TRANSPUBLIKA
Precise. Resilience. Felicitous.

Journal of Management, Accounting, General Finance and International Economic Issues
https://ojs.transpublika.com/index.php/MARGINAL
Online ISSN 2809-8013 | Print ISSN 2809-9222 | Vol. 5 No. 4, 1259—1273

https://doi.org/10.55047/marginal.v5i4.2405

Original Article

The Effect of Internal Integration on Operational Performance with Supply Chain Capability Mediation

Zaki Amirul Amri[1*], Aftoni Susanto[2], Poppy Laksita Rini[3], Muhammad Iqbal Fauzi[4], Abidatul Ulya[5], Dini Andriani[6]

[1-6]Universitas Ahmad Dahlan, Indonesia
Email: [1)] 2200011158@webmail.uad.ac.id, [2)] aftoni.susanto@mgm.uad.ac.id, [3)] poopy.rini@mgm.uad.ac.id, [4)] 2200011109@webmail.uad.ac.id, [5)] 2200011169@webmail.uad.ac.id, [6)] 2200011410@webmail.uad.ac.id

Received : 12 August - 2026
Revised : 01 October - 2026
Accepted : 02 October - 2026
Published online : 02 November - 2026

Abstract

The rapid growth of the coffee shop industry in the Special Region of Yogyakarta has increased competition and requires MSMEs to have efficient and adaptive operational performance. This situation calls for integrated internal process management and supply chain capabilities that are responsive. The setting of this inquiry is coffee shop micro, small, and medium enterprises in the Special Region of Yogyakarta, and it investigates the manner in which internal integration shapes operational performance, positioning supply chain capability as an intervening (mediating) variable. An explanatory quantitative design was adopted, executed through a cross-sectional survey. Two hundred respondents were handpicked via purposive sampling, comprising proprietors, supervisors, and staff members who are personally engaged in operational and supply chain undertakings. Information was gleaned by means of a structured questionnaire and then processed with Partial Least Squares Structural Equation Modeling (SEM-PLS) through the SmartPLS application. The evaluation began with the measurement model, appraised via convergent validity, discriminant validity, and construct reliability, and proceeded to the structural model, which was examined through R-square coefficients and a bootstrapping procedure. According to the empirical findings, internal integration favorably and significantly affects both supply chain capability and operational performance. Supply chain capability, in turn, positively and significantly impacts operational performance and simultaneously functions as a partial mediator connecting internal integration to operational performance. Such outcomes corroborate that fortifying internal integration, buttressed by adaptable supply chain capability, constitutes an indispensable strategy for durably elevating the operational performance of coffee shop MSMEs.

Keywords: Coffee Shop, Internal Integration, Operational Performance, SEM-PLS, Supply Chain Capabilities.

1. Introduction

Across Indonesia, the coffee sector has burgeoned swiftly of late, engendering a proliferation of coffee shop ventures in principal cities and academic hubs, the Special Region of Yogyakarta among them. A 2022 report noted approximately 3,000 coffee shops across Yogyakarta, one of the densest concentrations in Indonesia (Pandangan Jogja, 2022). The increasing number of businesses has led to increasingly fierce competition, requiring businesses not only to provide quality products but also to manage operations efficiently, consistently, and responsively to dynamic changes in consumer demand. Under these conditions, operational performance is a key factor in determining the ability of MSME coffee shops to survive and thrive in the market.

Copyright: © 2026 by the authors.
This is an open access article distributed under the terms and conditions of the CC BY 4.0.

Good operational performance is reflected in the business's ability to consistently meet customer needs, reduce waste levels, suppress rework and product defects, minimize customer complaints, and increase productivity and speed of response to changes in market demand (Kadafi et al., 2024). In the food and beverage sector, superior operational performance is reflected in short processing times, reliable order fulfillment, low defect and waste rates, and high customer satisfaction (Koro et al., 2026). Coffee shop MSMEs may likewise face operational challenges such as late delivery, inconsistent product quality, limited storage capacity, and heavy dependence on one or two main suppliers. These challenges imply that problems with operational performance are linked not merely to technical aspects of production, but also intimately connected to the way internal processes and the supply chain are managed overall (Gunawan et al., 2024; Siagian & Johono, 2022).

One of the important determinants of operational performance that is widely highlighted in the literature is internal integration. Internal integration refers to an organization's ability to synchronize cross-functional practices to achieve common operational goals through high responsiveness, integrated functional control systems, smooth information flow between departments (purchasing, inventory, production, service, and distribution), and optimal management of physical flows from raw material procurement to customer delivery (Errassafi et al., 2019; Susanto & Nursyamsiah, 2025). In the context of MSME coffee shops in the Special Region of Yogyakarta, internal integration is crucial, given that production and service processes occur almost simultaneously in one location. Poor coordination between the kitchen, roasting, warehouse, and frontline service departments will directly impact customer waiting times, raw material stock-out rates, and the consistency of beverage quality served. Researchers (Hadinda, 2024; Wang et al., 2024) show that strong internal integration helps companies see business processes more holistically, reduces operational problems, and accelerates decision-making related to operational activities.

