Journal homepage: https://pathfinderpub.com/index.php/pathfinder-of-research

Pathfinder of Research

ISSN (3007-3863), Special Vol. 3, Issue 1, 2022

Review Research

Integrating Supply Chain Management and Marketing Strategies for Competitive Advantage in the Digital Economy

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https://doi.org/10.69937/pf.por.3.1.59

ARTICLE INFO

Article History:
Received: 05 April 2022
Accepted: 02 June 2022
Online: 03 June 2022

Keywords
Supply Chain Integration, Digital Marketing, Competitive Advantage, Business Performance, Digital Transformation.

ABSTRACT

The digital economy is driving firms to improve competitiveness by integrating supply chain management with marketing. Many organizations still operate these functions on separate systems, which introduces inefficiencies, slows responses, and obscures potential synergies. This study examines the association between digital SCM marketing integration and operational and customer outcomes using a mixed-methods design. A cross-sector survey of 250 professionals from manufacturing, retail, and service sectors was analysed in SPSS 26, and 10 in-depth managerial interviews were thematically analysed to identify enabling practices and outcomes. Overall, 69 percent of organizations reporting successful integration also reported approximately 25 percent higher operational efficiency and 27 percent higher customer satisfaction compared with lower integration peers. Integration showed a strong positive correlation with competitive advantage ($r = 0.74$, $p = 0.01$). Interview insights converged on three enablers: AI-driven forecasting, real-time data sharing, and collaborative digital platforms that connect planning and market execution. These tools were consistently linked with better demand sensing, improved inventory management, and tighter alignment between supply decisions and marketing needs. The findings suggest that digital integration of SCM and marketing is associated with superior efficiency, faster fulfillment, and enhanced customer satisfaction, offering practical guidance on leadership commitment, interoperable data infrastructure, and governance routines that sustain cross functional collaboration.

1. Introduction

Global competition, volatile demand, and digital technologies are reshaping how firms coordinate activities from sourcing to customer engagement. In this context, integrating supply chain management with marketing has emerged as a strategic response to shorten information lead times, synchronize planning with real demand, and convert data into timely commercial action. While many organizations have invested in digital tools, functional silos and heterogeneous information systems often prevent data from flowing across planning, procurement, logistics, and market-facing teams, which diminishes agility and raises operating costs **(Jackson & Ahuja, 2016)**. Advancing integration therefore requires both technical interoperability and organizational

alignment around shared objectives and metrics.

The diffusion of Industry 4.0 technologies has accelerated this agenda by enabling real-time data capture, predictive analytics, and platform-based collaboration across internal and external partners **(Hahn, 2019; Attaran, 2020)**. Firms increasingly connect enterprise resource planning, transportation management, warehouse management, customer relationship management, and digital campaign platforms so that forecasts, inventory positions, and order trajectories inform market commitments and vice versa **(Su & Yang, 2009; Srai et al., 2015)**. When such linkages operate effectively, organizations can sense demand shifts earlier, adjust production Fand replenishment more precisely, and communicate value propositions that reflect supply realities, improving both efficiency and customer experience **(Rahman et al., 2020; Ralston & Blackhurst, 2020)**.

Evidence has grown that data-intensive capabilities support superior performance, but outcomes depend on how analytics are embedded in decision processes across functions **(Mishra et al., 2016; Mikalef et al., 2019)**. For instance, predictive demand models can reduce stockouts and expedite fulfillment only when planning, procurement, and marketing share timely insights and coordinate on service levels, promotions, and assortment choices **((Duncan et al., 2010; Min et al., 2019)**. Similarly, sustainability and circular-economy priorities require coordinated product, process, and channel decisions that span marketing messaging and supply chain design **(Nayal et al., 2021; Sarfraz et al., 2021)**. These observations highlight that digital technology is a necessary but insufficient condition for impact without cross-functional governance and shared performance metrics.

At the same time, the emergence of platform ecosystems, fintech-enabled transactions, and digitally mediated customer journeys has complicated demand signals and fulfillment choices **(Gomber, et al., 2018)**. Marketing teams increasingly orchestrate omnichannel engagement and personalized offers, while supply chain teams manage multi-echelon inventories and logistics variability under cost and carbon constraints **(Hu et al., 2019)**. Misalignment between these functions can trigger forecast errors, excess safety stock, markdowns, and service failures that erode competitive advantage. Conversely, when integration is achieved, firms report faster cycle times, improved service levels, higher asset utilization, and better innovation throughput.

