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DIGITAL ENTREPRENEURSHIP IN SUSTAINABLE SUPPLY CHAINS : A SYSTEMATIC LITERATURE REVIEW

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Abstract

The objective of this study is to systematically and comprehensively analyze the role of digital entrepreneurship encompassing digital entrepreneurial agility, digital bricolage, and platform orchestration as a key driver in enhancing sustainable supply chain performance. The study employs a qualitative approach using the Systematic Literature Review (SLR) method guided by the PRISMA protocol. The literature selection was conducted through four structured phases: the identification phase retrieved 210 articles from reputable academic databases (including Scopus and SINTA) published between 2015 and 2025; the screening phase excluded 115 articles (35 duplicates and 80 irrelevant based on title and abstract), leaving 95 articles; the eligibility phase eliminated 50 full-text articles due to methodological and contextual mismatches; and the inclusion phase resulted in 45 finalized articles synthesized through thematic analysis. The findings reveal that digital entrepreneurship not only accelerates digital technology adoption (such as Artificial Intelligence, Internet of Things, and Blockchain) but also reconfigures business models and ecosystem collaboration to achieve Triple Bottom Line (economic, environmental, and social) performance. As a novel contribution, this study presents an integrated conceptual framework grounded in Dynamic Capability Theory and the Resource-Based View, formulates four theoretical propositions, and maps future research agendas. The primary limitation lies in its conceptual synthesis nature, which cal

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INTRODUCTION

The development of digital technology in the Industry 4.0 era has driven a fundamental transformation in global supply chain management (Zekhnini et al., 2020). Amidst high market volatility, economic dynamics, and global disruptions such as geopolitical conflicts and climate related shifts conventional supply chain systems have proven to have significant limitations in responding to uncertainty (Smyrnov et al., 2025). This situation compels organizations to transition toward supply chains that are more agile, resilient, and oriented toward creating sustainable value balancing economic, social, and environmental dimensions in accordance with the Triple Bottom Line (TBL) principle (Le, 2026).

In the modern operational landscape, digitalization is realized through the integration of key technologies such as Artificial Intelligence (AI), the Internet of Things (IoT), Big Data Analytics, and Blockchain into four core operational dimensions. These

dimensions encompass demand planning, sustainable procurement, inventory management, and supplier relationship management (Chaudhuri et al., 2022; Zekhnini et al., 2020). The utilization of these technologies enables real-time data visibility, the optimization of stock levels, enhanced transparency regarding Environmental, Social, and Governance (ESG) factors, and more precise decision-making (Hsieh, 2024).

Although digital technology infrastructure is becoming increasingly accessible, the adoption of technology in isolation lacking the support of strategic capabilities and an entrepreneurial spirit often fails to generate a sustainable competitive advantage (Mediaty et al., 2026). This is where "digital entrepreneurship" encompassing digital entrepreneurial agility, digital bricolage (resourcefulness), and platform orchestration serves as a key driver (Felicetti et al., 2024; Fernandes et al., 2024). Digital entrepreneurial behavior enables organizations, particularly Micro, Small, and Medium Enterprises (MSMEs) and start-ups, to redesign their business models, overcome investment constraints by leveraging cost-effective resources, and adaptively explore new market opportunities (Veiga et al., 2024).

Theoretically, the relationship between digital entrepreneurship and digital supply chain capabilities can be explained through the integration of Dynamic Capability Theory, the Resource-Based View (RBV), and Relational View Theory (Chaudhuri et al., 2022). Dynamic Capability Theory posits that an organization's competitive advantage in a volatile environment depends heavily on an entrepreneur's ability to continuously identify opportunities (sensing), seize those opportunities (seizing), and reconfigure operational resources (reconfiguring) (Sun et al., 2024). Meanwhile, the Relational View emphasizes that value creation and long-term trust with supply chain partners are fostered through transparent and collaborative digital information exchange (Wu et al., 2026).

