Milestone: Journal of Strategic Management Vol. 5, No. 2, September 2025
Faculty of Economics and Business
Pelita Harapan University

THE EFFECT OF INFORMATION SHARING AND TRUST ON SUPPLY CHAIN MANAGEMENT PERFORMANCE WITH LONG-TERM RELATIONSHIP AS A MEDIATOR: EVIDENCE FROM SMES IN YOGYAKARTA

Saniyah Puspitasari

Faculty of Economics and Business, Universitas Diponegoro, Indonesia

e-mail: saniyah278puspitasari@gmail.com
*(Corresponding Author indicated by an asterisk *)*

ABSTRACT

This study investigates the effect of information sharing and trust on supply chain management (SCM) performance, with long-term relationship as a mediating variable. A census sampling technique was applied to 45 Small and Medium Enterprises (SMEs) in Yogyakarta's Bakpia industry. Data was analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM). The results indicate that information sharing (β = 0.405) and trust (β = 0.410) significantly influence long-term relationships. Long-term relationships, in turn, have a strong positive effect on SCM performance (β = 0.378). Information sharing also directly affects SCM performance (β = 0.367), while trust shows a weaker direct effect (β = 0.212). Indirectly, both information sharing (β = 0.149) and trust (β = 0.151) contribute to SCM performance through long-term relationships as a mediator. The total effect analysis further highlights that information sharing (β = 0.578) and trust (β = 0.499) enhance SCM performance, with long-term relationship showing the highest total effect (β = 1.149). These findings emphasize the critical mediating role of long-term relationships in strengthening supply chain collaboration, particularly where trust alone may not directly drive performance. The study contributes to SCM literature by providing empirical evidence from SMEs in the traditional food sector and offers practical implications for managers to prioritize both transparent information exchange and sustainable partnerships to improve supply chain outcomes.

Keywords: Information Sharing; Trust; Long-Term Relationship; Supply Chain Management Performance; SMEs

INTRODUCTION

One of the key priorities outlined in the National Medium-Term Development Plan (RPJMN) 2020–2024 is the strengthening of economic resilience to ensure quality and equitable growth. Within this framework, enhancing the competitiveness of Micro, Small, and Medium Enterprises (MSMEs) has become a central strategy, given their pivotal role in supporting Indonesia's economic structure in an inclusive and sustainable manner.

The economic significance of MSMEs in Indonesia is well-documented. Data from the Indonesian Ministry of Cooperatives and SMEs (2020) reveal that MSMEs contribute more than 60.5% to the Gross Domestic Product (GDP) and absorb approximately 97% of the national workforce. In addition to their macroeconomic contribution, MSMEs function as drivers of local economies in both rural areas and smaller urban centers. Their roles are crucial in job creation, poverty reduction, and income distribution. Latuconsina et al. (2025) further emphasize that MSMEs hold a strategic position in community empowerment, market creation, product innovation, and export activities, while simultaneously utilizing local raw materials and labor. These characteristics reflect the flexibility and adaptability of MSMEs in responding to dynamic market conditions and consumer preferences.

Despite their strong potential, MSMEs face persistent challenges, particularly under conditions of global economic uncertainty and intensifying competition. In this regard, the adoption of Supply Chain Management (SCM) is considered a strategic approach to enhancing business efficiency and sustainability. SCM encompasses not only the flow of goods and information from suppliers to consumers but also the development of strong partnerships across the supply network. Effective SCM integrates demand management, procurement, operations, logistics, and inter-organizational collaboration (Perdana et al., 2023). For MSMEs, such integration is essential to maintain production continuity, secure access to raw materials, and optimize operational costs.

In Indonesia, the food and beverage sector represents the largest share of MSMEs, including in Yogyakarta. The Bakpia industry, a prominent local culinary icon, offers a distinctive case study as it exemplifies the opportunities and constraints MSMEs face in managing supply chains. The Bakpia supply chain involves multiple actors: raw material suppliers (such as flour, sugar, and mung beans), producers, distributors or logistics agents, retailers, and ultimately consumers. However, several issues hinder the efficiency of this supply chain. Masrukhan & Isnaini (2025) and other recent studies show that small Bakpia producers often struggle to access reliable suppliers and lack clarity over production costs, which forces them to contend with rising prices of raw materials. Furthermore, small-scale Bakpia businesses encounter difficulties entering the larger souvenir market dominated by well-known brands and often remain dependent on their own outlets or online platforms due to limited recognition and marketing reach.

Raw material dependency further compounds these challenges. Price fluctuations, particularly for mung beans, reduce raw material quality and force producers to substitute with lower-grade alternatives, risking product quality. Moreover, the absence of effective information sharing between producers and distributors leads to imbalances between production capacity and market demand, causing either overproduction or stock shortages. Industry relationships are often limited to transactional interactions, with few long-term partnerships between suppliers and distributors. As a result, mismatches in supply and demand remain common, undermining efficiency. The situation is aggravated by the low adoption of integrated information systems, with only about 30% of MSMEs utilizing such technologies (Das et al., 2019).

