

Effect of Supply Chain Integration and Agility on B2B Sales Performance Through Customer Experience and Repurchase Intention: A Study in the Logistics and Distribution Industry

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Article Info

Article type:

Original Research

How to cite this article:

Yari, H., Namjoo, A., & Kasraee, A. R. (2027). Effect of Supply Chain Integration and Agility on B2B Sales Performance Through Customer Experience and Repurchase Intention: A Study in the Logistics and Distribution Industry. *Journal of Resource Management and Decision Engineering*, 6(5), 1-13.

<https://doi.org/10.61838/kman.jrmde.447>



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ABSTRACT

In contemporary B2B markets, sales performance is not determined solely by product price and quality; rather, it is also influenced by supply chain capabilities and the experience customers acquire through their interactions with suppliers. The present study aimed to investigate the effect of supply chain integration and agility on B2B sales performance, with customer experience and repurchase intention serving as mediating variables in the logistics and distribution industry. In terms of purpose, this was an applied study, and in terms of nature, it employed a descriptive-correlational design using structural equation modeling. The statistical population consisted of sales, marketing, and supply chain managers and experts employed by companies operating in the logistics and distribution industry, and stratified random sampling was used. Data were collected using standardized questionnaires and analyzed through partial least squares structural equation modeling (PLS-SEM). The findings showed that supply chain integration had positive and significant effects on customer experience, repurchase intention, and sales performance. Supply chain agility also had positive and significant effects on customer experience and repurchase intention; however, its direct effect on sales performance was not supported. Customer experience had positive and significant effects on repurchase intention and sales performance, while repurchase intention also had a positive and significant effect on sales performance. The mediating roles of customer experience and repurchase intention in the relationships between supply chain integration and agility and sales performance were confirmed. The results indicate that supply chain capabilities can improve B2B sales performance not merely through direct effects, but primarily by creating a favorable customer experience and strengthening customers' intention to repurchase.

Keywords: supply chain integration, supply chain agility, B2B sales performance, customer experience, repurchase intention, logistics and distribution industry.

1. Introduction

Business-to-business (B2B) markets have undergone substantial transformation as firms increasingly compete not only on the basis of price, product quality, and technical specifications, but also through the reliability, responsiveness, and relational value embedded in their supply chains. In contemporary logistics and distribution environments, customers evaluate suppliers according to their ability to coordinate flows, respond rapidly to changes, maintain continuity of service, and provide a consistent experience across multiple points of interaction. Consequently, supply chain management has evolved from a predominantly operational function into a strategic capability that directly and indirectly shapes market outcomes. This shift has become particularly evident in industries characterized by demand volatility, service complexity, intense competition, and recurrent disruptions, where the ability to integrate internal and external supply chain activities is critical to sustaining performance (Azadi & Roshani, 2025; Hendijani & Saeidi Saei, 2020). At the same time, firms are expected to react swiftly to fluctuations in customer requirements and environmental conditions, making supply chain agility a central strategic asset rather than merely an operational attribute (Beigi Firouzi et al., 2023). These developments suggest that supply chain capabilities should increasingly be evaluated not only in terms of cost and operational efficiency but also in relation to customer experience, repurchase behavior, and ultimately B2B sales performance.

Supply chain integration refers to the extent to which organizations coordinate processes, information, decisions, and relationships across internal functions and external partners in order to create synchronized and efficient flows of products, services, and information. Effective integration reduces fragmentation among purchasing, logistics, operations, marketing, and sales functions and creates greater visibility across the value chain. Such coordination can enable firms to align supply capabilities with customer requirements more effectively and respond to changes before they escalate into service failures. Previous research has demonstrated that integration can enhance organizational performance by improving information sharing, reducing uncertainty, facilitating resource coordination, and strengthening operational consistency (Hendijani & Saeidi Saei, 2020). In industries where distribution and logistics processes directly influence customer perceptions of service quality, the strategic value

of integration may be particularly pronounced. The integration of supply chain management and logistics has therefore been increasingly recognized as a prerequisite for successful business processes, especially where firms must coordinate multiple actors and activities to deliver value to organizational customers (Azadi & Roshani, 2025). Sustainable and resilient supply chain designs similarly emphasize the importance of coordinated network structures when organizations operate under disruption and environmental uncertainty (Fasihi et al., 2021; Khalili et al., 2022).

The importance of integration becomes more evident when supply chains are exposed to risk, uncertainty, and operational disruption. Modern supply networks often include geographically dispersed partners, complex transportation arrangements, fluctuating demand, and highly interdependent processes, all of which increase vulnerability to interruption. Studies of disruption risk have shown that supply chain performance depends strongly on the ability to anticipate, coordinate, and manage risks across network boundaries (Xu et al., 2020). Research on sustainable closed-loop systems and uncertain supply environments has likewise indicated that risk assessment and network coordination are essential to maintaining system performance and continuity (Jafari Eskandari & Emami Salout, 2022; Jandaghi et al., 2022). Supply chain risk research has further demonstrated that uncertainty should be considered not as an isolated operational problem but as a system-level phenomenon requiring integrated information, planning, and decision mechanisms (Wang et al., 2022). These concerns became even more salient following major global disruptions, including the COVID-19 pandemic, which exposed structural weaknesses in supply networks and demonstrated how rapidly disruptions can influence sourcing, production, distribution, and customer service (Ghadir et al., 2026; Madzik et al., 2024).

