

EMPIRICAL PAPER

How Does Sustainable Entrepreneurship Drive the SDGs? A Systematic Literature Review of Strategies, Barriers, and Ecosystem Enablers

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Abstract

Purpose: This study examines how sustainable entrepreneurship drives progress toward the United Nations Sustainable Development Goals (SDGs) by synthesising contemporary scholarly evidence on key strategies, barriers, and ecosystem enablers that influence sustainable entrepreneurial outcomes.

Methodology: A systematic literature review (SLR) guided by the PRISMA 2020 framework was conducted. Eighty-eight peer-reviewed articles, policy reports, and documented case studies published between 2015 and 2024 were identified from Web of Science, Scopus, Google Scholar, and institutional repositories, including UN Data, World Bank, and OECD iLibrary.

Results: The review identifies four dominant strategic pathways underpinning sustainable entrepreneurship: technological innovation, business model transformation, cross-sector collaboration, and inclusive market engagement. Key barriers include limited access to finance, fragmented regulatory frameworks, low consumer awareness, and inadequate technical capacity. Ecosystem enablers such as blended finance, digital technologies, supportive policy instruments, and increasing sustainability-oriented consumer preferences significantly enhance entrepreneurial contributions to the SDGs.

Novelty and Contribution: The study develops an integrative conceptual framework linking entrepreneurial orientation, innovation capability, and strategic collaboration to measurable SDG outcomes while integrating insights from the Resource-Based View, institutional theory, systems theory, and Creating Shared Value perspectives.

Practical and Social Implications: The findings provide actionable insights for entrepreneurs, policymakers, investors, and development organisations seeking to strengthen sustainable entrepreneurship ecosystems and accelerate progress toward achieving the SDGs.

Keywords: Sustainable entrepreneurship; Sustainable Development Goals (SDGs); systematic literature review; innovation; green finance; entrepreneurial ecosystems

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1 Introduction

The rapid escalation of global socioeconomic and environmental challenges, ranging from climate change and resource scarcity to persistent inequalities, has exposed the limitations of conventional business models that prioritise short-term profit over long-term sustainability. In response, scholars and practitioners have increasingly focused on sustainable entrepreneurship as a transformative mechanism that integrates economic viability with social and environmental stewardship. Sustainable entrepreneurship represents a holistic approach to value creation across the triple bottom line of people, planet, and profit (Rodríguez-Peña, 2025; Sungkawati, 2024).

The United Nations' 2030 Agenda for Sustainable Development, comprising 17 Sustainable Development Goals (SDGs), provides a universal blueprint for addressing pressing global challenges including poverty, inequality, health, education, environmental degradation, and economic growth. Achieving these goals demands systemic shifts involving governments, civil society, international institutions, and the private sector. Within this ecosystem, sustainable entrepreneurs are uniquely positioned to bridge global development imperatives and local action by leveraging innovation, risk-taking, and resource mobilisation to deliver socially and environmentally impactful solutions (Núñez-Tabales et al., 2024). According to Ruhana et al. (2024), sustainable entrepreneurship has become an increasingly influential pathway for advancing global sustainability, as achieving meaningful SDG progress requires entrepreneurial innovation capable of transforming social, economic, and environmental challenges into scalable opportunities.

Despite growing relevance, the integration of sustainability into entrepreneurial practice remains uneven. Many small and medium-sized enterprises (SMEs) face structural limitations, most notably restricted access to long-term finance, limited technical expertise, and infrastructural constraints (Odeyemi et al., 2024). These challenges are compounded by the fact that global SDG progress remains significantly off track. Recent UN assessments indicate that only approximately 15% of SDG targets are on course for achievement, while over one-third have stagnated or regressed, with the most significant setbacks in low- and middle-income regions (United Nations, 2023; UN DESA, 2024).

This study centres on SDGs with strong entrepreneurial relevance: SDG 1 (No Poverty) through income-enhancing social enterprises; SDG 2 (Zero Hunger) through agritech innovation and sustainable food systems; SDG 7 (Affordable and Clean Energy) through renewable energy ventures; SDG 8 (Decent Work and Economic Growth) through job creation by SMEs, which contribute over 70% of global employment; SDG 9 (Industry, Innovation and Infrastructure) through circular-economy innovations; SDG 12 (Responsible Consumption and Production) via waste-to-wealth models; SDG 13 (Climate Action) through low-carbon technologies; and SDG 17 (Partnerships for the Goals) through multi-stakeholder collaborations.

Important gaps persist in the scholarly discourse. Much of the existing literature disproportionately focuses on Western or high-income contexts, leaving insufficient understanding of sustainable entrepreneurship in developing regions where weak regulatory frameworks, informal markets, and limited green finance pose unique challenges (Adomako & Nguyen, 2024). Furthermore, many studies offer descriptive accounts of sustainability practices without rigorously examining how entrepreneurial strategies translate into measurable SDG outcomes. There is also an absence of integrated theoretical perspectives explaining how entrepreneurial orientation, innovation capability, and cross-sector collaboration collectively influence sustainability performance.

Against this backdrop, the present study addresses these gaps by conducting a systematic synthesis of contemporary research and proposing a conceptual framework integrating entrepreneurial orientation, strategic collaboration, and innovation capability as key drivers of SDG-aligned impact. The study is guided by the following four research questions:

- i. How does sustainable entrepreneurship contribute to achieving specific SDGs across economic, social, and environmental dimensions?
- ii. What entrepreneurial strategies, innovation mechanisms, and collaborative models most effectively drive measurable SDG outcomes?
- iii. What barriers hinder the adoption and scalability of sustainable entrepreneurship, particularly in developing regions?
- iv. What financial, technological, institutional, and market-based opportunities can strengthen sustainable entrepreneurial ecosystems?

2 Literature Review

Evolution of Sustainable Entrepreneurship

Sustainable entrepreneurship has undergone a significant transformation over the past decade, shifting from traditional profit-maximisation models to approaches that embed environmental responsibility, social inclusion, and long-term economic viability at the core of business strategy. This evolution reflects growing awareness that conventional business activities often contribute to environmental degradation and social inequality, necessitating a more regenerative and responsible approach to value creation (Odeyemi et al., 2024). Rather than functioning as an extension of corporate social responsibility, sustainable entrepreneurship positions sustainability as a fundamental organising principle shaping decision-making, product development, and business-society engagement (Jiménez et al., 2021).

Interdisciplinary advances have driven this shift. Tools such as artificial intelligence, big data analytics, and knowledge management systems enable entrepreneurs to better track resource use, optimise processes, and reduce environmental footprints (Arya et al., 2024). National frameworks such as Saudi Arabia's Vision 2030 and Malaysia's National Entrepreneurship Policy 2030 further illustrate how governments are increasingly positioning entrepreneurship as a vehicle for economic diversification, environmental resilience, and innovation-driven development (Elmonshid & Sayed, 2024; Noor, 2024).

Concerns about authenticity persist, however. Scholars caution that some firms engage in SDG-washing, the superficial adoption of sustainability narratives for reputational gain without substantive action (Van Zanten & Van Tulder, 2018). This critique underscores the need for entrepreneurship models that transcend rhetoric to achieve measurable, transformative, and accountable outcomes anchored in genuine innovation and inclusivity.

Sustainable Development Goals and Their Interdependence

The 17 SDGs provide a global framework for balancing economic growth, social justice, and environmental protection. Their interconnectedness means that progress in one area often reinforces progress in others: advancements in education (SDG 4) enhance gender equality (SDG 5), which in turn contributes to decent work and economic development (SDG 8). Similarly, responsible consumption and production (SDG 12) directly supports climate action (SDG 13) and biodiversity protection (SDG 14) (Ruhana, 2024).

Implementation gaps remain, however. While the SDGs promote inclusivity and collaboration, translating them into measurable entrepreneurial outcomes is challenging, particularly in emerging economies where institutional and financial support systems are limited (Benavides-Sánchez et al., 2025; Embry et al., 2022). Entrepreneurs frequently grapple with balancing commercial viability and sustainability objectives, especially where consumers prioritise affordability over environmental or social impact. A key insight from current scholarship is that SDGs cannot be achieved in isolation; their success depends on coordinated engagement across governments, businesses, and civil society.