Nevertheless, internal integration by itself cannot guarantee optimal operational performance when adequate supply chain capabilities are lacking. Such capabilities denote the dynamic aptitude of a firm to amalgamate, harmonize, and recalibrate its supply chain resources so as to answer fluctuating consumer demand, shifting rival stratagems, and swift product development exigencies (Jafari et al., 2023). Companies with strong supply chain capabilities are able to respond quickly to changes in demand, maintain a steady supply of raw materials, adjust production volumes to fluctuations in customer visits, and share information effectively with key suppliers (Kaneberg et al., 2025). Agyabeng-Mensah et al. (2019) states that supply chain capability plays a critical role in linking internal integration and tangible operational benefits. In the coffee shop industry, supply chain capability is expected to matter because demand and raw material supply can change, and research on coffee supply chains underscores the importance of supply chain efficiency (Perdana et al., 2025).

Dynamic Capabilities Theory frames the interplay among the three constructs (Teece et al., 1997): internal integration as a sensing capability, supply chain capability as a seizing capability, and operational performance as a manifestation of transforming capability (Suzianti et al., 2024). Concordant with this view, the findings of Baah et al. (2021) demonstrate that supply chain capabilities operate as a conduit linking the amalgamation of internal information to holistic supply chain performance, while recent studies confirm that supply chain capabilities can transform conventional integration practices into systems that are adaptive to demand volatility (Gunawan et al., 2024).

Prior studies have examined closely related relationships. Gunawan et al. (2024) tested the effect of supply chain integration on operational performance with supply chain capability, Agyabeng-Mensah et al. (2019) positioned supply chain capability between supply chain

integration and firm performance, and Errassafi et al. (2019) examined internal integration as a mediator between supply chain integration and operational performance in Moroccan manufacturing companies. Khan (2024) also tested supply chain capabilities as a mediator among SMEs in Pakistan. In coffee-related settings, existing studies have centered on upstream supply chains (Humanika et al., 2025; Perdana et al., 2025; Saputra et al., 2025), while Akhmad and Priyono (2023) examined supply chain quality management practices and quality performance among coffee shops in Sleman. These studies, however, did not test internal integration as the antecedent of operational performance through supply chain capability among coffee shop MSMEs.

The purpose of this research is to analyze the effect of internal integration on operational performance, with supply chain capability serving as a mediating variable, among coffee shop MSMEs in the Special Region of Yogyakarta. More specifically, the research explores whether (1) internal integration has a positive effect on supply chain capability, (2) supply chain capability has a positive effect on operational performance, (3) internal integration has a positive effect on operational performance, and (4) supply chain capability mediates the effect of internal integration on operational performance. What sets this inquiry apart is its setting, which comprises coffee shop MSMEs in the service sector of the Special Region of Yogyakarta, along with its testing of supply chain capability as a mediating variable linking internal integration and operational performance in that setting. The findings are anticipated to yield theoretical contributions toward the advancement of supply chain management scholarship and Dynamic Capabilities Theory within the milieu of service MSMEs, and likewise to furnish pragmatic implications for coffee shop MSMEs as they devise internal integration strategies and bolster supply chain capabilities in order to enhance operational performance durably.

2. Literature Review

2.1. Dynamic Capabilities Theory

Dynamic Capabilities Theory (DCT) holds that enduring competitive advantage hinges not merely upon the ownership of resources, but upon a firm's aptitude for amalgamating, cultivating, and recalibrating internal and external competencies amid a swiftly shifting environment (Teece, 2018). Such dynamic capabilities materialize through three principal mechanisms: sensing (discerning opportunities and threats), seizing (harnessing opportunities by way of strategic decisions and investments), and transforming (adapting and reconfiguring assets, processes, and organizational structures). In the context of an MSME coffee shop, internal integration can be positioned as a sensing capability that strengthens internal information visibility, supply chain capability as a seizing capability that enables the company to respond to changes in demand and supply, while operational performance reflects the results of transforming capability when operational processes are reconfigured more efficiently and adaptively (Schilke & Helfat, 2025; Teece, 1997).

2.2. Internal Integration

Internal integration is the level of integration of cross-functional activities within an organization such as purchasing, inventory, production, and distribution in terms of processes, information, and decision-making (Errassafi et al., 2019). Companies with good internal integration have a smooth flow of information between departments, aligned standard procedures, and clear coordination mechanisms, which can reduce bottlenecks and improve operational efficiency. Inquiries centered on manufacturing SMEs reveal that internal integration begets a favorable effect on supply chain risk management, which in the

end elevates operational performance (Khan, 2024). Inside the DCT framework, internal integration bolsters sensing capability by equipping organizations to discern, more promptly, shifts in demand, supply disruptions, and internal process glitches.

2.3. Supply Chain Capability

Supply chain capability is characterized as a firm's dynamic aptitude for amalgamating, harmonizing, and recalibrating resources across the supply chain network so as to respond effectively to demand fluctuations, rival maneuvers, and market volatility (Jafari et al., 2022). Such capability manifests itself in responsiveness, flexibility, dependability of order fulfillment, and the caliber of coordination and information exchange with suppliers and downstream partners (Munir et al., 2020). Contemporary scholarship corroborates that supply chain viability and resilience, as a species of dynamic capability, occupy a pivotal position in bridging supply chain digitalization and integration practices toward enhanced operational performance (Kinnary et al., 2025). Viewed through the DCT lens, supply chain capability constitutes a form of seizing capability that translates strategic decisions into operational practices across the supply network.

2.4. Operational Performance

Operational performance describes the effectiveness and efficiency of a company's internal processes in producing products and services that meet customer needs, which are generally measured through the dimensions of quality, speed, reliability, flexibility, and cost (Zhang et al., 2019). In the food and beverage sector, superior operational performance is reflected in short processing times, reliable order fulfillment, low defect and waste rates, and high customer satisfaction (Koro et al., 2026). Empirical studies show that supply chain integration practices and strengthening supply chain capabilities contribute significantly to the improvement of these indicators across various industrial contexts (Kinnary et al., 2025; Masa'deh et al., 2022).

