a mechanical calculation tool; it also serves as an intangible strategic resource embedded in an organization's internal routines. This intangible characteristic lies in the system's ability to dynamically integrate financial and operational information flows and transform them into readily usable knowledge for management. As a strategic resource, MAS provides high visibility into cost efficiency, working capital management, and real-time inventory projections. The complexity and uniqueness of how a company configures and utilizes MAS data in daily decision-making creates an internal capability that is difficult for competitors to replicate or purchase. When the information generated by this system accelerates a company's response to changes in the business environment, MAS transforms from a mere record-keeping tool into an intangible strategic asset that consistently supports the creation of an organization's competitive advantage.

This finding is reinforced by (Yasser Arafat & Halim, 2024) which confirms that the integration of management accounting information systems significantly improves decision quality and business performance. Overall, MAS plays a strategic role beyond simply financial record-keeping; it is a tool that provides relevant information to optimize operational effectiveness. For agritech startups like Kopitani.id, proper MAS implementation is a key foundation for creating cost efficiency and building sustainable competitiveness in the digital marketplace (Istis'anah, 2026; R. A. Putri & Hidajat, 2025).

According to (Ratmono & Zuhrohtun, 2023) A Management Accounting System (MAS) is an integrated framework that provides financial and operational data to support management's planning, control, and evaluation functions. Operationally, a MAS encompasses three interconnected main pillars:

1. **Budgeting System:** A budgeting system plays a strategic role in guiding management to allocate resources efficiently and align all organizational activities with company targets. A systematically prepared budget not only serves as a planning roadmap but also serves as a vital instrument for cost control and periodic operational performance assessment..
2. **Costing System:** A costing system plays a vital role in precisely identifying, recording, and allocating costs to every organizational activity. Accurate cost information serves as a key foundation for management in setting competitive selling prices, evaluating profitability, and mapping opportunities for operational efficiency (Zuhroh et al., 2024).

3. 3. Performance Measurement System: A performance measurement system evaluates the extent to which an organization's operational activities align with its established strategic objectives. Evaluation indicators in this system are not limited to financial metrics such as profit and cost efficiency, but also integrate non-financial aspects such as innovation, productivity, and customer satisfaction (Yoseph Agus Bagus Budi et al., 2024).

Competitive advantage is defined as a company's capacity to create superior value compared to competitors through product uniqueness, cost efficiency, and sustainable strategies. According to Porter (1985), this advantage can be achieved through differentiation strategies, cost leadership, and market focus. In the digital era, competitiveness no longer relies solely on internal resources, but relies heavily on effective information management and the use of technology to drive innovation. (Porter, 1985). Organizational agility in integrating information technology is a crucial factor in strengthening a company's position in the market (Ottemoesoe, 2021). In addition to external factors, internal capabilities in efficiently managing resources are a key determinant of a company's strategic position. Optimal cost control and operational efficiency enable organizations to remain adaptive to the dynamics of the business environment. In this regard, an integrated management information system plays a crucial role as a supporting instrument for cross-functional coordination and strategic decision-making, fostering long-term competitive advantage (Lathifa & Takaya, 2025).

Competitive advantage is not formed from a single aspect, but rather the accumulated result of various operational and strategic dimensions optimally managed within an organization. The first dimension, which serves as the primary foundation, is operational efficiency. This dimension measures a company's ability to transform all inputs, such as raw materials, capital, labor, and time, into high-value outputs with minimal waste. Through operational efficiency, organizations can shorten work cycles and reduce the risk of procedural errors. This is closely related to the second dimension, cost reduction. Cost reduction focuses on a company's strategic ability to reduce total expenses along the value chain without sacrificing product quality for consumers. When a company is able to eliminate non-value-added activities, profitability margins increase, providing greater flexibility in determining pricing strategies in the market (Darmadi, 2022). The next dimension that determines a company's resilience amidst competition is responsiveness and market adaptability. Responsiveness reflects the speed and accuracy of an organization in responding to customer requests, complaints, or specific needs in its daily operations. On the other hand, market adaptability has a broader scope in the medium to long term, namely the organization's ability to adjust its business direction, operating model, and service portfolio to regulatory changes and shifts in consumer behavior. Responsive and adaptive competitors will find it easier to secure customer loyalty because they are able to absorb business environmental uncertainty with agility and flexibility compared to conventional competitors (Fahmi et al., 2024).

