Capability-Based Pathways to Performance: The Mediating Role of Resilience and Value Realization in Agri-Supply Chains

Retno Setyorini
Universitas Pendidikan Indonesia; Bandung, Indonesia
Universitas Telkom; Bandung, Indonesia
E-Mail: retnosrin@upi.edu

Agus Rahayu
Universitas Pendidikan Indonesia; Bandung, Indonesia
E-Mail: agusrahayu@upi.edu

Lili Adi Wibowo
Universitas Pendidikan Indonesia; Bandung, Indonesia
E-Mail: liliadiwibowo@upi.edu

Mokh. Adib Sultan
Universitas Pendidikan Indonesia; Bandung, Indonesia
E-Mail: adiebsultan@upi.edu

Submitted:
JUNE 2025

Accepted:
AUGUST 2025

ABSTRACT

Global agribusiness faces increasing volatility and disruptions, making supply chain performance critical for competitiveness, especially in developing economies where structural fragmentation and limited adaptive capacity hinder value creation. This study investigates how strategic agility enhances supply chain performance through the mediating roles of supply chain resilience and value realization among millennial coffee farmers in West Java, Indonesia. A quantitative explanatory design was employed, collecting data from 143 coffee farmers selected through purposive sampling. Covariance-Based Structural Equation Modeling was used to analyze direct and sequential relationships among constructs. Findings show that strategic agility positively influences supply chain resilience and value realization, with resilience mediating the relationship between agility and value realization, and value realization driving performance. The sequential mediation pathway from agility through resilience and value realization to performance is significant. This study validates an integrated capability-based model, offering practical insights for enhancing adaptive capacity and competitiveness in agribusiness supply chains. Future research should explore longitudinal effects and broader agribusiness contexts to strengthen generalizability.

Keywords: *Agribusiness, Dynamic Capabilities, Emerging Market Agribusiness, Strategic Agility, Supply Chain Governance, Supply Chain Resilience, Supply Chain Value.*

ABSTRAK

Agribisnis global menghadapi peningkatan volatilitas dan gangguan, membuat kinerja rantai pasokan penting untuk daya saing, terutama di negara berkembang di mana fragmentasi struktural dan pembuatan nilai hinder kapasitas adaptif terbatas. Studi ini menyelidiki bagaimana kelincahan strategis meningkatkan kinerja rantai pasokan melalui peran mediasi ketahanan rantai pasokan dan realisasi nilai di antara petani kopi milenium di Jawa Barat, Indonesia. Desain penjelasan kuantitatif digunakan, mengumpulkan data dari 143 petani kopi yang dipilih melalui

JIMKES

Jurnal Ilmiah Manajemen Kesatuan
Vol. 13 No. 5, 2025
pp. 3651-3662
IBI Kesatuan
ISSN 2337 – 7860
E-ISSN 2721 – 169X
DOI: 10.37641/jimkes.v13i5.3917

pengambilan sampel purposive. Pemodelan persamaan struktural berbasis kovarians digunakan untuk menganalisis hubungan langsung dan berurutan di antara konstruksi. Temuan menunjukkan bahwa kelincahan strategis secara positif mempengaruhi ketahanan rantai pasokan dan realisasi nilai, dengan ketahanan memediasi hubungan antara kelincahan dan realisasi nilai, dan kinerja pendorong realisasi nilai. Jalur mediasi berurutan dari kelincahan melalui ketahanan dan realisasi nilai terhadap kinerja adalah signifikan. Studi ini memvalidasi model berbasis kemampuan terintegrasi, menawarkan wawasan praktis untuk meningkatkan kapasitas adaptif dan daya saing dalam rantai pasokan agribisnis. Penelitian di masa depan harus mengeksplorasi efek longitudinal dan konteks agribisnis yang lebih luas untuk memperkuat generalisasi.