These challenges indicate that the supply chain performance of Bakpia SMEs remains low due to the limited application of robust SCM principles. Although SCM has been widely studied, research on Indonesian MSMEs has mostly remained descriptive, with limited use of standardized frameworks such as the Supply Chain Operations Reference (SCOR) model. Furthermore, empirical findings regarding the role of information sharing and trust in improving supply chain performance are still inconsistent: some studies report significant direct effects, while others suggest indirect effects through relational factors. The mediating role of long-term relationships in particular has received little empirical attention, especially in traditional food industries.

Therefore, this study seeks to fill these gaps by applying the SCOR model and employing Partial Least Squares Structural Equation Modeling (PLS-SEM) to analyze the effects of information sharing and trust on supply chain performance, with long-term relationship as a mediating variable. This research contributes by (1) providing empirical evidence from the context of Bakpia SMEs in Yogyakarta, (2) extending the theoretical application of relational variables in SCM, and (3) offering practical recommendations for improving supply chain collaboration in small-scale food industries.

LITERATURE REVIEW

Supply Chain Management (SCM)

Supply Chain Management (SCM) is a systematic approach to managing a network of interconnected companies involved in supplying raw materials, manufacturing goods, and distributing them to end consumers. SCM has since evolved into a strategic approach that requires cross-functional and inter-company integration and collaboration (Anwar et al., 2025).

SCM encompasses procurement, production, and distribution, as well as the integration of information and financial flows (Power, 2020). According to Imam (2024), SCM is an integrative approach to managing the flow of products, information, and money from upstream to downstream, involving various actors ranging from suppliers and manufacturers to consumers. Its core aim is to achieve operational efficiency and maximize customer value (Aprilia et al., 2025).

According to Ding (2023), supply chain management can be viewed through three interconnected components:

1. Upstream supply chain – emphasizes supplier relationships and the procurement of raw materials.
2. Internal supply chain – includes the company's internal operations such as production, process optimization, and inventory control.
3. Downstream supply chain – covers product distribution and market delivery to end customers.

SCM performance refers to the measurement of the effectiveness and efficiency of all supply chain activities from raw materials to the hands of consumers (Rizkya et al., 2019). This performance includes aspects such as quality, time, responsiveness, and flexibility. Holloway & Hendrie (2023) further argue that SCM must meet customer needs in terms of quality, timing, and cost efficiency while remaining adaptable to market changes.

Bakalo & Abegaz (2024) shows that performance measurement with the SCOR model helps organizations identify process bottlenecks and avoid escalation of operational issues. Recent studies emphasize that supply-chain performance indicators include total cost, cycle time, product defect rates, customer satisfaction, and flexibility (Mubaroq, 2025). Generally, indicators can be divided into short-term (e.g., cost, profitability) and long-term (e.g.,

sustainable relationships, supply stability) (Haessler, 2020). These indicators can be used to evaluate the effectiveness of a company's distribution strategy.

Model SCOR

The SCOR (Supply Chain Operations Reference) model was developed by the supply chain council to systematically measure and improve supply chain performance (Rizkya et al., 2019). It integrates three key elements:

1. Business process reengineering – analyzing existing processes and designing ideal future processes.
2. Benchmarking – comparing performance with best-in-class companies.
3. Process measurement – measuring, controlling, and improving processes.

The SCOR model comprises five fundamental processes (Bakalo & Abegaz, 2024):

1. Plan: Strategically planning for demand and supply.
2. Source: Procuring raw materials through supplier selection and negotiation.
3. Make: Manufacturing products either in mass production or batch processes.
4. Deliver: Distributing finished goods to customers.
5. Return: Handling product returns and reverse logistics.

Several studies confirm the relevance of SCOR. For example, Imam (2024) showed that SCOR improves supply chain responsiveness, while Anwar et al. (2025) highlighted its role in standardizing measurement. However, inconsistencies arise as some studies focus only on operational efficiency without addressing relational factors such as trust and information sharing. This indicates a research gap that justifies integrating both performance and relational variables into SCM research.

Information Sharing

Information sharing in the supply chain refers to the continuous and coordinated exchange of data among partners both formal and informal for planning and monitoring supply chain activities (David & Richard, 2024). This enhances coordination and improves the effectiveness of decision-making (Olalekan & Nwadiuru, 2021).

Key indicators include:

1. Sharing of financial, production, and design information.
2. Continuous exchange of information.
3. Information supports all relevant parties.

Some studies find a strong positive effect of information sharing on supply chain performance, while others suggest its impact is mediated by trust and relationship factors (Sridharan & Simatupang, 2019). This inconsistency suggests that relational variables may act as mediators, forming the theoretical foundation of this research.

Trust

Trust is the willingness to rely on a business partner with confidence in mutual benefits. In supply chains, trust fosters collaboration and information sharing (Kac et al., 2020). Building trust requires consistent performance and transparency. Indicators include:

1. Trust in suppliers
2. Honesty and accountability
3. Experience and information transparency.

Empirical findings, however, show variation. While some studies confirm trust directly enhances performance, others argue its effect is indirect through the development of long-term relationships (Jeong et al., 2019). This discrepancy underpins the second research hypothesis.