Alongside integration, supply chain agility has become another critical capability for maintaining competitiveness in volatile environments. Supply chain agility can be understood as the capability to sense market changes and respond rapidly, flexibly, and effectively to shifts in demand, supply conditions, customer expectations, or competitive pressures. Whereas integration primarily enhances coordination and consistency, agility emphasizes speed, adaptability, and responsiveness. Evidence from supply chain research suggests that agility contributes to improved organizational and financial performance by enabling firms to reconfigure processes and resources as conditions change

(Beigi Firouzi et al., 2023). Recent research on resilience enablers similarly demonstrates that flexible and adaptive supply chain capabilities are closely linked with superior business outcomes under uncertain conditions (Agarwal & Seth, 2024). In practice, agility enables logistics and distribution firms to modify delivery schedules, adjust inventory allocation, respond to urgent customer orders, and recover more rapidly from disruptions. These capabilities can become particularly important in B2B relationships, where service failures may have cascading effects on customers' own operations and therefore carry substantial relational and financial consequences.

Supply chain agility is also increasingly linked with digitalization and advanced analytical capabilities. Firms are adopting artificial intelligence, big data analytics, and automated decision-support systems to improve forecasting, enhance supply chain visibility, and accelerate responses to emerging market signals. Research has shown that AI-powered big data analytics can strengthen supply chain agility while simultaneously enhancing customer relationship performance by enabling organizations to process large volumes of operational and customer data in real time (Shah et al., 2025). Similarly, the transition from traditional business analytics toward artificial intelligence has been viewed as an important development in supply chain risk management because AI-supported systems can identify patterns, anticipate disruptions, and assist decision-makers in responding proactively (Žigienė et al., 2022). AI-based supply chain management models have also emphasized resilience and the reduction of information distortion and the bullwhip effect, indicating that intelligent capabilities can improve the coordination and adaptability of supply chain systems (Marzban Abbasabadi et al., 2025). Furthermore, automation in supply chain risk management is increasingly considered a mechanism through which firms can enhance responsiveness and reduce the time required to detect, assess, and mitigate disruptions (Das & Perona, 2025).

Despite the growing strategic relevance of integration and agility, their effects on sales performance may not necessarily occur through direct mechanisms. Supply chain capabilities influence what customers actually experience during service delivery, including order accuracy, reliability, responsiveness, problem resolution, communication quality, and delivery consistency. In B2B markets, customer experience is shaped by a sequence of operational and relational encounters extending far beyond the sales transaction itself. Logistics service quality, for example, has

been shown to influence satisfaction in B2B relationships, highlighting that customer evaluations are strongly affected by the quality of supplier execution and service interactions (Gaudenzi et al., 2020). More recent work places customer experience at the center of supply chain management and identifies logistics-related determinants as important drivers of customer satisfaction (Mohamed et al., 2025). Accordingly, a well-integrated and agile supply chain may create value for customers because it reduces service inconsistency, improves responsiveness, facilitates communication, and increases the likelihood that customer expectations will be met across repeated exchanges.

Customer experience is especially important in B2B settings because purchasing decisions are frequently repeated, economically significant, and embedded in long-term interorganizational relationships. A positive experience can reduce perceived risk, strengthen confidence in the supplier, and increase customers' willingness to continue the relationship. Conversely, recurring delivery delays, communication failures, inaccurate fulfillment, or slow responses to changing requirements may damage trust even when the supplier's core product remains technically acceptable. This implies that supply chain capabilities contribute to market performance insofar as they are translated into experiences that customers perceive as valuable. Technology-driven proactive supply chain risk management may support such value creation by allowing firms to anticipate disruptions and protect service continuity before customers experience major failures (Jegan et al., 2024). In this sense, proactive coordination and responsiveness can generate competitive advantage not merely through internal efficiency but also through superior market-facing outcomes.

Repurchase intention constitutes another key mechanism through which supply chain capabilities may ultimately influence sales performance. In B2B relationships, repeated purchases are critical because customer acquisition is often expensive, sales cycles can be lengthy, and the economic value of existing accounts may accumulate over time. Repurchase intention reflects a customer's willingness to continue purchasing from the same supplier based on prior evaluations, perceived value, trust, satisfaction, and expected future performance. Customer experience can therefore be expected to exert a substantial influence on repeat purchasing decisions. When customers experience consistent logistics performance, reliable communication, effective problem resolution, and responsive service, the uncertainty associated with future transactions is reduced.

Such continuity may strengthen the likelihood of repeat purchasing and improve the stability of supplier revenues. Research on supply chain design based on customer satisfaction has highlighted the importance of incorporating customer-related outcomes into operational and network decisions, rather than considering supply chain performance exclusively from a cost or efficiency perspective (Hassanpour et al., 2021).

The relationship between customer experience and repurchase intention is particularly relevant in markets where suppliers offer relatively comparable products and differentiation increasingly depends on service execution. In such contexts, customers may remain with a supplier not only because of product attributes but because switching entails uncertainty, coordination costs, and potential disruption. Thus, positive customer experiences accumulated over time can foster behavioral continuity and reinforce commercial relationships. The broader literature on sustainable supply chain risk management also emphasizes the need to connect operational resilience with stakeholder outcomes, indicating that supply chain systems must be evaluated in terms of the value and stability they create for market participants (Wang et al., 2022). Similarly, research on brand-driven supply chain customization suggests that aligning supply operations with differentiated market requirements can enhance operational efficiency while supporting sustained market expansion (Moshood, 2025). Such findings imply that customer-responsive supply chain strategies can contribute to both relational outcomes and commercial growth.