Finally, competitive advantage is also largely determined by the dimensions of service quality and innovation capability. Service quality relates to meeting or exceeding customer expectations through reliability, transaction data accuracy, and consistent product delivery. Meanwhile, innovation capability is not limited to new product creation but encompasses the

organization's ability to adopt and implement new ideas, processes, and digital technologies to update internal work systems. Overall, these six dimensions synergize in a causal chain; the adoption of innovative technology will drive operational efficiency and cost reduction, ultimately improving response speed and service quality, maintaining a company's adaptability in a competitive market. Study Ratmono & Zuhrohtun (2023) proves that digitalization of Management Accounting Systems (MAS) improves information quality and decision effectiveness, which directly strengthens operational efficiency. This finding is in line with Rosmala, (2024), which states that digital transformation in management accounting can optimize business processes and the quality of managerial information. Thus, MAS serves as a strategic instrument that enables companies, including startups, to maintain sustainable competitiveness amidst a rapidly changing business environment.

### **Paper.id Digital Accounting Application**

Paper.id is a cloud-based digital accounting platform designed to help businesses, including startups and MSMEs, digitize transaction recording, expense management, and real-time cash flow monitoring. Through features like invoices, purchase orders, and profit and loss and cash flow reports integrated with digital payments, this application provides relevant data needed for planning and managerial decision-making. Study (Ratmono & Zuhrohtun, 2023) confirmed that the use of digital accounting applications significantly improves the quality of cost information and the effectiveness of organizational controls. Digitization through Paper.id minimizes the risk of human error, accelerates reporting cycles, and creates greater operational transparency for startups.

The implementation of the Paper.id platform at Kopitani.id is not simply a digital tool; it has become an integral part of the organization's internal capabilities in managing its agritech business. This platform serves as an operational control center that integrates various daily work processes, from transaction recording to digital financial document management. Through this system, the organization can monitor remaining stock availability weekly and accurately track outstanding customer invoices. This practical capability is crucial for management in making quick decisions, particularly in determining the volume of fresh produce stock needed to ensure freshness when reaching the market.

Although the system experienced some effectiveness challenges in the 2024–2025 period due to limited focus from data entry staff, management's commitment to reactivating and developing the platform demonstrates that Paper.id has been designed as a key pillar in standardizing the company's work. By shifting from error-prone manual record-keeping to a streamlined digital system, Kopitani.id has successfully built a more structured organizational capability. The tidiness and ease of access to operational data provided by Paper.id ultimately helps companies minimize the risk of cost overruns, maintain smooth cash flow, and move more agilely and efficiently amidst industry competition.

## **RESEARCH RESULTS AND DISCUSSION**

Management accounting systems play a crucial role in providing relevant and accurate data to support managerial functions, from planning to strategic decision-making. For startups, the

importance of a financial information system extends beyond administrative aspects to serve as a pillar of operational stability and long-term growth. A case study of Kopitani.id, an agritech company, demonstrates that digital transformation through the Paper.id platform addressed the challenges of data integration and streamlined financial information accessibility for management.

Findings from a field study using in-depth interviews indicate that Paper.id's implementation at this entity serves as a comprehensive managerial tool. Beyond its recording function, the system plays a crucial role in cash flow monitoring, precise inventory planning, and organizational performance evaluation, ensuring systematic business sustainability.

**Table 1. Research Findings**

<b>SAM Dimensions</b>	<b>Data Findings</b>	<b>Impact on Competitive Advantage</b>
Costing	Accounts receivable are monitored automatically through the system's unpaid invoice feature. All transaction costs are entered digitally to accurately monitor remaining warehouse stock. Management focuses on monitoring accounts receivable and partner billing balances to ensure smooth cash flow.	Accelerate collections and ensure consistent cash flow for operational continuity. Minimize the risk of human error in asset and operational expense calculations. Accelerate working capital turnover, which is crucial for startup growth.
Budgeting System  Performance Measurement	Determination of the amount of stock that must be provided is carried out every week based on historical sales data on Paper.id.  Management uses system data to monitor sales performance and partner payment discipline in real-time. Focus on product quality; weekly data is used to ensure the coffee delivered to consumers is always fresh. Monitor the status of invoice payments (paid or outstanding) to provide up-to-date financial reports to superiors.	Avoid losses due to excessive stock accumulation or dead stock.  Improving the company's image among partners through a well-organized billing and record-keeping system. Maintaining high quality standards, which are the company's unique value in the agritech sector. Ensuring that no potential revenue is lost due to missed invoices.