Kata kunci: *Agribisnis, Kemampuan Dinamis, Agribisnis Pasar Berkembang, Kelincahan Strategis, Tata Kelola Rantai Pasokan, Ketahanan Rantai Pasokan, Nilai Rantai Pasokan.*

INTRODUCTION

Global market volatility and increasing environmental uncertainty have made Supply Chain Performance (SCP) a key factor in determining organizational competitiveness and sustainability. This challenge is particularly pronounced in agribusiness systems in developing countries, particularly due to fragmented structures, low digital adoption, and unequal power relations among supply chain actors that hinder effective value creation. Within this landscape, the Indonesian coffee sector, particularly West Java, provides a compelling case study of how structural constraints within local agrifood systems challenge the realization of supply chain excellence. As the world's fourth-largest coffee producer, West Java makes a significant contribution to Indonesia's high-quality Arabica production, with regions such as Bandung, Garut, and Tasikmalaya accounting for a substantial share of the country's exports.

Indonesia ranks as the world's fourth-largest coffee producer, with West Java contributing a substantial portion of high-quality Arabica coffee production, particularly from regions such as Bandung, Garut, and Tasikmalaya. However, despite its premium potential, the supply chain performance of the West Java coffee industry remains suboptimal. Over 96% of its coffee farmers operate on a micro-scale, with land holdings of less than one hectare and limited access to infrastructure, finance, and digital systems. These structural limitations result in long and inefficient distribution chains, weak bargaining power, and low retention of added value at the farm level. This inefficiency underscores the urgent need to enhance dynamic capabilities to improve competitiveness and sustainability in the region's coffee supply chains.

Millennial coffee farmers, often recognized for their entrepreneurial orientation and digital literacy, have emerged as a promising segment capable of revitalizing the Indonesian coffee supply chain (Christopher & Holweg, 2011; Soni et al., 2014; Lee & Rha, 2016). However, they remain constrained by an ecosystem that lacks strategic agility, exhibits low resilience to disruptions (such as climate variability or market shocks), and is weakly positioned to realize collaborative value across the supply chain. Consequently, there is an urgent need to activate internal dynamic capabilities that enable agility, enhance resilience, and institutionalize value realization as a strategic lever for improved performance. This study aims to investigate how strategic agility influences supply chain performance through the sequential mediation of supply chain resilience and value realization among millennial coffee farmers in West Java, offering a roadmap for capability development in fragmented agribusiness contexts.

Strategic agility refers to a company's ability to sense environmental changes and realign its strategy quickly and flexibly (Teece, 2007; Doz & Kosonen, 2010). While crucial in volatile environments, agility alone may not be sufficient to sustain operations during prolonged or systemic disruptions. Therefore, agility must be complemented by Supply Chain Resilience (SCR), the capacity to absorb disruptions, adapt, and recover to maintain continuity and service levels (Ponomarov & Holcomb, 2009; Wieland & Wallenburg, 2013). However, this capability must ultimately be translated into concrete

outcomes. This is where Supply Chain Value Realization (SCVR) becomes essential, with its focus on systemic value realization through information sharing, innovation, customer orientation, and strategic partnerships (Youn et al., 2012; Sangari & Razmi, 2015).

Despite the growing recognition of the role of dynamic capabilities in supply chain success, few empirical studies have examined the sequential interactions between agility, resilience, and value realization, particularly in the agribusiness context characterized by the dominance of smallholder farmers, infrastructure gaps, and external vulnerabilities. According to Sangari and Razmi (2015), while value realization mediates the link between strategy and performance, its sequential interaction with resilience remains underexplored in smallholder-dominated supply chains. Similarly, Aslam et al. (2018) note that agility's impact on performance is often studied in isolation, overlooking its interplay with resilience and value realization in developing economies. Furthermore, existing studies often treat these constructs as isolated predictors of performance, ignoring their interconnected and context-dependent nature. This research gap highlights the need for an integrated model that examines how these capabilities sequentially interact to enhance supply chain performance in agribusiness settings.

This study fills the existing research gap by proposing and empirically validating a sequential mediation model in which strategic agility influences supply chain performance through the mediating roles of supply chain resilience and supply chain value realization. Drawing on the Resource-Based View (RBV), Dynamic Capabilities (DC), and Contingency Theory (CT), we examine this pathway using primary data from millennial coffee farmers in West Java. By testing five hypotheses, this study elucidates the sequential pathway from strategic agility to performance, offering practical insights for strengthening adaptive capacity and performance outcomes in opportunity-rich yet structurally challenged supply chains. The findings may also inform agribusiness strategies in other developing regions with similar structural constraints, enhancing the generalizability of the proposed model.