Long Term Relationship

According to Qian et al. (2023), long-term commitment, mutual trust, and cooperation between buyers and suppliers play a decisive role in achieving stability and operational efficiency within the supply chain. Key factors include:

1. Long-term commitment in production processes.
2. Mutual trust and interdependence.
3. Cooperation as a foundation for continuity.

Some research emphasizes the direct impact of long-term relationships on SCM performance, while others highlight their mediating role. This indicates the theoretical space for testing mediation effects in this study (Adebanjo et al., 2021).

The hypotheses in this study are summarized in the following figure:

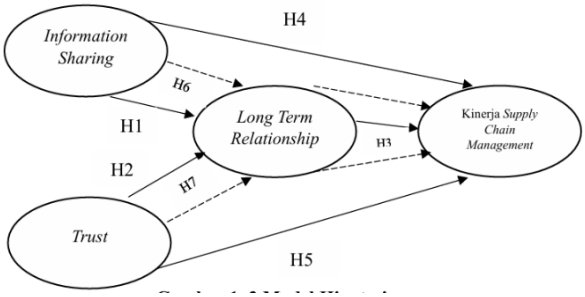

Figure 1. Hypotheses

Development of Hypotheses

Based on the theoretical discussion above, hypotheses are derived from the integration of SCM theory, relational governance (trust and information sharing), and prior findings with noted inconsistencies. Specifically:

1. Information sharing and trust are expected to strengthen long-term relationships.
2. Long-term relationships are theorized to enhance SCM performance.
3. Mediation effects are hypothesized, as prior studies show mixed evidence regarding whether trust and information sharing influence performance directly or through relational mechanisms.

Thus, this study develops the following hypotheses:

1. H1: Information sharing has an effect on long-term relationships.
2. H2: Trust has an effect on long-term relationships.
3. H3: Long-term relationship has an effect on supply chain management performance.
4. H4: Information sharing has an effect on supply chain management performance.
5. H5: Trust has an effect on supply chain management performance.
6. H6: Information sharing indirectly affects supply chain management performance through long-term relationship
7. H7: Trust indirectly affects supply chain management performance through long-term relationships.

RESEARCH METHOD

Research Design and Approach

This study employs a quantitative associative explanatory design. The quantitative approach is used because the data are analyzed statistically, while the associative explanatory orientation is chosen to test causal relationships among variables rather than merely describing phenomena. The study examines the influence of information sharing and trust (independent variables) on supply chain management performance (dependent variable), with long-term relationship as a mediating variable.

A census method is applied to the research population, which consists of all 45 MSMEs producing Bakpia under the supervision of KSP Sumekar Yogyakarta. The use of a census is justified because the population is relatively small and accessible, allowing complete coverage of all business units without the need for sampling.

The analytical method used is Partial Least Squares Structural Equation Modeling (PLS-SEM). This method is selected over covariance-based SEM (CB-SEM) because the research focuses on prediction and theory development, involves a relatively small sample size, and includes a mediating variable. PLS-SEM is also more robust in handling non-normal data distribution, which is often encountered in MSME research.

The research instrument is a structured questionnaire measured using a five-point likert scale. The validity and reliability of the instrument are ensured through both content validation (expert judgment) and construct validation using convergent and discriminant validity tests. Reliability is assessed using cronbach's alpha and composite reliability, with supporting details provided in the appendix.

Population and Sample

The research population consists of all 45 MSMEs (Micro, Small, and Medium Enterprises) producing Bakpia under the supervision of KSP Sumekar Yogyakarta, which are members of the Bakpia Sumekar artisan cluster. A census method is applied, meaning that all units within the population are included in the study. The census approach is chosen to ensure comprehensive coverage of the relatively small population and to avoid sampling bias, thereby increasing the accuracy of the analysis results.

Data Collection Techniques

The data used include:

1. Primary data: Obtained directly from questionnaires and interviews with MSME actors.
2. Secondary data: Obtained from books, journals, reports, and other relevant literature.

The research instrument utilizes a likert scale (1–5), and data collection techniques include questionnaires and interviews.

The primary data was obtained directly from questionnaires and interviews with MSME actors, while secondary data came from books, journals, reports, and other relevant sources. The research instrument was developed using a likert scale (1–5).

Instrument validity and reliability were ensured through the following steps:

1. Content validity: Questionnaire items were constructed based on established theories and prior studies and further reviewed by academic experts to confirm their relevance.
2. Construct validity: Tested through convergent and discriminant validity within the PLS-SEM framework.
3. Reliability: Assessed using cronbach's alpha and Composite Reliability, with a threshold of ≥ 0.7. (Appendices of the instrument items and validity testing results are provided to

support transparency).

Data Processing and Analysis Techniques

Data processing involves the following steps:

1. Editing: Checking the completeness and consistency of questionnaire responses.
2. Coding: Converting answers into numerical codes.
3. Scoring: Assigning scores based on the Likert scale.
4. Tabulating: Organizing data into tables for further analysis.