Despite these developments, several gaps persist. First, many studies treat digital transformation or cross-functional collaboration in isolation, leaving limited empirical evidence on their joint effect when SCM and marketing are integrated through interoperable platforms and shared routines. Second, performance is often reported as broad strategic outcomes without quantifying magnitudes that managers can use for benchmarking **(Thusi & Maduku, 2020)**. Third, qualitative enablers such as leadership commitment, data stewardship, and incentive alignment are recognized but under-specified in relation to measurable operational and customer outcomes **(Islami et al., 2020)**.

This study addresses these gaps by examining digital SCM marketing integration using a mixed methods design that links quantitative performance patterns with qualitative insights on enabling

practices. The survey component analyzes associations between integration and outcomes such as operational efficiency and customer satisfaction, while the interview component identifies the organizational mechanisms that sustain integration at scale. By reporting headline magnitudes and clarifying the process conditions behind them, the paper contributes three advances. First, it provides empirical evidence on the strength of association between integration and competitive advantage in a cross-sector sample **(Ralston & Blackhurst, 2020)**. Second, it distills a concise set of enablers that recur across high-integration organizations, including AI-enabled forecasting, real-time data sharing, and collaborative digital platforms **(Epiphaniou et al., 2020)**. Third, it translates these insights into actionable guidance on shared KPIs, interoperable data infrastructure, and governance routines that align functional priorities **(Wagner et al., 2013)**.

2. Materials and Methods

2.1 Research Design

This study used a mixed-methods design to examine how digital integration between supply chain management and marketing relates to organizational outcomes. A cross-sectional survey captured measurable associations, and semi-structured interviews provided contextual depth, allowing triangulation of quantitative patterns with qualitative mechanisms.

2.2 Sampling and Participants

Purposive sampling targeted professionals in manufacturing, retail, and service sectors with direct exposure to supply chain, marketing, or cross-functional integration initiatives. The final dataset included 250 valid survey responses drawn from firms of varied sizes, complemented by 10 interviews with managers responsible for integration programs or digital transformation. This sampling strategy prioritized informants positioned to report on processes, technologies, and performance implications of integration.

2.3 Data Collection

Quantitative data were collected via a structured questionnaire administered to sector-diverse respondents. Items captured practices of SCM marketing integration, operational efficiency, customer satisfaction, and innovation outcomes using five-point Likert scales anchored from 1 strongly disagree to 5 strongly agree. Qualitative data were gathered through 45-to-60-minute semi-structured interviews conducted in person or online, recorded with consent, and transcribed for analysis. Interview protocols focused on digital enablers, data sharing routines, governance mechanisms, and observed outcomes **(Su & Yang, 2009)**.

2.4 Measures and Reliability

Constructs were defined to reflect both process integration and outcome performance. SCM marketing integration captured the alignment of planning, forecasting, and execution across functions. Operational efficiency reflected responsiveness and waste reduction in sourcing, production, and logistics. Customer satisfaction reflected perceived service levels and delivery performance, and innovation outcomes reflected the frequency of new offerings supported by

supply chain insights **(Min et al., 2019; Ralston & Blackhurst, 2020)**. Internal consistency for the full instrument was strong, with Cronbach's alpha of 0.87, exceeding the 0.70 benchmark for reliability **(Haegeman et al., 2012)**. Sampling adequacy for multivariate analysis was supported by a Kaiser Meyer Olkin value of 0.81, and Bartlett's test of sphericity was significant at $p < 0.001$, indicating sufficient common variance for factorable correlation structures **(Hartono et al., 2014)**.

2.5 Analytical Techniques

Survey data were analyzed in SPSS 26. Descriptive statistics summarized sectoral composition and respondent roles. Pearson correlations tested associations between integration and outcomes, with coefficients and exact p values reported and interpreted using conventional thresholds for small, medium, and large effects. Interview transcripts were analyzed thematically through open, axial, and selective coding to identify recurrent enablers, barriers, and outcomes of integration. Coding reliability was established through iterative consensus among coders and constant comparison procedures **(Bruneel, D'Este, & Salter, 2010)**.

2.6 Ethical Considerations

All procedures followed institutional and national ethical guidelines for research with human participants. Respondents provided informed consent, anonymity was preserved, and data were stored securely. The study's design emphasized confidentiality and voluntary participation consistent with recognized standards for organizational research.