Although the literature on digital transformation in supply chain management continues to expand rapidly, existing systematic literature reviews still reveal significant fragmentation. Systematic studies within the realm of Supply Chain Management (SCM) (e.g., Ghosh et al., 2022; Zekhnini et al., 2020) largely focus on technological capabilities and digital infrastructure within large, established corporations, while overlooking entrepreneurial dimensions. Conversely, recent systematic literature reviews in the field of digital entrepreneurship (such as Felicetti et al., 2024; Fernandes et al., 2024) emphasize the creation of new ventures and business models without comprehensively examining the functional integration of supply chains. Previous research by Sutopo et al. (2026) mapped the integration of four operational dimensions of digital supply chains but did not elaborate on the antecedent role of digital entrepreneurial behavior. Consequently, there is a clear theoretical gap regarding how digital entrepreneurship capabilities act as a trigger for reconfiguring the operational dimensions of digital supply chains toward the achievement of integrated "Triple Bottom Line" sustainability performance.

To address this research gap, this article presents a comprehensive Systematic Literature Review (SLR) adopting the PRISMA protocol to conduct an in-depth analysis of the relationship between digital entrepreneurship and sustainable supply chains. The study synthesizes internationally reputable literature (covering the period 2015–2025) to formulate an integrated conceptual framework, develop new theoretical propositions, and map out a future research agenda focused on the dynamics of digital entrepreneurship (Fernandes et al., 2024).

The theoretical contribution of this research lies in the extension of Dynamic Capability Theory and the Resource-Based View (RBV) through an integrative model

that positions digital entrepreneurial orientation as an antecedent to supply chain capabilities. In practical terms, this systematic review provides strategic guidance for digital entrepreneurs and supply chain management practitioners on how to effectively allocate technological resources to enhance operational responsiveness and socio-environmental responsibility (Ghobakhloo et al., 2024).

LITERATURE REVIEW :

1. The Concept of Digital Entrepreneurship and Supply Chain Capabilities

Digital Entrepreneurship is defined as the creation of new ventures or the transformation of existing businesses through the utilization of digital technologies and knowledge-based assets (Felicetti et al., 2024). This concept goes beyond passive technology adoption; rather, it focuses on the development of strategic entrepreneurial capabilities, which, according to Bedö et al. (2020), encompass three key dimensions: 1) Digital Entrepreneurial Agility: The ability of founders or business managers to rapidly detect market changes and reconfigure business models based on digital data. 2) Digital Bricolage: The capacity to leverage affordable (low-cost/open-source) technologies to redesign operational processes despite budget constraints. 3) Platform Orchestration: The ability to lead and align collaboration among partners within a digital ecosystem.

Through the lens of Dynamic Capability Theory, digital supply chain capabilities function as strategic routines that enable an organization to identify opportunities (sensing), seize them (seizing), and transform resources (reconfiguring) in the face of market uncertainty (Pal et al., 2024). The integration of digital capabilities facilitates end-to-end data visibility, cross-organizational collaboration, and analytics-driven decision-making. Consequently, Digital Entrepreneurship serves as a primary antecedent that shapes supply chain operational capabilities, rendering them both adaptive and sustainable.

2. Digital Entrepreneurial Agility and Demand Planning

Demand planning is a systematic process for estimating future customer requirements and aligning these forecasts with a company's operational capacity (Basavaraju & Fatahi Valilai, 2025). Unlike conventional quantitative forecasting, integrated demand planning involves cross-functional coordination through a Sales and Operations Planning (S&OP) mechanism (Jain, 2025).

The presence of "digital entrepreneurial agility" accelerates the adoption of Artificial Intelligence (AI) and Big Data Analytics for processing historical data and current market trends (Aquino Jr. et al., 2026). Agile entrepreneurs leverage predictive analytics to generate adaptive demand forecasts, thereby reducing the margin of forecast error and minimizing the risks of both stockouts and overstocking. Such planning accuracy directly reduces resource waste and operational costs (Lordt, 2026).

3. Digital Bricolage and Sustainable Procurement

Sustainable procurement is a strategic approach that integrates economic, environmental, and social criteria into all decisions regarding the purchase of goods and services (Boruchowitch & Fritz, 2022). Grounded in Environmental, Social, and Governance (ESG) principles, sustainable procurement emphasizes the evaluation of whole-life value and adherence to ethical labor standards (Lau et al., 2023).

For small and medium-sized enterprises (SMEs), limited capital often serves as a primary barrier to implementing sustainable procurement systems (Gonçalves et al., 2024). Through "digital bricolage" capabilities, entrepreneurs leverage efficient

technological solutions such as open-source procurement platforms, cloud-based e-procurement, and affordable blockchain integration—to ensure the traceability of eco-friendly raw materials. Such implementation has been shown to enhance supply chain transparency and strengthen a company's reputation for sustainability (Thanasi-Boçe & Hoxha, 2025).