The data are then analyzed using Partial Least Squares Structural Equation Modeling (PLS- SEM) through the following stages:

1. Data cleaning
   This includes checking for outliers, missing values, and assessing the distribution of data to ensure it meets analysis requirements.
2. Outer model evaluation
   - Convergent Validity: Assessed using Average Variance Extracted (AVE ≥ 0.5) and factor loading (≥ 0.7).
   - Discriminate Validity: Evaluated through the square root of AVE value.
   - Reliability: Measured using cronbach's alpha and composite reliability (≥ 0.7).
3. Inner model evaluation
   - R-Square (R^2): Indicates the strength of the influence of exogenous variables (≥ 0.7 = strong). F-Square (F^2): Assesses the effect size (0.02 = small, 0.15 = medium, 0.35 = large).
   - Hypothesis testing: Conducted using bootstrapping with t-statistics and p-values (< 0.05 = significant).
4. Mediation analysis
   Mediation testing is conducted to assess the role of the mediating variable (long-term relationship) in the relationships between variables:
   - Full mediation: The direct effect X→Y is not significant, but the indirect effect X→Z→Y is significant.
   - Partial mediation: Both direct (X→Y) and indirect (X→Z→Y) effects are significant.
   - No mediation: Only the direct effect (X→Y) is significant.

RESULTS AND DISCUSSION

The findings of this study confirm that information sharing, and trust significantly influence the development of long-term relationships among SMEs in the Bakpia cluster of Yogyakarta. In turn, long-term relationships were found to positively affect Supply Chain Management (SCM) performance. These results are consistent with previous Rizkya et al. (2019), which emphasized that sustained cooperation and open information exchange strengthen supply chain stability and efficiency.

Interestingly, this study revealed that trust does not have a significant direct effect on SCM performance. This result contrasts with the findings of Power (2020), who reported that trust directly enhances performance in large-scale industrial settings. However, the current study supports David & Richard (2024), who argued that trust exerts its influence indirectly by fostering relational continuity and collaborative commitment. In the context of SMEs producing Bakpia, trust alone may not be sufficient to improve performance without being transformed into concrete collaborative practices through long-term relationships. This

divergence indicates that the role of trust may be highly context-dependent, particularly when comparing small-scale enterprises with large corporations.

Moreover, the significant mediating role of long-term relationships highlights that information sharing, and trust are more impactful when institutionalized into sustainable partnerships. These findings align with the theoretical framework of relational governance Ridho et al. (2024) which emphasizes that collaborative norms and interdependence serve as bridges between relational resources (trust, information sharing) and operational performance outcomes.

Theoretical Implications

Theoretically, this study contributes to the SCM literature by clarifying the inconsistent findings regarding the role of trust. It demonstrates that trust may not always produce a direct performance outcome but operates more effectively through relational mechanisms. This strengthens the argument for incorporating mediating variables, such as long-term relationships, into SCM research. Furthermore, by situating the study in the context of SMEs in Yogyakarta's Bakpia industry, it broadens the empirical scope of SCM studies, which have been dominated by large-scale industrial or multinational settings.

Practical Implications

Practically, the results suggest that SME actors and cooperative institutions should not only focus on building interpersonal trust but also translate it into structured, long-term collaborations, such as joint procurement, shared logistics, or collaborative marketing. Government agencies and local cooperatives can play a facilitating role by providing platforms for transparent information exchange and formalizing agreements that strengthen relational continuity. For Bakpia producers, this means that investing in open communication systems and collaborative practices will be more beneficial than relying solely on informal trust. Ultimately, such strategies can enhance efficiency, reduce uncertainty, and improve competitiveness in the increasingly dynamic food industry supply chain.

Outer Model

Convergent Validity

The measurement model (outer model) describes the relationship between latent variables and their corresponding indicators. It is evaluated through convergent validity, discriminant validity, and composite reliability to ensure the validity and reliability of the variables used in the study. Based on the test results shown in Figure 2, no indicators were found with loading values below 0.70.