2.5. Hypothesis Development

Within the DCT framework, internal integration is viewed as a sensing capability because through integrated information systems and processes, companies are able to identify changing supply chain needs and risks more quickly (Teece, 1997). Research shows that the integration of internal processes and information strengthens the information basis for the development of responsive and adaptive supply chain capabilities (Errassafi et al., 2019; Jafari et al., 2023). Investigations within the manufacturing industry and among SMEs likewise discovered that internal integration exerts a favorable effect on the capacity to manage risk and on supply chain flexibility (Aramyan et al., 2007; Kinnary et al., 2025).

H1: Internal integration has a positive impact on supply chain capabilities

Supply chain capability reflects the seizing capability that enables a company to respond to environmental changes through effective management of its supply network (Schilke & Helfat, 2025; Teece, 1997). Companies with strong supply chain capabilities are able to maintain smooth supply, adjust production capacity to meet demand, and increase the reliability of order fulfillment, thus directly impacting operational performance (Jafari et al., 2023; Munir et al., 2020). Empirical evidence likewise indicates that a supply chain's capacity to stay viable and resilient amid disruptions acts as an intervening link between supply chain practices and operational performance (Hiranphaet et al., 2020).

H2: Supply chain capability has a positive impact on operational performance

Internal integration not only plays a role at the sensing level, but also supports the transformation process because it allows companies to restructure procedures and workflows

to reduce duplication, avoid miscommunication, and optimize resource utilization (Teece, 1997). Studies focused on SMEs and the manufacturing industry reveal that internal integration wields a favorable effect on operational performance, spanning quality, swiftness, and cost efficiency alike (Ataseven & Nair, 2017; Irawan & Ludiya, 2020). Strong internal integration helps align cross-functional activities, making operational processes more stable and consistent.

H3: Internal integration has a positive impact on operational performance

DCT emphasizes that the sensing–seizing–transforming sequence is interconnected, so that the organization's ability to sense opportunities and threats needs to be translated into the ability to capture opportunities in order to have a full impact on performance (Schilke & Helfat, 2025). In this study, internal integration as a sensing capability is expected to improve supply chain capabilities as a seizing capability, which in turn encourages increased operational performance as a form of transforming capability (Teece, 1997). Recent empirical findings suggest that supply chain capability-based variables such as risk management, viability, or agility can act as mediators between supply chain integration or practices and operational performance (Kinnary et al., 2025; Koro et al., 2026). Hence, it stands to reason that a portion of the sway internal integration holds over operational performance is conveyed by way of supply chain capabilities.

H4: supply chain capabilities mediate the positive effect of internal integration on operational performance

The hypothesized relationships among internal integration, supply chain capability, and operational performance are depicted in Figure 1.

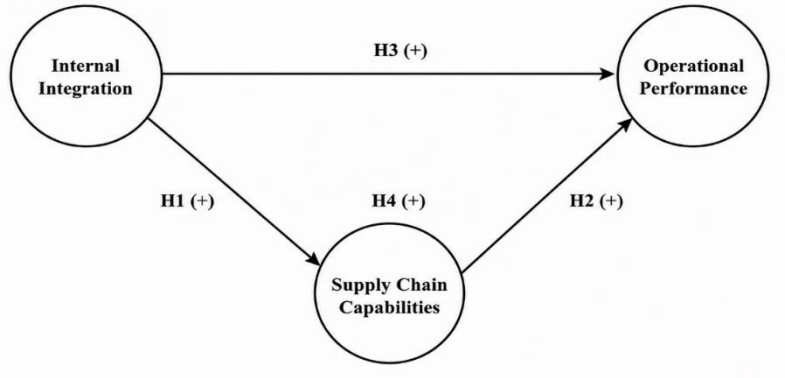


Figure 1. Research Framework

Figure 1 presents the conceptual model of this study, in which internal integration improving operational performance directly (H3) and indirectly through supply chain capabilities (H1, H2, H4), with all paths positive (+).

3. Methods

This inquiry adopts an explanatory quantitative approach, executed through a cross-sectional survey design, to scrutinize the causal linkage among internal integration, supply chain capability, and operational performance in MSME cafes across the Special Region of Yogyakarta. The quantitative approach was opted for because it permits impartial hypothesis testing by way of analyzing the structural relationships among constructs, a practice customarily employed in supply chain management and operations scholarship. The population encompasses every MSME cafe operating within the Special Region of Yogyakarta.

A purposive sampling technique was used to ensure respondents have direct knowledge and involvement in operational and supply chain activities. Inclusion criteria include: (1) MSME-scale cafes that have been operating for at least one year, (2) respondents are owners, managers, or employees directly involved in operational or supply chain management, and (3) have at least six months of work experience, and (4) MSME coffee shops in the Special Region of Yogyakarta. The sample size in this study is adjusted to the PLS-SEM-based structural modeling guidelines that consider the number of constructs and model complexity. In practice, a sample size of around 150-200 respondents is considered adequate for a PLS-SEM model with moderate complexity and generally meets the criteria of rules of thumb such as the "10-times rule" as well as the need for statistical power (Hair et al., 2022; Kock & Hadaya, 2018). Based on these considerations, this study used 200 respondents, which was considered sufficient to produce stable parameter estimates in the PLS-SEM analysis.