B2B sales performance itself is a multidimensional outcome influenced by operational, relational, and market mechanisms. Sales performance may be reflected in sales growth, customer retention, repeat orders, account development, market expansion, and achievement of revenue targets. In logistics and distribution industries, these outcomes are strongly connected to the supplier's ability to execute reliably across the entire value-delivery process. The performance benefits of supply chain integration are therefore likely to depend on whether coordination improvements translate into customer-perceived value and purchasing continuity. Similarly, agility may improve the firm's ability to respond, but responsiveness alone may not automatically increase sales unless customers recognize and value that responsiveness. This may explain why prior research has not always implied a simple direct connection between supply chain capabilities and financial or market outcomes. The strategic significance of agility may vary

across industries and contexts, suggesting the importance of examining intervening mechanisms between agility and performance (Beigi Firouzi et al., 2023).

Supply chain risk and resilience studies also reinforce the argument that operational capabilities should be connected to business outcomes through explicit causal mechanisms. Research involving manufacturing SMEs has shown that supply chain risks are interdependent and should be modeled as interconnected variables rather than isolated factors (Babu et al., 2021). Similar risk-assessment studies in the automotive industry have demonstrated that disruptions emerge through complex combinations of operational vulnerabilities, requiring structured prioritization and coordinated mitigation strategies (Mzougui et al., 2020). In the Iranian automotive context, resilience strategies have likewise been investigated as an important response to uncertainty and disruption within supply chain systems (Tebanian, 2022). These studies collectively indicate that firms require both structural coordination and adaptive capacity, but the ultimate commercial value of these capabilities depends on the extent to which they protect customer-facing performance and strengthen relational continuity.

The logistics and distribution sector provides a particularly appropriate context in which to examine these relationships because the sector sits directly at the intersection of operational execution and customer value creation. Logistics providers and distribution firms are expected to ensure timely delivery, information accuracy, service flexibility, inventory availability, and coordination among multiple supply chain participants. Failures in these areas are immediately visible to B2B customers and can interrupt their own operations. As a result, logistics performance often becomes inseparable from perceptions of supplier quality. Customer-centric supply chain configurations increasingly require firms to customize operations according to market and customer expectations, which can contribute to both operational efficiency and sustained expansion (Moshood, 2025). At the same time, the growing use of technology-enabled risk management and analytics enables firms to shift from reactive problem solving toward proactive management, thereby strengthening both resilience and competitive advantage (Das & Perona, 2025; Jegan et al., 2024).

An additional consideration is that integration and agility may operate differently in relation to customer outcomes. Integration can create stable coordination and reduce inconsistencies, whereas agility can help the firm respond

quickly when conditions change. Integration may therefore contribute directly to reliable service delivery and performance, while agility may become especially valuable when customers experience uncertainty, urgency, or changing requirements. This distinction is theoretically important because it suggests that the two capabilities need not influence B2B sales performance through identical pathways. Supply chain resilience research increasingly emphasizes combinations of capabilities rather than isolated practices, particularly as organizations navigate disruptions and rapidly changing environments (Agarwal & Seth, 2024; Madzik et al., 2024). Furthermore, intelligent and data-driven systems can strengthen both coordination and responsiveness, creating opportunities for firms to integrate customer information with operational decision-making (Shah et al., 2025; Žigienė et al., 2022).

Although substantial research has examined supply chain integration, agility, resilience, risk, customer satisfaction, and organizational performance independently, fewer studies have developed an integrated explanation of how supply chain integration and agility jointly influence B2B sales performance through sequential customer-related mechanisms. Much of the supply chain literature has focused on disruption management, network optimization, risk prioritization, resilience, or operational performance (Jafari Eskandari & Emami Salout, 2022; Jandaghi et al., 2022; Khalili et al., 2022). Other studies have examined customer satisfaction or service quality without explicitly connecting these outcomes to supply chain capabilities and subsequent purchasing behavior (Gaudenzi et al., 2020; Hassanpour et al., 2021). Meanwhile, emerging research on AI, analytics, and proactive risk management has strengthened understanding of responsiveness and resilience, but the customer-mediated pathways linking these capabilities to sales outcomes remain comparatively underexplored (Marzban Abbasabadi et al., 2025; Shah et al., 2025). This gap is especially relevant in logistics and distribution, where the commercial value of supply chain capabilities is likely to materialize through the experiences they create for organizational customers and the extent to which those experiences encourage repeat purchases.

Accordingly, developing a model that links supply chain integration and supply chain agility to customer experience, repurchase intention, and B2B sales performance can provide a more complete account of how operational capabilities are converted into market outcomes. Such a model also allows direct and indirect effects to be distinguished and can clarify whether customer experience

and repurchase intention function as independent or sequential mediators. This perspective extends supply chain research beyond the conventional emphasis on operational efficiency and resilience by explicitly connecting internal and interorganizational capabilities to customer behavior and sales performance. It also has managerial relevance because investments in integration, agility, digitalization, and resilience are economically justified only when they contribute to outcomes valued by the organization, including stronger customer relationships and improved sales results.