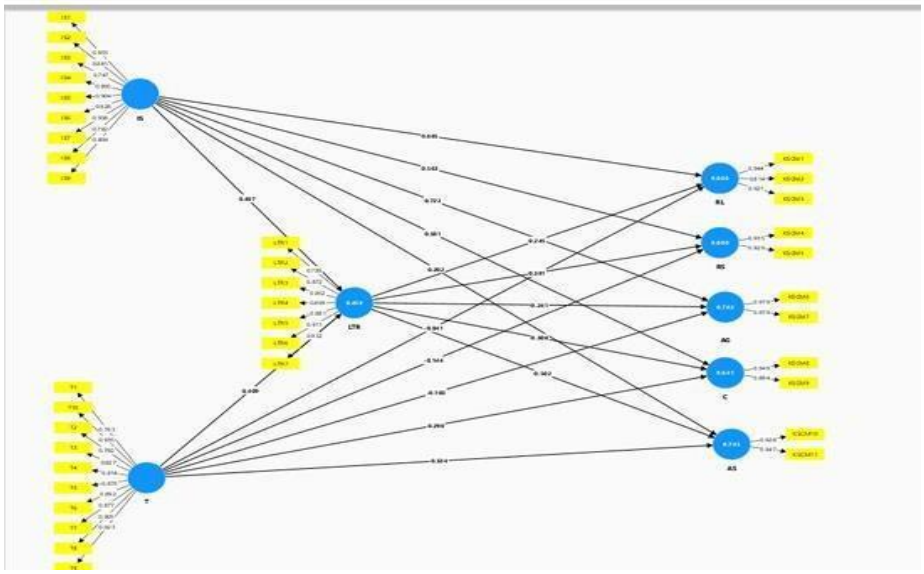

Figure 1. Path Analysis

Therefore, it can be concluded that the latent constructions are acceptable, as they are able to represent their respective indicators adequately. The decision to retain or remove an indicator is based on the values of Average Variance Extracted (AVE) and Composite Reliability (CR), where a construct is considered valid if AVE > 0.5 and CR > 0.70. The following section presents the results of the AVE value assessment.

Table 1. Convergent Validity

Indicator	Average Variance Extracted (AVE)
Information Sharing (IS)	0.740
Trust (T)	0.740
Long Term Relationship (LTR)	0.762
Reliability	0.801
Responsiveness	0.868
Agility	0.958
Cost	0.849
Assets	0.879

Based on Table 1, the AVE values obtained for each dimension are greater than 0.50. This indicates that all indicators have met the established criteria. Therefore, it can be concluded that convergent validity has been achieved.

Discriminant Validity

The measurement model (outer model) illustrates the relationship between latent variables and the indicators that measure them, and it is evaluated through convergent validity, discriminant validity, and composite reliability to ensure the validity and reliability of the variables in the research.

Table 2. Fornell Lacker

	AG	AS	C	IS	LTR	RL	RS	T
AG	0.979							
AS	0.576	0.938						
C	0.693	0.846	0.922					
IS	0.819	0.607	0.664	0.860				
LTR	0.589	0.798	0.686	0.562	0.873			
RL	0.954	0.622	0.746	0.806	0.606	0.895		
RS	0.902	0.601	0.693	0.722	0.616	0.888	0.932	
T	0.307	0.684	0.608	0.379	0.563	0.356	0.283	0.860

Based on Table 2, discriminant validity has been met. This is indicated by the square root of the AVE for each construct (the values on the diagonal) being greater than the correlations between the other constructs. For example, the square root of the AVE for the AG construct is 0.979, which is higher than its correlation with other constructs, such as AS (0.576) and C (0.693). Similarly, the square roots of the AVE for other constructs, such as AS (0.938), C (0.922), IS (0.860), LTR (0.873), RL (0.895), RS (0.932), and T (0.860), are also greater than the correlations with other constructions. Therefore, it can be concluded that the discriminant validity test has been fulfilled based on the Fornell-Larcker criterion.

Reliability

The reliability test in this study is based on the values of composite reliability and cronbach's alpha. A variable is considered reliable if both values exceed 0.70. Next, the data on composite reliability and cronbach's alpha values will be presented.

Table 3. Reliability Test

Indicator	Cronbach’s Alpha	Composite Reliability (rho_c)
Information Sharing (IS)	0.956	0.962
Trust (T)	0.961	0.966

Long Term Relationship (LTR)	0.948	0.957
Reliability (RL)	0.875	0.923
Responsiveness (RS)	0.848	0.930
Agility (AG)	0.956	0.979
Cost (C)	0.828	0.918
Assets (AS)	0.848	0.36

Based on the table above, all composite reliability values exceed 0.70, while the cronbach's alpha values for each indicator also show results above 0.70. Therefore, it can be concluded that the instruments used in this study have a good level of reliability and are considered reliable.

Inner Model

R-Square

The evaluation of the Partial Least Squares (PLS) model is performed by analyzing the R-Square values for each dependent latent variable. This test aims to measure the extent to which the exogenous latent variables (independent) affect the endogenous latent variables (dependent). The table below presents the R-Square values for each variable influenced by other variables in this study.

Table 4. R-Square

	R-Square
Long Term Relationship	0.461
Performance Supply Chain Management	0.764

Based on the table above, there are two variables in this research model that are influenced by other variables, namely long-term relationship with an R-Square value of 0.461, and supply chain management performance with an R-Square value of 0.764. These results indicate that information sharing, and trust contribute 46.1% to the long-term relationship, while the remaining 53.9% is influenced by factors outside the scope of this research. Meanwhile, the performance of supply chain management is explained by information sharing, trust, and long- term relationship, with a contribution of 76.4%, while 23.6% is influenced by other variables not included in the research model.

According to Ghozali and Latan (2020), the research model can be categorized as strong (≥0.75), moderate (0.26-0.74), or weak (≤0.25) based on the R-Square value. Based on this classification, the R-Square value for the long-term relationship falls into the moderate category (0.461), while the supply chain management performance is in the strong category

(0.764). This indicates that the model used is quite effective in explaining the influence of the variables in this research.