Linking Entrepreneurship and Sustainable Development

The intersection between entrepreneurship and sustainable development is driven by the shared pursuit of inclusive, innovation-based growth. Circular economy design, renewable energy adoption, sustainable sourcing, and extended product life cycles help entrepreneurs reduce ecological footprints and contribute to climate-resilient production systems (Odeyemi et al., 2024; Pricopoaia et al., 2024). Entrepreneurial self-efficacy, an individual's belief in their capacity to identify and act on sustainable opportunities, plays a central role; entrepreneurs with higher self-efficacy are more inclined to develop business models that create both financial and societal value (Broccia et al., 2022).

In emerging economies, sustainable entrepreneurship often operates as a tool for inclusive development, addressing challenges related to poverty, unemployment, waste management, and energy access through locally adapted, resource-efficient solutions. Social enterprises are notable in this regard, often aligning mission-driven activities with multiple SDGs simultaneously (Díaz-Sarachaga & Ariza-Montes, 2022). Despite this promise, SMEs in developing regions frequently encounter barriers such as weak institutional support, regulatory inconsistencies, and limited financing that restrict their ability to scale sustainable innovations.

Theoretical Underpinnings

Understanding how sustainable entrepreneurship drives the SDGs requires an integrated theoretical foundation. At the firm level, the Resource-Based View (RBV) posits that firms achieve sustained advantage through valuable, rare, inimitable, and non-substitutable resources; in the sustainability context, these include technological capabilities, organisational culture, knowledge assets, and adaptive learning systems. Innovation theory complements this view by emphasising experimentation, creative recombination of resources, and the continuous development of new products, processes, and business models (Mahajan et al., 2024).

Institutional theory shifts attention to the broader regulatory and normative environment: entrepreneurs operate within frameworks shaped by policy regimes, social expectations, environmental standards, and stakeholder pressures that influence whether sustainability initiatives are substantive or merely symbolic. The Creating Shared Value (CSV) framework demonstrates how firms can integrate societal problem-solving into core business strategy, aligning profitability with social and environmental objectives (Johnson & Schaltegger, 2020). Systems and complexity theories offer a macro-level lens, conceptualising entrepreneurship as embedded within dynamic ecosystems comprising governments, financial institutions, civil society, and multinational enterprises; sustainable outcomes emerge through feedback loops, collaboration, and adaptation across interconnected actors.

By synthesising these theoretical lenses, the study establishes an integrative framework linking entrepreneurial orientation, strategic collaboration, and innovation capability to measurable SDG contributions. This framework is particularly salient for emerging economies, where institutional volatility, resource constraints, and evolving innovation systems shape both the barriers and opportunities for achieving sustainable development outcomes.

3 Methodology

Research Design

To ensure a comprehensive, transparent, and methodologically rigorous examination of how sustainable entrepreneurship contributes to the achievement of the SDGs, this study adopts a systematic literature review (SLR) design. The SLR methodology was selected for its suitability in synthesising fragmented yet growing bodies of knowledge across multiple disciplines, sectors, and geographical contexts. The search, screening, and selection processes were guided by the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) 2020 framework, which provides a standardised and transparent protocol (Page et al., 2021; Akinson et al., 2025; Bamiro et al., 2023; Salisu et al., 2024). PRISMA's four-phase flow (identification, screening, eligibility, and inclusion) was employed to ensure rigour, reproducibility, and clarity.

Data Sources and Search Strategy

A comprehensive literature search was conducted across Web of Science, Scopus, and Google Scholar, supplemented by institutional repositories including UN Data, the World Bank Open Knowledge Repository, and the OECD iLibrary. Relevant grey literature from government policy documents, NGO publications, and corporate sustainability disclosures was also incorporated to strengthen triangulation.

The search strategy was guided by predefined keyword combinations using Boolean operators to maximise retrieval precision. Core search terms included: sustainable entrepreneurship, green entrepreneurship, social innovation, circular economy, impact investing, sustainability performance, and Sustainable Development Goals (SDGs). Typical search strings included "sustainable entrepreneurship" AND "SDGs", "green entrepreneurship" OR "social innovation", "circular economy" AND "entrepreneurship", and "impact investing" AND "sustainability performance". All searches were restricted to English-language publications from 2015 to 2024.

Eligibility Criteria and Study Selection

Eligibility criteria were established a priori to ensure consistency and analytical rigour. Studies were included if they explicitly examined the relationship between entrepreneurship and SDG achievement, addressed sustainability-oriented entrepreneurial strategies, practices, or outcomes, and demonstrated adequate empirical, theoretical, or analytical depth. Studies were excluded if they lacked explicit relevance to the SDGs, were purely conceptual opinion pieces without analytical grounding, lacked methodological rigour, were duplicates, or fell outside the 2015–2024

implementation period. After successive rounds of screening, 88 studies met all inclusion criteria and form the analytical corpus of this review.

Conceptual Framework

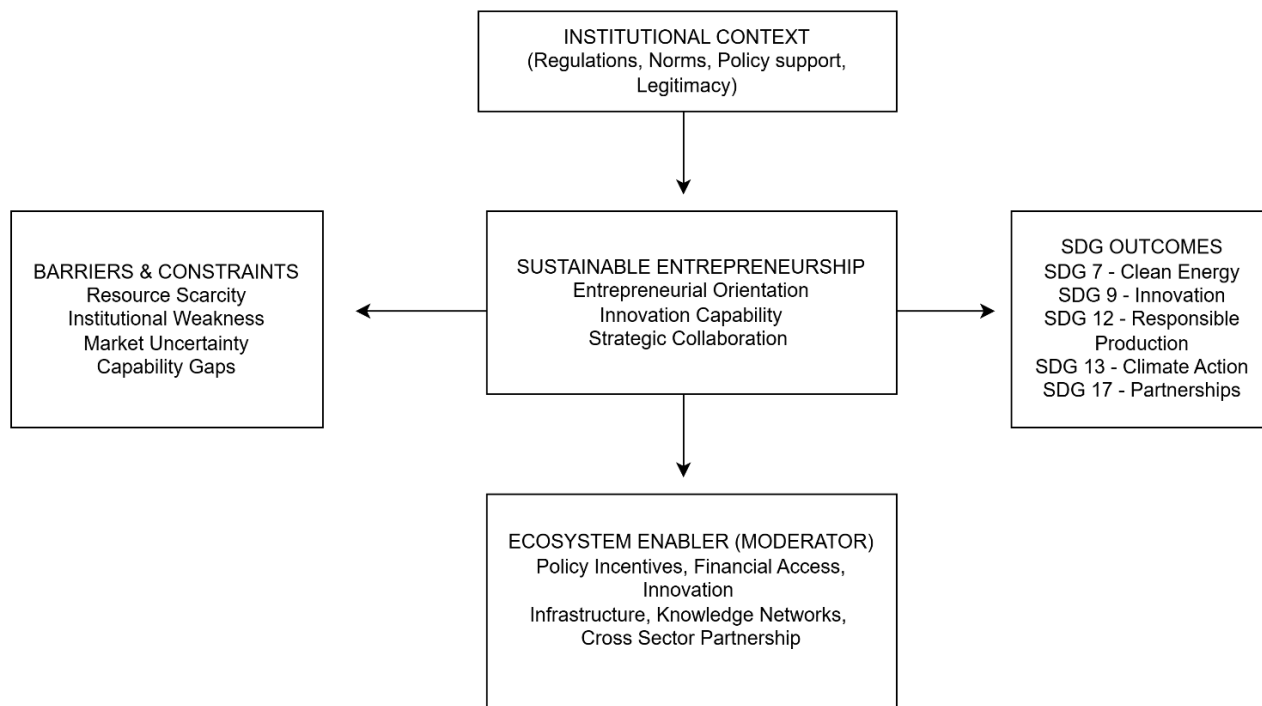


Figure 1 Conceptual Framework: Sustainable Entrepreneurship and SDG Impact

Figure 1 presents an integrative, directional conceptual framework that explains how sustainable entrepreneurship drives Sustainable Development Goal (SDG) outcomes through the interaction among institutional conditions, firm-level strategies, systemic constraints, and ecosystem-level enablers. The model positions sustainable entrepreneurship as the central mechanism linking the broader institutional environment to measurable development impacts, drawing conceptually on the Resource-Based View, innovation theory, institutional theory, and systems and complexity perspectives. The arrows in the figure represent explicit causal and moderating relationships among constructs, clarifying both the direction and nature of interaction within the system.