Therefore, the aim of the present study was to investigate the effects of supply chain integration and supply chain agility on B2B sales performance through the mediating roles of customer experience and repurchase intention in the logistics and distribution industry.

2. Methods and Materials

The present study was applied in terms of purpose and descriptive-correlational in nature. With respect to the data collection method, it employed a survey design, while structural equation modeling based on the partial least squares approach (PLS-SEM) was used for data analysis. This approach is particularly appropriate for models involving mediating variables and multidimensional constructs and provides strong predictive capability even with relatively limited sample sizes.

The statistical population consisted of sales, marketing, logistics, and supply chain managers and experts employed by companies operating in the logistics and distribution industry. Stratified random sampling was conducted based on company size and type of service. Using Cochran's formula and considering the population to be unlimited, the required sample size was estimated at 384 participants. Following questionnaire distribution and collection, 342 usable questionnaires were returned, corresponding to a response rate of 89%. Data were collected using standardized questionnaires based on a five-point Likert scale. Supply chain integration was measured using the scales developed by Hendijani and Saeedi Saei (2020) and Khalili et al. (2022); supply chain agility was assessed using the scales developed by Agarwal and Seth (2024) and Ravanestan et al. (2019); customer experience was measured using the scale developed by Jagan et al. (2024); repurchase intention was assessed using the scale developed by Wang et al. (2022); and B2B sales performance was measured using the scales developed by Marzban Abbasabadi et al. (2025) and Hassanpour et al. (2021). Content validity was

evaluated through the judgments of 10 experts, while construct validity was examined using confirmatory factor analysis. Reliability was assessed using Cronbach's alpha and composite reliability, with all constructs yielding coefficients above .70.

Data analysis was conducted at two levels. At the descriptive level, means, standard deviations, and correlation coefficients were calculated. At the inferential level, the measurement model was assessed in terms of reliability, convergent validity using average variance extracted (AVE), and discriminant validity using the Fornell-Larcker criterion. The structural model was subsequently evaluated using path coefficients, t-values, coefficients of determination (R^2), effect sizes (f^2), and the goodness-of-fit (GOF) index. To examine the mediating roles of customer experience and repurchase intention, bootstrapping with 5,000 subsamples and the Sobel test were

employed. SmartPLS version 4 and SPSS version 26 were used for the analyses.

3. Findings and Results

This section presents the findings obtained from the analysis of data collected from 342 managers and experts in the logistics and distribution industry. First, respondents' demographic characteristics and descriptive statistics for the study variables are reported. Subsequently, the measurement model results, including construct reliability and validity, are examined. The findings from the direct hypothesis tests of the structural model, the mediating roles of customer experience and repurchase intention, and the model fit indices are then presented and interpreted in a series of tables.

Table 1

Demographic Characteristics of the Respondents

Variable	Category	Frequency	Percentage
Gender	Male	248	72.5
	Female	94	27.5
Education level	Bachelor's degree	186	54.4
	Master's degree	128	37.4
	Doctoral degree	28	8.2
Work experience	Less than 5 years	82	24.0
	5–10 years	146	42.7
	More than 10 years	114	33.3
Organizational position	Sales/Marketing Manager	96	28.1
	Sales Expert	124	36.3
	Supply Chain Manager/Expert	78	22.8
	Other	44	12.8
Company size	Small (fewer than 50 employees)	88	25.7
	Medium-sized (50–200 employees)	156	45.6
	Large (more than 200 employees)	98	28.7

Table 1 shows that most respondents were male (72.5%), held a bachelor's degree (54.4%), and had 5–10 years of work experience (42.7%). In terms of organizational position, sales experts (36.3%) and sales and marketing managers (28.1%) accounted for the largest proportions of

the sample, while 22.8% worked in the supply chain domain. The distribution of respondents across the three company-size categories was also relatively balanced, indicating that the sample adequately represented companies of different sizes within the logistics and distribution industry.

Table 2

Descriptive Statistics and Correlation Coefficients of the Study Variables

Variable	Mean	SD	1	2	3	4	5
1. Supply Chain Integration	3.86	0.72	1				
2. Supply Chain Agility	3.74	0.79	.58**	1			
3. Customer Experience	3.92	0.68	.62**	.54**	1		
4. Repurchase Intention	3.81	0.75	.51**	.49**	.67**	1	
5. B2B Sales Performance	3.79	0.71	.47**	.42**	.59**	.64**	1

Table 2 indicates that all variables had mean scores above the midpoint of the scale (3.00), with supply chain integration ($M = 3.86$) and customer experience ($M = 3.92$) showing the highest mean scores. All correlation coefficients were positive and statistically significant at the .01 level. The strongest correlation was observed between customer experience and repurchase intention ($r = .67$), followed by the relationship between supply chain integration and

customer experience ($r = .62$). These coefficients indicate acceptable preliminary relationships among the study variables and provide an appropriate basis for testing the structural model. The correlation between supply chain agility and sales performance ($r = .42$) was weaker than that between supply chain integration and sales performance ($r = .47$), suggesting that agility may exert a stronger indirect effect through the proposed mediators.

