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Driving Supply Chain Performance: The Role of Managerial Competence, Information Sharing, and Information Quality

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ABSTRACT

This research investigates how managerial competence and information exchange influence supply chain efficiency in Yogyakarta's Bakpia small- and medium-sized enterprises, with information quality as a mediating variable amid significant shifts in tourist-driven demand. Adopting a quantitative methodology and a purposive sampling technique, primary data were gathered through questionnaires distributed to 48 enterprise owners and managers and subsequently analyzed using PLS-SEM. The findings demonstrate that neither managerial competence nor information sharing exerts a direct, statistically meaningful impact on supply chain performance; conversely, managerial skills substantially drive both information dissemination and information quality, and information sharing likewise significantly affects information quality. Furthermore, information quality strongly dictates supply chain performance and mediates the influence of managerial proficiency and information sharing. Ultimately, these insights highlight that enhancing supply chain outcomes for Bakpia enterprises relies heavily on the reliability and precision of the data generated to enable prompt, accurate operational decisions, rather than on managerial aptitude and data-sharing practices alone.

Keywords: Information Quality; Information Sharing; Managerial Competence; MSMEs; Supply Chain Performance

JEL Classification: M00, M11

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INTRODUCTION

The current development of the business environment shows increasingly dynamic and unpredictable conditions, especially in sectors highly dependent on changes in market demand. Changes in public consumption patterns, fluctuations in raw material prices, technological developments, and increasing business competition require business actors to be highly adaptable to maintain business continuity. Ineffective SCM can lead to various operational problems, such as raw material delays, inventory mismatches, overstocking, stockouts, and the risk of product expiration due to unsold goods accumulating. Such conditions can lead to increased operational costs, delays in meeting customer needs, and reduced overall operational effectiveness.

In Indonesia, MSMEs are known as productive businesses run by individuals or business entities on a micro, small, and medium scale. Their business flexibility allows MSMEs to survive in various economic conditions. However, most MSMEs still face various limitations, such as low technology utilization, limited information systems, weak supply chain coordination, and high dependence on suppliers and market conditions. These limitations make MSMEs a vulnerable group of businesses susceptible to demand fluctuations and supply chain disruptions.

The MSME sector, closely related to market demand dynamics, is the food-processing sector. This condition is even more apparent among food-processing MSMEs in the Special Region of Yogyakarta, most of which are related to the tourism sector. Based on research by Oelistina (2021), approximately 75.09% of MSMEs in Yogyakarta City are directly related to tourism activities, including the food and regional souvenir sectors. The MSME product that represents Yogyakarta's culinary tourism is bakpia. Bakpia is a signature souvenir of Yogyakarta and is in high demand among both domestic and foreign tourists. The high dependence on the tourism sector means demand is heavily influenced by the number of tourist visits to the Special Region of Yogyakarta. Data on tourist development in DIY over the past three years show sharp monthly fluctuations. This evidence indicates that the tourist influx to DIY is seasonal and unstable, thereby affecting demand movements in tourism-dependent sectors. Such conditions make bakpia product demand patterns difficult to predict and directly impact the operational activities of MSMEs.

According to research by Gu et al. (2021), effective management capabilities can enhance flexibility in responding to market trends. Managers skilled in data analysis and supply chain mapping are better able to make evidence-based decisions, improve operational stability, and drive sustainable business growth. In addition to managerial competence, information sharing among business partners enhances transparency and operational efficiency. Effective information sharing provides business actors with accurate, up-to-date data on market demand, raw material inventory, and supply chain conditions. Important aspects of information sharing include connectivity, willingness to share, and openness in exchanging relevant data to support decision-making and supply chain efficiency (Namagembe & Mbago, 2023). The availability of accurate and timely information can improve coordination among business partners, reduce uncertainty, and enable better decision-making (Liu et al., 2024). However, MSMEs in Yogyakarta still face obstacles to implementing effective information-sharing systems due to technological limitations and low trust among business actors (Fridayani & Chiang, 2025).