Primary data were amassed by means of a structured questionnaire disseminated both face to face and online. Every measurement item was borrowed and adapted from pertinent antecedent studies so as to safeguard content validity. Responses were gauged on a five-point Likert scale, spanning 1 (strongly disagree) through 5 (strongly agree). Internal integration was appraised with four items (Kalyar et al., 2019), the supply chain capability variable is measured with five points (Rajaguru & Matanda, 2019), and operational performance variables are measured with five points (Hong et al., 2019). Partial Least Squares Structural Equation Modeling (SEM-PLS) was employed to process the data, with SmartPLS as the tool. The outer model, or measurement model, was initially assessed by means of convergent validity, discriminant validity (Fornell & Larcker (1981) criterion), and construct reliability (Cronbach's Alpha and Composite Reliability). Following this, the inner model, or structural model, was appraised through R-square values, and bootstrapping was utilized to examine both direct and indirect effects among the variables.

Convergent validity was gauged by outer loadings, where values exceeding 0.70 signify sound indicators, though values above 0.5 are deemed tolerable (Latan & Ghozali, 2013). Average Variance Extracted (AVE) surpassing 0.50 denotes that a construct adequately accounts for the variance of its indicators (Hair et al., 2022). Construct reliability was judged by Composite Reliability (CR) and Cronbach's Alpha, each with a threshold of 0.70. R-square (R2) captures the capacity of independent variables to elucidate variation in the dependent variable, and Hair et al. (2022) categorize R2 values of 0.75 or more as strong, 0.50 or more as moderate, and 0.25 or more as weak.

4. Results and Discussion

4.1. Research Results

4.1.1. Respondent Characteristics

Table 1. Respondent Characteristics

Variable	Category	Frequency	Percentage (%)
Gender	Male	119	59.5
	Female	81	40.5
Age	18 – 25 years	134	67
	25 – 30 years	48	24
	30 – 35 years	10	5
	> 35 years	8	4
Income	Rp1,000,000 – Rp2,999,999	138	69

Variable	Category	Frequency	Percentage (%)
	Rp3,000,000 – Rp5,999,999	57	28.5
	Rp6,000,000 – Rp9,999,999	5	2.5
Position	Employee	136	68
	Manager	56	28
	Business Owner	8	4
Job Experience	< 3 years	125	62.5
	3 – 5 years	61	30.5
	6 – 10 years	14	7

As shown in Table 1, the respondents in this study numbered 200 people, all of whom were coffee shop operators and workers in MSMEs in the Special Region of Yogyakarta. Based on gender characteristics, respondents were predominantly male at 59.5%, while female at 40.5%. In terms of age, the majority of respondents were in the 18–25 year range (67%), followed by those aged 25–30 (24%), indicating that the workforce in the coffee shop industry is dominated by the young, productive age group. Based on income level, most respondents had an income of Rp1,000,000–Rp2,999,999 (69%), reflecting the characteristics of service MSMEs with a lower-middle income structure. In terms of position, respondents were predominantly employees (68%), followed by managers (28%), and business owners (4%), so the data obtained represent the operational conditions of various organizational levels. Meanwhile, based on length of service, the majority of respondents had worked for less than 3 years (62.5%), indicating high workforce dynamics in the coffee shop industry.

4.1.2. Findings

The Partial Least Squares Structural Equation Modeling (PLS-SEM) technique, run through SmartPLS 4.0, was applied to process the questionnaire data. Each construct underwent appraisal for validity and reliability, with special attention given to assessments of convergent and discriminant validity. Following this, hypothesis testing was performed to investigate the causal connections among the variables within the research model. The measurement model is shown in Figure 2.

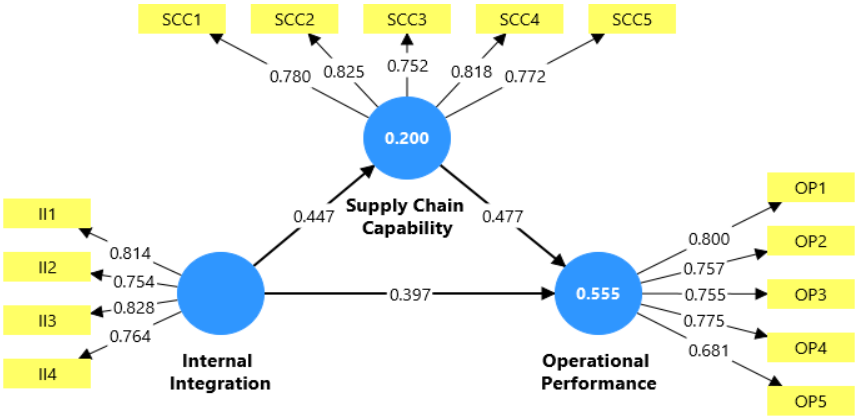


Figure 2. Measurement Model

A. Outer Models

The analytical output reveals that every indicator across each variable carries an outer loading above 0.50. The AVE figures for all constructs likewise surpass 0.50, while Composite Reliability and Cronbach's Alpha values overshoot the recommended minimum thresholds (Table 2). Accordingly, it may be inferred that all constructs in this inquiry satisfy the criteria for convergent validity and sound reliability.