F-Square

F-square effect is used to measure the magnitude of the influence of independent variables on dependent variables. The F-square value is classified into three categories: small (0.02), medium (0.15), and large (0.35). Below is the table that presents the F-square values in terms of effect size for the path coefficients.

Table 5. F-Square

	Information Sharing (IS)	Trust (T)	Long Term Relationship (LTR)	Performance Supply Chain Management (KSCM)
Information Sharing (IS)			0.405	0.578
Trust (T)			0.410	0.061
Long Term Relationship (LTR)				0.367
Performance Supply Chain Management (KSCM)				

Hypothesis Tests (Direct-Indirect)

In this test, a direct effect test is conducted as follows:

Table 6. Direct Effect

	Path Coeff	Sample Mean	Standard Deviation	T statistics	P values	Conclusion
Information Sharing -> Long Term Relationship	0.405	0.404	0.128	3.173	0.002	H1 Accepted
Trust -> Long Term Relationship	0.410	0.411	0.127	3.239	0.001	H2 Accepted
Long Term Relationship -> Performance Supply Chain Management	0.367	0.348	0.123	2.982	0.003	H3 Accepted

	Path Coeff	Sample Mean	Standard Deviation	T statistics	P values	Conclusion
Information Sharing -> Performance Supply Chain Management	0.578	0.597	0.121	4.786	0.000	H4 Accepted
Trust -> Performance Supply Chain Management	0.061	0.048	0.086	0.707	0.480	H5 Rejected

Based on the output path coefficients in Table 6, it is found that the first (H1) and second (H2) hypotheses indicate that Information Sharing (IS) and Trust (T) have a positive and significant effect on Long-Term Relationship (LTR). IS has a path coefficient of 0.405 with a T- statistic of 3.173 and a P value of 0.002, while trust has a coefficient of 0.410 with a T-statistic of 3.239 and a P value of 0.001. This suggests that improvements in information exchange and trust between business partners can strengthen long-term relationships in the supply chain. Furthermore, the third hypothesis (H3) is also accepted, as LTR has a positive and significant effect on Supply Chain Management Performance (KSCM) with a path coefficient of 0.367, a T- statistic of 2.982, and a P value of 0.003.

Next, the fourth hypothesis (H4) states that IS also has a strong direct effect on KSCM, evidenced by a path coefficient of 0.578, a T-statistic of 4.786, and a P value of 0.000. This underscores that effective information exchange is crucial in enhancing the supply chain performance of SMEs. However, unlike the other variables, the fifth hypothesis (H5) is rejected because Trust (T) does not show a significant effect on KSCM directly, with a coefficient of 0.061, a T-statistic of 0.707, and a P value of 0.480. Therefore, it can be concluded that in the context of Bakpia SMEs in Yogyakarta, Information Sharing and long-term relationships are key factors that significantly influence supply chain performance, while Trust plays a more prominent role in strengthening long-term relationships than in directly impacting performance. In addition to the direct effect test, an indirect effect test was also conducted as follows:

Table 7. Indirect Effect

	Path Coeff	Sample Mean	Standard Deviation	T statistics	P values	Conclusion
Information Sharing -> Long Term Relationship -> Performance Supply Chain Management	0.149	0.135	0.058	2.555	0.011	H1 Accepted
Trust -> Long Term Relationship -	0.0151	0.147	0.074	2.029	0.042	H2 Accepted

	>				
	Performance Supply Chain Management				

Based on the output of the specific indirect effects in Table 3.22, it is evident that there is a significant indirect effect between the Information Sharing variable and Supply Chain Management Performance (KSCM) through Long Term Relationship (LTR). With a path coefficient of 0.149, a T-statistic of 2.555, and a p-value of 0.011 (< 0.05), it can be concluded that effective information exchange helps establish strong long-term relationships, which ultimately has a positive impact on improving supply chain performance. Therefore, the sixth hypothesis (H6) is accepted, as it shows the mediating role of LTR in the relationship between IS and KSCM.

Additionally, the analysis also indicates that Trust has a significant indirect effect on KSCM through LTR. This is evidenced by a path coefficient of 0.151, a T-statistic of 2.029, and a p-value of 0.042 (< 0.05). This means that although Trust does not directly affect supply chain performance, it still contributes indirectly through strengthening the long-term relationship between SMEs and suppliers. Therefore, the seventh hypothesis (H7) is also accepted, emphasizing the importance of LTR as a mediating variable that enhances the positive effect of Trust on supply chain performance.

Mediation Test

In this study, a mediation test was conducted to analyze how Long-Term Relationship (LTR) mediates the relationship between Information Sharing (IS) and Trust (T) towards Supply Chain Management Performance (KSCM). The analysis results will determine whether the long-term relationship variable acts as full mediation, partial mediation, or has no mediation effect.