High-quality information is free from bias, complete, up-to-date, easily accessible, and trusted by both internal and external users (Namagembe & Mbago, 2023). According to Hani (2022), “information quality is a major part of information management because

information is processed and developed within the company". Good information quality enables more precise and responsive decision-making in response to market changes, enhances competitive capability, and facilitates the achievement of competitive advantage. Astawan et al (2025) found that high information quality—alongside communication clarity and institutional credibility—is vital for building trust among PRB JKN participants. For patients with chronic diseases who require ongoing care, reliable and accurate information directly underpins BPJS Kesehatan's dependability and long-term organizational stability. In Bakpia MSMEs, low information quality can lead to errors in estimating market demand, inaccuracies in raw material procurement, and production quantity mismatches.

LITERATURE REVIEW

Supply Chain Performance

According to Chopra and Meindl (2015), supply chain performance depends on several key drivers, including facilities, inventory, transportation, and information, which collectively determine the effectiveness of material and information flows. Supply chain performance can be evaluated through dimensions such as reliability, responsiveness, flexibility, cost efficiency, and asset management efficiency, reflecting operational effectiveness in meeting customer needs (Russell & Taylor, 2019). Liestyana et al. (2022) found that supply chain performance can be improved by strengthening trust, information sharing, and informal contracts. Greater information sharing and stronger informal agreements foster mutual trust among supply chain partners, contributing directly and indirectly to improved performance.

Supply chain performance reflects the outcomes of interconnected activities and decisions that influence cost efficiency, responsiveness, order fulfillment, and customer value (Flynn et al., 2010). Its key indicators include inventory costs, which reflect the efficiency of inventory management; operating costs, which represent total operational expenditures across the supply chain; lead time, which measures the time required to fulfill orders; stockout probability, which indicates the likelihood of inventory shortages; and fill rate, which represents the proportion of customer demand successfully fulfilled from available inventory.

Managerial Competence

Robbins and Coulter (2017) emphasize that managerial competence encompasses the ability to plan, make decisions, lead, and control organizational activities. Similarly, Fanelli et al. (2020) describe managerial competence as the ability to plan, organize, lead, and manage resources effectively to achieve organizational objectives. This competence involves a combination of knowledge, skills, and attitudes necessary for performing managerial responsibilities effectively.

Namagembe and Mbago (2023) identify three main dimensions of managerial competence: planning and administration, teamwork, and strategic actions. Planning and administration involve administrative clarity, competent planning personnel, supplier participation in planning, effective decision-making, and the development of long-term supplier relationships. Teamwork emphasizes collaboration, team-based task allocation, diversity of knowledge and skills, and employee flexibility. Strategic actions encompass activities aligned with organizational vision and mission, strategic risk management, awareness of competitors and business partners, and an understanding of stakeholder interests. Together, these dimensions reflect managerial capabilities that support organizational coordination and effective supply chain management.

Information Sharing

Chopra and Meindl (2015) emphasize that information sharing is fundamental to supply

chain performance because coordination among supply chain members depends on accurate and timely information flows. Information sharing involves exchanging information related to demand, inventory levels, production capacity, and distribution schedules to reduce uncertainty, improve operational efficiency, and support decision-making throughout the supply chain.

Information sharing is commonly assessed through two indicators: connectivity and willingness to share. Connectivity refers to the use of information technology, integrated systems, online customer interactions, and communication links across organizational departments. Willingness to share reflects the openness and commitment of employees, managers, and external stakeholders to exchange relevant information. Both indicators are essential for maintaining effective information flows and improving supply chain responsiveness and efficiency.

Xiao and Zhang (2024) highlight information sharing as an important determinant of supply chain visibility and flexibility. Similarly, Baah et al. (2021) demonstrate that accurate and timely information sharing enhances agility and collaboration among business partners, thereby improving overall supply chain performance. However, Andiana et al. (2024) found that information sharing between small and medium-sized enterprises (SMEs) and their suppliers remains insufficiently integrated. Without integrated information systems and a strong commitment among partners to exchange accurate information, information sharing may not significantly improve supply chain performance.