Table 2. Outer Loadings, Cronbach's Alpha, Composite Reliability, and AVE of the Measurement Items

Variables	Items	Loading	Cronbach's Alpha	CR	AVE
Internal Integration	II1	0.814	0.800	0.870	0.626
	II2	0.754			
	II3	0.828			
	II4	0.764			
Supply Chain Capability	SCC1	0.800	0.811	0.868	0.570
	SCC2	0.757			
	SCC3	0.755			
	SCC4	0.775			
	SCC5	0.681			
Operational Performance	OP1	0.780	0.849	0.892	0.624
	OP2	0.825			
	OP3	0.752			
	OP4	0.818			
	OP5	0.772			

The Fornell-Larcker criterion served as the basis for measuring discriminant validity, stipulating that the square root of a construct's Average Variance Extracted (AVE) must surpass its correlations with the remaining constructs. The analytical output shows square roots of AVE amounting to 0.791 for Internal Integration (II), 0.755 for Operational Performance (OP), and 0.790 for Supply Chain Capability (SCC), as shown in Table 3. Such figures signal that every construct's square root of AVE outstrips its correlations with the remaining constructs. Hence, each construct in this research model may be deemed to possess sound discriminant validity.

Table 3. Fornell-Larcker Criterion Value

	Internal Integration	Operational Performance	Supply Chain Capability
Internal Integration	0.791		
Operational Performance	0.611	0.755	
Supply Chain Capability	0.447	0.655	0.790

B. R-square Value

Table 4. Coefficient Determination

	R-square	R-square adjusted
Operational Performance	0.555	0.551
Supply Chain Capability	0.200	0.196

As shown in Table 4, the R-square value of operational performance accounts for 55.5% of the variation in operational performance, which is in the moderate category. Meanwhile, the R-square value of supply chain capability is 20%, indicating that the model's explanatory power is still relatively limited, so that most of the variation in this construct is influenced by factors other than the research model.

C. Hypothesis Results

The bootstrapping method, applied at a 5% significance level, was used to conduct hypothesis testing so as to investigate the relationships among variables in the structural model. Every hypothesis was judged according to the path coefficient, t-statistic, and p-value reported in Table 5.

Table 5. Hypothesis Results

Hypothesis	Original Sample	Sample Mean	Standard Deviation	T Statistics	P Value	Description
Direct						
Internal Integration → Supply Chain Capability	0.397	0.400	0.056	7.110	0.000	H1 Support
Supply Chain Capability → Operational Performance	0.477	0.476	0.053	8.412	0.000	H2 Support
Internal Integration → Operational Performance	0.447	0.452	0.053	9.044	0.000	H3 Support
Indirect						
Internal Integration → Supply Chain Capability → Operational Performance	0.214	0.215	0.034	6.235	0.000	H4 Support

The bootstrapping results at a 5% significance level indicate that internal integration positively and significantly affects supply chain capability, evidenced by a path coefficient of 0.397, a t-statistic of 7.110, and a p-value of 0.000. In the same manner, supply chain capability wields a positive and significant effect on operational performance (path coefficient 0.477, t-statistic 8.412, p-value 0.000), underscoring its substantial contribution to elevating firm performance. Internal integration further bears a positive and significant effect on operational performance, recording a path coefficient of 0.447, a t-statistic of 9.044, and a p-value of 0.000. The indirect effect analysis discloses that internal integration significantly shapes operational performance via supply chain capability (path coefficient 0.214, t-statistic 6.235, p-value 0.000), thereby establishing supply chain capability as a partial mediator, such that internal integration influences operational performance both directly and through the enhancement of supply chain capability.

4.2. Discussion

The results of the study show that internal integration has a positive and significant impact on supply chain capability. This finding indicates that cross-functional coordination, internal process alignment, and effective information exchange within an organization are essential prerequisites for building strong supply chain capabilities. Internal integration enables companies to reduce operational constraints, increase process visibility, and accelerate decision-making related to supply chain activities, thereby strengthening the ability to respond more adaptively to changing demand and supply conditions (Flynn et al., 2010;

Masa'deh et al., 2022; Yuen & Thai, 2017). Such outcomes accord with the literature that positions internal integration as the chief bedrock for cultivating supply chain dynamic capabilities within the Dynamic Capabilities Theory framework.

Additionally, the findings show that supply chain capability exerts a positive and significant influence on operational performance. In other words, a supply chain's aptitude for answering demand fluctuations, sustaining an uninterrupted flow of raw materials, and heightening order fulfillment reliability contributes directly to better service quality, swifter processes, and greater operational efficiency among coffee shop MSMEs. Such a finding is consistent with earlier research demonstrating that dynamic capabilities in the supply chain (for instance, collaboration, agility, and responsiveness) bear a positive correlation with a firm's operational performance amid environmental turbulence (Alzate et al., 2022; Kinnary et al., 2025). Thus, strengthening supply chain capabilities can be seen as a form of seizing capability that transforms strategic decisions into tangible operational advantages.

A positive and significant influence of internal integration on operational performance was also uncovered by this study. These results confirm that aligning cross-functional activities, from raw material procurement and inventory management to customer service, helps MSME coffee shops reduce duplication of work, minimize errors due to miscommunication, and optimize resource utilization. These findings harmonize with empirical scholarship demonstrating that supply chain integration, internal integration above all, correlates positively with operational performance indicators such as cost, quality, delivery, and flexibility (Flynn et al., 2010; Wong et al., 2011; Yuen & Van Thai, 2017). Seen through Dynamic Capabilities Theory, internal integration feeds the transforming capability process, since it lets organizations recast procedures and workflows so that they grow more efficient and more responsive to environmental shifts.