4. **Platform-Based Entrepreneurship and Inventory Management**

Inventory management aims to plan, control, and oversee stocks of raw materials, work-in-progress, and finished goods to strike a balance between product availability and the efficiency of storage costs (Swain et al., 2026). Modern inventory management focuses on the integration of a controlled and accurate flow of goods throughout the value chain (Pasupuleti et al., 2024).

The utilization of Internet of Things (IoT) and Enterprise Resource Planning (ERP) technologies orchestrated by platform-based entrepreneurs provides real-time visibility into stock levels (Takawira & Duri, 2026). This automated tracking facilitates precise inventory replenishment ("smart replenishment"), enhances inventory turnover, and reduces waste resulting from stock spoilage or damage all of which serve as key indicators of operational and ecological efficiency (Roy et al., 2025).

5. **Platform Orchestration and Supplier Relationships**

Supplier relationships refer to long-term strategic partnerships between a company and its suppliers, built upon trust, commitment, open communication, and the exchange of information (Agarwal & Narayana, 2020). In line with the Relational View Theory, competitive advantage is not derived solely from within a firm but is instead created through synergy and inter-organizational collaboration (Paredes Carrasco et al., 2025).

Through platform orchestration capabilities, digital entrepreneurs facilitate the secure and transparent exchange of digital data (digital information sharing) (Zhan et al., 2025). The use of supplier portals and platform-based collaborative systems accelerates coordination, reduces transaction costs, and fosters joint innovation with key suppliers (Shcherbakov & Silkina, 2021). Such close collaboration enhances supply chain flexibility in the face of global supply disruptions (Roman et al., 2025).

6. **Sustainable Supply Chain Performance Based on the Triple Bottom Line (TBL)**

Sustainable Supply Chain Performance (SSCP) evaluates an organization's success in managing supply chain activities by integrating economic, environmental, and social performance outcomes, in accordance with the Triple Bottom Line (TBL) framework: 1) The Economic Dimension (Profit): Assessed through operational cost efficiency, increased productivity, and profit margin growth. 2) The Environmental Dimension (Planet): Measured via carbon emission reduction, energy efficiency, waste management, and the use of eco-friendly materials. 3) The Social Dimension (People): Encompasses workplace safety, workforce well-being, adherence to business ethics, and positive impacts on local communities (Oubrahim & Sefiani, 2024).

A synthesis of the theory suggests that the integration of Digital Entrepreneurship leadership with four dimensions of operational supply chain capabilities planning, procurement, inventory, and supplier relations forms dynamic capabilities that generate a sustainable competitive advantage (Bag, 2025).

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RESEARCH METHODS

Research Design

This study employs a qualitative approach using a descriptive-analytical Systematic Literature Review (SLR) method. Its primary focus is to construct a conceptual synthesis and a comprehensive framework of relationships between variables through a critical evaluation of existing scholarly findings, rather than through direct empirical hypothesis testing. The SLR approach enables the researcher to map the evolution of the concept of Digital Entrepreneurship, identify its functional linkages with supply chain operational capabilities, and uncover research gaps to inform a future research agenda.

Literature Selection Procedure (PRISMA Protocol)

To ensure transparency, accountability, and replicability in the process of collecting and screening manuscripts, this study employs the PRISMA 2020 (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) standard protocol (Page et al., 2021). The selection procedure is carried out through four main phases, following the quantitative workflow outlined below:

1. Identification: An initial electronic search of reputable academic databases (such as Scopus, SINTA, ScienceDirect, Emerald Insight, and Google Scholar) using structured keywords yielded 210 articles (n = 210).
2. Screening: At this stage, duplicate and irrelevant articles were excluded. A total of 115 articles were removed (n = 115), consisting of 35 duplicates (n = 35) and 80 articles deemed unsuitable based on a screening of their titles and abstracts (n = 80). This process left 95 articles (n = 95) for full-text review.
3. Eligibility: A critical evaluation of the full-text versions of the 95 remaining articles was conducted to assess their substantive and methodological eligibility. At this stage, 50 full-text articles were excluded (n = 50) due to the unsuitability of their methodological approaches (n = 20) or a lack of alignment in their research focus and context (n = 30).
4. Inclusion: Following a feasibility evaluation and quality assessment, 45 articles from reputable journals (n = 45) were selected as the final corpus of literature, meeting all inclusion criteria for further in-depth analysis. This selection process is systematically visualized in Figure 1.