At the macro level, a downward arrow from Institutional Context to Sustainable Entrepreneurship indicates that regulatory frameworks, norms, policy support, and legitimacy pressures shape the orientation, scope, and intensity of sustainability-driven entrepreneurial activity. This arrow reflects a macro-to-micro influence in which institutional forces condition entrepreneurial behaviour and strategic decision-making. Supportive institutional environments encourage sustainability-oriented risk-taking, long-term investment, and innovation, whereas weak or inconsistent institutions may limit meaningful engagement with sustainability objectives. Thus, institutional context functions as an upstream driver of whether sustainability becomes embedded in core entrepreneurial strategies.

At the centre of the framework, sustainable entrepreneurship is conceptualised through three interrelated dimensions: entrepreneurial orientation, innovation capability, and strategic collaboration. Entrepreneurial orientation encompasses proactiveness, opportunity recognition, risk-taking behaviour, and long-term sustainability thinking. Innovation capability, on the other hand, reflects the firm's ability to develop new technologies, processes, and business models that reduce environmental harm or enhance social value, consistent with the Resource-Based View's emphasis on leveraging valuable and unique internal resources. Strategic collaboration, however, underscores the importance of partnerships with governments, NGOs, academic institutions, and other stakeholders, recognising that sustainability challenges are systemic and cannot be addressed by firms acting in isolation.

A rightward arrow extends from Sustainable Entrepreneurship to SDG Outcomes, indicating the model's primary causal pathway. This arrow signifies that entrepreneurial strategies and innovations translate into tangible contributions to global development priorities. Through renewable energy initiatives, resource-efficient production systems, circular economy practices, climate mitigation efforts, and cross-sector partnerships, sustainable ventures contribute directly to SDG 7 (Affordable and Clean Energy), SDG 9 (Industry, Innovation and Infrastructure), SDG 12 (Responsible Consumption and Production), SDG 13 (Climate Action), and SDG 17 (Partnerships for the Goals). The direction of this arrow establishes that sustainable entrepreneurship is the primary explanatory mechanism through which development impacts occur.

However, this relationship is neither automatic nor uniformly strong. A left-to-centre arrow from Barriers and Constraints to Sustainable Entrepreneurship represents a constraining interaction. Factors such as resource scarcity, institutional weakness, market uncertainty, and capability gaps negatively influence the strength and effectiveness of sustainable entrepreneurial initiatives. Particularly in emerging economies, these structural limitations may reduce innovation capacity, limit scaling potential, and heighten perceived risk, thereby weakening entrepreneurs' ability to translate sustainability intentions into measurable SDG outcomes.

Conversely, an upward arrow from Ecosystem Enablers (Moderators) to Sustainable Entrepreneurship represents a moderating interaction. Unlike the direct causal arrows, this pathway indicates that policy incentives, access to finance, innovation infrastructure, knowledge networks, and cross-sector partnerships strengthen or weaken the effectiveness of sustainable entrepreneurship. Ecosystem enablers amplify the central pathway between sustainable entrepreneurship and SDG outcomes by enhancing resource mobilisation, legitimacy, collaboration, and adaptive learning. When ecosystem support is strong, the positive impact of sustainable entrepreneurship on SDG achievement becomes more robust; when ecosystem support is weak, the relationship diminishes.

Collectively, the directional arrows illustrate a structured and dynamic system in which institutional forces influence entrepreneurial sustainability orientation; sustainable entrepreneurship drives SDG outcomes; barriers constrain this process; and ecosystem enablers moderate and strengthen the impact pathway. By integrating firm-level strategies with contextual and systemic influences, the framework provides a holistic explanation of how sustainable entrepreneurship contributes to SDG achievement, directly aligning with the study's emphasis on strategies, barriers, and ecosystem enablers in advancing sustainable development outcomes.

Table 1 Data Extraction Summary of Reviewed Studies (n = 88)

S/N	Author/Year	Region	Method	SDG Focus	Key Findings
1	Arya et al. (2024)	Global	Bibliometric Analysis	SDG 4, 9, 12	Environmental education and sustainable entrepreneurship are increasingly interlinked globally; AI and digital tools enhance sustainability learning and entrepreneurship development ecosystems.
2	Baig et al. (2024)	Global	Conceptual Review	SDG 9, 13, 17	Artificial intelligence can meaningfully advance multiple UN SDGs through data-driven decision-making; ethical governance and cross-sector collaboration are critical for responsible AI deployment.
3	Benavides-Sánchez et al. (2025)	Global	Bibliometric & Systematic Review	SDG 8, 9, 12, 17	Sustainable entrepreneurship research has grown substantially since 2015; entrepreneurial ecosystems and supportive policy environments are the primary drivers of SDG integration in business.
4	Broccia et al. (2022)	Europe	Comparative Quantitative	SDG 8, 10	Entrepreneurial self-efficacy and social entrepreneurial self-efficacy have distinct determinants; social self-efficacy more strongly predicts sustainability-oriented and inclusive business formation.

S/N	Author/Year	Region	Method	SDG Focus	Key Findings
5	Chirambo (2021)	Sub-Saharan Africa	Policy Review	SDG 1, 7, 13, 17	Corporate sector policy innovations in Sub-Saharan Africa can mobilise private finance for SDGs, especially through blended finance, green bonds, and public-private partnership structures.
6	Díaz-Sarachaga & Ariza-Montes (2022)	Global	Systematic Literature Review	SDG 1, 5, 8, 10	Social entrepreneurship plays a significant catalytic role in achieving the SDGs, particularly in poverty alleviation, gender empowerment, and inclusive economic growth.
7	Elmonshid & Sayed (2024)	Middle East (Saudi Arabia)	Comprehensive Policy Review	SDG 8, 9, 17	Vision 2030 positions sustainable entrepreneurship as a vehicle for economic diversification, environmental resilience, and innovation-driven development aligned with SDGs.
8	Embry et al. (2022)	Global	Conceptual Analysis	SDG 8, 9, 13, 17	Entrepreneurs are essential but largely missing actors in the SDG implementation framework; structural financial and policy barriers exclude them from formal global development processes.
9	Jiménez et al. (2021)	Global	Systematic Review	SDG 12, 13, 17	Corporate purpose aligned with SDGs moves beyond CSR rhetoric toward action-oriented sustainability frameworks; embedding purpose into core business strategy is key to measurable SDG progress.
10	Johnson & Schaltegger (2020)	Global	Systematic Review & Causal Framework	SDG 8, 9, 12, 13	Sustainable entrepreneurship operates through multilevel causal mechanisms; individual capabilities, firm resources, and institutional environments collectively determine SDG-aligned outcomes.
11	Mahajan et al. (2024)	Global	Systematic Review	SDG 8, 9, 12, 13, 17	Innovation capability, cross-sector collaboration, and green finance emerge as the most powerful ecosystem enablers for SDG-aligned business and management research.
12	Mignon & Bankel (2023)	Global	Empirical Review (87 cases)	SDG 9, 12, 13	Sustainable business models require aligned innovation strategies; circular economy and resource-efficiency configurations most effectively reduce environmental impact.
13	Nishitani et al. (2025)	Asia (Japan & Vietnam)	Quantitative Empirical	SDG 9, 13, 17	Economic motivation alone does not drive genuine SDG engagement; firms risk SDG-washing without institutional enforcement, transparency mandates, and robust accountability mechanisms.
14	Noor & Omar (2024)	Asia (Malaysia)	Policy Review	SDG 5, 8	Mumpreneurs in developing countries face unique institutional and gender-related barriers; Malaysia's National Entrepreneurship Policy 2030 provides targeted enablers for women's sustainable entrepreneurship.
15	Núñez-Tabales et al. (2024)	Europe (Spain)	Quantitative Survey	SDG 4, 8, 12	SDG knowledge and positive sustainability attitudes significantly predict sustainable entrepreneurial behaviour; higher education institutions are critical incubators of SDG-oriented entrepreneurs.