Table 3

Measurement Model Results: Reliability and Convergent Validity

Construct	Number of Items	Factor Loadings	Cronbach's Alpha	Composite Reliability (CR)	Average Variance Extracted (AVE)
Supply Chain Integration	6	.71–.89	.86	.89	.62
Supply Chain Agility	5	.69–.87	.82	.87	.58
Customer Experience	7	.73–.91	.90	.92	.66
Repurchase Intention	4	.76–.88	.84	.88	.64
B2B Sales Performance	5	.70–.86	.83	.88	.60

Table 3 shows that all factor loadings were at least .69, while all Cronbach's alpha and composite reliability values exceeded .82, confirming satisfactory construct reliability. The AVE values for all constructs were above .58, indicating acceptable convergent validity. Customer experience exhibited the highest convergent validity, with an AVE of .66. Discriminant validity was also confirmed using the

Fornell-Larcker criterion, as the square root of the AVE for each construct exceeded its correlations with all other constructs. These findings indicate that the measurement instrument possessed satisfactory psychometric quality and provide support for the reliability of the subsequent structural model results.

Table 4

Results of Direct Hypothesis Testing in the Structural Model

Hypothesis	Path	Path Coefficient (β)	t-value	p-value	Result
H1	Supply Chain Integration $\rightarrow$ Customer Experience	.48	7.32	< .001	Supported
H2	Supply Chain Integration $\rightarrow$ Repurchase Intention	.26	3.84	< .001	Supported
H3	Supply Chain Integration $\rightarrow$ B2B Sales Performance	.19	2.76	.006	Supported
H4	Supply Chain Agility $\rightarrow$ Customer Experience	.35	5.41	< .001	Supported
H5	Supply Chain Agility $\rightarrow$ Repurchase Intention	.21	3.12	.002	Supported
H6	Supply Chain Agility $\rightarrow$ B2B Sales Performance	.08	1.24	.215	Not supported
H7	Customer Experience $\rightarrow$ Repurchase Intention	.52	8.67	< .001	Supported
H8	Customer Experience $\rightarrow$ B2B Sales Performance	.31	4.58	< .001	Supported
H9	Repurchase Intention $\rightarrow$ B2B Sales Performance	.44	6.93	< .001	Supported

Table 4 shows that eight of the nine direct hypotheses were supported, while only the hypothesis concerning the direct effect of supply chain agility on B2B sales performance was not supported ($\beta = .08$, $p = .215$). The strongest direct path was the effect of customer experience on repurchase intention ($\beta = .52$), followed by the effect of supply chain integration on customer experience ($\beta = .48$). The direct effect of supply chain integration on sales

performance ($\beta = .19$) was also statistically significant, although weaker than its indirect effects. The nonsignificant direct effect of agility on sales performance suggests that supply chain agility primarily affects sales through customer experience and repurchase intention rather than directly. This finding is consistent with the theoretical logic of the study, which conceptualizes customer experience as a

principal mechanism through which supply chain capabilities are translated into sales performance.

Table 5

Results of Mediation Analysis for Customer Experience and Repurchase Intention

Indirect Path	Indirect Effect	Bootstrap SE	t-value	95% Confidence Interval	Result
Integration → Customer Experience → Sales Performance	.149	.032	4.66	[.088, .214]	Supported
Integration → Repurchase Intention → Sales Performance	.114	.029	3.93	[.061, .173]	Supported
Integration → Customer Experience → Repurchase Intention → Sales Performance	.110	.026	4.23	[.063, .164]	Supported
Agility → Customer Experience → Sales Performance	.109	.028	3.89	[.058, .168]	Supported
Agility → Repurchase Intention → Sales Performance	.092	.027	3.41	[.043, .149]	Supported
Agility → Customer Experience → Repurchase Intention → Sales Performance	.080	.023	3.48	[.039, .129]	Supported

Table 5 shows that all indirect paths were statistically significant, and none of the bootstrap confidence intervals included zero. The strongest indirect pathway was the effect of supply chain integration on sales performance through customer experience, with an indirect effect of .149. The full sequential pathway of supply chain integration → customer experience → repurchase intention → sales performance was also significant, with an indirect effect of .110, indicating sequential mediation by customer experience and repurchase intention. For supply chain agility, all indirect

pathways were likewise significant. Given its nonsignificant direct effect on sales performance, these results indicate full mediation by customer experience and repurchase intention in the relationship between supply chain agility and sales performance. These findings are consistent with Jagan et al. (2024) and Das and Perona (2025) regarding the role of experience and responsiveness in creating competitive advantage and with Hendijani and Saeedi Saei (2020) and Khalili et al. (2022) regarding the effect of integration on organizational performance.

Table 6

Structural Model Fit Indices and Effect Sizes

Dependent Construct	R ²	Adjusted R ²	Q ²	f ² Integration	f ² Agility	f ² Customer Experience	f ² Repurchase Intention
Customer Experience	.49	.48	.33	.31	.17	—	—
Repurchase Intention	.56	.55	.39	.08	.05	.36	—
B2B Sales Performance	.62	.61	.44	.04	.01	.09	.23

Model fit indices: GOF = .58; SRMR = .064; NFI = .91.