LITERATURE REVIEW & HYPOTESES DEVELOPMENT

Strategic Agility, Resilience, Value Realization, and Performance

Strategic agility is defined as an organization's ability to anticipate, adapt to, and respond rapidly to environmental changes and market dynamics through flexible strategic execution (Shams et al., 2021; Walter, 2021; Kumkale, 2022). In the supply chain context, agility enables firms to reconfigure operations in response to fluctuating demand, disruptions, and emerging opportunities (Eckstein et al., 2015). According to Aslam et al. (2018), strategic agility enhances responsiveness and operational efficiency, particularly in volatile agribusiness environments where market signals are unpredictable. Agility integrates sensing capabilities, strategic alignment, and rapid execution, making it a critical dynamic capability (Tarafdar & Qrunfleh, 2017; Ajgaonkar et al., 2022; Bechtel et al., 2023). SCR refers to the capacity to prepare for disruptions, respond effectively, and recover to maintain continuity (Ponomarov & Holcomb, 2009; Han et al., 2020). In agribusiness, where environmental variability and logistical constraints are prevalent, resilience ensures operational stability (Chowdhury et al., 2019). The interplay between agility and resilience is evident, as agile sensing and response mechanisms bolster a supply chain's ability to absorb and recover from shocks, especially for smallholder farmers facing climate and market uncertainties (Belhadi et al., 2024; Omowole et al., 2024; Polo et al., 2025).

Supply Chain Value Realization (SCVR) extends beyond traditional value creation, focusing on actualizing strategic value through collaboration, customer orientation, data transparency, and innovation (Youn et al., 2012; Sangari & Razmi, 2015). In fragmented agribusiness supply chains, SCVR bridges upstream capabilities like agility and resilience to downstream performance outcomes. Supply chain performance (SCP) reflects the achievement of strategic and operational goals, including cost efficiency, customer responsiveness, and risk management (Beamon, 1999; Gunasekaran et al., 2004). Resilience supports SCVR by ensuring continuity and trust, which are vital for value

realization in smallholder networks (Isaacs et al., 2024; Tsumbu, 2024). Empirical studies suggest that agility enhances resilience, which in turn facilitates value realization, ultimately improving SCP (Aslam et al., 2020).

H1: Strategic agility has a positive effect on supply chain resilience.
H2: Strategic agility has a positive effect on supply chain value realization.
H3: Supply chain resilience has a positive effect on supply chain value realization.
H4: Supply chain value realization has a positive effect on supply chain performance.

Sequential Mediation of Capabilities in Supply Chains

The sequential interaction of strategic agility, resilience, and value realization is critical for enhancing supply chain performance, yet few studies have explored this integrated pathway in agribusiness contexts. Strategic agility enables rapid resource realignment and responsiveness, creating a foundation for resilience (Doz & Kosonen, 2010; Teece, 2007). According to Chowdhury and Quaddus (2015), agility's role in enabling adaptive responses significantly strengthens resilience in supply chains facing vulnerabilities like those in developing economies. Resilience, defined as the ability to absorb disruptions and recover (Ponomarov & Holcomb, 2009), ensures continuity and fosters trust-based collaboration, which are essential for value realization (Wieland & Wallenburg, 2013). SCVR transforms these capabilities into tangible outcomes, such as improved customer satisfaction and process efficiency, particularly in fragmented supply chains (Sangari & Razmi, 2015; Syed et al., 2024; Emon, 2025). This sequential pathway suggests that agility drives resilience, which supports value realization, ultimately enhancing performance, yet empirical validation in smallholder agribusiness remains limited.

In agribusiness, where smallholder farmers face infrastructure gaps and market volatility, the sequential interplay of these capabilities is vital for competitiveness. Resilience ensures operational stability, enabling collaborative and innovative practices that drive SCVR (Youn et al., 2012). The integration of these capabilities aligns with dynamic capability theory, which emphasizes layered competencies for sustained performance (Teece et al., 2016). Unlike studies that treat agility, resilience, and value realization as isolated predictors, this research proposes a sequential mediation model to capture their interdependent effects.