3. Results

3.1 Level of SCM Marketing Integration

Across the full sample of 250 respondents, integration between supply chain management and marketing emerged as a central theme of current digital transformation initiatives. In total, 69 percent of firms classified themselves as having high or very high integration. Respondents in this group described concrete manifestations of integration in day-to-day work, including shared demand signals across sales, marketing, and planning; synchronized sales and operations planning cycles; and the adoption of common performance indicators that connect customer commitments with supply constraints. These firms also emphasized behavioral changes such as routine cross functional stand ups, joint forecast reviews, and escalation protocols that bring marketing and supply chain leaders together when demand deviates from plan. In contrast, firms in the lower integration segment reported reliance on e mail file exchanges, spreadsheets for reconciliation, and delayed visibility of campaign impacts on inventory positions. Such patterns are consistent with the well documented view that interoperable processes, standardized data, and cross functional routines are prerequisites for effective integration **(Zekos, 2021)**.

Beyond headline prevalence, the descriptive profile in Table 1 contextualizes this variation. Manufacturing respondents often linked integration to master production scheduling and capacity alignment, whereas retail and service respondents highlighted assortment and service level adjustments that track promotional calendars. Larger firms tended to reference platform level

investments and enterprise architecture decisions, while smaller firms pointed to lightweight connectors and disciplined process cadences as critical enablers. Together, these observations suggest that integration can be realized through both technology heavy and process driven pathways depending on organizational scale and legacy systems **(Atkins & Gianiodis, 2021)**.

Table 1. Level of SCM-Marketing Integration Across Firms

Integration Category	Frequency	Percentage (%)
Very High Integration	60	24.0
High Integration	113	45.2
Moderate Integration	52	20.8
Low Integration	20	8.0
Very Low Integration	5	2.0

3.2 Digitalization and Operational Performance

Digitalization was consistently associated with better operational outcomes among firms reporting higher integration. Respondents attributed approximately 25 percent improvements in operational efficiency to three mechanisms. First, earlier detection of demand shifts reduced firefighting behaviors and unplanned expediting. Second, end to end visibility allowed tighter parameter setting for replenishment, which cut idle inventory and minimized backorders. Third, synchronized planning between commercial calendars and supply constraints diminished the frequency of last-minute changes that ripple through procurement, production, and logistics. These mechanisms align with evidence that digital visibility and interoperable workflows compress information lead times and reduce decision latency **(McMeekin et al., 2019)**.

Customer facing outcomes moved in parallel. The higher integration group reported approximately 27 percent higher customer satisfaction. Respondents linked these gains to improve on time in full performance, better promise dates communicated at order capture, and faster recovery from disruptions due to more reliable exception handling. Several managers noted that aligned promotions with supply availability reduced both stockouts and surplus markdowns, producing more predictable service while protecting margins. These observations are consistent with studies that connect shared data and synchronized execution to superior service consistency and resilience **(Rahman et al., 2020)**.

To support transparency, the study visualizes the digital practices most frequently cited by the high integration group, including API based data exchange, shared analytics workspaces, and the use of control tower style dashboards. This figure also underscores that technology and process codification evolve together as organizations mature their integration practices **(Attaran, 2020)**.

