

Startups Function in Encouraging Innovations and Sustainable Business Practices

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Abstract: We reviewed the impact of startups on the innovation ecosystem, their role in the expansion of high-tech businesses and sustainable economic growth, and the funding sources that support their success. Startups are essential to innovation in today's society because they make it easier to create new goods, technologies, and business models. Startups accelerate technical progress across a range of industries and promote sustainable economic growth because of their high degree of adaptability, flexibility, and concentration on innovative solutions. They present innovative technologies that have the power to transform the market and open up new avenues for both society and industry. SDG goals 8, 9, 10, and 11 are directly and indirectly achieved with the support of different fields of startups and innovations. They generate economic growth with help of giving rise to new opportunities and balance the gender equality gap as well. In India, embracing innovation and digital platforms can support sustainable business practices while fostering economic expansion and employment creation.

Keywords: Startups, innovations, technological development, entrepreneurship, SDGs

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Introduction

Startups have become essential catalysts for innovation, creativity, and sustainable development in the modern global economy (Danil et al., 2025). Startups, in contrast to established businesses, have the flexibility, risk-taking prowess, and adaptable mentality required to investigate innovative answers to challenging environmental, education, migration and socioeconomic problems (Verma et al., 2023; Singh et al., 2026a). They can include sustainability into business models from the beginning; thanks to their dynamic strategy, which encourages waste reduction, inclusive growth, responsible production, and the use of renewable energy (Bărbulescu et al., 2021). Innovative technologies including biotechnology, clean energy systems, artificial intelligence, and circular economy models are being used by entrepreneurs to transform sectors and achieve important Sustainable Development Goals (SDGs) (Ali et al., 2024). The critical role that startups play in promoting green innovation, job development, and long-term economic resilience is becoming more widely acknowledged by governments, investors, and

policy institutions. Therefore, creating an environment that is conducive to startups is crucial for both attaining global sustainability goals and maintaining economic competitiveness. This paper reviews how startups serve as engines of innovation and sustainable business practices, stressing their tactics, difficulties, and contributions to the creation of a more just and ecologically responsible future.

Technology is now a crucial force behind corporate innovation in the cutthroat economy of today (Tidd and Bessant, 2013). We examine how technology might support corporate innovation in a number of different fields and industries. By thoroughly examining case studies and theoretical frameworks, we look into how technology helps companies improve operational effectiveness, develop new goods and services, expand their customer base, and obtain a competitive edge. Along with offering insights into the tactics that companies may use to successfully innovate using technology, we also go into the opportunities and difficulties related to technology adoption. The results of this study help to clarify how technology is transforming company

innovation and offer insightful advice to companies looking to spur expansion and sustainability in the digital era. The following are the research issues that inform this review. These include the impact of AI, data platforms, and automated experimentation on traditional process models (e.g., Stage-Gate), which require deeper empirical study. Comparative studies on process effectiveness across sectors (manufacturing, services, public sector) and geographies (emerging vs. advanced economies) are needed. Strategic alignment of innovation processes with ESG goals and circular economy principles is an emergent research front. The possible questions, which needed to be addressed are: what role do various forms of innovation have in the success of startups? What are the main external and internal elements that either support or hinder innovation in startups? What tactics can startups use to leverage and manage innovation effectively? How startups give rise to sustainable business practices? This review further has objectives, (i) to understand how startups help innovations to grow, (ii) to know how startups give rise to sustainable business practices, (iii) to understand the awareness of innovation among Entrepreneurs, (iv) to study the impact of Startups and Innovations on SDG Goals, and (v) to understand the problems faced by the entrepreneurs in adopting innovation if any.