H5: Supply chain resilience and supply chain value realization sequentially mediate the relationship between strategic agility and supply chain performance.

The proposed research framework integrates strategic agility, supply chain resilience, supply chain value realization, and supply chain performance into a sequential mediation model grounded in the Resource-Based View (RBV), Dynamic Capabilities (DC), and Contingency Theory (CT). According to Sangari and Razmi (2015), value realization acts as a critical mediator in translating supply chain strategies into performance outcomes, yet its sequential linkage with resilience and agility is underexplored in agribusiness. Strategic agility initiates the pathway by enabling rapid adaptation to market changes, which strengthens resilience (Aslam et al., 2018). Resilience supports value realization by ensuring continuity and collaboration, which in turn drives performance metrics like efficiency and responsiveness (Zhao et al., 2023). This model is particularly relevant for millennial coffee farmers in West Java, where structural constraints necessitate layered capability development.

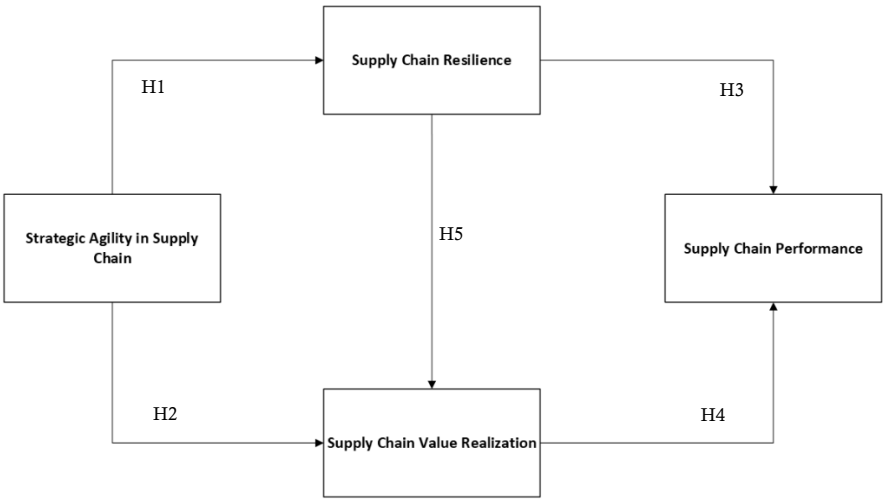

Figure 1. Conceptual framework

Figure 1 illustrates this conceptual framework, depicting the sequential pathway from strategic agility to supply chain performance through resilience and value realization. The framework, as shown in Figure 1, highlights the hypothesized relationships tested in this study, offering a novel perspective on capability integration in fragmented agribusiness supply chains.

RESEARCH METHOD

This study adopted a quantitative explanatory research design to empirically examine the relationships between strategic agility, supply chain resilience, supply chain value realization, and supply chain performance among millennial coffee farmers in West Java, Indonesia. The quantitative approach was selected for its ability to measure the magnitude and direction of causality through structured data collection and statistical analysis, suitable for testing the sequential mediation model proposed. The target population consisted of coffee farmers aged 18–40 years, actively involved in upstream and downstream supply chain activities, representing a key segment of West Java's specialty coffee ecosystem. This design enables a robust assessment of how dynamic capabilities interact in a fragmented agribusiness context, addressing the structural challenges faced by smallholder farmers.

Data were collected using purposive sampling, targeting farmers with at least two years of experience in coffee agribusiness, involvement in marketing networks or cooperatives, and exposure to digital or institutional training programs related to coffee exports. The sample size of 143 farmers adhered to the rule of thumb by Hair et al. (2014), requiring five to ten times the number of indicators in Covariance-Based Structural Equation Modeling (CB-SEM) to ensure statistical power and model stability. A structured questionnaire with Likert-scale items (1 = strongly disagree, 7 = strongly agree) was adapted from validated instruments and contextualized for agribusiness in developing countries. To ensure cultural and linguistic appropriateness, the questionnaire was translated into Bahasa Indonesia and pre-tested with local farmers to confirm clarity and relevance.