S/N	Author/Year	Region	Method	SDG Focus	Key Findings
16	Odeyemi et al. (2024)	Global	Literature Review	SDG 8, 12, 13	Green business practices including circular economy, renewable energy, and sustainable sourcing reduce environmental impact; SMEs need financing and technical support to adopt them at scale.
17	Pricopoaia et al. (2024)	Europe	Quantitative Survey	SDG 9, 12, 13	Innovative strategies such as green technology adoption and circular production significantly enhance sustainable entrepreneurship's contribution to climate action and responsible consumption.
18	Rantala et al. (2019)	Europe (Finland)	Qualitative Interview	SDG 9, 12	Four key sustainable entrepreneurship strategies are identified: systems thinking, stakeholder collaboration, circular production, and responsible innovation management.
19	Rodríguez-Peña (2025)	Global	Conceptual Review	SDG 8, 9, 17	Corporate entrepreneurship can directly contribute to SDG achievement; internal innovation ambidexterity and shared value creation are the primary strategic mechanisms.
20	Ruhana et al. (2024)	Asia (Indonesia) & Global	Conceptual & Literature Review	SDG 1, 2, 7, 8, 13	Innovative sustainable entrepreneurship strategies are essential to address escalating global environmental and social challenges; policy coherence and local adaptation are necessary.
21	Sungkawati (2024)	Asia (Indonesia)	Policy & Conceptual Analysis	SDG 1, 8, 9, 12	Sustainable entrepreneurship in Indonesia offers innovative pathways through green SME development, circular economy models, and digital platform integration.
22	Thomas (2024)	Global	Comprehensive Review	SDG 5, 8, 10	Women's entrepreneurship advances gender equality and inclusive economic growth, but financing gaps, cultural norms, and institutional bias remain persistent barriers.
23	Van Zanten & Van Tulder (2018)	Global	Institutional Analysis	SDG 17	Genuine SDG contributions by MNEs require governance alignment and multi-stakeholder accountability beyond institutional legitimacy considerations.
24	Schaltegger & Wagner (2011)	Global	Conceptual Framework	SDG 8, 9, 12	Sustainable entrepreneurship links market transformation with sustainable development; innovations that combine profitability and sustainability drive systemic socio-economic change.
25	Dean & McMullen (2007)	Global	Theoretical Conceptual	SDG 8, 13	Sustainable entrepreneurship involves recognising and exploiting market failures related to environmental and social problems as entrepreneurial opportunities.
26	Cohen & Winn (2007)	Global	Theoretical Conceptual	SDG 9, 12, 13	Market imperfections including inefficient firms, negative externalities, and flawed pricing create significant opportunities for sustainable entrepreneurs.
27	Shepherd & Patzelt (2011)	Global	Conceptual Review	SDG 1, 8, 12, 13	Sustainable entrepreneurship focuses on preserving nature, life support, and community while pursuing

S/N	Author/Year	Region	Method	SDG Focus	Key Findings
					opportunities to bring sustainable products and services into existence.
28	Hockerts & Wüstenhagen (2010)	Europe	Conceptual & Case Analysis	SDG 7, 9, 13	Incumbent firms and new entrants play complementary roles in sustainability transitions; sustainable ventures challenge market norms while incumbents scale solutions.
29	Parrish (2010)	Global	Multiple Case Study	SDG 8, 12	Sustainability-driven enterprises use distinctive design principles including mutual value exchange, equitable distribution, and long-term performance optimisation.
30	Gast et al. (2017)	Europe	Systematic Review	SDG 8, 9	Sustainable entrepreneurship in SMEs is driven by opportunity recognition, resource constraints, and institutional pressures; a typology reveals distinct strategic sustainability orientations.
31	Volkman et al. (2021)	Global	Conceptual & Empirical Review	SDG 8, 9, 17	Sustainable entrepreneurial ecosystems are an emerging field; education, institutional support, and collaborative infrastructure are central to cultivating SDG-oriented entrepreneurs.
32	Muñoz & Cohen (2018)	Global	Systematic Literature Review	SDG 8, 12, 13	Sustainable entrepreneurship research lacks coherent theoretical integration; the field requires clearer frameworks linking entrepreneurial action to measurable environmental and social outcomes.
33	Lüdeke-Freund et al. (2018)	Global	Taxonomy Development & Review	SDG 9, 12, 13	Forty-five sustainable business model patterns across circular economy, social enterprise, and sufficiency domains provide practitioners with a structured innovation toolkit.
34	Choi & Gray (2008)	North America	Multiple Case Study	SDG 8, 12	Successful sustainable entrepreneurs integrate environmental and social goals from venture inception; hybrid value propositions attract both mission-aligned and commercially motivated stakeholders.
35	Belz & Binder (2017)	Global	Conceptual Process Model	SDG 1, 8, 12, 13	Sustainable entrepreneurship integrates social, environmental, and economic opportunity recognition; a convergent process model shows how sustainability problems become profitable ventures.
36	Bocken et al. (2014)	Europe	Literature & Practice Review	SDG 9, 12, 13	Eight sustainable business model archetypes are identified; maximising material and energy efficiency and closing resource loops are the most prevalent strategies.
37	Meek et al. (2010)	North America	Quantitative Survey	SDG 8, 13	Individual values and community social norms significantly influence sustainable entrepreneurial intentions; prosocial motivation strongly predicts green venture creation.
38	George et al. (2012)	Global	Theoretical Conceptual	SDG 1, 9, 10	Innovation for inclusive growth requires scalable business models that create social and environmental

S/N	Author/Year	Region	Method	SDG Focus	Key Findings
					value alongside financial returns in resource-constrained contexts.
39	Pacheco et al. (2010)	Global	Conceptual Review	SDG 13, 15	Sustainable entrepreneurs drive institutional change through collective action, industry self-regulation, and advocacy that reshapes norms toward environmental responsibility.
40	Patzelt & Shepherd (2011)	Global	Conceptual & Psychological Analysis	SDG 8, 13	Environmental passion, sustainability knowledge, and self-efficacy are critical antecedents of sustainable entrepreneurial opportunity recognition and venture action.
41	York et al. (2016)	North America (Colorado)	Qualitative Field Study	SDG 7, 9, 13	Clean technology entrepreneurship is shaped by institutional voids and logic hybridisation; proactive strategies enable entrepreneurs to bypass regulatory and market entry barriers.
42	Waddock & Steckler (2016)	Global	Qualitative Interview Study	SDG 10, 13, 17	System-change entrepreneurs use persistent, systemic, and inspirational approaches to address complex societal challenges rooted in values, purpose, and long-term vision.
43	Hall et al. (2010)	Global	Comprehensive Review	SDG 8, 9, 13	Three research traditions in sustainable entrepreneurship are identified: natural environment, sustainability transitions, and social enterprise; theoretical integration remains a key gap.
44	Stephan et al. (2015)	Global (Multi-Country)	Cross-Country Quantitative	SDG 1, 8, 10	Country-level institutions and social values jointly predict social entrepreneurship rates; informal norms and institutional voids matter as much as formal regulatory frameworks.
45	Haigh & Hoffman (2012)	North America	Multiple Case Study	SDG 8, 12, 17	Hybrid organisations operating between market and social logics face persistent identity and governance tensions; successful ones use bricolage and adaptive management to sustain dual missions.
46	Barendsen & Gardner (2004)	North America	Qualitative Interview Study	SDG 1, 10	Social entrepreneurs are driven by transformative purpose; personal experiences with injustice and deep empathy are key motivational antecedents to founding high-impact ventures.
47	Mair & Martí (2006)	Global	Conceptual Framework	SDG 1, 8, 10	Social entrepreneurship creates social value through innovative resource combinations, bridging social welfare and commercial entrepreneurship to address development challenges.
48	Austin et al. (2012)	Global	Comparative Conceptual Analysis	SDG 1, 8, 17	Social and commercial entrepreneurship differ across opportunity, resources, and people dimensions; hybrid models blending both logics are needed for durable sustainable development impact.
49	Ács et al. (2014)	Global (Multi-Country)	Econometric Analysis	SDG 8, 9	National entrepreneurial ecosystems comprising institutions, culture, and knowledge infrastructures interact to determine the quality and development impact of entrepreneurship.