Another notable finding is that supply chain capability partially mediates the relationship between internal integration and operational performance. The indirect effect test reveals that internal integration exerts not only a direct influence on operational performance but also an indirect one, channeled through the strengthening of supply chain capabilities. This coheres with research indicating that supply chain capabilities, by way of a mediating role, can convert supply chain integration and digitalization practices into enhanced operational performance (Kareem & Kummitha, 2020; Kinnary et al., 2025; Nugroho et al., 2023). Accordingly, within the Dynamic Capabilities Theory framework, internal integration as a sensing capability must be succeeded by the cultivation of supply chain capability as a seizing capability, so that the transforming capability process, manifested in heightened operational performance, can be realized to the fullest.

For MSME coffee shop owners, the larger direct effect suggests that strengthening internal coordination is the most immediate lever. Owners may align the kitchen, warehouse, and service teams through shared work procedures and regular information exchange on stock levels and order status, so that problems such as stock-outs and long waiting times are detected earlier. Because supply chain capability also contributes strongly to operational performance (0.477), owners may complement this with supplier relationship management, including reducing heavy dependence on one or two main suppliers, adjusting ordering patterns, and using sales data to anticipate demand. Together, these steps can improve supply stability, reduce waste, and raise service quality and speed.

5. Conclusion

The present study examines how internal integration affects operational performance, with supply chain capability as a mediating variable, among coffee shop MSMEs in the Special Region of Yogyakarta. Analysis via SEM-PLS on 200 respondents discloses that internal integration exerts a positive and significant influence on both supply chain capability and operational performance, that supply chain capability likewise exerts a positive and significant influence on operational performance, and that supply chain capability partially mediates the connection between internal integration and operational performance. Such outcomes lend support to Dynamic Capabilities Theory by affirming that internal integration and supply chain capability are complementary dynamic capabilities which jointly propel gains in operational performance across coffee shop MSMEs.

Practically, the research results indicate that coffee shop MSMEs need to strengthen internal integration through cross-functional process alignment, improving the quality of information exchange, and implementing integrated work procedures, while simultaneously developing supply chain capability through managing supplier relationships, adjusting ordering patterns, and utilizing sales data better to increase supply stability, reduce waste, and improve service quality and speed. This research has limitations in its cross-sectional design, its scope only covering coffee shop MSMEs in the Special Region of Yogyakarta, and the use of perception data. Hence, further research is recommended to use a longitudinal design, expand the object to other sectors and regions, and combine perception data with objective operational performance indicators so that the results obtained are stronger and more comprehensive.

5.1. Conflict of Interest Statement

The authors declare no financial or personal relationships that could reasonably be perceived as competing interests in connection with this publication.

5.2. Author Contributions

Z.A.A.: Conceptualization, Methodology, Formal Analysis, Writing – Original Draft.
A.S.: Conceptualization, Supervision, Validation.
P.L.R.: Conceptualization, Supervision, Validation.
M.I.F.: Investigation, Data Curation, Software, Writing – Original Draft.
A.U.: Investigation, Data Curation, Visualization, Writing – Original Draft.
D.A.: Investigation, Data Curation, Validation, Writing – Original Draft.

5.3. Funding Statement

No funding was received for this research.

5.4. Informed Consent

All respondents were informed of the purpose of the study and participated voluntarily. Responses were kept anonymous and used only for research purposes.

5.5. Ethical Approval

This study involved a non-invasive questionnaire survey of adult respondents and collected no sensitive personal data. All respondents were informed of the purpose of the study and agreed to participate voluntarily. Responses were anonymous and used only for research purposes.

5.6. Data Availability

The questionnaire data supporting this study are not publicly available because they contain respondents' perceptions collected under a confidentiality assurance. Anonymized data and the SmartPLS output may be requested from the corresponding author.

5.7. Declaration of Generative AI and AI-assisted Technologies

In preparing this manuscript, the authors used Claude (Anthropic) to edit language and improve clarity. All AI-assisted output was critically reviewed and revised by the authors, who verified its factual accuracy, its consistency with the SmartPLS results, and its adherence to academic writing standards. The authors take full responsibility for the manuscript's integrity and content.

6. References

Agyabeng-Mensah, Y., Ahenkorah, E. N. K., & Agnikpe, M. C. G. (2019). The Intermediary Role of Supply Chain Capability Between Supply Chain Integration and Firm Performance. *Journal of Supply Chain Management Systems*, *8*(2), 32–44. https://www.publishingindia.com/archive/jscms/the-intermediary-role-of-supply-chain-capability-between-supply-chain-integration-and-firm-performance

Akhmad, R. A., & Priyono, A. (2023). Analisis Pengaruh Praktek Manajemen Kualitas Rantai Pasokan terhadap Kinerja Kualitas Industri Kedai Kopi di Kabupaten Sleman, Daerah Istimewa Yogyakarta. *Selekta Manajemen: Jurnal Mahasiswa Bisnis & Manajemen*, *2*(3), 290–306. https://journal.uii.ac.id/selma/article/view/30301

Alzate, I., Manotas, E., Boada, A., & Burbano, C. (2022). Meta-analysis of organizational and supply chain dynamic capabilities: A theoretical-conceptual relationship. *Problems and Perspectives in Management*, *20*(3), 335–349. https://doi.org/10.21511/ppm.20(3).2022.27

Aramyan, L. H., Oude Lansink, A. G. J. M., van der Vorst, J. G. A. J., & van Kooten, O. (2007). Performance measurement in agri-food supply chains: a case study. *Supply Chain Management: An International Journal*, *12*(4), 304–315. https://doi.org/10.1108/13598540710759826

Ataseven, C., & Nair, A. (2017). Assessment of supply chain integration and performance relationships: A meta-analytic investigation of the literature. *International Journal of Production Economics*, *185*, 252–265. https://doi.org/10.1016/j.ijpe.2017.01.007