The questionnaire measured Strategic Agility in Supply Chains (SASC) through market sensing, agility, flexibility, and supplier partnerships, while Supply Chain Resilience (SCR) was assessed via readiness, response, and recovery dimensions. Supply Chain Value Realization (SCVR) was operationalized through customer orientation, information-based collaboration, partnership-driven approaches, and innovation. Supply Chain Performance (SCP) was evaluated using metrics such as cost efficiency, risk management, customer responsiveness, and inventory management. Instrument reliability was confirmed using Cronbach's Alpha and Composite Reliability (CR), with convergent and discriminant validity assessed via Average Variance Extracted (AVE) and

Fornell-Larcker criteria. A pilot test with 20 farmers refined item clarity, and item-total correlation analysis ensured measurement precision.

Data analysis employed CB-SEM to simultaneously evaluate measurement and structural models. The process included univariate normality assessment, model identification, construct reliability analysis, and confirmatory factor analysis (CFA) to validate convergent and discriminant validity. Structural model evaluation used standardized path coefficients, t-statistics, and p-values to test hypothesized relationships, with goodness-of-fit indices (e.g., CFI, TLI, RMSEA, Chi-square/df) assessing model adequacy. A bias-corrected bootstrapping method rigorously evaluated the statistical significance of sequential mediation effects. To address potential sampling bias from purposive selection, sensitivity analyses were conducted to confirm result robustness, acknowledging that the focus on cooperative-involved farmers may limit generalizability to less organized farmers. The cross-sectional design, while effective for capturing current dynamics, limits insights into longitudinal effects, suggesting future research to explore temporal capability development.

RESULTS

This study employed Covariance-Based Structural Equation Modeling (CB-SEM) to rigorously test the hypothesized relationships among strategic agility in supply chains (SASC), supply chain resilience (SCR), supply chain value realization (SCVR), and supply chain performance (SCP) among 143 millennial coffee farmers in West Java, Indonesia. The analysis aimed to validate a sequential mediation model, with a focus on the direct effects (H1–H4) and the sequential mediation pathway (H5). To ensure model robustness, all plausible direct and indirect paths were tested, including non-hypothesized paths, to confirm that the primary effects occur through the proposed mediators. The following sections present the measurement model validation, structural model results, and mediation effects, supported by statistical indicators and goodness-of-fit indices.

Table 1. Construct Reliability and Validity

Variable	Cronbach's Alpha (Standardized)	Composite Reliability (rho_c)	Average Variance Extracted (AVE)
SASC	0.910	0.910	0.562
SCP	0.958	0.958	0.693
SCR	0.969	0.969	0.837
SCVR	0.937	0.936	0.650

*note**:**
SASC: strategic agility in supply chains; SCP: supply chain performance; SCR: supply chain resilience; SCVR: supply chain value realization.

Table 1 shows the measurement model. This study utilized CB-SEM to assess the reliability and validity of the latent constructs. The evaluation of internal consistency was conducted using both Cronbach's Alpha and Composite Reliability (CR), while Average Variance Extracted (AVE) was employed to examine convergent validity. As presented in Table 1, all constructs demonstrate excellent reliability and validity, providing a strong foundation for structural analysis. Table 1 summarizes the results of construct reliability and validity assessments using three statistical indicators: Cronbach's Alpha, Composite Reliability (CR), and Average Variance Extracted (AVE). These measures are essential in evaluating the psychometric robustness of latent variables in structural equation modeling and are widely recommended in recent SEM literature (Hair et al., 2014, Hair et al., 2025; Kline, 2023). All constructs demonstrate excellent internal consistency, with Cronbach's Alpha values ranging from 0.910 to 0.969, far exceeding the threshold of 0.70 commonly cited for acceptable reliability. These results suggest that the observed items exhibit a high degree of homogeneity in measuring their respective constructs. Similarly, Composite Reliability (CR) values are consistent with Cronbach's Alpha, also falling between 0.910 and 0.969, confirming strong internal coherence. The AVE scores for SASC, SCP, SCR, and SCVR are 0.562, 0.693, 0.837, and 0.650, respectively, all surpassing the

recommended threshold of 0.50, thus establishing satisfactory convergent validity. Notably, the high AVE for SCR underscores its empirical precision in volatile agribusiness environments. These results confirm that the measurement model is psychometrically sound, enabling reliable testing of the structural relationships.