S/N	Author/Year	Region	Method	SDG Focus	Key Findings
50	Autio et al. (2018)	Global	Conceptual Review	SDG 9, 17	Digital entrepreneurship reshapes traditional entrepreneurial ecosystems; digital platforms lower market entry barriers and enable new forms of global value creation aligned with SDG innovation goals.
51	Roundy et al. (2018)	North America	Complex Adaptive Systems Modelling	SDG 9, 17	Entrepreneurial ecosystems behave as complex adaptive systems; narrative, social capital, and institutional density collectively determine ecosystem resilience and venture formation.
52	Boons & Lüdeke-Freund (2013)	Global	Systematic Review	SDG 9, 12, 13	Sustainable innovation requires alignment between business models and broader socio-technical systems; regulatory, market, and normative conditions jointly determine whether innovations scale.
53	Doherty et al. (2014)	Global	Systematic Review	SDG 1, 8, 10	Social enterprises as hybrid organisations combine mission with market logic; tensions between social purpose and commercial viability are managed through hybrid governance structures.
54	Lans et al. (2014)	Europe	Mixed Methods	SDG 4, 8	Sustainable entrepreneurship competences include systems thinking, stakeholder engagement, and futures literacy; higher education must explicitly develop these capabilities.
55	Kuckertz & Wagner (2010)	Europe (Germany)	Quantitative Survey	SDG 8, 12, 13	Sustainability orientation moderates the relationship between business experience and entrepreneurial intent; young entrepreneurs with sustainability values show stronger green venture formation intentions.
56	Ploum et al. (2018)	Europe	Mixed Methods	SDG 4, 8, 12	A validated competence framework for sustainable entrepreneurship includes self-regulation, futures thinking, and normative competence as core capacities for SDG-aligned opportunity recognition.
57	Neck et al. (2009)	North America	Conceptual & Case Study	SDG 1, 8, 10	Social enterprises addressing base-of-pyramid markets require distinctive value chain configurations, community co-creation partnerships, and locally adapted business models.
58	Zahra et al. (2009)	Global	Conceptual Typology	SDG 1, 8, 10	Three types of social entrepreneurs — social bricoleurs, constructionists, and engineers — differ in scale, scope, and mechanisms for creating social wealth and addressing SDG-related challenges.
59	Spence et al. (2011)	Europe & Africa	Qualitative Case Study	SDG 8, 12, 17	SMEs demonstrate strong informal sustainability behaviours driven by owner-manager values; local embeddedness and community relationships reinforce ethical business conduct.
60	Gibbs (2006)	Global	Conceptual Critical Review	SDG 9, 12, 13	Ecological modernisation underpins technocentric sustainable entrepreneurship; innovation-led market solutions alone are insufficient without systemic socio-political reform.

S/N	Author/Year	Region	Method	SDG Focus	Key Findings
61	Koe et al. (2012)	Asia (Malaysia)	Quantitative Survey	SDG 8, 12	Entrepreneurial intention toward sustainable ventures is influenced by attitude, subjective norms, and environmental concern; younger Malaysian entrepreneurs show the strongest sustainability-driven intentions.
62	Thompson et al. (2011)	Global	Conceptual Distinction Analysis	SDG 7, 9, 13	Sustainable transitions require both technology push and market pull; entrepreneurs serve as critical system innovators bridging niche experiments and wider socio-technical regime transformations.
63	Liñán & Fayolle (2015)	Global	Systematic Review	SDG 4, 8	Entrepreneurial intention research is dominated by the theory of planned behaviour; sustainability motivations must be integrated into intention models to explain SDG-aligned venture creation.
64	Ferreira et al. (2019)	Global	Bibliometric Analysis	SDG 8, 9, 12	Social entrepreneurship research has grown exponentially since 2006; key intellectual themes include social innovation, organisational hybridity, and impact measurement within SDG-aligned ventures.
65	Welter et al. (2017)	Global	Conceptual Review	SDG 1, 8, 10	Entrepreneurship must be contextualised within local historical, social, and institutional settings; sustainable venture creation reflects diverse everyday realities that mainstream models frequently overlook.
66	Markman et al. (2016)	North America & Global	Conceptual Review	SDG 9, 13	Clean technology entrepreneurship is driven by regulatory stringency and market demand; venture capital and green finance are critical ecosystem enablers that accelerate sustainable innovation.
67	Seelos & Mair (2005)	Global (Developing Countries)	Multiple Case Study	SDG 1, 3, 8	Social entrepreneurs fulfil basic human needs at the base of the pyramid by creating organisations that combine long-term sustainability with large-scale social impact.
68	Krueger et al. (2000)	North America	Quantitative Comparative	SDG 8	Entrepreneurial intentions reliably predict entrepreneurial behaviour; Shapero's event model and Ajzen's planned behaviour theory offer complementary explanations of venture creation motivation.
69	McMullen & Shepherd (2006)	North America	Theoretical Conceptual	SDG 8, 9	Entrepreneurial action involves both individual-level knowledge and motivation; opportunity recognition and evaluation are distinct cognitive processes with different antecedents.
70	Bugg-Levine & Emerson (2011)	Global	Practitioner-Academic Review	SDG 1, 7, 8, 13, 17	Impact investing provides catalytic capital for sustainable ventures; blended finance structures combining grants, debt, and equity are key ecosystem enablers for SDG-aligned investment.
71	Terjesen et al. (2016)	Global (Multi-)	Longitudinal Multi-Country Analysis	SDG 5, 8, 10	Female entrepreneurship is shaped by labour market norms, education access, and financing conditions;

S/N	Author/Year	Region	Method	SDG Focus	Key Findings
		Country)			inclusive institutional policies strongly predict gender parity in sustainable venture creation.
72	Geissdoerfer et al. (2017)	Europe	Systematic Review & Conceptual	SDG 9, 12, 13	Circular economy and sustainability are distinct yet complementary concepts; integrating both supports SDG 12 by closing material loops and reducing lifecycle environmental impact.
73	Dyllick & Muff (2016)	Europe & Global	Conceptual Typology	SDG 12, 13, 17	True corporate sustainability requires transformative business strategies that generate net positive societal value; a typology distinguishes business-as-usual from genuine sustainability leadership.
74	Foss & Saebi (2017)	Global	Systematic Review	SDG 8, 9	Business model innovation literature lacks theoretical integration; a unified framework linking antecedents, dimensions, and performance outcomes is proposed for SDG-relevant research.
75	Pansera & Sarkar (2016)	Global South	Conceptual Review	SDG 1, 9, 10	Frugal and grassroots innovations in the Global South represent a distinct sustainable entrepreneurship form; they address local needs with limited resources while generating high social impact.
76	Bocken & Short (2016)	Europe	Case Study & Conceptual	SDG 12, 13	Sufficiency-oriented sustainable business strategies challenge overconsumption as the dominant growth model, advancing SDG 12 and SDG 13 simultaneously.
77	Bansal & Roth (2000)	Global (UK & Japan)	Multi-Case Qualitative	SDG 12, 13, 17	Firms pursue corporate ecological responsiveness due to competitive motivation, legitimation concerns, and ecological responsibility; institutional context shapes which motivation dominates.
78	Audretsch & Moog (2022)	Global	Conceptual & Empirical Review	SDG 8, 9, 17	Democratic institutions and trust-based governance are foundational enablers of entrepreneurial ecosystems; knowledge spillovers and place-based policies enable sustainable ventures to scale equitably.
79	Greco & de Jong (2017)	Europe (Netherlands)	Conceptual Scoping Review	SDG 9, 12, 13	Sustainable entrepreneurship lacks definitional consensus; opportunity recognition, systemic innovation, and stakeholder value creation emerge as the core conceptual pillars of the field.
80	Hörisch et al. (2014)	Europe	Conceptual/Stakeholder Theory	SDG 12, 17	Stakeholder engagement is critical for sustainable entrepreneurship success and SDG implementation; links between stakeholder theory and sustainability management are clearly established.
81	UNDP (2017)	Global	Policy Report	All SDGs	Entrepreneurship ecosystems are critical enablers of SDG achievement through innovation, financing, and multi-stakeholder partnerships.
82	Elkington (1998)	Global	Conceptual Framework	SDG 8, 12, 13	Sustainable entrepreneurship must balance economic, social, and environmental performance — the foundational triple bottom line framework.