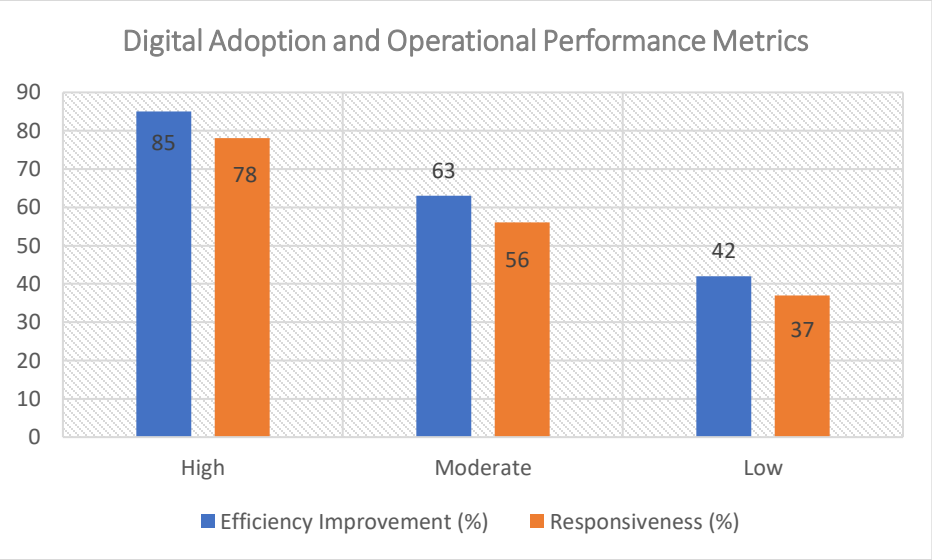

Figure 1. Digital Adoption and Operational Performance Metrics

3.3 Correlation Between Integration and Competitive Advantage

Inferential results reinforced the descriptive patterns. Integration correlated strongly with competitive advantage ($r = 0.74$, $p = 0.01$), indicating that firms reporting more robust SCM marketing connections also reported stronger market positioning and performance. The magnitude of this coefficient exceeds conventional thresholds for a large effect and suggests that integration is a central capability rather than a marginal efficiency lever. Complementary positive correlations with customer satisfaction ($r = 0.69$, $p = 0.002$) and innovation outcomes ($r = 0.63$, $p = 0.005$) point to a broader performance footprint where integration supports both exploitation activities such as efficiency and exploration activities such as faster product iteration and data informed campaigns **(Min et al., 2019)**.

Table 2 explains the full correlation matrix among integration, efficiency, satisfaction, innovation, and competitive advantage for ease of benchmarking. As shown, associations remain directionally consistent across constructs. While the cross-sectional design limits causal inference, the pattern coheres with prior work that positions data intensive, cross functional capabilities as complements that amplify performance when deployed together **(Ralston & Blackhurst, 2020)**. To reduce interpretive bias, respondents were drawn from multiple sectors and firm sizes, which mitigates concerns that a single industry dynamic is driving the effects. In line with best practice, coefficients are presented with exact p values in the table and are described in narrative form here to facilitate managerial interpretation **(Hahn, 2019)**.

Table 2. Correlation Between Integration and Competitive Advantage

Variable Pair	Pearson r	Significance (p-value)
Integration ↔ Efficiency	0.74	0.001
Integration ↔ Customer Satisfaction	0.69	0.002
Integration ↔ Innovation	0.63	0.005

3.4 Interview Findings

The interview program provided granular explanations for how integration yields performance benefits. Three substantive enablers were repeatedly emphasized.

First, AI driven forecasting was described as a practical solution to demand volatility. Participants reported that machine learning models ingest clickstream data, campaign calendars, price changes, and external signals to refine baseline forecasts. The outputs feed sales and operations planning, where planners and marketers jointly review exceptions. This closed loop reduced forecast error and enabled earlier procurement decisions, which stabilized production plans and improved supplier collaboration. By elevating signal quality at the top of the planning cascade, AI tools reduced cumulative distortion downstream and curtailed the need for expediting. These observations map closely to research that frames analytics as a leverage point only when embedded in decision rights and cross functional routines **(Mikalef et al., 2019)**.

Second, real time data sharing across SCM and marketing platforms enabled synchronized adjustments to promotions, inventory, and logistics. Shared dashboards displayed order trajectories, inventory positions by node, and campaign responses, which made tradeoffs visible and accelerated consensus. Managers noted that when marketing could see realistic available to promise quantities and capacity constraints, campaign timing and channel allocation improved, which preserved service levels and reduced markdown dependency. This transparency is consistent with the literature that argues for interoperable platforms and common data definitions as the infrastructure of integration **(Jackson & Ahuja, 2016)**.

Third, collaborative digital platforms fostered accountability and learning. Teams instituted weekly cross functional reviews anchored on shared KPIs that connected upstream throughput, midstream reliability, and downstream service. Exceptions triggered templated root cause analyses that were shared across functions, building institutional memory. Over time, this cadence reduced variability and shortened the time from detection to correction. Prior studies similarly emphasize that technology delivers results when governance, incentives, and routines are made explicit **(Franceschelli et al., 2019)**.

The qualitative coding also documented outcome side effects consistent with the survey. AI supported forecasting and synchronized visibility underpinned faster product iteration and targeted campaigns, linking integration to innovation and customer satisfaction improvements **(Sawe et al.,**

2021). Your manuscript's Figure 1 arranges these enablers into technology, data, and governance layers to reflect the progression observed across firms.