Information Quality

High-quality information provides an essential foundation for strategic and operational decision-making. Laudon and Laudon (2020) emphasize the importance of information quality in supporting effective business processes. In supply chain management (SCM), information quality plays a strategic role in ensuring efficient coordination and decision-making. Chopra and Meindl (2015) explain that accurate and timely information enables organizations to optimize demand planning, inventory control, and production coordination. Conversely, poor information quality may contribute to the bullwhip effect, resulting in unnecessary fluctuations in inventory levels and reduced operational efficiency.

Information quality can be assessed through three main indicators: accuracy, convenience of access, and reliability. Accuracy refers to information that is unbiased, free from errors, and obtained from appropriate sources. Convenience of access reflects the ease with which employees, customers, managers, and suppliers can obtain relevant information and contribute to information exchange. Reliability refers to information that is trustworthy, comprehensive, fact-based, complete, and up to date. Collectively, these indicators reflect the quality of information available to supply chain participants and its ability to support effective coordination, informed decision-making, and improved operational performance.

Managerial Competence and Supply Chain Performance

Managerial competence is a key capability determining the quality of process management in the supply chain, as a manager's competence influences how an organization plans, coordinates, and controls operational activities. Competent managers can make more precise decisions on procurement, material requirements planning, labor allocation, and inventory management, making the supply chain more efficient and responsive. Derwik et al. (2016) affirm that managerial competence influences the effectiveness of material flows, information, and overall logistics processes. In many cases, a manager's ability to understand the market, predict

demand, and formulate operational strategies determines supply chain performance, including lead time, stockout probability, inventory cost, and fill rate. Managers with strong analytical skills and a strategic understanding can predict demand, identify supply risks, and formulate responsive operational strategies. Biteko and Ismail (2020) assert that managerial competence is one of the most influential factors on business performance because it enables managers to effectively manage resources and implement good management practices.

Information Sharing and Supply Chain Performance
According to Liu et al. (2024), effective information sharing can improve coordination among supply chain actors, reduce demand uncertainty, and help companies make operational decisions faster and more accurately. Good information exchange can also reduce the risk of production delays, stockouts, and overstocks resulting from demand information mismatches. Namagembe and Mbago (2023) explain that companies implementing information sharing effectively tend to have better supply chain performance because information flows become more integrated and responsive to market changes. Therefore, the more effectively a company shares information, the higher its supply chain performance.

Managerial Competence and Information Quality
According to Namagembe and Mbago (2023), the managerial capabilities of business actors can help companies create more effective information management systems, ensuring that the information generated is of higher quality and serves as a basis for operational decision-making. Furthermore, strong managerial capability helps companies improve data processing efficiency and deliver operational information more accurately. Managers with strong analytical, communication, and coordination skills tend to be better at ensuring that information from suppliers, customers, and internal company activities is used effectively to support decision-making. Alshurideh et al. (2022) “show that managerial capability plays an important role in enhancing the quality of information used by companies, as competent managers are better able to manage information systems and ensure the accuracy of the information the organization needs.”

Information Sharing and Information Quality
Information exchange conducted openly, consistently, and in a timely manner enables companies to obtain more accurate, relevant, complete, and easily understandable information. According to Namagembe and Mbago (2023), companies that implement information sharing effectively tend to have better information quality because the information obtained comes from various parties across the supply chain and is updated continuously. Additionally, information sharing helps companies reduce information distortion and communication errors in operational activities. Fast and transparent information exchange enables companies to obtain more reliable data, thereby improving decision-making effectiveness. Liu et al. (2024) explain that effective information sharing can enhance information quality by enabling companies to obtain more accurate, market-responsive data.