Startups Function in Encouraging Innovations

In today's quickly changing global economy, startups are essential for promoting innovation and propelling economic progress. By presenting innovative concepts, technology, and business strategies that go against accepted wisdom, they serve as change agents. Startups have the adaptability, risk-taking capacity, and creative freedom required to experiment and create, in contrast to established businesses. Startups address urgent societal and environmental issues, while simultaneously satisfying the demands of the expanding market by creating novel goods, services, and procedures. Additionally, startups foster a vibrant ecosystem that promotes cooperation between investors, entrepreneurs, researchers, and legislators. This ecosystem fosters innovation, speeds up the adoption of new technologies, and supports sustainable growth. Startups contribute to the development of competitive sectors, the creation of job opportunities, and the reinforcement of the foundations of a knowledge-based economy by adopting innovation as a fundamental function. In summary, startups serve a purpose that goes beyond making money; it is a dedication to advancement, diversity, and sustainability in a world that is becoming more interconnected by the day.

Startups Function in Encouraging Sustainable Business Practices

Startups revolutionize the way contemporary business' function and advance sustainable business practices. Startups are in a unique position to incorporate sustainability into the foundation of their business models because of their agility, inventiveness, and forward-thinking attitude (Boons and Lüdeke-Freund, 2013). Startups mostly start with a vision to balance profitability with environmental and social responsibility, in contrast to traditional firms that could struggle with structural inertia. They play a major role in accomplishing global sustainability goals by creating green technologies, advocating for circular economy models, and emphasizing ethical production and consumption practices. Their creative methods contribute to less resource waste, smaller carbon footprints, and more equitable economic prospects. Additionally, startups encourage bigger businesses to embrace environmentally friendly procedures and sway consumer behavior toward more conscientious decisions. By integrating sustainability into innovation ecosystems, companies work with governments, investors, and research institutions to promote systemic change. In the end, they play a role that goes beyond company expansion; they are essential facilitators of a sustainable future that balances social justice, environmental conservation, and economic progress (Hansen et al., 2009).

In the contemporary global economy, startups have become significant forces behind economic expansion and technical innovation. They can investigate new technology and upend established sectors because of their inventiveness, adaptability, and risk-taking attitude. Innovative technologies like blockchain, biotechnology, artificial intelligence (Pervez and Singh, 2026; Singh, 2026a, b), and renewable energy solutions are used by entrepreneurs to speed up the digital transformation process and open up new opportunities for competitiveness and productivity (Singh et al., 2026b). In addition to fostering technological innovation, startups are essential for promoting economic growth. Through innovative company structures and solutions catered to current issues, they create jobs, draw in investment, and improve market efficiency. Additionally, startups cultivate an entrepreneurial culture that promotes innovation, skill enhancement, and cooperation between government, business, and academia. Startups are important forces behind equitable growth in underdeveloped nations because they empower young people, foster regional development, and close technology gaps. Beyond just making money, they create the groundwork for knowledge-based, sustainable economies that can quickly adjust to

changes in the world. In summary, startups serve as catalysts for long-term economic resilience and societal advancement in addition to fostering technological innovation. Facebook began as a modest startup that provided original answers to urgent issues, which ultimately resulted in profound shifts in the world economy and culture.

Innovation and Entrepreneurship

Entrepreneurship and innovation are closely related ideas that propel social advancement and economic expansion. While entrepreneurship entails seeing and seizing chances to add value, frequently by commercializing innovations, innovation entails the development and use of novel concepts, goods, services, or procedures. Effectively identifying market requirements, coming up with creative solutions, and building long-lasting companies around them are all hallmarks of successful entrepreneurs. By introducing fresh concepts to the market and encouraging competition, they play a vital part in promoting innovation. Furthermore, tackling global issues, boosting competitiveness, and generating employment all depend on innovation and entrepreneurship. Entrepreneurship and innovation are intimately related, with entrepreneurship frequently spearheading the uptake and commercialization of creative concepts. In order to solve unmet requirements or market gaps, successful entrepreneurs frequently create novel solutions. This process calls for imagination, daring, and the capacity to transform concepts into successful ventures. Furthermore, there are a number of different sources of innovation, such as changes in business models, processes, or services, or technical breakthroughs. In order to be an effective entrepreneur, one must not only have creative ideas but also the ability to carry them out, overcome obstacles, and grow the company. All things considered, entrepreneurship and invention work hand in hand to propel economic expansion and social advancement.