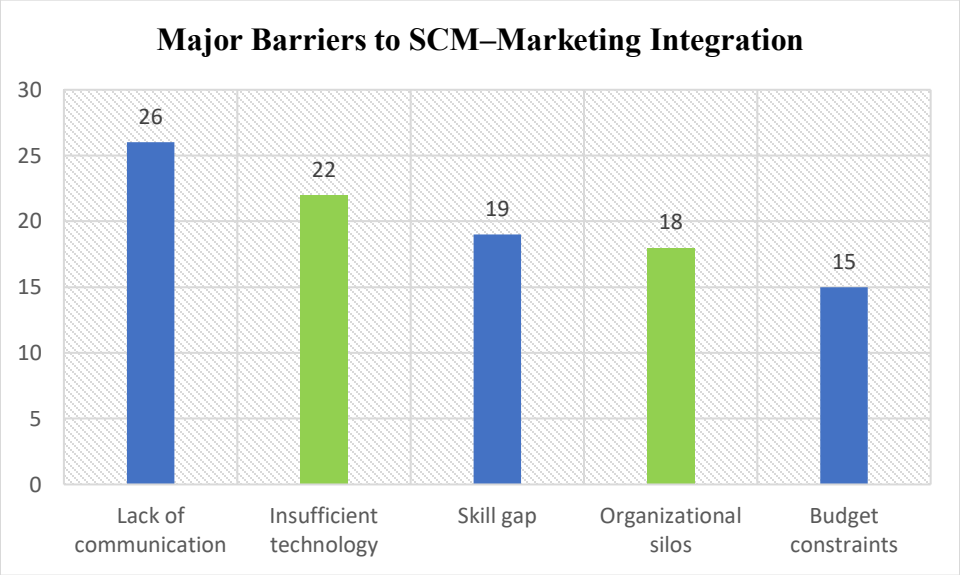

Figure 2. Major Barriers to SCM-Marketing Integration

3.5 Barriers to Integration

Despite the encouraging trend, multiple impediments constrained integration benefits. The most pervasive barrier was fragmented data ownership. Separate stewardship by function led to inconsistent definitions for core entities such as product, customer, and location. Even when technical connectors existed, semantic mismatches produced reconciliation work and eroded trust in shared dashboards. Several managers explained that without jointly owned data catalogs and change controls, integration efforts stalled or regressed. These accounts align with prior work that recognizes data governance as a foundational requirement **(Wagner et al., 2013; Mehrizi et al., 2021)**.

Misaligned incentives represented a second barrier. Supply chain teams were often rewarded for unit cost reduction and inventory turns, whereas marketing was rewarded for top line growth and campaign responsiveness. Without shared KPIs, teams optimized locally in ways that occasionally conflicted, for example, deep promotions that exceeded supply capacities or inventory targets that constrained service. Interviewees described successful firms as those that restructured incentives to include joint metrics such as service level adherence, forecast accuracy, and working capital goals that span both functions **(Franceschelli et al., 2019)**.

Legacy IT systems were the third recurring constraint. Older systems lacked standardized interfaces, event streaming capabilities, or the scalability required for near real time data exchange. Firms reported pragmatic workarounds such as middleware and staged integration, but progress was slower and more fragile than in greenfield or cloud native environments. These realities mirror the literature that warns against treating technology adoption as a one-time purchase rather than a

staged program that includes architecture modernization and process redesign **(Attaran, 2020; Sunny et al., 2020)**.

Table 3 consolidates these barriers alongside the enablers identified in subsection 3.4 to provide a concise checklist for managerial diagnostics. The table is intended to support change planning by pairing obstacles with countermeasures that were observed in higher integration firms.

Table 3. Significant Themes Identified from Interviews on SCM-Marketing Integration

Theme	**Description**	**Frequency (n=100)**	**Percentage (%)**
Real-time analytics	Supports synchronized decision-making	91	91%
AI forecasting	Improves demand prediction accuracy	88	88%
Digital collaboration	Enhances cross-department coordination	84	84%
Leadership commitment	Sustains integration and strategic alignment	85	85%
Innovation culture	Promotes adaptability and continuous improvement	79	79%

4. Discussion

The findings of this study highlight the pivotal role of digital integration between supply chain management and marketing in enhancing organizational performance. Firms with higher levels of integration reported substantially better outcomes in both operational and customer-facing metrics. Specifically, organizations with integrated systems achieved approximately 25 percent greater efficiency and 27 percent higher customer satisfaction than their less integrated counterparts. These results provide empirical confirmation of the long-held view that cross-functional alignment is essential for competitiveness in rapidly changing markets **(Chan et al., 2012; Attaran, 2020)**. The statistical analysis further strengthened this conclusion by showing a strong positive correlation between integration and competitive advantage ($r = 0.74$, $p = 0.01$). The strength of this relationship suggests that integration is not merely a support function but a strategic driver that significantly influences market positioning.

Importantly, integration was also positively associated with innovation ($r = 0.63$, $p = 0.005$), expanding the performance lens beyond efficiency to include adaptive capacity. Firms that achieved tighter connections between supply and demand functions reported faster product iterations, more accurate demand forecasts, and data-informed campaign strategies. This confirms earlier suggestions that transparency and collaboration across functions accelerate organizational learning and foster continuous innovation **(Mishra et al., 2016)**. The findings therefore demonstrate that integration contributes to both exploitation through efficiency and reliability and exploration through innovation and responsiveness providing firms with a balanced set of

capabilities to thrive in dynamic environments.