Table 7. Mediation Test

Hypothesis	Track	Original Sampel	P Value		Result
Direct Effect	IS □ LTR	0.405	0.002	Significant	Partial Mediation
	LTR □ KSCM	0.367	0.003	Significant	
	IS □ KSCM (without mediation)	0.578	0.000	Significant	
				Significant	
Indirect Effect	IS □ LTR □ KSCM (by mediation)	0.149	0.011	Significant	
Hypothesis	Track	Original Sampel	P Value	Significant	
	T □ LTR	0.410	0.001	Significant	
Direct Effect	LTR □ KSCM	0.367	0.003	Significant	
	T □ KSCM (without mediation)	0.061	0.480	Insignificant	

Indirect Effect	T □ LTR □ KSCM (by mediation)	0.151	0.042	Significant

Based on the results of hypothesis testing 6, it was found that information sharing (X1) has a significant direct effect on supply chain management performance (Y), as indicated by a path coefficient of 0.578 and a p-value of 0.000 (< 0.05). In addition to this direct effect, the analysis also shows a significant indirect effect through the long-term relationship (Z) variable, with a path coefficient of 0.149 and a p-value of 0.011 (< 0.05). These results indicate that good information sharing not only directly impacts supply chain performance but also indirectly improves it by fostering strong long-term relationships between SMEs and their partners in the supply chain.

Based on the combination of direct and indirect effects, it can be concluded that the relationship between information sharing and supply chain management performance through long term relationship falls under the category of partial mediation. This means that while information sharing can directly enhance supply chain performance, the presence of long-term relationship as a mediating variable further strengthens this effect. Therefore, strategies that emphasize open information sharing and efforts to build long-term relationships will be more optimal in improving the efficiency and effectiveness of the supply chain for SMEs, such as Bakpia in Yogyakarta.

Meanwhile, the results of hypothesis testing 7 show that Trust (X2) does not have a significant direct effect on Supply Chain Management Performance (Y), as evidenced by a path coefficient of 0.061 and a p-value of 0.480 (> 0.05). However, when tested indirectly through Long Term Relationship (Z), a significant effect was found, with a path coefficient of 0.151 and a p-value of 0.042 (< 0.05). This suggests that while trust does not directly enhance supply chain performance, it still makes a positive contribution through the formation of a good long-term relationship.

From these findings, it can be concluded that the relationship between trust and supply chain management performance through long-term relationship is a form of full mediation. This means that the influence of trust on performance will not be felt unless mediated through long-term relationships. Therefore, for SMEs, building trust with partners is not enough with good intentions or transparency; it must also be accompanied by efforts to create sustainable relationships to have a tangible impact on supply chain performance.

CONCLUSION

This study set out to examine the influence of information sharing and trust on supply chain management (SCM) performance, with long-term relationship as a mediating variable, in the context of SMEs producing Bakpia in Yogyakarta. The research problem raised in Chapter 1 whether relational factors such as information sharing, and trust contribute directly or indirectly to SCM performance has been answered. The results show that information sharing has both a direct and indirect positive effect on SCM performance, while trust exerts an indirect effect mediated by long-term relationships. These findings confirm that the establishment of long-term relationships is essential for translating relational resources into improved performance.

Theoretically, this research contributes to clarifying the inconsistent findings in prior SCM literature regarding the role of trust. By demonstrating that trust has no direct effect on performance but operates fully through long-term relationships, the study highlights the importance of relational governance mechanisms in SCM research. Practically, the results

suggest that Bakpia SMEs need to institutionalize information sharing and strengthen long-term collaborations to achieve sustainable supply chain performance.

This study is not without limitations. First, the research was conducted in a single industry cluster (Bakpia SMEs in Yogyakarta), which may limit the generalizability of the findings to other sectors. Second, the use of cross-sectional data prevents dynamic changes in relationships over time. Finally, the study relied on self-reported measures, which may be subject to respondent bias.

For future research, it is recommended to expand the scope of analysis to other SME clusters or industries in order to test the robustness of the findings. Longitudinal studies are also suggested to better capture the evolution of trust and relationships in supply chain dynamics. Additionally, future studies may consider integrating other relational variables such as commitment, power balance, or digital collaboration tools, to enrich the understanding of how relational governance shapes SCM performance in SMEs

REFERENCES

Adebanjo, D., Teh, P. -L., & Ahmed, P. K. (2021). The impact of supply chain relationships and integration on innovative capabilities and manufacturing performance: The perspective of rapidly developing countries. *International Journal of Production Research*, *56*(4), 1–14. https://doi.org/10.1080/00207543.2017.1366083

Anwar, U. A. A., Rahayu, A., Wibowo, L. A., Sultan, M. A., Aspiranti, T., Furqon, C., & Rani, A. M. (2025). Supply chain integration as the implementation of strategic management in improving business performance. *Discover Sustainability*, *6*(101), 1–14. https://doi.org/10.1007/s43621-025-00867-w

Aprilia, N., Subroto, W. T., & Sakti, N. C. (2025). The role of small and medium enterprises (SMEs) in supporting the people's economy in Indonesia. *International Journal of Research and Scientific Innovation, 11*(12), 368–376. https://doi.org/10.51244/IJRSI.2024.11120036

Bakalo, A., & Abegaz, M. B. (2024). Trust and collaboration in practices of supply chain management: Systematic review. *American Journal of Management Science and Engineering*, *9*(3), 64–74. http://dx.doi.org/10.11648/j.ajmse.20240903.12

Das, K., Gryseels, M., Sudhir, P., & Tan, K. T. (2019). *Unlocking Indonesia's digital opportunity*. McKinsey Global Institute.