Baah, C., Opoku Agyeman, D., Acquah, I. S. K., Agyabeng-Mensah, Y., Afum, E., Issau, K., Ofori, D., & Faibil, D. (2021). Effect of information sharing in supply chains: understanding the roles of supply chain visibility, agility, collaboration on supply chain performance. *Benchmarking: An International Journal*, *29*(2), 434–455. https://doi.org/10.1108/bij-08-2020-0453

Errassafi, M., Abbar, H., & Benabbou, Z. (2019). The mediating effect of internal integration on the relationship between supply chain integration and operational performance: Evidence from Moroccan manufacturing companies. *Journal of Industrial Engineering and Management*, *12*(2), 254–273. https://doi.org/10.3926/jiem.2794

Flynn, B. B., Huo, B., & Zhao, X. (2010). The impact of supply chain integration on performance: A contingency and configuration approach. *Journal of Operations Management*, *28*(1), 58–71. https://doi.org/10.1016/j.jom.2009.06.001

Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, *18*(1), 39–50. https://doi.org/10.1177/002224378101800104

Gunawan, K. Y., Siagian, H., & Tariga, Z. J. H. (2024). The impact of supply chain integration on operational performance with supply chain capability. *Uncertain Supply Chain Management*, *12*(2), 977–988. https://doi.org/10.5267/j.uscm.2023.12.010

Hadinda, H. (2024). Implementation of supply chain integration and influence on operational performance in bakery factory in Poasia district, Kendari city. *Indonesia Accounting Research Journal*, *12*(2), 70–76. https://doi.org/10.35335/iacrj.v12i2.379

Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2022). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*. Sage Publishing.

Hiranphaet, A., Sinthukhammoon, T., Kraiwit, S., & Putnuan, S. (2020). The Investment in the Information Technology and Supply Chain Operational Performance: Mediating Role of Supply Chain Capabilities. *International Journal of Supply Chain Management*, *9*(2), 310–316. https://ojs.excelingtech.co.uk/index.php/IJSCM/article/view/4605

Hong, J., Liao, Y., Zhang, Y., & Yu, Z. (2019). The effect of supply chain quality management practices and capabilities on operational and innovation performance: Evidence from Chinese manufacturers. *International Journal of Production Economics*, *212*, 227–235. https://doi.org/10.1016/j.ijpe.2019.01.036

Humanika, E., Laily, D. W., & Irianto, H. (2025). Upstream Supply Chain Performance Efficiency: Case Study of Creator Coffee Roaster in Yogyakarta. *Jurnal AGRISEP: Kajian Masalah Sosial Ekonomi Pertanian Dan Agribisnis*, *24*(2), 601–616. https://doi.org/10.31186/jagrisep.24.02.601-616

Irawan, A., & Ludiya, E. (2020). Pengaruh Strategi Operasi Terhadap Keunggulan Operasional Umkm Kabupaten Bandung (Studi Kasus Pada UMKM Makanan dan Minuman di Kabupaten Bandung). *Ultima Management : Jurnal Ilmu Manajemen*, *11*(1), 16–26. https://doi.org/10.31937/manajemen.v11i1.792

Jafari, H., Ghaderi, H., Malik, M., & Bernardes, E. (2023). The effects of supply chain flexibility on customer responsiveness: the moderating role of innovation orientation. *Production Planning & Control*, *34*(16), 1543–1561. https://doi.org/10.1080/09537287.2022.2028030

Kadafi, M., Junaidin, J., & Yusri, A. I. (2024). Implementation of Total Quality Management (TQM) on Company Operational Performance. *Jurnal Economic Resource*, *7*(2), 370–375. https://doi.org/10.57178/jer.v7i2.1406

Kalyar, M. N., Shafique, I., & Ahmad, B. (2019). Effect of innovativeness on supply chain integration and performance. *International Journal of Emerging Markets*, *15*(2), 362–386. https://doi.org/10.1108/ijoem-09-2018-0486

Kaneberg, E., Piotrowicz, W. D., Jensen, L.-M., Hertz, S., & Kedziora, D. (2025). Supply chain resilience and critical dynamic capabilities: a balanced scorecard approach. *Production & Manufacturing Research*, *13*(1), 2523957. https://doi.org/10.1080/21693277.2025.2523957

Kareem, M. A., & Kummitha, H. V. R. (2020). The Impact of Supply Chain Dynamic Capabilities on Operational Performance. *Organizacija*, *53*(4), 319–331. https://doi.org/10.2478/orga-2020-0021

Khan, M. S. (2024). Investigating the impact of supply chain integration on operational performance with a mediating role of supply chain capabilities of the SME sector in Pakistan. *South Asian Journal of Operations and Logistics*, *3*(2), 198–223. https://doi.org/10.57044/sajol.2024.3.2.2438

Kinnary, N. R., Siagian, Y. M., & Santosa, W. (2025). Peran Digitalisasi dan Supply Chain Viability sebagai Variabel Mediasi dalam Meningkatkan Kinerja Operasional Industri Manufaktur di Karawang, Jawa Barat. *Paradoks : Jurnal Ilmu Ekonomi*, *8*(4), 802–811. https://doi.org/10.57178/paradoks.v8i4.1910

Kock, N., & Hadaya, P. (2018). Minimum sample size estimation in PLS-SEM: The inverse square root and gamma-exponential methods. *Information Systems Journal*, *28*(1), 227–261. https://doi.org/10.1111/isj.12131