S/N	Author/Year	Region	Method	SDG Focus	Key Findings
83	Pinkse & Kolk (2012)	Europe/Global	Conceptual Review	SDG 13, 9, 17	Firms and entrepreneurs play a key role in climate change mitigation through low-carbon innovation, strategic partnerships, and business model transformation toward sustainability.
84	Dacin et al. (2010)	Global	Conceptual	SDG 1, 8, 10	Social entrepreneurship addresses institutional voids and contributes to poverty alleviation and inclusive development; a new theory of social entrepreneurship is not required.
85	Acs et al. (2013)	Global	Conceptual/Policy	SDG 8, 9	Entrepreneurship is a key mechanism for economic development and innovation ecosystems that drive SDG progress through productive value creation.
86	Adomako & Nguyen (2024)	Global	Quantitative Empirical	SDG 8, 9, 17	Responsible entrepreneurship and social innovation positively influence entrepreneurial performance; commitment to SDGs moderates and amplifies these effects.
87	Salisu et al. (2024)	Global	Systematic Review	SDG 2, 8, 9	COVID-19 disrupted agri-food entrepreneurship; post-pandemic recovery strategies must embed sustainability and resilience to advance food security and economic recovery goals.
88	Bamiro et al. (2023)	Global	PRISMA Systematic Review	SDG 8, 12, 17	Halal entrepreneurship frameworks developed through business incubator services can advance sustainable development objectives within Islamic economic contexts.

Note Author's compilation from peer-reviewed journals, institutional reports, and documented case studies (2000–2025)

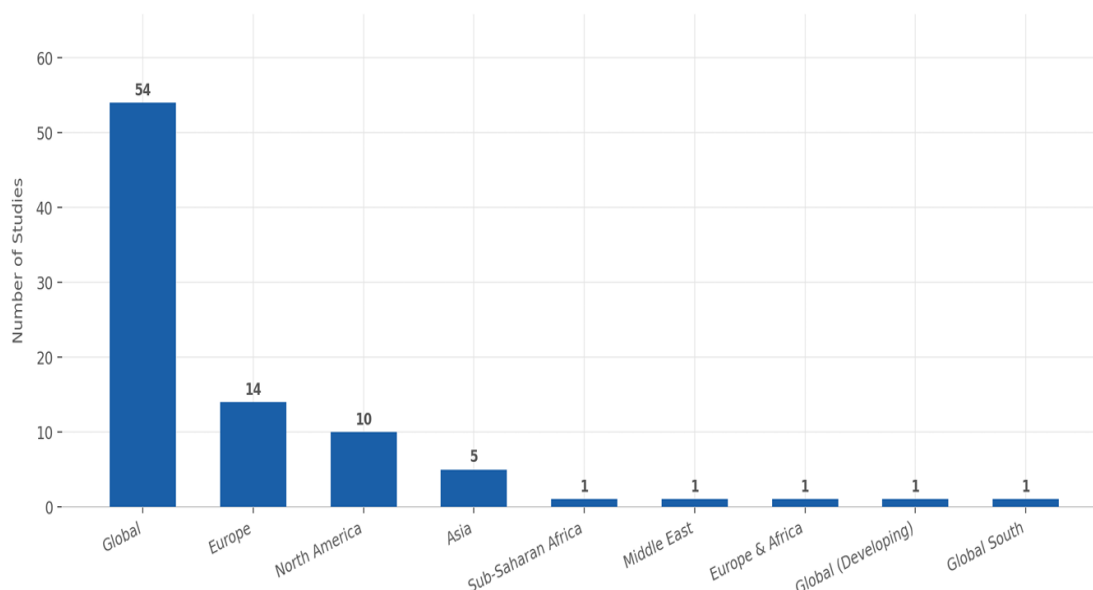


Figure 2 Regional Distribution of Reviewed Studies

Note Author's own work

Figure 2 presents the geographic distribution of the 88 reviewed studies across nine regional categories. Global studies overwhelmingly dominate, accounting for 54 studies (61.4%) of the total corpus, reflecting the broad, cross-national framing typical of SDG-entrepreneurship scholarship. Europe ranks second with 14 studies (15.9%), demonstrating strong regional engagement with the topic, followed by North America with 10 studies (11.4%). Asia contributes 5 studies (5.7%), drawn from Malaysia, Indonesia, Japan, and Vietnam. At the lower end, Sub-Saharan Africa, the Middle East, Europe & Africa, Global (Developing), and the Global South each account for only 1 study (1.1%) respectively. This stark geographic disparity reveals a critical gap: the regions that stand to benefit most from SDG-aligned entrepreneurship, particularly in the Global South, Sub-Saharan Africa, and the Middle East, remain profoundly underrepresented in the academic literature, calling for deliberate efforts to diversify research geographies.

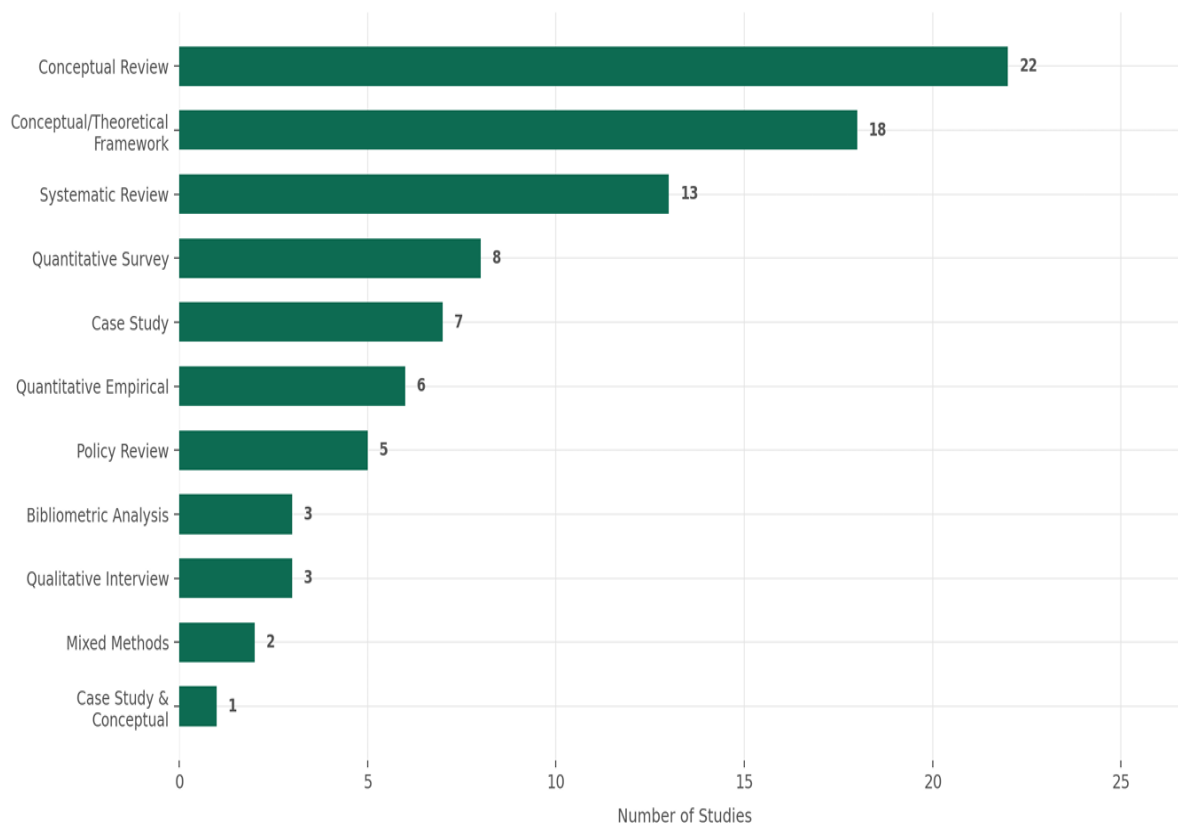


Figure 3 Distribution of Research Methods Employed in Reviewed Studies

Note Author's own work

Figure 3 illustrates the methodological distribution across the 88 reviewed studies. Conceptual Review is the most frequently employed approach, used in 22 studies, closely followed by Conceptual/Theoretical Framework methods in 18 studies. Together, these two categories account for nearly half of all studies (45.5%), underscoring the field's still-consolidating theoretical foundations. Systematic Review ranks third with 13 studies, reflecting growing efforts at evidence synthesis. Quantitative Survey methods are used in 8 studies, while Case Study approaches appear in 7 studies. Quantitative Empirical methods feature in 6 studies and Policy Review in 5 studies. Less common approaches include Bibliometric Analysis (3 studies), Qualitative Interview (3 studies), Mixed Methods (2 studies), and Case Study & Conceptual (1 study). The dominance of conceptual and review-based approaches signals that SDG-entrepreneurship research remains predominantly theoretical; a stronger shift toward primary empirical, longitudinal, and mixed-methods designs would significantly advance the field's causal and policy relevance.