Source: Processed Primary Data (2026)

The implementation of the Management Accounting System at Kopitani.id is technically supported by the Paper.id application's superior features, such as Inventory and Digital Invoicing. The use of inventory tracking allows the company to precisely control stock, which, in management accounting theory, serves to minimize holding costs. Furthermore, the digital invoice feature accelerates the accounts receivable reconciliation process. This demonstrates that technology is not simply a recording tool, but rather an instrument for

creating greater financial transparency compared to manual systems. Although the implementation of Paper.id has positively contributed to the company's efficiency, the transformation process is not without its challenges. The success of a management accounting system is not solely determined by the sophistication of the technology used but also depends heavily on the readiness of the company's internal ecosystem, particularly in terms of human resources and consistent operational procedures. In the context of Kopitani.id, several technical and non-technical obstacles were found to impact the quality of the information generated by the system. These obstacles are crucial for management to evaluate to optimize the system's future use. Based on interviews and document observations, researchers summarized several key factors that hindered the implementation of the digital-based Management Accounting System at Kopitani.id.

**Table 2. Analysis of Implementation Barriers**

<b>Inhibiting Factors</b>	<b>Field Findings</b>	<b>Impact on competitive advantage</b>
Human Resources (HR)	Data gaps in the 2024-2025 period occurred due to limited focus of input officers (dual tasks).	Inconsistencies in historical data can cloud the analysis of a company's long-term trends.
Human Error Risk	The validity of information output (such as visualizations of remaining fresh produce stock and receivables) is entirely determined by the discipline of manual input. Data entry errors have the potential to distort daily agricultural commodity stocking decisions.	Incorrect input of stock data results in uncertainty regarding fresh products ready for delivery, while incorrect input of invoices disrupts the transparency of client receivables.
System Adherence Continuity	Maintaining consistent use of digital platforms during a startup's growth phase is highly complex. When management focuses on external market penetration, discipline in updating accounting data tends to decline, which can undermine budgetary control.	If the budgeting function is weakened, startups lose their ability to detect operational cost overruns early in a competitive market.
System Scalability	As Kopitani.id's business expands in the future, the need for a more complex management accounting structure (such as multi-project or multi-sector costing) will increase. Paper.id's standard features may face capacity limitations in accommodating these needs.	The limited system features for managing transactions on a much larger scale can slow down business growth and adaptation to the dynamic agritech ecosystem.
Vendor Lock-In Risk	Organizations are completely dependent on the server infrastructure, software	If an error or technical problem occurs on the vendor's central server,

	<p>maintenance, data privacy regulations, and pricing policies of Paper.id, the vendor's central office. Technical disruptions from the vendor's central office would immediately paralyze invoice and receivables tracking functions.</p>	<p>Kopitani.id will lose control of real-time receivables data, which will have a direct impact on service operational paralysis.</p>
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Source: Processed Primary Data (2026)

## DISCUSSION

### Implementation of Paper.id-Based Management Accounting System

This study found that the Paper.id platform has been comprehensively adopted by Kopitani.id management for managing transactions, presenting financial reports, monitoring cash flow, and conducting strategic planning. Within the Resource-Based View (RBV) framework, this implementation demonstrates that Paper.id no longer functions merely as an administrative record-keeping tool but has transformed into an intangible strategic resource embedded in the company's internal routines. This characteristic aligns with modern management accounting concepts that focus on providing relevant internal information to support managerial decisions. This digital integration has proven capable of producing real-time, accurate, and strategically valuable data. Thus, the management of this system becomes a unique internal capability that supports the control and monitoring functions and helps determine the direction of the organization's strategy in facing market dynamics.

Academically, the digitalization of Management Accounting Systems (MAS) has been proven to strengthen organizational capabilities in winning technology-based business competition. In line with the findings of Diana Putri (2024), accounting digitalization can boost operational efficiency, data accuracy, and speed up reporting of information crucial for strategic decision-making. Internally, Kopitani.id's use of Paper.id also optimizes the effectiveness of operational controls. Cloud-based transaction automation and cash flow monitoring have been shown to minimize the potential for human error and data manipulation compared to conventional methods. This is consistent with Putri's (2026) study, which emphasized that cloud-based systems deliver high efficiency and produce reliable financial reports, allowing top management to utilize all flowing information to assess business performance and plan expansion quickly. Despite its significant strategic contribution, critical analysis based on RBV shows that Kopitani.id's sustainable competitive advantage is highly dependent on the stability of its system management against internal vulnerabilities and external dependencies. On the one hand, there is the risk of operational vulnerability in the form of sole reliance on data inputting personnel, as evidenced by the field reality where incomplete recording occurred in the 2024–2025 period due to staff divergence, which directly impacted work efficiency. On the other hand, complete reliance on internet stability in rural areas and third-party server infrastructure could suddenly threaten the company's responsiveness and service quality. Therefore, to ensure Paper.id's continued function as a sustainable core competency, Kopitani.id is required to develop standard operating procedures (SOPs), conduct staff cross-training, and implement regular data backup policies to mitigate potential system failures in the