Information Quality and Supply Chain Performance
Quality information helps companies plan production, manage inventory, determine raw material requirements, and arrange product distribution more precisely in line with market demand. According to Namagembe and Mbago (2023), information quality positively affects supply chain performance because accurate, timely information enhances coordination effectiveness and the company's response to changing market conditions. Forslund and Jonsson (2007) explain that “high-quality information can improve the effectiveness of logistics planning and reduce errors in distribution activities and inventory management”. Thus, the higher the information quality of a company, the better

its supply chain performance.

Managerial Competence and Information Sharing

Competent managers tend to be better at creating a work environment open to information exchange, enabling operational information flows to run faster and more accurately. According to Namagembe and Mbago (2023), strong managerial capability can encourage the development of more effective information-sharing practices by enabling managers to coordinate communication and data exchange among supply chain parties in a more structured manner. Managerial capability also helps companies improve information integration and operational transparency in the supply chain. Managers with strong communication and coordination skills tend to be better at building trust among business partners, making the information exchange process more open and sustainable. Li et al. (2006) explain that "managerial capability influences the effectiveness of collaboration and information integration among organizations in the supply chain". Effective information exchange enables companies to obtain operational information faster and more precisely, thereby improving decision-making effectiveness.

Information Quality Mediates the Effect of Managerial Competence on Supply Chain Performance

Beyond direct effects, managerial competence also indirectly affects supply chain performance by enhancing information quality. Namagembe and Mbago (2023) explain that competent managers are able to ensure that information collected and used by the company is accurate, complete, relevant, and obtained in a timely. Competence in data management and operational coordination helps create effective information flows, which subsequently serve as the basis for more effective decision-making in production planning, raw material procurement, and inventory control. High information quality ultimately supports improvements in supply chain performance. Forslund and Jonsson (2007) state that high-quality information facilitates logistics planning processes and reduces errors in shipping, inventory, and scheduling. Therefore, managerial competence improves supply chain performance not only directly but also through enhanced information quality as a mediator.

Information Quality Mediates the Effect of Information Sharing on Supply Chain Performance

According to Li et al. (2006), effective information-sharing practices can enhance supply chain integration by providing companies with broader, more accurate access to information that supports operational activities. Effective information sharing will improve information quality, enabling companies to make operational decisions more precisely and responsively. Accurate, relevant, and timely information helps companies control inventory, adjust production capacity, and reduce the risk of product distribution delays. Prajogo and Olhager (2012) explain "that high information quality can improve supply chain integration and coordination, thereby enhancing supply chain performance".

Hypotheses Development

Managerial competence is a foundational capability that determines how effectively an organization plans, coordinates, and controls its operations. Competent managers possess strong analytical skills and strategic insights that allow them to make precise decisions regarding procurement, material requirements planning, labor allocation, and inventory management, thereby reducing lead times, stockout probabilities, and inventory costs (Derwik et al., 2016; Namagembe & Mbago, 2023). Furthermore, managerial competence enhances an organization's adaptability to market volatility and supply chain uncertainties, enabling managers to deploy effective resources and best management practices that drive overall business and operational efficiency (Biteko & Ismail, 2020).

H1: Managerial competence affects supply chain performance.

Information sharing involves the open and structured exchange of operational data—such as market demand, inventory levels, production capacity, and delivery schedules—among supply chain partners, including suppliers, manufacturers, distributors, and customers (Liu et al., 2024). Effective information sharing enhances coordination across the entire supply chain, mitigating demand uncertainty and preventing operational disruptions like production delays, stockouts, and overstocks caused by data mismatches (Namagembe & Mbago, 2023).

H2: Information sharing affects supply chain performance.

Managerial competence shapes an organization's internal and external information environment. Competent managers establish rigorous information management systems and ensure that data utilized in operational processes maintains high standards of accuracy, relevance, completeness, and timeliness (Namagembe & Mbago, 2023). Through advanced analytical, communication, and coordination capabilities, competent managers optimize data processing efficiency and eliminate information distortion, ensuring that the organization leverages reliable insights from suppliers and customers to drive decision-making (Alshurideh et al., 2022).