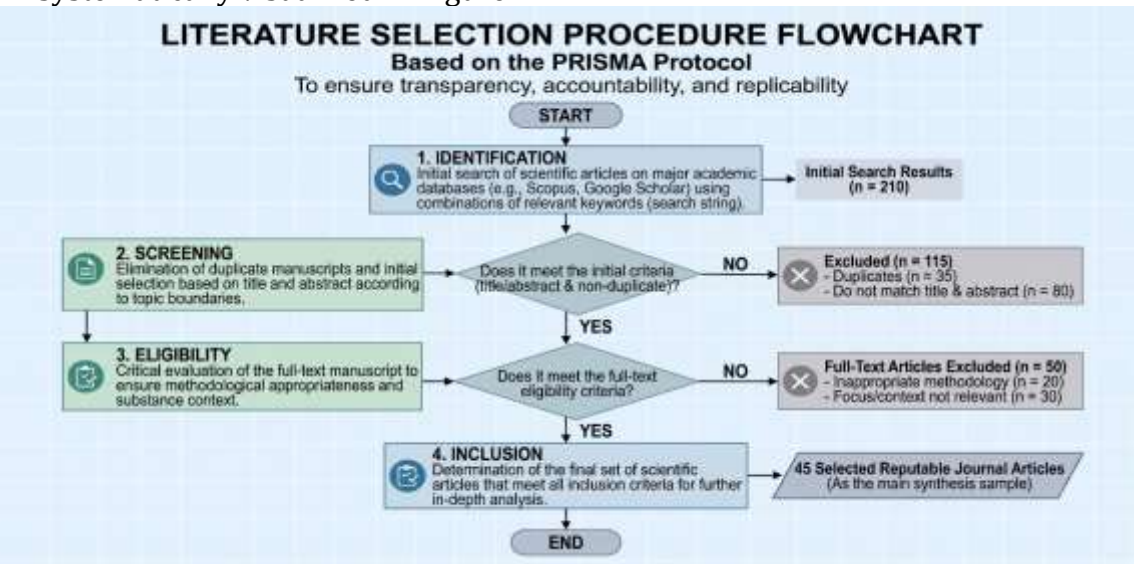


Figure 1. Literature Selection Procedure

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Quality Assessment: Prior to the final synthesis, all 45 articles that passed the eligibility stage were evaluated for quality using a Critical Appraisal Checklist, adapted from the Critical Appraisal Skills Programme (CASP) framework for qualitative and conceptual studies. The quality assessment encompassed five key criteria: (1) clarity in the formulation of research objectives, (2) appropriateness of the research design and methodology, (3) rigor of the data/literature collection techniques, (4) validity and depth of data analysis, and (5) clarity of theoretical and managerial contributions. Each article was independently assessed by the researchers using a three-level rating system (High, Medium, Low). Only articles categorized as "High Quality" were included in the thematic analysis and conceptual synthesis stages.

Literature Inclusion and Exclusion

The literature selection process is constrained by strict inclusion and exclusion criteria to ensure academic quality and relevance, as presented in **Table 1.**

Table 1. Literature Inclusion and Exclusion Criteria

Criteria	Inclusion Criteria	Exclusion Criteria
Time span	Publications between 2015 and 2025.	Publications from before 2015 or after 2025.
Language	Indonesian and English.	Languages other than Indonesian and English.
Document Type	Scientific journal articles that have undergone peer review (peer-reviewed journal articles).	Books, book chapters, conference proceedings, editorials, news reports, posters, opinion pieces, and articles that have not undergone a peer-review process.
Source Quality	Indexed in high-reputation databases (Scopus Q1–Q4, Web of Science, or SINTA 1–2).	Predatory journals, non-indexed journals, or publications lacking a credible publisher identity.
Topic Focus	Examining the relationship between digital entrepreneurship, digital supply chain capabilities, and sustainability performance (Triple Bottom Line).	Focuses solely on algorithmic/computational technical specifications, without any analysis of supply chain management or an entrepreneurial perspective.
Accessibility	The manuscript is available and accessible in its entirety in full-text format.	The manuscript is available only as an abstract, an executive summary, or as a document with restricted access.