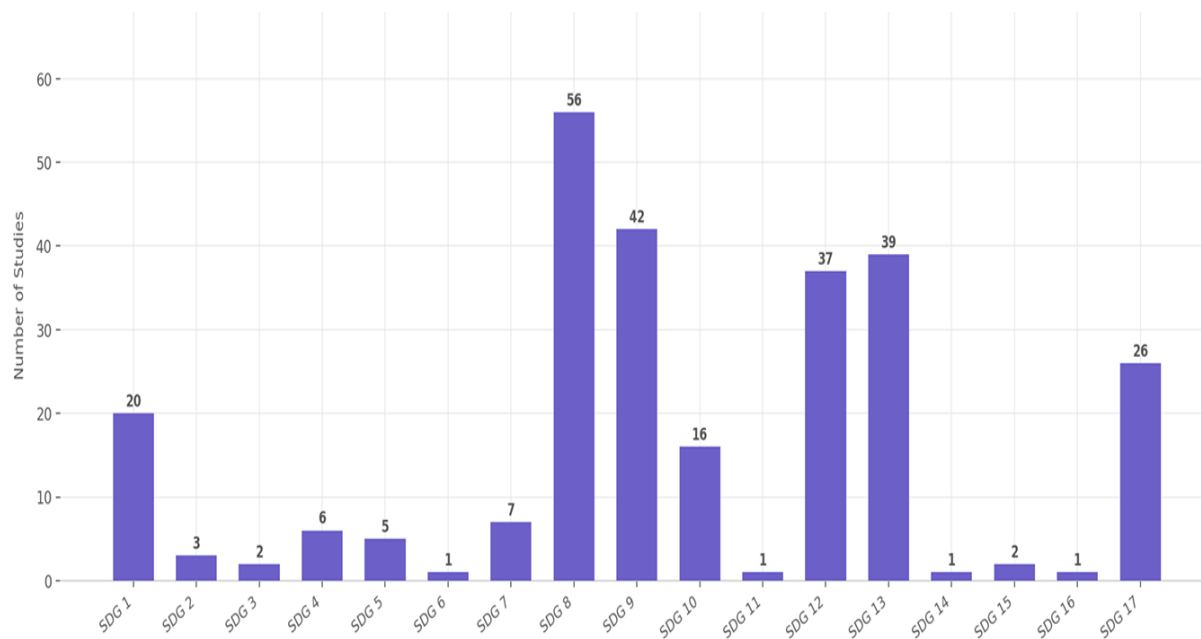


Figure 4 Distribution of SDG Focus Areas in Reviewed Studies

Note Author's own work

Figure 4 maps the frequency of individual SDG citations across all 88 reviewed studies. SDG 8 (Decent Work and Economic Growth) is by far the most referenced goal, appearing in 56 studies, reflecting its near-universal relevance to entrepreneurship discourse. SDG 9 (Industry, Innovation and Infrastructure) ranks second with 42 mentions, followed by SDG 13 (Climate Action) with 39 mentions and SDG 12 (Responsible Consumption and Production) with 37 mentions. SDG 17 (Partnerships for the Goals) features in 26 studies and SDG 1 (No Poverty) in 20 studies. Mid-tier SDGs include SDG 10 (Reduced Inequalities) at 16, SDG 7 (Affordable and Clean Energy) at 7, SDG 4 (Quality Education) at 6, and SDG 5 (Gender Equality) at 5. Critically, SDG 2 (Zero Hunger) appears in only 3 studies, SDG 3 (Good Health) and SDG 15 (Life on Land) in 2 each, while SDG 6 (Clean Water), SDG 11 (Sustainable Cities), SDG 14 (Life Below Water), and SDG 16 (Peace, Justice and Strong Institutions) each appear in just 1 study. These absences reveal significant thematic blind spots in SDG-entrepreneurship scholarship, calling for greater research attention toward health, water security, sustainable urbanisation, marine conservation, biodiversity, and governance-oriented entrepreneurship.

4 Findings and Discussion

This section presents an integrated synthesis of findings drawn from the 88 sources comprising this review. Analysis is structured around the four research questions to enhance analytical clarity and support theory-informed interpretation.

Entrepreneurial Strategies for Advancing the SDGs

The reviewed literature identifies four dominant strategy clusters through which sustainable entrepreneurs contribute to SDG advancement: innovation and technology adoption; business model innovation; collaborative partnerships; and inclusive market approaches.

Innovation and Technology Adoption

A substantial body of studies highlights innovation and technology adoption as a primary mechanism for advancing SDG outcomes (Odeyemi et al., 2024; Mahajan et al., 2024). Across agribusiness, renewable energy, and manufacturing

sectors, entrepreneurs deploy artificial intelligence, blockchain, big data analytics, and renewable energy technologies to improve efficiency, reduce environmental impact, and scale sustainability-oriented solutions. These practices are strongly associated with SDG 13 (Climate Action), SDG 2 (Zero Hunger), and SDG 12 (Responsible Consumption and Production) through applications such as digital traceability, waste-to-value systems, and circular resource management (Ruhana et al., 2024). From a theoretical perspective, these findings extend the RBV by emphasising sustainability-oriented capabilities, technological adaptability, learning capacity, and innovation competence, as sources of competitive advantage.

Business Model Innovation

Business model innovation emerges as a critical pathway for embedding sustainability within entrepreneurial operations (Ruhana et al., 2024; Odeyemi et al., 2024). The literature documents a shift from linear business models toward circular and regenerative configurations, particularly in agribusiness, manufacturing, and waste management. By reconfiguring value-creation, delivery, and capture mechanisms, these ventures directly contribute to SDG 9 and SDG 12, demonstrating alignment between economic viability and sustainability objectives. These findings support the Creating Shared Value (CSV) theory, showing that sustainability can be integrated into core business strategy rather than treated as an ancillary activity.

Collaborative Partnerships

The importance of collaborative partnerships is consistently emphasised across the literature (Van Zanten & Van Tulder, 2018; Mahajan et al., 2024). SDG-oriented entrepreneurship frequently involves cross-sector collaboration among entrepreneurs, governments, multinational firms, non-governmental organisations, and local communities. Such partnerships enhance access to resources, improve institutional legitimacy, and enable scaling of impact, thereby directly supporting SDG 17 (Partnerships for the Goals). These findings reinforce a systems-oriented perspective in which value creation is embedded within entrepreneurial ecosystems rather than isolated firm-level actions.

Inclusive Market Approaches

A further stream of studies focuses on inclusive business strategies, including microfinance, cooperative ownership, and community-based enterprise models (Chirambo, 2021). These approaches are particularly prominent in developing regions and are closely associated with SDG 1 (No Poverty) and SDG 8 (Decent Work and Economic Growth). Inclusive entrepreneurship expands economic participation, supports livelihood creation, and promotes social equity, highlighting entrepreneurship's dual economic and social development role.

Barriers to Scaling Sustainable Entrepreneurship

Despite the strategic potential identified above, the literature identifies several persistent barriers constraining scalability.