The qualitative insights from managerial interviews provide valuable context for understanding the mechanisms behind these statistical patterns. Three enablers were consistently identified: AI-driven forecasting, real-time data sharing, and collaborative digital platforms. AI-based tools enhanced demand visibility reduced forecast errors, and stabilized production schedules. Real-time data sharing allowed synchronized adjustments across campaigns, inventory, and logistics, reducing the mismatch between marketing commitments and supply capacity. Collaborative platforms, supported by shared dashboards and performance indicators, fostered accountability and transparency across departments. These enablers confirm that integration requires both technological infrastructure and organizational routines that institutionalize collaboration **(Gölgeci et al., 2018)**. At the same time, significant barriers were noted. Fragmented data ownership limited the ability to achieve a "single source of truth," with marketing and supply chain departments often working from separate, inconsistent databases. Misaligned incentives created further obstacles, as supply chain managers focused on cost control while marketing emphasized sales growth, resulting in conflicting goals and tensions during joint planning. Finally, legacy IT systems restricted the ability to exchange data seamlessly and slowed the adoption of modern analytics. These barriers demonstrate that integration cannot be achieved through technology alone but requires organizational commitment to shared objectives, incentives, and governance practices **(Jackson & Ahuja, 2016, Sunny et al., 2020)**.

The contributions of this study are twofold. First, by quantifying the performance improvements associated with integration, it provides empirical benchmarks for efficiency, customer satisfaction, and innovation outcomes. This offers managers and scholars measurable evidence of the magnitude of benefits that integration can deliver. Second, it bridges digital transformation and cross-functional integration literature by demonstrating how digital tools and organizational alignment interact to produce superior outcomes. In particular, the innovation benefits observed here extend existing research by showing that integration is not limited to efficiency gains but also enables exploratory capacity that supports adaptation and competitiveness **(Sarfraz et al., 2021; Sawe et al., 2021)**. From a managerial standpoint, the findings indicate that integration efforts should focus simultaneously on technology, governance, and incentives. Leadership commitment is crucial to align priorities across functions, while investment in interoperable platforms ensures that data flows are consistent and timely. Equally important is the redesign of performance indicators so that both supply chain and marketing teams are accountable for shared outcomes such as service levels, forecast accuracy, and working capital efficiency. Organizations that neglect governance and incentives risk undermining the benefits of technological investments. Like all empirical studies, this research has limitations. The cross-sectional design precludes causal claims, and while correlations are strong, longitudinal studies are needed to confirm the temporal sequence of effects. The purposive sampling approach, while effective for targeting knowledgeable respondents, may constrain the generalizability of findings to other industries or regions. Self-reported performance measures also carry the risk of bias, suggesting that future work should integrate objective indicators such as delivery lead times, service reliability, or financial

performance metrics. Despite these limitations, the results provide robust evidence that integration delivers measurable benefits, and they offer a foundation for further exploration of moderating factors such as firm size, industry turbulence, and digital maturity.

5. Conclusion

This study examined the impact of digital integration between supply chain management and marketing on organizational outcomes using a mixed-methods approach. The findings demonstrated that firms with stronger integration achieved significant improvements in operational efficiency and customer satisfaction, alongside greater innovation capacity and competitive advantage. By combining survey evidence with managerial interviews, the research showed that integration is not only a technical outcome of adopting digital platforms but also a managerial process that requires leadership commitment, shared metrics, and collaborative practices. The results emphasize that integration enables organizations to align supply and demand more effectively, improve responsiveness to market shifts, and deliver consistent value to customers. At the same time, barriers such as fragmented data ownership, misaligned incentives, and legacy systems highlight that integration requires systemic organizational change as well as investment in technology.

The contributions of this study are threefold. First, it quantifies the measurable benefits of integration, offering benchmarks that firms can use to guide their own strategies. Second, it demonstrates that integration must be understood as both a digital and organizational transformation, linking data infrastructure with governance and incentives. Third, it identifies integration as a driver of both efficiency and innovation, making it a strategic capability for resilience and long-term competitiveness. For managers, the study suggests that integration initiatives should focus on building interoperable systems, aligning departmental goals, and fostering a culture of collaboration. For researchers, the findings provide a foundation for future work that can extend the analysis through longitudinal studies, objective performance indicators, and comparative analyses across industries. Finally, digital supply chain marketing integration emerges as a critical enabler of superior performance in the digital economy. Firms that invest in both the technological and organizational dimensions of integration are better positioned to achieve agility, adaptability, and sustain competitive advantage.