future. This phenomenon aligns with studies (D. Putri, 2026) which states that cloud-based technology can optimize documentation efficiency and produce financial reports with a high degree of accuracy and reliability. Furthermore, this system integration creates a comprehensive flow of information, not only for the finance department but also for upper management in conducting performance assessments, formulating expansion plans, and continuously evaluating operations.

### **Factors Influencing the Implementation of Paper.id in Managerial Processes**

Analysis of the determinants of the effectiveness of the Paper.id-based Management Accounting System (MAS) at Kopitani.id identified several fundamental dimensions that are mutually integrated.

#### **1. Digital Transformation and Technology Readiness.**

From the perspective of Resource-Based View (RBV) Theory, digital transformation and technological readiness through Paper.id's cloud platform serve not merely as operational tools but as highly valuable intangible strategic assets for the company. In line with the study by Ariani & Widjaja (2025), this digitalization facilitates rapid data integration, strengthens internal control dimensions, and provides a real-time financial information base for cross-unit reporting. However, when linked to the results of critical analysis in the field, the reliability of these digital resources faces system dependency risks. The characteristics of the agritech industry that touches rural/agricultural areas are often hampered by limited internet networks. These connectivity barriers have the potential to cause delays in daily inventory data synchronization, which directly impacts responsiveness failure and reduces the unique capabilities of the technology.

#### **2. Human Resource Competencies and User Capabilities.**

The second factor that is a major determinant of MAS effectiveness is human resource competence, which within the RBV framework is classified as human capital—an internal resource that is valuable, rare, and difficult to imitate if optimally developed. Referring to the findings of Saputra et al. (2025), user competence is a dominant pillar that ensures that the digital accounting system is capable of producing high-quality information output. Kopitani.id staff with technological understanding and analytical acumen have proven capable of transforming Paper.id's features into informative and accurate management reports. However, the analysis results indicate an operational vulnerability in the form of a single point of failure. The reality in the 2024–2025 period demonstrated that when data input routines rely solely on a single individual who experiences a deviation in focus due to external workloads, financial recording becomes inactive. The implication of this operational gap is a decrease in operational efficiency (efficiency loss) that can threaten the stability of the company's competitiveness.

#### **3. Strategic Role of Management Support and Organizational Configuration.**

Furthermore, top management support and a flexible organizational structure act as organizational capital that accelerates the assimilation of technology into the work culture. Ariani & Widjaja (2025) emphasized that active commitment from top management is crucial in encouraging the adoption of cloud-based systems and strengthening a climate of data-driven decision-making. Kopitani.id's characteristics as a startup with a relatively flexible

organizational structure and minimal bureaucracy provide an initial competitive advantage in the form of rapid technological adaptation. However, from a critical perspective, this synergy faces long-term sustainability challenges. When top management's focus shifts to external market penetration strategies, discipline in updating accounting data tends to decline. This risks weakening budgeting control functions, triggering a loss of business agility, and hampering the system's scalability to manage the complexity of future multi-project agricultural transactions.

### **Paper.id's Role in Supporting Kopitani.id's Competitive Advantage**

In a competitive and dynamic business landscape, management accounting system (MAS) integration serves as a source of competitive advantage for organizations. The implementation of Paper.id has made a significant strategic contribution to Kopitani.id through several fundamental aspects:

#### **1. Operational Efficiency and Reporting Acceleration**

The implementation of Paper.id as a digital financial architecture instrument has proven effective in shortening the bureaucratic reporting cycle and reducing the frequency of manual errors. Consistent with Putri's (2026) study on cloud accounting systems, the transition to a cloud-based system significantly improves reporting efficiency and data validity, freeing up human capital to focus on more strategic tasks. For Kopitani.id, which manages a complex supply chain of multiple partnerships across multiple locations, this efficiency is a crucial capability asset. However, in the RBV perspective, the sustainability of this operational efficiency is highly vulnerable to the risk of a single point of failure in the human resources aspect. As was the reality in the 2024–2025 period, when the focus of data entry staff was diverted by external workloads, digital record-keeping activities stagnated. This operational gap triggers the risk of efficiency loss, forcing organizations to revert to manual patterns, which in turn can erode the efficiency advantages that have been built.