Table 6 indicates that the structural model possessed substantial predictive power. The R² value for B2B sales performance was .62, indicating that the model explained 62% of the variance in sales performance. The R² values for repurchase intention and customer experience were .56 and .49, respectively, demonstrating satisfactory explanatory power for the mediating variables. All Q² values were greater than zero and exceeded .15, supporting the model's predictive relevance. The f² values indicate that customer experience had a strong effect on repurchase intention (f² = .36), while repurchase intention had a substantial effect on sales performance (f² = .23). In contrast, the effect of supply chain agility on sales performance was very weak (f² = .01) and statistically nonsignificant. The GOF value of .58,

SRMR of .064, and NFI of .91 collectively indicate a satisfactory overall fit of the proposed model.

4. Discussion and Conclusion

The present study examined the effects of supply chain integration and supply chain agility on B2B sales performance through the mediating roles of customer experience and repurchase intention in the logistics and distribution industry. The findings supported eight of the nine direct hypotheses and confirmed all six indirect effects. Supply chain integration had significant positive effects on customer experience, repurchase intention, and B2B sales performance. Supply chain agility positively affected customer experience and repurchase intention, whereas its

direct effect on B2B sales performance was not statistically significant. Customer experience significantly improved both repurchase intention and B2B sales performance, while repurchase intention also exerted a significant positive effect on sales performance. Furthermore, both customer experience and repurchase intention mediated the effects of integration and agility on sales performance, and sequential mediation through customer experience followed by repurchase intention was also supported. The structural model demonstrated satisfactory explanatory and predictive power, accounting for 49% of the variance in customer experience, 56% of the variance in repurchase intention, and 62% of the variance in B2B sales performance.

The positive effect of supply chain integration on customer experience indicates that closer coordination across internal functions and external supply chain partners contributes to more consistent and favorable interactions from the perspective of B2B customers. When logistics, sales, marketing, inventory management, and distribution activities are synchronized, customers are more likely to receive accurate information, reliable service, timely deliveries, and coordinated responses to their requirements. This result is consistent with prior evidence showing that supply chain integration reduces fragmentation, facilitates information exchange, and improves organizational performance under conditions of demand uncertainty (Hendijani & Saeidi Saei, 2020). The finding also aligns with the argument that stronger integration between logistics and supply chain management improves the effectiveness of business processes and enhances the ability of firms to deliver value consistently (Azadi & Roshani, 2025). In logistics-intensive industries, such coordination is particularly important because customer experience is shaped not only by the final product but also by the quality, speed, reliability, and transparency of service delivery. The result is also compatible with studies emphasizing coordinated and resilient supply chain structures under uncertain conditions (Fasihi et al., 2021; Khalili et al., 2022).

Supply chain integration also had a significant positive effect on repurchase intention. This finding suggests that integrated supply chain processes create conditions under which organizational customers become more willing to maintain their purchasing relationship with the supplier. In B2B markets, repurchase decisions are often influenced by the perceived dependability of the supplier and the costs and risks associated with switching. Integration improves the supplier's ability to fulfill commitments, maintain consistency, and reduce operational failures, thereby

increasing confidence in future transactions. This interpretation is consistent with research emphasizing that customer satisfaction should be incorporated directly into supply chain network design and operational decision-making (Hassanpour et al., 2021). It also corresponds with the broader literature on sustainable supply chain risk management, which highlights the importance of stable and coordinated systems for protecting stakeholder relationships and reducing uncertainty (Wang et al., 2022). Thus, integration appears to influence repurchase intention by strengthening perceived reliability and reducing transaction-related uncertainty in ongoing B2B relationships.

The direct positive effect of supply chain integration on B2B sales performance further demonstrates that integrated supply chain structures can translate into measurable commercial outcomes. Although the magnitude of this direct effect was smaller than several customer-mediated effects, it remained statistically significant. This result can be explained by the fact that integration may directly improve order fulfillment, inventory availability, delivery reliability, planning accuracy, and information flow, all of which can support sales growth and customer retention. The finding is consistent with evidence showing that integrated supply chain practices contribute positively to firm performance (Hendijani & Saeidi Saei, 2020). It is also supported by research emphasizing the strategic importance of coordinated supply chain and logistics processes in improving business outcomes (Azadi & Roshani, 2025). In addition, research on AI-enabled supply chain systems suggests that improved coordination and visibility can reduce the bullwhip effect and strengthen resilience, thereby creating a more stable basis for commercial performance (Marzban Abbasabadi et al., 2025). Consequently, supply chain integration appears to generate both operational and market-level benefits.

The positive effect of supply chain agility on customer experience indicates that rapid and flexible responses to changing conditions are perceived positively by B2B customers. Agility enables firms to adapt delivery schedules, respond to demand fluctuations, resolve disruptions, and modify service processes more rapidly. Such responsiveness can directly improve customer perceptions because B2B customers frequently depend on suppliers for continuity of their own operations. This result is consistent with research identifying agility as a strategic asset capable of improving organizational and financial outcomes (Beigi Firouzi et al., 2023). It is also aligned with evidence that resilience enablers and adaptive capabilities are associated with

improved business outcomes in uncertain supply chain environments (Agarwal & Seth, 2024). Furthermore, AI-enabled big data analytics has been shown to strengthen supply chain agility and customer relationship performance, supporting the view that responsiveness and information-driven adaptation contribute to better customer outcomes (Shah et al., 2025). The present finding therefore reinforces the importance of agility as a customer-facing capability rather than merely an internal operational competence.