H3: Managerial competence affects information quality.

The continuous and transparent exchange of data among supply chain actors directly elevates the quality of information available to an organization. By collecting and updating data across multiple touchpoints—such as suppliers and manufacturers—companies gain a deeper and more reliable understanding of shifting market demands and operational workflows (Namagembe & Mbago, 2023). Consistent information sharing minimizes communication gaps, filters out noise, and reduces information distortion, thereby generating high-quality, precise, and market-responsive data (Liu et al., 2024).

H4: Information sharing affects information quality.

Information quality serves as a critical determinant of operational decision-making excellence. When organizations possess accurate, relevant, complete, and timely information, they can plan production schedules, manage inventory thresholds, dictate material requirements, and coordinate distribution networks with precision (Namagembe & Mbago, 2023). High information quality streamlines logistics planning, minimizes distribution errors, and enhances the organization’s responsiveness to market fluctuations.

H5**:** Information quality affects supply chain performance.

Managers act as primary catalysts in building collaborative environments that foster open communication and trust among supply chain partners (Li et al., 2006). Strong managerial and coordination capabilities allow leaders to design structured data-exchange protocols, facilitate cross-organizational integration, and foster operational transparency (Namagembe & Mbago, 2023). Consequently, competent managers are better equipped to break down organizational silos and drive sustainable, collaborative information flows.

H6**:** Managerial competence affects information sharing.

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While managerial competence directly influences operational outcomes, it also operates through internal mechanisms to drive performance. Competent managers excel at collecting, managing, and utilizing accurate, complete, and timely data, thereby establishing superior information quality (Namagembe & Mbago, 2023). This elevated information quality subsequently serves as a robust foundation for flawless logistics planning, production scheduling, and inventory control, ultimately amplifying the positive impact of management skills on supply chain performance (Forslund & Jonsson, 2007).

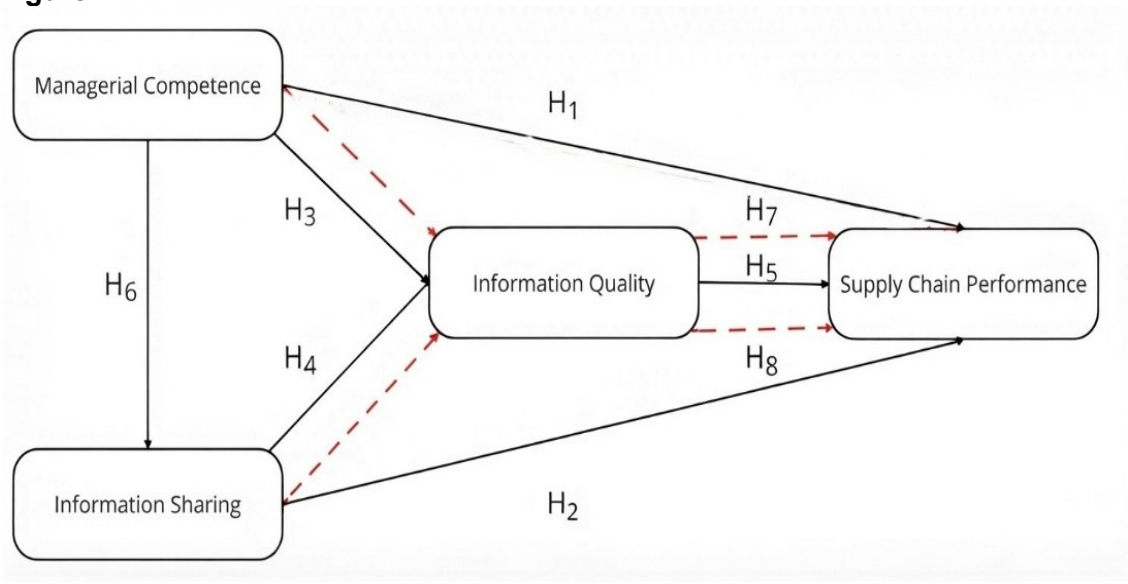
H7: Information quality mediates the effect of managerial competence on supply chain performance