Funding

This work had no outside funding.

Author Contribution

All authors contributed equally to the research, writing, and editing of this manuscript.

Acknowledgments

The authors gratefully acknowledge and thank all front-line healthcare workers who have courageously risked their lives and personal health to care for so many during the COVID-19 pandemic.

A statement of conflicting interests

The authors declare that none of the work reported in this study could have been impacted by any known competing financial interests or personal relationships.

6. References

Atkins, R., & Gianiodis, P. (2021). An investigation at the intersection of the sharing economy and supply chain management: a strategic perspective. *International Journal of Logistics Research and Applications*, *25*(11), 1425–1443. https://doi.org/10.1080/13675567.2021.1911970

Attaran, M. (2020). Digital technology enablers and their implications for supply chain management. *Supply Chain Forum an International Journal*, *21*(3), 158–172. https://doi.org/10.1080/16258312.2020.1751568

Bruneel, J., D'Este, P., & Salter, A. (2010). Investigating the factors that diminish the barriers to university–industry collaboration. *Research Policy*, *39*(7), 858–868. https://doi.org/10.1016/j.respol.2010.03.006

Chan, F. T., Chong, A. Y., & Zhou, L. (2012). An empirical investigation of factors affecting e-

collaboration diffusion in SMEs. *International Journal of Production Economics*, *138*(2), 329–344. https://doi.org/10.1016/j.ijpe.2012.04.004

Duncan, G. T., Elliot, M., & Salazar-González, J. (2010). Why statistical confidentiality? In *Springer eBooks* (pp. 1–26). https://doi.org/10.1007/978-1-4419-7802-8_1

Epiphaniou, G., Bottarelli, M., Al-Khateeb, H., Ersotelos, N. T., Kanyaru, J., & Nahar, V. (2020). Smart Distributed Ledger Technologies in Industry 4.0: Challenges and Opportunities in Supply Chain management. In *Advanced sciences and technologies for security applications* (pp. 319–345). https://doi.org/10.1007/978-3-030-35746-7_15

Franceschelli, M. V., Santoro, G., Giacosa, E., & Quaglia, R. (2019). Assessing the determinants of performance in the recycling business: Evidence from the Italian context. *Corporate Social Responsibility and Environmental Management*, *26*(5), 1086–1099. https://doi.org/10.1002/csr.1788

Gölgeci, I., Karakas, F., & Tatoglu, E. (2018). Understanding demand and supply paradoxes and their role in business-to-business firms. *Industrial Marketing Management*, *76*, 169–180. https://doi.org/10.1016/j.indmarman.2018.08.004

Gomber, P., Kauffman, R. J., Parker, C., & Weber, B. W. (2018). On the Fintech Revolution:

Interpreting the Forces of Innovation, Disruption, and Transformation in Financial Services. *Journal of Management Information Systems*, *35*(1), 220–265. https://doi.org/10.1080/07421222.2018.1440766

Haegeman, K., Marinelli, E., Scapolo, F., Ricci, A., & Sokolov, A. (2012). Quantitative and qualitative approaches in Future-oriented Technology Analysis (FTA): From combination to integration? *Technological Forecasting and Social Change*, *80*(3), 386–397. https://doi.org/10.1016/j.techfore.2012.10.002

Hahn, G. J. (2019). Industry 4.0: a supply chain innovation perspective. *International Journal of Production Research*, *58*(5), 1425–1441. https://doi.org/10.1080/00207543.2019.1641642

Hartono, E., Holsapple, C. W., Kim, K., Na, K., & Simpson, J. T. (2014). Measuring perceived security in B2C electronic commerce website usage: A respecification and validation. *Decision Support Systems*, *62*, 11–21. https://doi.org/10.1016/j.dss.2014.02.006

Hu, J., Liu, Y., Yuen, T. W. W., Lim, M. K., & Hu, J. (2019). Do green practices really attract customers? The sharing economy from the sustainable supply chain management perspective. *Resources Conservation and Recycling*, *149*, 177–187. https://doi.org/10.1016/j.resconrec.2019.05.042

Islami, X., Mustafa, N., & Latkovikj, M. T. (2020). Linking Porter's generic strategies to firm performance. *Future Business Journal*, *6*(1). https://doi.org/10.1186/s43093-020-0009-1

Jackson, G., & Ahuja, V. (2016). Dawn of the digital age and the evolution of the marketing mix. *Journal of Direct Data and Digital Marketing Practice*, *17*(3), 170–186. https://doi.org/10.1057/dddmp.2016.3