RESEARCH RESULTS AND DISCUSSION

Characteristics of the Literature Corpus (Mapping by Year, Geography, and Methodology)

Based on the applied PRISMA protocol, 45 articles from reputable scientific journals were included in the final synthesis corpus. A mapping of these 45 articles reveals the following dynamics in scientific trends:

1. **Distribution by Publication Year (2015–2025):** Publications concerning digital integration and sustainable supply chains have experienced an exponential surge over the last five years. The 2015–2019 period accounts for 15.6% (7 articles), dominated by the conceptual foundations of early digitalization; the 2020–2022 period accounts for 26.7% (12 articles), largely examining supply chain resilience in the wake of global disruptions; and the 2023–2025 period accounts for 57.8% (26 articles), focusing extensively on the convergence of artificial intelligence (AI), blockchain, and digital entrepreneurial capabilities.
2. **Geographical Distribution / Country Context:** The distribution of study contexts spans Asia (42.2% / 19 articles; led by China, India, Indonesia, and Malaysia), Europe (31.1% / 14 articles; including the United Kingdom, Portugal, Italy, and Germany),

North America (13.3% / 6 articles; the United States and Canada), as well as Africa and Oceania (13.3% / 6 articles; including Ghana, South Africa, and Australia).

3. **Distribution of Research Methodologies:** Empirical quantitative approaches (survey-based PLS-SEM/CB-SEM) dominate, accounting for 44.4% (20 articles); qualitative approaches and multiple-case studies comprise 22.2% (10 articles); mathematical modeling, simulation, and operational optimization make up 17.8% (8 articles); and systematic reviews as well as integrated conceptual studies account for 15.6% (7 articles).

Results of Selected Literature Synthesis and Thematic Cluster Mapping

The thematic analysis categorizes the 45 articles reviewed into four primary domains of interaction between digital entrepreneurship capabilities, the operational dimensions of digital supply chains, and Triple Bottom Line (TBL) sustainability outcomes. A representative summary of this literature synthesis is presented in Table 2.

Table 2. Literature Synthesis Matrix on the Integration of Digital Entrepreneurship and Sustainable Supply Chain Dimensions

Thematic Clusters and Key Variables	Author & Year	Context / Country	Research methods	Key Findings and Contributions to Sustainability
Cluster 1: Entrepreneurial Agility & AI-Driven Demand Planning	Rastogi & Pandita, (2025)	India	Quantitative (SEM)	Entrepreneurial agility accelerates workforce readiness in adopting predictive AI, thereby reducing demand forecast errors.
	Aquino Jr. et al. (2026)	Ghana and West Africa	SLR and Bibliometrics	The use of AI by start-up entrepreneurs enhances the precision of operational planning amidst market volatility.
	Basavaraju & Fatahi Valilai (2025)	Sweden	Empirical Case Study	Integrating digital analytical tools into S&OP aligns collaborative forecasting and prevents the waste of energy or production capacity.
Cluster 2: Digital Bricolage & Sustainable Procurement	Karanasios et al. (2026)	West Africa	Qualitative (Case Study)	The concept of digital bricolage explains how micro-enterprises leverage cost-effective digital tools to overcome capital constraints and remain adaptive.
	Lau et al. (2023)	Australia	Quantitative (Disclosure Index)	Sustainable procurement requires transparency regarding ESG compliance throughout the supply value chain.
	Thanasi-oçe & Hoxha (2025)	Albania / Regional	Conceptual SLR	Blockchain solutions combined with adaptive capabilities support ethical traceability and the efficiency of green procurement.
Cluster 3: Platform Orchestration, IoT & Inventory Management	Takawira & Duri (2026)	South Africa	SLR and Bibliometrics	The integration of IoT and blockchain enables real-time inventory visibility, reducing storage costs and product spoilage (waste reduction).
	Roy et al. (2025)	India	Qualitatie / Exploratory	IoT sensor-based stock monitoring automation