Table 2. R-Square

Variable	R-Square
SCP	0.387
SCR	0.125
SCVR	0.482

*note:
SASC: strategic agility in supply chains; SCP: supply chain performance; SCR: supply chain resilience; SCVR: supply chain value realization.

Table 2 shows that the explanatory power of the structural model is evaluated using R-Square (R^2) coefficients, which indicate the proportion of variance in the endogenous constructs explained by their predictors. Table 2 presents the R^2 values, illustrating the model's ability to explain variance in SCP, SCR, and SCVR. According to Hair et al. (2025), R^2 values of 0.75, 0.50, and 0.25 are considered substantial, moderate, and weak, respectively, though contextual interpretations are necessary. The R^2 value for SCP is 0.387, suggesting that 38.7% of its variance is explained by SASC, SCR, and SCVR, indicating a meaningful influence in complex agribusiness environments where external factors also contribute to performance variability. The R^2 for SCVR is 0.482, close to moderate, showing that nearly 48.2% of its variance is accounted for by SCR, supporting the argument that resilience forms a foundation for value realization (Youn et al., 2012). The R^2 for SCR is 0.125, indicating that only 12.5% of its variance is explained by SASC, suggesting that other factors, such as institutional support or technological access, may influence resilience (Chowdhury et al., 2019). These findings highlight the model's explanatory power while suggesting opportunities to explore additional predictors in future research.

Table 3. Goodness of Fit (GoF)

Variable	Estimated Model	Null Model
ChiSqr/df	1.150	8.896
RMSEA	0.032	0.235
SRMR	0.077	n/a
NFI	0.880	n/a
TLI	0.981	n/a
CFI	0.982	n/a

The evaluation of model fit is critical in CB-SEM to ensure the theoretical structure aligns with empirical data. Table 3 reports the goodness-of-fit indices, confirming the model's statistical adequacy. The Chi-square/df ratio of the estimated model is 1.150, well below the threshold of 3.0, indicating a parsimonious and well-fitting model (Hair et al., 2025). The Root Mean Square Error of Approximation (RMSEA) is 0.032, within the excellent fit range ($\leq$0.05), suggesting strong agreement between the hypothesized and observed data structures. The Standardized Root Mean Square Residual (SRMR) is 0.077, marginally below the cut-off of 0.08, reflecting acceptable residual correlation. The Tucker-Lewis Index (TLI) and Comparative Fit Index (CFI) are 0.981 and 0.982, respectively, exceeding the benchmark of 0.95 for good fit (Henseler & Schuberth, 2025). The Normed Fit Index (NFI) is 0.880, reasonable given the model's complexity. In contrast, the null model shows poor fit (Chi-square/df = 8.896, RMSEA = 0.235), reinforcing the estimated model's superiority. These indices collectively affirm the model's suitability for testing the hypothesized relationships.

Table 4. Path Coefficients

Variable	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T-Statistics	P-Values
SASC → SCR	0.354	0.354	0.083	4.250	0.000
SASC → SCVR	0.562	0.564	0.058	9.693	0.000
SCR → SCP	0.175	0.177	0.079	2.222	0.027
SCR → SCVR	0.255	0.253	0.075	3.392	0.001
SCVR → SCP	0.523	0.522	0.069	7.550	0.000

*note:
SASC: strategic agility in supply chains; SCP: supply chain performance; SCR: supply chain resilience; SCVR: supply chain value realization.

To test the hypothesized relationships, all direct and indirect paths were analyzed, including non-hypothesized paths to ensure model robustness and confirm that the primary effects occur through the proposed mediators (H1–H5). Table 4 presents the standardized path coefficients, t-statistics, and p-values for the direct relationships. The path from SASC to SCR is significant ($\beta = 0.354$, $t = 4.250$, $p < 0.001$), supporting H1 and indicating that strategic agility enhances resilience. The path from SASC to SCVR is also significant ($\beta = 0.562$, $t = 9.693$, $p < 0.001$), supporting H2 and showing agility's role in fostering value realization. The path from SCR to SCVR is significant ($\beta = 0.255$, $t = 3.392$, $p = 0.001$), supporting H3 and confirming that resilience enables value realization. The path from SCVR to SCP is significant ($\beta = 0.523$, $t = 7.550$, $p < 0.001$), supporting H4 and highlighting value realization's impact on performance. The direct path from SCR to SCP ($\beta = 0.175$, $t = 2.222$, $p = 0.027$) was tested to verify that agility's effect on performance is primarily mediated, as hypothesized in H5, and shows a weak but significant direct effect. The non-significant direct path from SASC to SCP ($\beta = 0.106$, $t = 1.072$, $p = 0.284$) suggests that agility's impact on performance is fully mediated, reinforcing the importance of the sequential mediation pathway.