Startup Ecosystem

A dynamic network of individuals, groups, institutions, and resources that collaborate to establish and foster the expansion of startups is known as a startup ecosystem. It offers the framework that helps business owners to create original concepts, obtain capital, and effectively launch their goods or services. The ecosystem consists of a number of essential elements that cooperate to promote entrepreneurship and innovation:

Startups and Entrepreneurs- Entrepreneurs are creative people who spot possibilities, take calculated risks, and launch new businesses, and at the center of the ecosystem.

Funding Sources and Investors- These include financial institutions that supply the funds required for businesses to expand and grow, as well as angel investors, venture capitalists, and crowdsourcing websites.

Accelerators and Incubators- These groups assist early-stage entrepreneurs in honing their concepts and business plans by providing networking opportunities, office space, training, and mentorship.

Assistance from the Government and Policies- Governments are essential because they offer grants, tax breaks, startup-friendly laws, and regulatory frameworks that promote innovation and entrepreneurship.

Educational and Research Establishments- Through research, education, and technology transfer, universities and research institutions help to build a talent pipeline and promote knowledge-based innovation (Singh et al. 2025).

Industry Partners and Corporates- In order to gain access to new markets and technology, established businesses work with startups through partnerships, innovation initiatives, and open innovation models.

Assistance Groups and Networks- These include co-working spaces, legal and consulting firms, business groups, and innovation hubs that offer expert help and necessary infrastructure.

Community and Culture - It is essential to have an entrepreneurial culture that promotes creativity, risk-taking, and teamwork. This culture is reinforced by startup competitions, meetups, and networking activities.

Innovation Ecosystem

A network of interrelated players, organizations, and resources that work together to promote the development, adoption, and dissemination of novel concepts, technologies, and procedures is referred to as an innovation ecosystem. Through collaboration, information sharing, and resource sharing among various stakeholders, it creates an atmosphere that fosters innovation. By moving away from the conventional linear economy of "take-make-dispose" and toward a circular model that emphasizes resource efficiency, product longevity, and regeneration, circular economy business models, or CEBMs, provide a revolutionary approach to innovation (Han et al., 2020). By redefining value generation, distribution, and capture using the concepts of reuse, recycling, remanufacturing, and service-based design, these approaches foster innovation.

Important Elements of the Innovation Ecosystem:

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Innovators and Entrepreneurs -They are the ecosystem's main engine. Opportunities are recognized, solutions are developed, and concepts are turned into useful goods or services by innovators.

Academic and Research Establishments- Both basic and practical research are carried out by universities, labs, and research facilities. They produce competent human capital, new technologies, and new information.

Policymakers and the Government- Governments create laws, rules, and rewards that promote creativity, and assist R&D by offering infrastructure, tax breaks, and financial schemes.

Investors and Financial Institutions - Funding organizations, angel investors, and venture capitalists supply the money required for innovation to progress from concept to market.

Business Leaders and Industry Partners - Through open innovation, big businesses work with researchers and startups to jointly develop new technology and gain access to creative ideas.

Innovation Hubs, Accelerators, and Incubators- These organizations offer startups and innovators networking opportunities, workspace, training, and mentorship.

Support Groups and Knowledge Networks- These include consultancy businesses, think tanks, and innovation clusters that promote cross-sector cooperation and knowledge exchange.

End Users and Society- By providing input and embracing innovations, users and communities help shape the course and outcome of innovation initiatives.

The innovation ecosystem, which includes financial systems, laws, and knowledge institutions, offers a conducive atmosphere. These elements support entrepreneurial growth by assisting individuals and new businesses in coming up with creative ideas. In turn, the innovation ecosystem benefits from entrepreneurial activity since it creates new markets, technology, and employment opportunities. They promote sustainable development and economic prosperity when combined.