Information sharing alone is most effective when it translates into actionable, high-grade data. Systematic information exchange among supply chain actors broadens access to market and operational insights, mitigating uncertainty and distortion (Li et al., 2006). This integrated data flow directly improves information quality, which in turn equips companies to execute precise capacity adjustments, optimize inventory levels, and eliminate bottlenecks (Prajogo & Olhager, 2012). Thus, information quality acts as a vital bridge converting collaborative information-sharing practices into superior supply chain efficiency.

H8**:** Information quality mediates the effect of information sharing on supply chain performance.

Conceptual Framework
The study framework model is depicted in Figure 1.

Figure 1. Research Framework



RESEARCH METHOD

This study employs an explanatory research design to examine causal relationships among the variables (Creswell & Creswell, 2017). A quantitative approach is applied through numerical data collection, hypothesis testing, and statistical analysis.

Population and Sample

The population comprises all Bakpia MSMEs in Yogyakarta City, selected for their economic contributions and the relevance of managerial competence, information sharing, and information quality to supply chain performance (Anoke et al., 2022; Fanelli et al., 2020). The study employs purposive sampling to select MSMEs based on specific criteria. For PLS-SEM analysis, the recommended sample size ranges from 30 to 100 respondents (Imam & Latan, 2020).

Quantitative Analysis

Data are analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM), which accommodates complex latent-variable relationships and small-to-medium samples (Hair et al., 2016). The analysis evaluates both measurement (outer) and structural (inner) models.

The outer model assesses reflective indicators through convergent validity (outer loadings > 0.70; AVE > 0.50), discriminant validity (cross-loadings and Fornell–Larcker criterion), and composite reliability (> 0.70).

The inner model evaluates relationships among latent variables using R^2 (0.75 = strong, 0.50 = moderate, 0.25 = weak), bootstrapping significance (t > 1.96 or p < 0.05), and effect size (f^2: 0.02 = small, 0.15 = medium, 0.35 = large).

RESULTS

The research includes a survey of owners and managers of MSMEs, conducted among Bakpia MSMEs in Yogyakarta City, with 48 respondents. Data was processed using SmartPLS. Based on the evaluation of the outer model—which examines the relationships between latent variables and their reflective indicators through convergent validity (outer loadings > 0.70, AVE > 0.50), discriminant validity (cross loadings and Fornell-Larcker criterion), and composite reliability (> 0.70)—it can be concluded that all items are declared valid as they meet the required validity thresholds. Furthermore, all variables are declared reliable because their composite reliability values exceed 0.70, demonstrating that the measurement instrument is consistent and dependable.

Table 1. Hypothesis Testing of Direct Effects

Hypothesized Path	Original Sample (O)	T Statistics	P Values	Result
H_1: MC → SCP	0.072	0.620	0.535	Not Significant
H_2: IS → SCP	0.171	1.041	0.298	Not Significant
H_3: MC → IQ	0.401	2.435	0.015	Significant
H_4: IS → IQ	0.526	3.137	0.002	Significant
H_5: IQ → SCP	0.673	3.740	0.000	Significant
H_6: MC → IS	0.558	5.753	0.000	Significant

The statistical evaluation reveals distinct structural relationships among the studied variables. Managerial competence and information sharing exhibit positive original sample coefficients (0.072 and 0.171, respectively) but fail to achieve statistical significance—evidenced by t-statistics below the 2.021 threshold and p-values exceeding 0.05—indicating no direct effect on supply chain performance. Conversely, managerial competence substantially drives information quality (path coefficient of 0.401, t = 2.435, p < 0.05) and information sharing (path coefficient of 0.558, t = 5.753, p < 0.05). Similarly, information sharing significantly enhances information quality (path

coefficient of 0.526, t = 3.137, p < 0.05), which in turn exerts a powerful, highly significant positive influence on supply chain performance (path coefficient of 0.673, t = 3.740, p < 0.001).