Koro, K. B., Santosa, W., Dewayana, T. S., & Khakim, A. R. (2026). Pengaruh Supply Chain Integration Terhadap Operational Performance Mediasi Supply Chain Capability dan Agility. *E-Jurnal Ekonomi Dan Bisnis Universitas Udayana*, *15*(2), 254–266.

https://doi.org/10.24843/eeb.2026.v15.i02.p10

Latan, H., & Ghozali. (2013). Partial least squares: Concept and application path modelling using program XLSTAT-PLS. In *Badan Penerbit Universitas Diponegoro, Semarang, Indonesia*. https://doi.org/10.2139/ssrn.2364191

Masa'deh, R., Muheisen, I., Obeidat, B., & Bany Mohammad, A. (2022). The Impact of Supply Chain Integration on Operational Performance: An Empirical Study. *Sustainability*, *14*(24), 16634. https://doi.org/10.3390/su142416634

Munir, M., Jajja, M. S. S., Chatha, K. A., & Farooq, S. (2020). Supply chain risk management and operational performance: The enabling role of supply chain integration. *International Journal of Production Economics*, *227*, 107667. https://doi.org/10.1016/j.ijpe.2020.107667

Nugroho, S., Surachman, Rofiaty, & Rofiq, A. (2023). The Relationships Between Supply Chain Resilience and Firm Performance: The Mediation Role of Digital Innovation. In *Advances in Engineering Research* (pp. 672–683). Atlantis Press International BV. https://doi.org/10.2991/978-94-6463-284-2_72

Pandangan Jogja. (2022). *Ada 3.000 Kedai Kopi di Seluruh Yogya, Terpadat di Indonesia*. Kumparan. https://kumparan.com/pandangan-jogja/ada-3-000-kedai-kopi-di-seluruh-yogya-terpadat-di-indonesia-1ympBAlgDYG

Perdana, R. G., Sucipto, S., Agustin Prima Dania, W., & Tolle, H. (2025). Supply chain efficiency of geographical indication arabica coffee: Case study in Pasuruan. *Advances in Food Science, Sustainable Agriculture and Agroindustrial Engineering*, *8*(3), 290–298. https://doi.org/10.21776/ub.afssaae.2025.008.03.7

Rajaguru, R., & Matanda, M. J. (2019). Role of compatibility and supply chain process integration in facilitating supply chain capabilities and organizational performance. *Supply Chain Management: An International Journal*, *24*(2), 301–316. https://doi.org/10.1108/scm-05-2017-0187

Saputra, H., Yunita, I., Rozalia, R., & Salim, E. (2025). Coffee Supply Chain in West Sumatra: A Systematic Literature Review. *Andalasian International Journal of Applied Science, Engineering and Technology*, *5*(3), 299–305. https://doi.org/10.25077/aijaset.v5i3.242

Schilke, O., & Helfat, C. E. (2025). Unlocking dynamic capabilities: Pathways for empirical research. *Journal of Management Scientific Reports*, *3*(2), 71–87. https://doi.org/10.1177/27550311251318724

Siagian, H., & Johono, D. F. (2022). Impact of Supply Chain Integration, Supply Chain Responsiveness, and Innovation Capability on Operational Performance in Era Covid-19. *Petra International Journal of Business Studies*, *5*(1), 30–43. https://doi.org/10.9744/ijbs.5.1.30-43

Susanto, B., & Nursyamsiah, S. (2025). Pengaruh Digitalisasi Operasional dan Integrasi Rantai Pasokan (SCI) terhadap Kinerja Berkelanjutan pada UMKM di Yogyakarta. *Jurnal Manajemen Pendidikan Dan Ilmu Sosial*, *6*(3), 2272–2283. https://doi.org/10.38035/jmpis.v6i3.4627

Suzianti, A., Kaniaswari, R., Fathia, S. N., Amaradhanny, R. D., Muslim, E., & Alfian, E. T. (2024). Towards a sustainable coffee supply chain: the role of digital platform capability in increasing organisational agility. *International Journal of Sustainable Engineering*, *17*(1), 729–746. https://doi.org/10.1080/19397038.2024.2400987

Teece, D. J. (2018). Business models and dynamic capabilities. *Long Range Planning*, *51*(1), 40–49. https://doi.org/https://doi.org/10.1016/j.lrp.2017.06.007

Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, *18*(7). https://doi.org/10.1002/(SICI)1097-0266(199708)18:7<509::AID-SMJ882>3.0.CO;2-Z

Wang, M., Wang, B., Kim, N., Chan, R., Wang, M., & Shi, Y. (2024). Supply chain integration capability: A three-stage circular model of visibility, agility, and flexibility. *Journal of General Management*, *50*(1), 78–89. https://doi.org/10.1177/03063070241272383

Wong, C. Y., Boon-itt, S., & Wong, C. W. Y. (2011). The contingency effects of environmental uncertainty on the relationship between supply chain integration and operational performance. *Journal of Operations Management*, *29*(6), 604–615. https://doi.org/10.1016/j.jom.2011.01.003

Yuen, K. F., & Thai, V. Van. (2017). The influence of supply chain integration on operational performance. *The International Journal of Logistics Management*, *28*(2), 444–463. https://doi.org/10.1108/ijlm-12-2015-0241

Zhang, M., Guo, H., Huo, B., Zhao, X., & Huang, J. (2019). Linking supply chain quality integration with mass customization and product modularity. *International Journal of Production Economics*, *207*, 227–235. https://doi.org/10.1016/j.ijpe.2017.01.011