#### **2. Information Transparency and Accuracy of Strategic Decisions**

Accessibility to accurate, real-time financial information through Paper.id has expanded the role of SAM at Kopitani.id into a decision support system (DSS). Ramdhani et al. (2025) asserted that accounting digitization contributes substantially to improving the quality of managerial decisions. At the operational level of Kopitani.id, this data transparency serves as a strategic basis for determining commodity pricing, evaluating the profitability of shop partnerships, and early control of operational cost overruns. The strategic value creation of this DSS function faces the threat of third-party dependency (vendor lock-in risk). Because all cash flow and receivables monitoring functions are fully integrated into the vendor ecosystem, this dependency creates external vulnerabilities. If a system failure or central server disruption occurs on Paper.id's side, Kopitani.id risks losing immediate financial data visibility, which directly impacts service quality degradation for business partners.

#### **3. Environmental Adaptability Through Information Technology Excellence**

The integration of modern management accounting systems provides companies with a competitive advantage by providing relevant information to navigate changing business environments. The effectiveness of an organization's response to market conditions is largely determined by the quality of its technological infrastructure, which generates cutting-edge data

analysis. In this context, the use of digital-based systems enables management to identify opportunities and threats earlier, ensuring that policies remain relevant to the needs of the dynamic agritech industry. However, the effectiveness of this adaptive capability is limited by external infrastructure constraints, namely the risk of limited internet network accessibility (network connectivity dependencies). Given that agritech operations operate in rural or agricultural areas that frequently experience signal disruptions, disruptions in data synchronization to the cloud system can trigger responsiveness failures. These data update delays prevent top management from making tactical decisions quickly, potentially reducing Kopitani.id's adaptive competitiveness in the market.

## CONCLUSION

Based on the analysis and discussion, this study concludes that the implementation of a Paper.id-based management accounting system at Kopitani.id has effectively optimized the company's financial governance and managerial functions. Utilization of this platform covers a broad operational spectrum, from automating transaction documents to preparing integrated internal financial reports. The advantage of real-time data accessibility facilitates management in carrying out planning, cost control, and performance evaluation functions with greater precision. Furthermore, the transition to a digital system has been proven to reduce the risk of data anomalies due to manual intervention and significantly boost administrative efficiency. The effectiveness of this system is driven by the synergy of several determining factors, including cloud technology readiness, human resource digital literacy, top management commitment, and an adaptive startup organizational structure that acts as a catalyst for technological acceleration. Strategically, the use of Paper.id has significantly contributed to the company's competitive advantage by providing accurate information crucial for navigating the dynamics of the agritech industry. Theoretically, this study contributes to the management accounting literature by providing empirical evidence that startups with limited resources can build valuable strategic capabilities by leveraging cost-effective cloud technology. Furthermore, these findings have practical implications for strengthening startup governance, where transparency and internal controls can be established early on without significant capital investment, although management is still required to mitigate the risk of single-point-of-failure reliance. Finally, this research provides important implications for the digital transformation landscape of the agritech sector in Indonesia, demonstrating that successful digitalization in rural areas depends not only on software availability but also on the stability of regional internet network infrastructure and the technological literacy of local human resources.

To improve the functionality of its digital-based management accounting system, Kopitani.id is advised to expand data synchronization between functional units such as logistics, agricultural warehouses, and partnerships to minimize lags in information updates. This effort must be accompanied by HR risk mitigation policies, such as the development of strict input SOPs and the implementation of cross-training programs to prevent financial operations from stalling when key personnel are unavailable. Furthermore, company management should regularly back up financial data to encrypted local storage to anticipate cyber risks or disruptions to third-party vendor servers. Meanwhile, for future research, it is

recommended to expand the scope of research through comparative studies between agritech companies or across sectors to validate the effectiveness of this system more broadly. Future researchers are also expected to apply a quantitative approach with statistical analysis to test the numerically measurable causal relationship between the level of accounting digitalization and company productivity and profitability.

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