Thematic Clusters and Key Variables	Author & Year	Context / Country	Research methods	Key Findings and Contributions to Sustainability
				facilitates smart replenishment and resource efficiency.
	Swain et al. (2026)	India	Mathematical Modeling	Inventory optimization for perishable (deteriorating) goods significantly reduces financial losses and material waste.
Cluster 4: Supplier Collaboration & Triple Bottom Line Performance	Mrad & Belgaroui, (2025)	Tunisia / France	Qualitative (Case Study of MSMEs)	Digital-circular synergy, achieved through platform orchestration, strengthens coordination among suppliers and boosts the sustainability performance of MSMEs.
	Huang et al. (2024)	Pakistan / South Asia	Quantitative (SEM)	Green supply chain management (Green SCM) practices mediate the relationship between strategic orientation and the improvement of economic, environmental, and social performance (TBL).
	Cruz, (2026)	United States of America	Mathematical Network Optimization	Multi-blockchain integration within supply chains enhances network risk resilience and minimizes carbon emissions from transportation.
	Wu et al. (2026)	Taiwan	Quantitative (Survey)	Digital platform governance fosters transparent information exchange, which creates relational value and long-term commitment among supply partners.

Interaction Dynamics and the Performance Trigger Chain

In accordance with Dynamic Capability Theory, sustained competitive advantage does not arise from the adoption of a single technology, but rather from an organization's ability to reconfigure its functional resources through digital entrepreneurial leadership. This synthesis demonstrates that digital entrepreneurship capabilities serve as the primary antecedent within the performance trigger chain :

1. **Entrepreneurial Agility in Demand and Inventory Planning:** The agility of digital entrepreneurs drives the adoption of predictive analytics and machine learning to respond adaptively to market signals (Aquino Jr. et al., 2026; Rastogi & Pandita, 2025). This accuracy mitigates the risk of overstocking, as well as the waste associated with storage costs and energy consumption (Jain, 2025; Swain et al., 2026).
2. **Resource Autonomy (Digital Bricolage) for Sustainable Procurement:** Digital Bricolage enables business entities with limited capital to combine open-source platforms, cloud-based procurement, and affordable digital tools to verify ethical compliance and supplier transparency (Gonçalves et al., 2024; Karanasios et al., 2026). This strengthens trust-based relationships, consistent with the Relational View Theory (Agarwal & Narayana, 2020; Boruchowitch & Fritz, 2022).
3. **Platform Orchestration for Supplier Collaboration and TBL Achievement:** The ability to orchestrate multi-party platforms facilitates the secure and transparent exchange of information (Wu et al., 2026; Zhan et al., 2025). Such collaboration not

only enhances supply chain flexibility in responding to disruptions (Roman et al., 2025) but also balances the attainment of economic value, the reduction of carbon footprints, and the well-being of the workforce (Mrad & Belgaroui, 2025; Oubrahim & Sefiani, 2024).

Based on the synthesis of empirical evidence above, four Theoretical Propositions (P) are formulated, which are supported by the reviewed literature :

1. **Proposition 1 (P1):** Digital entrepreneurial agility has a positive impact on demand planning accuracy and integrated inventory management efficiency through the adoption of adaptive predictive analytics (supported by: Aquino Jr. et al., 2026; Basavaraju & Fatahi Valilai, 2025; Jain, 2025; Rastogi & Pandita, 2025).
2. **Proposition 2 (P2):** Digital bricolage facilitates the adoption of sustainable procurement in organizations with budget constraints through the utilization of affordable digital technologies and the tracking of ESG standards (supported by: Boruchowitch & Fritz, 2022; Gonçalves et al., 2024; Karanasios et al., 2026; Lau et al., 2023; Thanasi-Boçe & Hoxha, 2025).
3. **Proposition 3 (P3):** Platform orchestration strengthens collaborative relationships and strategic partnerships with suppliers through improved quality of digital data exchange and platform governance (supported by: Mrad & Belgaroui, 2025; Shcherbakov & Silkina, 2021; Wu et al., 2026; Zhan et al., 2025).
4. **Proposition 4 (P4):** An integrated reconfiguration of the antecedents of digital entrepreneurship and the four operational dimensions of the supply chain drives the achievement of balanced sustainability performance across the economic, environmental, and social pillars (Triple Bottom Line) (supported by: Bag, 2025; Chaudhuri et al., 2022; Huang et al., 2024; Le, 2026; Mrad & Belgaroui, 2025; Oubrahim & Sefiani, 2024).