Startups and Innovations in Driving Technology and Economic Growth

In the contemporary global economy, startups have become significant forces behind economic expansion and technical innovation. They can investigate new technology and upend established sectors because of their inventiveness, adaptability, and risk-taking attitude. Innovative technologies like blockchain, biotechnology, artificial intelligence, and

renewable energy solutions are used by entrepreneurs to speed up the digital transformation process and open up new opportunities for competitiveness and productivity. In addition to fostering technological innovation, startups are essential for promoting economic growth. Through innovative company structures and solutions catered to current issues, they create jobs, draw in investment, and improve market efficiency. Additionally, startups cultivate an entrepreneurial culture that promotes innovation, skill enhancement, and cooperation between government, business, and academia.

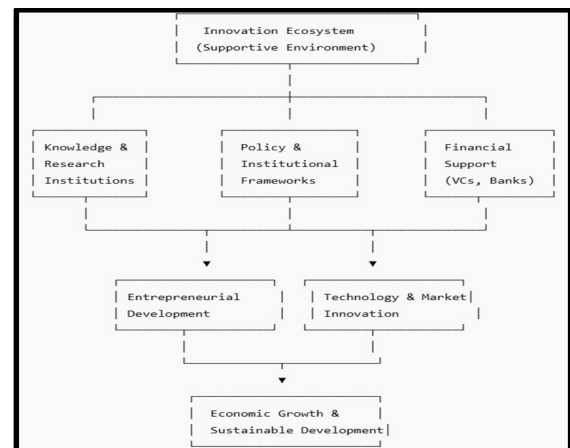


Figure 1. Diagram of relationship between Entrepreneurial Development and Innovation Ecosystem

Startups are important forces behind equitable growth in underdeveloped nations because they empower young people, foster regional development, and close technology gaps. Beyond just making money, they create the groundwork for knowledge-based, sustainable economies that can quickly adjust to changes in the world. In summary, startups serve as catalysts for long-term economic resilience and societal advancement in addition to fostering technological innovation. Facebook began as a modest startup that provided original answers to urgent issues, which ultimately resulted in profound shifts in the world economy and culture.

An Innovation Ecosystem's Roles

- Creation and dissemination of knowledge
- Cooperation and networking
- Technology and research commercialization
- Assistance for SMEs and startups
- Promoting sustainable growth and competitiveness

Result of a Robust Innovation Environment

- a. Increased industrial growth and productivity
- b. A rise in employment and entrepreneurship
- c. Development that is inclusive and sustainable
- d. Enhanced competitiveness on a national and international level

Literature Review

Both corporate and academic communities are becoming more interested in the role that technology plays in company innovation. Industry 4.0 and digitization have affected environmental innovation, sustainable company performance, and business model innovation. As per Rachinger et al. (2019), who sought to explore the role of digitalization in shaping business model innovation, the value proposition and position within the value network indicate options for business model innovation. Although digitalization is regarded an important contextual factor, it remains an exercise of figuring out how to implement and take advantage of business model innovation in the media and automobile industries specifically. In the new accepting study carried out by Fernando et al. (2019) and building off the idea of environmental innovation and sustainable business performance in technology related firms, the study was interested in understanding if service competency mattered in promoting green growth. At the time of writing, the findings of the study were not disclosed. In conjunction with the growing academic interest in this domain, recent research has increasingly focused on different aspects of innovation in startups. Studies have examined whether forms of innovation (process, business model, or product innovation) had the greatest effects on startup performance. Faculty has also examined the effect of outside factors, such as funding climates, and market forces on innovation. All of this research is valuable, but often presents a fragmented view rather than an integrated model that can incorporate these distinct parts. Additionally, much of the current research is quantitative, and while valuable, often fails to consider the complexity and situational dimensions of qualitative research. Innovation is the primary driver of startup success, especially in technology sectors (Ahmad, 2024). In startups, quality management techniques are important to innovation performance (Cosh et al., 2012; Kuncoro, 2021), and in small and medium plans, innovation capacity is a key organizational capability for success (Orwa, 2021). As Aryadita (2023) indicates, the founding team's relevant abilities, experience, competency, baits, and connection to the founders also contribute to the success of startups. Nevertheless, further research may fully appreciate the interaction of sources, mechanisms, and types of knowledge in startups (Guckenbiehl, 2021). Policymakers play a key role in fostering innovative

entrepreneurship, as noted by Bradley (2021), and startups now experience new challenges and drivers of success in the digital age (Daraojimba, 2024).