Supply chain agility also had a positive and significant effect on repurchase intention. This result implies that customers are more willing to continue purchasing from suppliers capable of reacting effectively to changes, urgency, and unexpected disruptions. In logistics and distribution, customers may value flexibility because demand patterns, delivery schedules, and service requirements are not always stable. A supplier that can rapidly accommodate these changes is likely to be perceived as less risky and more dependable. This result is compatible with technology-driven proactive supply chain risk management research, which suggests that the ability to anticipate and manage disruption contributes to competitive advantage and stronger customer-related outcomes (Jegan et al., 2024). It is also supported by the growing literature on automation and analytics in supply chain risk management, which emphasizes the importance of rapid detection and response mechanisms (Das & Perona, 2025). The transition from conventional analytics to AI-supported supply chain risk management further illustrates how information processing and intelligent responsiveness can strengthen adaptive capability (Žigienė et al., 2022).

In contrast, the direct effect of supply chain agility on B2B sales performance was not significant. This was the only unsupported direct hypothesis and represents an important theoretical finding. The result suggests that agility does not necessarily improve sales performance automatically; rather, its commercial value is realized when customers actually experience the benefits of responsiveness and translate those experiences into continued purchasing behavior. This finding is consistent with the notion that agility is a strategic capability whose performance consequences may depend on contextual and mediating mechanisms (Beigi Firouzi et al., 2023). Agility may allow an organization to react faster, but if customers do not perceive improved service quality, reliability, or responsiveness, such capability may not produce immediate gains in sales. Similarly, the benefits of advanced analytics and AI-driven agility are often realized through customer

relationship performance and better market responsiveness rather than through an instantaneous direct financial effect (Shah et al., 2025). The finding therefore indicates that customer-related mechanisms are essential in converting agility into sales outcomes.

Customer experience had the strongest direct effect on repurchase intention among the tested relationships. This finding demonstrates that customers' cumulative perceptions of service delivery, responsiveness, communication, reliability, and interaction quality are central determinants of their willingness to purchase again. In B2B settings, where transactions are often repeated and embedded within long-term relationships, favorable experience reduces uncertainty and strengthens confidence in the supplier. This result is strongly aligned with research showing that logistics service quality is a key driver of customer satisfaction in B2B relationships (Gaudenzi et al., 2020). It is also consistent with more recent work that positions customer experience at the core of supply chain and logistics systems and emphasizes logistical determinants of customer satisfaction (Mohamed et al., 2025). Furthermore, customer-oriented supply chain customization can strengthen market relationships by aligning operations with customer-specific needs (Moshood, 2025). These findings collectively support the conclusion that customer experience represents a critical behavioral bridge between operational execution and future purchasing decisions.

Customer experience also exerted a significant positive effect on B2B sales performance. This result demonstrates that customer experience has not only behavioral but also direct commercial consequences. When customers perceive service interactions positively, organizations are more likely to retain accounts, expand business relationships, reduce customer defection, and generate repeat revenue. In logistics and distribution, customer experience is particularly sensitive to delivery accuracy, response speed, communication quality, problem resolution, and continuity of service. The present result is supported by evidence demonstrating the importance of logistics service quality for satisfaction in B2B relationships (Gaudenzi et al., 2020). It is also consistent with research arguing that proactive, technology-enabled supply chain risk management contributes to competitive advantage by preventing disruptions and maintaining superior service outcomes (Jegan et al., 2024). Thus, customer experience functions as an important market-facing manifestation of supply chain capability and represents a direct source of sales performance.

Repurchase intention had a strong positive effect on B2B sales performance. This result is theoretically expected because repeat purchasing supports revenue continuity, customer retention, and more stable sales pipelines. In B2B environments, where customer acquisition costs are often high and relationships are developed over long periods, repurchase intention may be particularly important to sustained performance. Customers that intend to continue purchasing are less likely to switch suppliers, more likely to renew contracts, and potentially more receptive to cross-selling and expanded cooperation. This result is consistent with the broader customer-centered logic of supply chain management, according to which customer satisfaction and continued purchasing should be treated as strategic outcomes rather than peripheral consequences (Hassanpour et al., 2021). It is also compatible with research on customized supply chain strategies, which suggests that aligning operational capabilities with market and customer requirements can contribute to sustained market expansion (Moshood, 2025).

The mediation analysis provides further insight into how supply chain capabilities influence sales outcomes. Customer experience significantly mediated the relationships of both supply chain integration and agility with sales performance. This means that part of the effect of operational capabilities is translated into commercial value only after customers perceive improved service quality and interaction outcomes. The strongest indirect effect in the model was the pathway from supply chain integration through customer experience to sales performance. This result reinforces the importance of integrated operations in producing consistent customer-facing value. It is compatible with the view that technology-driven and proactive supply chain practices generate competitive advantage when they improve service continuity and customer outcomes (Jegan et al., 2024). The finding also aligns with recent research emphasizing customer experience as a central outcome of logistics and supply chain decisions (Mohamed et al., 2025).

Repurchase intention also mediated the effects of both integration and agility on sales performance. This indicates that supply chain capabilities improve sales partly because they increase customers' willingness to maintain the relationship with the supplier. Such a mechanism is particularly relevant in B2B markets, where repeat transactions account for a substantial portion of commercial value. Moreover, the significant sequential mediation paths demonstrate that integration and agility first improve customer experience, which then strengthens repurchase

intention and ultimately enhances sales performance. This sequential process provides a more comprehensive explanation of how supply chain capabilities are converted into market outcomes. Rather than assuming a simple direct connection between operational competence and sales, the results show that customer perceptions and behavioral intentions constitute essential intermediate stages.