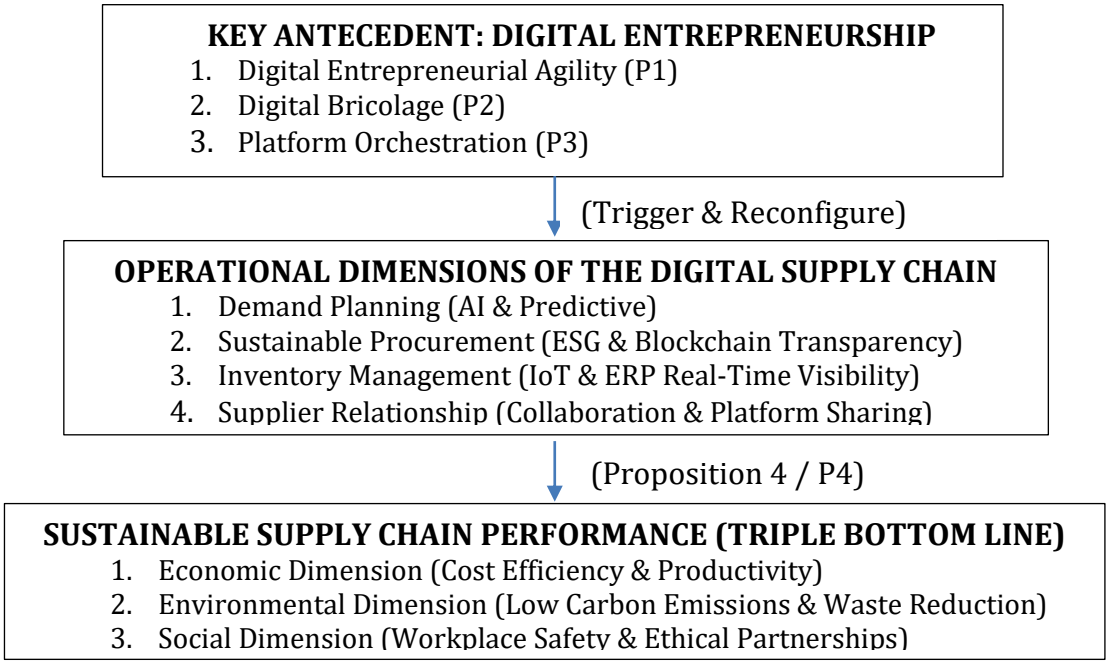


Figure 2. Conceptual Framework for the Integration of Digital Entrepreneurship, Digital Supply Chain Dimensions, and Sustainability Performance.

Critical Discussion: Gaps, Obstacles, and Challenges to Realization

Although most of the literature presents an optimistic view of digitalization, a critical review of the 45 articles examined reveals a number of paradoxes, implementation barriers, and significant structural risks :

1. Interoperability Complexity and Legacy Systems: The implementation of cutting-edge technologies such as IoT and AI is often hindered by the incompatibility of legacy hardware architectures among upstream supply chain partners (Fatorachian & Kazemi, 2025). Consequently, data fragmentation or the phenomenon of "data silos" emerges, impeding end-to-end supply chain visibility (Takawira & Duri, 2026).
2. Capability, Investment, and Talent Gaps in MSMEs: Although digital bricolage offers a pragmatic solution, small businesses often face limitations in terms of economies of scale and a severe deficit in technical digital skills (Gonçalves et al., 2024; Hansen et al., 2025). Without ongoing entrepreneurial guidance and training, investments in digital tools risk becoming a waste of capital rather than a means to improve performance (Mediaty et al., 2026).
3. Cybersecurity Vulnerabilities and AI Algorithmic Governance: The integration of open data platforms and the Internet of Things (IoT) expands the cyber attack surfaces for supply chain infrastructure (Samuel, 2025; Ejjami, 2024). Furthermore, forecasting bias in AI models and a lack of transparency in data governance may lead to operational decisions that disadvantage small-scale suppliers (Wu et al., 2026).
4. Macro-environmental Uncertainty and Geopolitical Risk: Digital supply chain efficiency is not immune to large-scale physical disruptions, such as geopolitical crises, extreme climate-related disasters, and international trade protectionism (Smyrnov et al., 2025). Therefore, digitalization must be balanced with the flexibility of dual-sourcing strategies and calibrated buffer stocks (Swain et al., 2026).