Table 2. Hypothesis Testing of Specific Indirect Effects

Mediated Path	Original Sample (O)	T Statistics	P Values	Result
H_7: MC → IQ → SCP	0.317	2.326	0.020	Significant
H_8: IS → IQ → SCP	0.418	2.735	0.006	Significant

Information quality acts as a significant mediator in two structural paths. First, it positively mediates the link between information sharing and supply chain performance, supported by an original sample value of 0.418, a t-statistic of 2.735, and a P-value of 0.006. Second, it significantly mediates the relationship between management competence and supply chain performance, as indicated by an original sample value of 0.317, a t-statistic of 2.326, and a P-value of 0.020. Consequently, both hypotheses are supported.

DISCUSSION

The Impact of Managerial Competence on Supply Chain Performance

The data reveal that managerial competence does not exert a direct, statistically meaningful impact on the supply chain outcomes of Bakpia MSMEs located in Yogyakarta City. This outcome highlights that the inherent capabilities of business owners are not yet fully optimized to independently elevate overall supply chain efficiency. Such conditions often stem from structural constraints typical of small enterprises, including limited resource availability, basic operational workflows, and supply chain networks that lack comprehensive integration. Consequently, administrative proficiency alone falls short of driving operational excellence without supplementary catalysts like precise data frameworks and structured coordination. These conclusions mirror the empirical work of Essex et al. (2016) and Thai et al. (2024), which similarly established that supply chain management competencies do not directly dictate broader enterprise or logistical productivity. Their research emphasizes that administrative skills typically channel their effects through intermediate elements, such as individual output and tactical execution.

The Impact of Information Sharing on Supply Chain Performance

The analysis indicates that sharing information yields no significant direct influence on the supply chain productivity of Yogyakarta's Bakpia MSMEs. This suggests that data exchanges among business proprietors, suppliers, and external partners have yet to translate seamlessly into greater operational efficiency. Such a dynamic arises because information-sharing practices among these small businesses remain rudimentary and detached from core strategic processes. Communications are typically limited to basic metrics such as order quantities, material stock levels, and delivery schedules, preventing their use in advanced operational planning. As a result, current exchange efforts lack the depth required to optimize inventory management, product routing, and market responsiveness. This finding aligns closely with Baihaqi and Sohal's (2013) research, which states that information exchange is not directly linked to overall organizational success. Their study noted that data sharing fails to lift performance unless insights are actively applied to daily operational workflows and supply network coordination. Similarly, Huo et al. (2014) found that supplier-focused data sharing does not, on its own, secure supply chain gains.

The Impact of Managerial Competence on Information Quality

The findings demonstrate that managerial competence has a significant positive effect on the information quality used by Bakpia MSMEs in Yogyakarta. This indicates that capable leadership directly enhances the precision of data deployed in daily operations. Leaders skilled in planning, inter-departmental communication, coordination, and decision-making are far more adept at safeguarding the relevance, accuracy, completeness, and timeliness of enterprise data. Such proficiencies empower owners to properly oversee market demand, material procurement, inventory levels, and product distribution, rendering incoming data far more useful for supply chain execution. These results correspond with the conclusions of Namagembe and Mbago (2023), who confirmed that managerial capability significantly dictates information quality. Moreover, Ha and Lee (2024) underscored that administrative expertise and data governance skills amplify the success of information sharing and elevate data standards throughout the supply chain.