The full mediation identified for supply chain agility is particularly noteworthy. Because agility did not exert a significant direct effect on sales performance but demonstrated significant indirect effects through customer experience and repurchase intention, its commercial contribution appears to depend primarily on customer-related mechanisms. This finding suggests that investments in agility should not be evaluated solely through operational indicators such as response time or flexibility. Their strategic value should also be assessed according to whether customers perceive improved responsiveness and consequently become more inclined to continue purchasing. This interpretation is consistent with research on AI-enabled agility and customer relationship performance (Shah et al., 2025), as well as work emphasizing proactive and automated supply chain risk management (Das & Perona, 2025; Jegan et al., 2024). It also supports the broader resilience literature, which emphasizes that adaptive capabilities must ultimately protect continuity and stakeholder value during disruptive conditions (Ghadir et al., 2026; Madzík et al., 2024).

The explanatory and predictive performance of the model also supports the proposed theoretical framework. The model explained 62% of the variance in B2B sales performance, indicating substantial explanatory capability. The R^2 values for customer experience and repurchase intention were also satisfactory, and all Q^2 values exceeded zero, supporting predictive relevance. The effect-size results further showed that customer experience exerted a strong influence on repurchase intention, whereas repurchase intention had a comparatively substantial effect on sales performance. These patterns reinforce the central role of customer-related mechanisms in translating supply chain capabilities into commercial results. The findings are consistent with a broader transition in supply chain research from an exclusive focus on risk, operational efficiency, and network optimization toward more integrated models incorporating resilience, analytics, customer value, and market performance (Babu et al., 2021; Mzougui et al., 2020; Wang et al., 2022; Xu et al., 2020). Overall, the results demonstrate that supply chain integration creates both direct and indirect sales benefits, whereas supply chain agility

contributes predominantly through improved customer experience and strengthened repurchase intention.

The present study has several limitations that should be considered when interpreting the findings. First, the cross-sectional design limits the ability to establish causal relationships with complete certainty, because all variables were measured at a single point in time. Second, the study relied on self-reported questionnaire data, which may be affected by common method variance, social desirability, or respondents' subjective perceptions. Third, the sample was restricted to managers and experts operating in the logistics and distribution industry, which may limit the generalizability of the findings to manufacturing, retailing, healthcare, technology, or other B2B sectors. Fourth, the study focused on supply chain integration and agility as the principal operational capabilities and did not include other potentially influential constructs such as digital maturity, supply chain visibility, trust, relationship quality, resilience, environmental uncertainty, or competitive intensity. Finally, although the model demonstrated satisfactory explanatory power, sales performance was assessed through perceptual measures rather than objective financial or transactional indicators.

Future studies should employ longitudinal designs to examine how changes in supply chain integration, agility, customer experience, and repurchase behavior develop over time and to provide stronger evidence regarding causal sequencing. Researchers may also replicate the proposed model across different industries and national contexts to evaluate its external validity and identify sector-specific differences. Future models could incorporate additional mediators such as customer satisfaction, trust, relationship quality, perceived value, or service quality and could test moderators including market turbulence, digital maturity, environmental uncertainty, firm size, and dependence on key customers. Multi-source research designs would also be valuable, particularly studies combining supplier-side survey responses with actual customer evaluations and objective sales records. Additional research could compare different dimensions of supply chain integration, such as internal, supplier, and customer integration, and distinguish between sensing agility and response agility. The use of longitudinal PLS-SEM, covariance-based SEM, multigroup analysis, or predictive machine-learning approaches may further clarify the boundary conditions and predictive strength of the proposed relationships.

Managers in logistics and distribution firms should treat supply chain integration and agility as customer-facing

capabilities rather than exclusively operational competencies. Greater coordination should be established among sales, marketing, logistics, warehousing, procurement, and customer service functions so that customer requirements are transmitted accurately and addressed consistently throughout the supply chain. Firms should also strengthen real-time information sharing, demand visibility, flexible order fulfillment, and rapid response mechanisms so that agility becomes perceptible to customers through faster and more reliable service. Because customer experience and repurchase intention were the principal mechanisms linking supply chain capabilities to sales performance, performance dashboards should include customer-experience indicators, repeat-purchase rates, retention, complaint resolution, delivery reliability, and responsiveness alongside conventional operational metrics. Managers should also prioritize technologies that improve visibility, analytics, coordination, and proactive disruption management while ensuring that technological investment translates into measurable improvements in customer interactions. Finally, customer feedback should be systematically integrated into supply chain planning so that integration and agility initiatives are continually aligned with the factors that most strongly influence repeat purchasing and B2B sales growth.

Authors' Contributions

Authors contributed equally to this article.

Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

Transparency Statement

Data are available for research purposes upon reasonable request to the corresponding author.

Acknowledgments

We would like to express our gratitude to all individuals helped us to do the project.

Declaration of Interest

The authors report no conflict of interest.

Funding

According to the authors, this article has no financial support.

Ethics Considerations

In this research, ethical standards including obtaining informed consent, ensuring privacy and confidentiality were considered.

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