CONCLUSION

This Systematic Literature Review (SLR) provides an integrated synthesis of the role of digital entrepreneurship in fostering sustainable supply chain performance. Based on a thematic analysis of 45 scholarly journal articles (2015–2025), this study concludes that digital entrepreneurial capabilities specifically digital entrepreneurial agility, digital bricolage, and platform orchestration—serve as strategic antecedents (key triggers) for reconfiguring a supply chain's operational capabilities. Digital entrepreneurship does more than merely accelerate the adoption of smart technologies (such as AI, IoT, and blockchain); it also directs the functional integration of demand planning, sustainable procurement, inventory management, and supplier relationships.

Overall, the integration of a digital entrepreneurial orientation with the operational dimensions of the supply chain forms a "Performance Trigger Chain." This chain fosters operational efficiency while simultaneously achieving a balanced realization of the Triple Bottom Line encompassing economic, environmental, and social sustainability. Through the conceptual framework and four theoretical propositions formulated herein, this study contributes to a deeper theoretical understanding of the nexus between digital entrepreneurial behavior and the transformation toward sustainable supply chains.

IMPLICATIONS AND RECOMMENDATIONS

Theoretical Implications

Conceptually, this study extends the application of Dynamic Capability Theory and the Resource-Based View (RBV) by positioning digital entrepreneurial

capabilities as dynamic resources that facilitate the processes of sensing, seizing, and reconfiguring within supply chain operations. Furthermore, this research helps bridge the fragmentation in the literature between the fields of digital entrepreneurship and sustainable supply chain management by integrating them into a unified model of causal relationships.

Managerial Implications

For entrepreneurs, supply chain managers, and operators of MSMEs (micro, small, and medium-sized enterprises), these findings underscore the importance of developing "digital bricolage" capabilities a resourceful approach to overcoming capital constraints by leveraging cost-effective (low-cost/open-source) digital platforms and cloud-based technologies. Furthermore, business operators are encouraged to look beyond the mere acquisition of technological hardware; instead, they should focus on orchestrating the governance of collaborative platforms and fostering open data exchange with supply chain partners to build long-term relational resilience.

Limitations and Suggestions for Future Research

The primary limitation of this study lies in its nature as a synthesis of conceptual literature, without the testing of primary data. Therefore, empirical testing using a quantitative approach (such as SEM-PLS) is highly recommended to validate the theoretical propositions (P1–P4) presented. Further research is also encouraged to explore the effectiveness of this framework within specific industrial sectors (e.g., agrifood or manufacturing), as well as to examine the dynamics of cyber-risk governance and government regulatory support, as detailed in Table 2 (Future Research Agenda Matrix).

Statement regarding the Use of Artificial Intelligence (AI).

In the process of writing this literature review, the authors utilized generative artificial intelligence (generative AI) tools in a proportional and measured manner. The use of AI was focused exclusively on syntactic refinement, the updating of multilingual academic expressions, and the enhancement of text readability. Theoretical conceptualization, critical analysis of the literature, thematic synthesis, the formulation of propositions, and the drawing of conclusions were entirely developed and validated by the authors. The authors assume full responsibility for the validity, scientific integrity, and originality of the entire substance of the presented manuscript.

Conflict of interest

The author asserts that there are no conflicts of interest whether financial, institutional, or personal that could potentially influence the scientific objectivity or the interpretation of the literature review in this manuscript. This study was conducted independently as a contribution to the development of pure scholarly discourse.

Author contributions

All authors made a substantive contribution to achieving the novelty of the synthesis presented in this article :

1. Sutopo: Initiated the original concept and developed a new theoretical framework integrating digital entrepreneurship with sustainable supply chain dimensions; formulated the systematic review design; and drafted the main manuscript.
2. Sudianto: Developed the search strategy based on PRISMA protocols, screened the

literature, and ensured the rigor of the article selection process across reputable databases.

3. Tony Prabowo: Conducted a critical review of the validity of the literature, mapped out the thematic analysis, and refined the formulation of theoretical propositions.
4. Abdul Hamid: Designed the visualization of the integrated conceptual framework, evaluated the consistency of the theoretical arguments, and performed the final alignment of the manuscript.

All authors have reviewed, critically discussed, and approved the final version of this manuscript for publication.

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