David, A., & Richard, A. (2024). Information sharing's impact on supply chain management, logistics, and organizational performance. *Project Management and Scientific Journal*, *7*(9), 16–33. https://doi.org/10.4314/pmsj.v7i9.2

Ding, J. (2023). The impact of supply chain management on a company's operation and decision based on the multidimensional data analysis of upstream and downstream industry market states. *PeerJ Computer Science*, *9*, 1–18. http://dx.doi.org/10.7717/peerj-cs.1369

Ghozali, I., & Latan, H. (2020). *Partial least squares: Konsep, teknik dan aplikasi menggunakan program SmartPLS 3.0*. Indonesia: Semarang: Badan Penerbit Universitas Diponegoro.

Haessler, P. (2020). Strategic decisions between short-term profit and sustainability. *Administrative Sciences*, *10*(3), 1–31. https://doi.org/10.3390/admsci10030063

Holloway, T. M., & Hendrie, C. A. (2023). Follow the leader: Examining the use of heuristics in political social media advertising during the 2019 UK general election. *Journal of Political Marketing, 24*(3), 1–21. https://doi.org/10.1080/15377857.2023.2236966

Imam, S. G. (2024). The importance of supply chain integration in the performance nexus: A case from developing country. *South Asian Journal of Operations and Logistics*, *3*(2), 1–21. https://doi.org/10.57044/SAJOL.2024.3.2.2426

Jeong, Y., Ali, M., Zacca, R., & Park, K. (2019). The effect of entrepreneurship orientation on firm performance: A multiple mediation model. *Journal of East-West Business*, *25*(2), 1–28. https://doi.org/10.1080/10669868.2018.1536013

Kac, S. M., Gorenak, I., & Potocan, V. (2020). The influence of trust on collaborative relationships in supply chains. *Ekonomie a Management*, *19*(2), 120–131. https://doi.org/10.15240/tul/001/2016-2-008

Latuconsina, Z., Waileruny, H. T., & Hadinda, H. (2025). *Supply chain management: Integrasi teknologi dan analisis kuantitatif*. Takaza Innovatix Labs.

Masrukhan, M., & Isnaini, R. K. (2025). Optimalisasi teknologi dan strategi pemasaran digital dalam meningkatkan daya saing UMKM Bakpia Wong Yogyakarta. *Jurnal Nuansa: Publikasi Ilmu Manajemen dan Ekonomi Syariah*, *3*(1), 282–300. https://doi.org/10.61132/nuansa.v3i1.1630

Mubaroq, A. C., Rafinda, A., Setyorini, C. T., Nasihin, I., Rahmajati, E. S., & Alhendi, O. (2025). Exploring the paradox of MSME growth during Ramadhan. *EL DINAR: Jurnal Keuangan dan Perbankan Syariah, 13*(1), 53–76. https://doi.org/10.18860/ed.v13i1.29185

Olalekan, A., & Nwadiuru, C. (2021). The influence of strategic decision making on organizational performance. *The International Journal of Business & Management*, *9*(1), 333–338. https://doi.org/10.24940/theijbm/2021/v9/i1/BM2101-050

Perdana, A. C., Syamil, A., Subawa, S., Budaya, I., Manizu, M., Darmayanti, N. L., Fahmi, M. A., & Wanda, S. S. (2023). *Manajemen rantai pasok*. Indonesia: PT. Sonpedia Publishing.

Power, D. (2020). Supply chain management integration and implementation: A literature review. *Supply Chain Management: An International Journal*, *10*(4), 252–263. https://doi.org/10.1108/13598540510612721

Qian, C., Dion, P. A., Wagner, R., & Seuring, S. (2023). Efficacy of supply chain relationships–differences in performance appraisals between buyers and suppliers. *Operations Management Research*, *16*(3), 1302–1320. http://dx.doi.org/10.1007/s12063-023-00354-3

Ridho, A. M., Hidayati, D. R., & Rum, M. (2024). Pengukuran kinerja supply chain operation reference (SCOR) UMKM rumput laut bunga Seroja Kabupaten Sumenep. *Jurnal Pertanian Cemara*, *21*(2), 1–13. https://doi.org/10.24929/fp.v21i2.3868

Rizkya, I., Hidayati, J., Syahputri, K., Sari, R. M., Siregar, I., Siregar, K., & Utaminingrum, J. (2019). Measurement of supply chain performance in manufacturing. *Journal of Physics: Conference Series*, *1230*(1), 1–8. https://doi.org/10.1088/1742-6596/1230/1/012056

Sridharan, R., & Simatupang, T. M. (2013). Power and trust in supply chain collaboration. *International Journal of Value Chain Management*, *7*(1), 76–96. https://doi.org/10.1504/IJVCM.2013.057344