Table 5. Specific Indirect Effects

Variable	Original Sample (O)	Sample Mean (M)	Standard Deviation	T Statistics	P Values
SASC → SCR → SCVR	0.090	0.089	0.034	2.640	0.009
SASC → SCVR → SCP	0.294	0.295	0.053	5.505	0.000
SASC → SCR → SCP	0.062	0.065	0.036	1.746	0.081
SASC → SCR → SCVR → SCP	0.047	0.047	0.020	2.402	0.017
SCR → SCVR → SCP	0.133	0.133	0.047	2.832	0.005

*note:
SASC: strategic agility in supply chains; SCP: supply chain performance; SCR: supply chain resilience; SCVR: supply chain value realization.

Table 5 reports the specific indirect effects, testing the mediation pathways, including the sequential mediation hypothesized in H5. The indirect effect of SASC on SCVR through SCR is significant ($\beta = 0.090$, $t = 2.640$, $p = 0.009$), indicating that resilience mediates agility's effect on value realization. The indirect effect of SASC on SCP through SCVR is significant ($\beta = 0.294$, $t = 5.505$, $p < 0.001$), showing value realization's mediating role. The indirect effect of SASC on SCP through SCR is not significant ($\beta = 0.062$, $t = 1.746$, $p = 0.081$), suggesting that resilience alone does not fully mediate agility's effect on performance. The indirect effect of SCR on SCP through SCVR is significant ($\beta = 0.133$, $t = 2.832$, $p = 0.005$), confirming value realization's role in channeling resilience to performance. The sequential mediation path from SASC to SCP through SCR and SCVR is significant ($\beta = 0.047$, $t = 2.402$, $p = 0.017$), supporting H5 and validating that agility enhances resilience, which facilitates value realization, ultimately improving performance. These additional indirect effects were tested to ensure the robustness of the

sequential mediation model and to explore partial mediation pathways, confirming that H5 represents the primary mechanism in the agribusiness context.

DISCUSSION

The analysis reveals a positive and significant path coefficient between Strategic Agility in Supply Chain (SASC) and Supply Chain Resilience (SCR) ($\beta = 0.354$, $t = 4.250$, $p < 0.001$), supporting H1 and indicating that strategic agility enhances the capacity of agribusiness supply chains to anticipate, absorb, and respond to disruptions. According to Aslam et al. (2020), agility's role in enabling rapid resource realignment strengthens resilience, particularly in volatile environments like West Java's coffee sector. For millennial coffee farmers, this suggests that the ability to sense market signals, adjust production methods, and realign supplier relationships is instrumental in building resilience against climate variability, market shocks, and logistical constraints. Research by Tarigan et al. (2021) states that agility in the supply chain affects supply chain resilience and sustainable advantage. This aligns with dynamic capability theory, which posits that agility enables organizations to reconfigure resources effectively (Teece et al., 2016). So, strategic agility is key to adaptive and robust supply chain systems (Li et al., 2019). The non-significant direct path from SASC to Supply Chain Performance (SCP) ($\beta = 0.106$, $t = 1.072$, $p = 0.284$) indicates that agility's impact on performance is not direct but requires mediation through resilience and value realization, likely due to the fragmented and resource-constrained nature of agribusiness supply chains, where isolated agility may not translate into tangible outcomes without complementary capabilities.