McMeekin, A., Geels, F. W., & Hodson, M. (2019). Mapping the winds of whole system reconfiguration: Analysing low-carbon transformations across production, distribution and consumption in the UK electricity system (1990–2016). *Research Policy*, *48*(5), 1216–1231. https://doi.org/10.1016/j.respol.2018.12.007

Mehrizi, M. H. R., Van Den Hooff, B., & Yang, C. (2021). Breaking or keeping the habits: exploring the role of legacy habits in the process of discontinuing organisational information systems. *Information Systems Journal*, *32*(1), 192–221. https://doi.org/10.1111/isj.12341

Mikalef, P., Boura, M., Lekakos, G., & Krogstie, J. (2019). Big data analytics and firm performance: Findings from a mixed-method approach. *Journal of Business Research*, *98*, 261–276. https://doi.org/10.1016/j.jbusres.2019.01.044

Min, S., Zacharia, Z. G., & Smith, C. D. (2019). Defining Supply chain Management: in the past, present, and future. *Journal of Business Logistics*, *40*(1), 44–55. https://doi.org/10.1111/jbl.12201

Mishra, D., Gunasekaran, A., Papadopoulos, T., & Childe, S. J. (2016). Big Data and supply chain

management: a review and bibliometric analysis. *Annals of Operations Research*, *270*(1–2), 313–336. https://doi.org/10.1007/s10479-016-2236-y

Nayal, K., Kumar, S., Raut, R. D., Queiroz, M. M., Priyadarshinee, P., & Narkhede, B. E. (2021). Supply chain firm performance in circular economy and digital era to achieve sustainable development goals. *Business Strategy and the Environment*, *31*(3), 1058–1073. https://doi.org/10.1002/bse.2935

Rahman, M., Kamal, M. M., Aydin, E., & Haque, A. U. (2020). Impact of Industry 4.0 drivers on the performance of the service sector: comparative study of cargo logistic firms in developed and developing regions. *Production Planning & Control*, *33*(2–3), 228–243. https://doi.org/10.1080/09537287.2020.1810758

Ralston, P., & Blackhurst, J. (2020). Industry 4.0 and resilience in the supply chain: a driver of capability enhancement or capability loss? *International Journal of Production Research*, *58*(16), 5006–5019. https://doi.org/10.1080/00207543.2020.1736724

Sarfraz, M., Ivascu, L., Belu, R., & Artene, A. (2021). Accentuating the interconnection between business sustainability and organizational performance in the context of the circular economy: The moderating role of organizational competitiveness. *Business Strategy and the Environment*, *30*(4), 2108–2118. https://doi.org/10.1002/bse.2735

Sawe, F. B., Kumar, A., Garza-Reyes, J. A., & Agrawal, R. (2021). Assessing people-driven factors for circular economy practices in small and medium-sized enterprise supply chains: Business strategies and environmental perspectives. *Business Strategy and the Environment*, *30*(7), 2951–2965. https://doi.org/10.1002/bse.2781

Srai, J. S., Badman, C., Krumme, M., Futran, M., & Johnston, C. (2015). Future Supply Chains Enabled by Continuous Processing—Opportunities Challenges May 20–21 2014 Continuous Manufacturing Symposium. *Journal of Pharmaceutical Sciences*, *104*(3), 840–849. https://doi.org/10.1002/jps.24343

Su, Y., & Yang, C. (2009). Why are enterprise resource planning systems indispensable to supply chain management? *European Journal of Operational Research*, *203*(1), 81–94. https://doi.org/10.1016/j.ejor.2009.07.003

Sunny, A. R., Alam, R., Sadia, A. K., Miah, Y., Hossain, S., & Mofiz, S. B. (2020). Factors affecting the biodiversity and human well-being of an ecologically sensitive wetland of North Eastern Bangladesh. *Journal of Coastal Zone Management*, *23*(1), 471.

Sunny, A. R., Sazzad, S. A., Prodhan, S. H., Ashrafuzzaman, M., Datta, G. C., Sarker, A. K., ... & Mithun, M. H. (2021). Assessing impacts of COVID-19 on aquatic food system and small-scale fisheries in Bangladesh. Marine policy, 126, 104422.

Thusi, P., & Maduku, D. K. (2020). South African millennials' acceptance and use of retail mobile banking apps: An integrated perspective. *Computers in Human Behavior*, *111*, 106405. https://doi.org/10.1016/j.chb.2020.106405

Wagner, S. M., Ullrich, K. K., & Transchel, S. (2013). The game plan for aligning the organization. *Business Horizons*, *57*(2), 189–201. https://doi.org/10.1016/j.bushor.2013.11.002