The Impact of Information Sharing on Information Quality

The results establish a significant relationship between information sharing and information quality among Bakpia enterprises in Yogyakarta. This confirms that transparent and open exchanges among business owners, suppliers, and external collaborators actively elevate the standard of data applied to daily activities. Freely shared, timely communications grant enterprises access to more comprehensive, relevant, and precise insights into customer demand, material availability, and shop-floor conditions. Hence, more robust information-sharing practices directly yield higher-grade operational data. This observation aligns with the findings of Namagembe and Mbago (2023), which affirmed that information sharing significantly impacts information quality. Additionally, Forslund and Jonsson (2007) noted that supply chain data standards rely heavily on collaborative exchange practices among network participants. Li et al. (2006) similarly concluded that productive communication practices enhance coordination and data reliability, thereby reinforcing organizational execution.

The Impact of Information Quality on Supply Chain Performance

The data indicate that information quality affects the supply chain productivity of Yogyakarta's Bakpia MSMEs, with a significant, positive influence. This reveals that robust data standards directly strengthen overall supply chain governance. Accurate, relevant, complete, and timely information empowers proprietors to precisely forecast material requirements, streamline inventory management, adapt manufacturing capacity, and respond swiftly to shifting consumer needs. Driven by high-quality data, businesses can mitigate risks associated with stockouts, excess inventory, and fulfillment delays, resulting in smoother, more efficient logistics. These conclusions align with Forslund and Jonsson (2007), who asserted that superior data standards optimize supply chain planning and coordination. Furthermore, Namagembe and Mbago (2023) demonstrated that information quality significantly drives supply chain performance by facilitating responsive and effective operational choices.

The Impact of Managerial Competence on Information Sharing

The analysis proves that managerial competence significantly influences information-sharing practices among Bakpia MSMEs in Yogyakarta. This indicates that strong leadership fosters more effective collaborative exchanges across the supply chain. Owners equipped with robust communication, coordination, and decision-making talents excel at cultivating stable partnerships with suppliers and commercial allies, paving the way for open, structured, and agile communication. These dynamics enable firms to capture market signals, stock levels, and distribution updates with heightened efficiency. This outcome is consistent with Namagembe and Mbago (2023), who established that managerial competence significantly shapes data-sharing tendencies. In parallel, Li et

al. (2006) emphasized that leadership capabilities play an instrumental role in elevating collaboration and inter-firm coordination, particularly regarding operational data exchange.

Mediation Role of Information Quality

Information quality serves as a vital mediating variable, bridging managerial competence and supply chain performance, meaning that a leader's administrative expertise yields true operational efficiency only when backed by accurate, relevant, and timely data. This is reinforced by the findings of Kankam et al. (2023), Som et al. (2019), and Namagembe and Mbago (2023), which highlight that well-managed data standards are the primary key to converting managerial capabilities into operational success for Bakpia MSMEs. Aligning with research by Rahayu and Sulistyowati (2024) and Marinagi et al. (2015), data exchanges among business partners will not automatically improve performance without adequate quality standards, making information reliability an essential pillar for preventing operational errors and maximizing collaborative value.

CONCLUSION

This study concludes that achieving optimal supply chain performance among Bakpia MSMEs in Yogyakarta relies heavily on information quality as a mediating mechanism, rather than on the direct effects of managerial competence or information sharing. Although leadership capabilities and inter-firm communication do not directly enhance supply chain performance due to small-scale operational constraints, both serve as vital antecedents that significantly improve information quality. Consequently, managerial competence and collaborative exchange successfully translate into tangible supply chain performance gains only when they produce accurate, timely, and actionable data that refines inventory control, demand forecasting, and overall logistical efficiency.

The implications of this study span significant theoretical and practical dimensions for academic literature and business practice. Theoretically, this research expands the conceptual understanding of supply chain performance determinants in MSMEs by empirically testing the roles of managerial competence, information sharing, and information quality in traditional food MSMEs in developing economies. Practically, the study provides valuable managerial insights for Bakpia MSMEs to design effective supply chain strategies, improve the quality of operational information, strengthen collaborative practices with stakeholders, and serve as a reference for local government training programs.

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DECLARATION OF CONFLICTING INTERESTS

The authors have declared no potential conflicts of interest concerning the study, authorship, and/or publication of this article.

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