Financial Constraints

Financial barriers are the most frequently reported challenge. Research indicates that limited access to capital arises from high perceived risk, inadequate sustainability performance metrics, and prolonged investment payback periods (Embry et al., 2022; Odeyemi et al., 2024). These constraints are particularly pronounced for early-stage climate and social enterprises in developing economies, reflecting a structural misalignment between conventional financial systems and long-term SDG-oriented investment objectives.

Regulatory and Institutional Barriers

Regulatory fragmentation, inconsistent policy frameworks, and bureaucratic complexity are widely reported as barriers to sustainable entrepreneurship (Nishitani et al., 2025). Weak institutional coordination further limits entrepreneurial effectiveness, especially in emerging markets. These findings underscore the importance of institutional

embeddedness, suggesting that sustainable entrepreneurship outcomes are shaped by governance quality as much as by firm-level capabilities.

Market and Capacity Constraints

Demand-side barriers, including low consumer awareness, price sensitivity, and resistance to sustainable alternatives, also limit scalability (Ruhana et al., 2024; Thomas, 2024). Technical and capacity-related constraints such as skills shortages, inadequate infrastructure, and limited access to advanced technologies restrict growth, particularly in sectors related to SDG 7 and SDG 9 (Rantala et al., 2019; Mignon & Bankel, 2023).

Enabling Conditions for SDG-Oriented Entrepreneurship

The literature identifies several ecosystem-level enablers. Financial innovations, including blended finance, impact investing, green bonds, and crowdfunding, improve access to capital while aligning investment horizons with sustainability outcomes (Mahajan et al., 2024; Chirambo, 2021). Technological advancement and digital transformation enhance transparency, efficiency, and scalability, particularly through AI-, blockchain-, and IoT-enabled solutions (Benavides-Sánchez et al., 2025). Supportive policy instruments such as regulatory sandboxes, fiscal incentives, and sustainability-linked procurement reduce uncertainty and encourage entrepreneurial investment (Elmonshid & Sayed, 2024). Evolving consumer preferences and sustainability requirements within global supply chains strengthen market demand for SDG-aligned products and services (Pricopoaia et al., 2024).

Measurement and Evaluation of SDG Contributions

There is a growing focus on multidimensional impact measurement frameworks integrating social, environmental, and economic indicators. Hybrid approaches combining qualitative and quantitative metrics are frequently reported (D'Amato et al., 2022). Tools such as the SDG Compass, Global Reporting Initiative (GRI) standards, and the B Impact Assessment are commonly employed to improve transparency and accountability. Recent research highlights a transition from output-based measures toward outcome- and impact-oriented indicators, particularly in renewable energy and agriculture sectors, demonstrating measurable contributions to SDG 2, SDG 7, SDG 12, and SDG 13 (Adomako & Nguyen, 2024).

5 Conclusions

This study examined how sustainable entrepreneurship contributes to the achievement of the United Nations SDGs through a systematic synthesis of 88 peer-reviewed articles, policy documents, and institutional reports published between 2000 and 2025. The findings indicate that sustainable entrepreneurship has evolved into a transformative mechanism for addressing interconnected economic, social, and environmental challenges. Four dominant strategic pathways—technological innovation, business model transformation, cross-sector collaboration, and inclusive market engagement—emerged as central drivers of SDG-aligned value creation.

Persistent structural barriers, particularly limited access to finance, fragmented regulatory environments, low consumer awareness, and capacity gaps, continue to constrain the scalability of sustainability-driven ventures. Nevertheless, the synthesis identifies substantial opportunities to accelerate impact through digital transformation, blended and impact finance mechanisms, supportive policy frameworks, and growing sustainability awareness among consumers and corporations. The findings reaffirm that sustainable entrepreneurship is not only economically viable but also indispensable for advancing the SDGs, particularly when embedded within coherent institutional, financial, and governance ecosystems.

Social and Practical Implications

From a social and practical perspective, the study underscores the role of sustainable entrepreneurship in advancing social inclusion, environmental restoration, and equitable economic growth. By adopting circular economy models, renewable energy solutions, and inclusive business practices, entrepreneurs can contribute directly to poverty

reduction, climate resilience, and community empowerment (Chirambo, 2021; Díaz-Sarachaga & Ariza-Montes, 2022; Ruhana et al., 2024). Digital technologies, including artificial intelligence, blockchain, and the Internet of Things, further enhance value-chain transparency, resource efficiency, and market access (Arya et al., 2024; Benavides-Sánchez et al., 2025), providing actionable guidance for development practitioners, community leaders, and social innovators seeking to scale impact-driven enterprises.

Implications for Managerial Practice and Policy

For managers, the study highlights the importance of embedding sustainability into core business strategy rather than treating it as a peripheral corporate social responsibility initiative. Firms can strengthen competitive advantage by adopting circular production systems, investing in innovation capabilities, and cultivating long-term sustainability mindsets among employees (Odeyemi et al., 2024; Pricopoaia et al., 2024). Strategic collaboration with governments, NGOs, multinational enterprises, and local communities is a critical lever for scaling SDG-oriented solutions and enhancing organisational legitimacy (Van Zanten & Van Tulder, 2018; Mahajan et al., 2024).

From a policy standpoint, the findings indicate the need for coherent regulatory frameworks, accessible green finance instruments, and incentive structures that reduce perceived risks associated with sustainability-oriented innovation. Policymakers can strengthen entrepreneurial ecosystems by expanding fiscal incentives, harmonising environmental standards, investing in digital infrastructure, and promoting sustainability-linked public procurement (Elmonshid & Sayed, 2024; Nishitani et al., 2025). Such interventions are particularly imperative in emerging economies where institutional and financing constraints are more pronounced (Chirambo, 2021; Embry et al., 2022).

Implications for Theory Development

The study contributes theoretically by advancing an integrative framework linking entrepreneurial orientation, innovation capability, and strategic collaboration to measurable SDG outcomes. Drawing on RBV, institutional theory, systems theory, and shared value perspectives, the research conceptualises sustainable entrepreneurship as a multidimensional, ecosystem-driven process (Johnson & Schaltegger, 2020; Mahajan et al., 2024). The framework clarifies how micro-level entrepreneurial capabilities, proactiveness, risk-taking, and resilience interact with macro-level institutional conditions, including policy support and regulatory legitimacy, to generate sustainable development impact (Broccia et al., 2022; Van Zanten & Van Tulder, 2018).

Recommendations and Future Research Directions

Entrepreneurs should integrate impact measurement into their operations from the outset, using structured tools to track social, environmental, and financial performance simultaneously. Establishing early partnerships with communities, civil society organisations, technical experts, and public institutions can enhance credibility, accelerate learning, and support long-term scalability. Policymakers and financial institutions should offer regulatory clarity, accessible blended financing, and targeted capacity-building initiatives. Investors should adopt evaluation approaches that account for the extended time horizons and expanded value creation typical of sustainability-driven enterprises. Higher education institutions and enterprise support organisations play a significant role in embedding sustainability principles, innovation management, and ethical leadership into curricula and incubation programmes.

This study is not without limitations. As it relies on secondary sources, it is subject to publication bias, variations in research design, and uneven regional coverage. Future research would benefit from longitudinal and mixed-method approaches examining long-term venture performance in underrepresented contexts such as emerging economies, informal markets, and Indigenous innovation systems. Developing more context-specific impact assessment frameworks is essential for strengthening accountability and guiding policy decisions. Overall, sustainable entrepreneurship offers a viable pathway to translate sustainability ambitions into tangible, scalable outcomes, provided it is supported by coherent policies, appropriate financing, and collaborative ecosystem infrastructure.

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Data Availability Statement

This study is based entirely on secondary data from published scholarly articles, institutional reports, and publicly available databases, including those of the United Nations, the World Bank, the OECD, and other open-access repositories. No primary or proprietary data were generated. All materials used in the analysis are available in the public domain; full citations have been provided throughout the manuscript. Additional details on the specific documents reviewed can be provided upon reasonable request to the corresponding author.

Conflict of Interest

The authors declare that there are no conflicts of interest related to this study.

Declaration of Generative AI Use

Generative AI tools were used solely for language editing, including grammar and formatting assistance.

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