The empirical evidence supports H2, showing a significant positive effect of SASC on Supply Chain Value Realization (SCVR) ($\beta = 0.562$, $t = 9.693$, $p < 0.001$). This suggests that strategic agility fosters conditions for realizing tangible value across the supply chain. In West Java's coffee sector, agility empowers farmer cooperatives to align production with consumer trends, utilize market intelligence, and foster collaborative practices with downstream actors, enhancing product quality and market access. Flynn et al. (2010) argue that supply chain integration, driven by agile practices, facilitates value creation through improved coordination and responsiveness, supporting these findings. This result also corroborates Sangari and Razmi (2015), who emphasize that agility enables strategic value capture when supported by transparency and collaboration. Agility, therefore, is not just about speed but about executing timely actions to generate value, critical for smallholder farmers navigating complex market dynamics.

Hypothesis H3 is supported, with SCR significantly influencing SCVR ($\beta = 0.255$, $t = 3.392$, $p = 0.001$), confirming that resilient supply chains are better equipped to actualize value by maintaining operational continuity and trust-based relationships. For millennial coffee farmers, resilience manifests in handling crop failures, market shocks, and distribution delays, enabling consistent quality and delivery that facilitate price premiums and improved customer relationships. Zhao et al. (2023) highlight that resilience fosters relational value in turbulent supply chains, a critical factor in Indonesia's fragmented agribusiness ecosystem. Meanwhile Kamalahmadi and Parast (2016) emphasizes resilience as critical for sustaining values realization. The path from SCVR to SCP is also significant ($\beta = 0.523$, $t = 7.550$, $p < 0.001$), supporting H4 and underscoring value realization's role in enhancing performance outcomes like cost efficiency and customer responsiveness. This illustrates that realizing strategic value is key to competitiveness in resource-constrained supply chains. Research by Wong et al. (2011) and Ambulkar et al. (2015) shows that Effective value realization leads to improved performance outcomes and performance is significantly enhanced when value is maintained post disruption.

The sequential mediation pathway from SASC to SCP through SCR and SCVR is significant ($\beta = 0.047$, $t = 2.402$, $p = 0.017$), supporting H5 and validating that agility enhances resilience, which facilitates value realization, ultimately improving performance. This sequential model aligns with Dubey et al. (2018), who advocate for integrated capability development in complex supply networks. However, the study's cross-sectional design limits insights into longitudinal capability development, and the

focus on 143 cooperative-involved farmers may not fully represent less organized farmers, suggesting caution in generalizing findings. These findings imply that policymakers and agribusiness stakeholders should prioritize training programs that integrate agility, resilience, and value realization for millennial farmers, such as digital literacy workshops and cooperative strengthening initiatives. Future research could explore longitudinal effects and include diverse agribusiness contexts to enhance generalizability, ensuring sustainable performance in developing economies.

CONCLUSION

This study confirms that strategic agility significantly contributes to enhancing supply chain resilience and value realization, both of which are instrumental in driving superior supply chain performance. The findings indicate that the ability to sense market shifts, respond quickly, and maintain strategic flexibility enables agribusiness actors, particularly millennial coffee farmers in West Java, to better anticipate disruptions and adapt proactively. These adaptive responses form the foundation of resilience, which in turn fosters stronger value realization through collaboration, information sharing, customer orientation, and innovation. The sequential mediation model validated in this study highlights the interdependence of these capabilities, demonstrating that agility initiates a cascading effect through resilience and value realization to achieve performance outcomes like cost efficiency, customer responsiveness, and operational reliability. The novelty of this study lies in its integrated perspective, illustrating how these capabilities interact cumulatively to generate performance value in fragmented agribusiness environments characterized by volatility, asymmetry, and low digital integration.

From a practical standpoint, the findings suggest that agribusiness stakeholders, including policymakers and farmer cooperatives, should prioritize training programs that enhance strategic agility through digital tools, market responsiveness, and flexible coordination, while fostering resilience through risk management and collaboration strategies. These efforts can empower millennial coffee farmers to thrive in uncertain conditions and achieve competitive value generation. However, the study's cross-sectional design limits insights into how these capabilities evolve over time, and the focus on 143 cooperative-involved farmers may not fully represent less organized farmers, potentially restricting generalizability. Future research should adopt longitudinal designs to explore the temporal dynamics of capability development and include diverse agribusiness contexts, such as other crops or regions, to enhance the applicability of the model. This approach can provide a broader roadmap for improving supply chain outcomes in developing economies with similar structural challenges.

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