There has been a focus on different types of innovations, and all have been researched on how they impact the success of startups. Product innovation has been associated with an increased market share and customer satisfaction, both of which are necessary for startups to establish credibility in highly competitive markets (Gunday et al., 2011). Their research found that organizations that prioritize product innovation can achieve a better market position as they fulfill customer requests and market demands. In a similar manner, process innovation is associated with lowering costs and achieving operational efficiencies, something that is extremely important for resource-constrained organizations wanting to sustain operations in the long run.

Entrepreneurship in the Startup Environment

Innovation, in the case of a startup, spans a broad spectrum of activities- from product and process innovation to innovations in business models and markets. Product innovation is the creation of new or significantly improved products or services, which can be intended to meet the evolving needs of consumers or create new markets altogether. For startups, product innovation can provide a key differentiation since they typically enter highly competitive environments with very limited resources. Process innovation refers to the introduction of new or significantly improved manufacturing or delivery methods. In order for startups to successfully grow and sustain their place in the marketplace, these process innovations will need to enhance efficiency, lower costs, and streamline operations. Business model innovation is particularly important for startups. It can involve the rethinking of the value created, the value delivered, and the value captured in the process of creating their business model, frequently sidestepping existing industry norms. By simply rethinking the business model, startups can differentiate themselves and create unique competitive advantages with which larger organizations might not be able to compete. For example, Uber and Airbnb transformed their industries by developing a robust business model that utilized technology to deliver new value propositions.

Various types of innovation and their influence on the success of startups have been explored in several studies. As noted by Gunday et al. (2011), product innovation usually leads to an immediate increase in market share and customer satisfaction, which is important for startups attempting to establish themselves in competitive marketplaces. Gunday et al. (2011) discovered that companies who develop their capacity of product innovation can

improve their market position through customer satisfaction and societal demand satisfactions. Process innovation, on the other hand, is typically related to cost savings and operational efficiencies, both of which are crucial for the longer-term survival of low-capital companies. Damanpour and Aravind (2012) pointed out that process innovations lead to increased productivity, wastage savings, and operational efficiencies to deliver improvements. These improvements help start-ups to spend their limited resources while sustaining growth in the longer-term. Business model innovation is differentiated, according to what underlined by Chesbrough (2010) as it presents new venture respondents with competitive advantage by differentiating them in marketplace. New value propositions, and areas of untapped market niches can be created from business model innovation while testing old industry norms and standards. The capacity for this type of innovation to shift market dynamics and industry norms makes it a niche of incomplete potential. Different teams have the potential to solve problems in a more creative manner, because, according to West (2002), they provide different perspectives and experiences. Effective teamwork also enhances the sharing of knowledge and skills, a crucial aspect of the effective completion of creative work.

Methods & Techniques for Innovation

Several occasionally complementary process models are identified in the literature, ranging from strict stage-gates to iterative, human-centered methodologies.

Stage-Gate and portfolio processes

In manufacturing and product development, Cooper's Stage-Gate model is still widely used: idea → scoping → business case → development → testing → launch, with go/no-go "gates." The model places a strong emphasis on portfolio balancing, cross-functional assessments, and risk management. Critics contend that it may be too slow and linear for situations that are unpredictable and changing quickly.

Agile and Lean processes

Agile (iterative sprints, rapid releases) and Lean Startup (build-measure-learn, minimal viable product) approaches are derived from software development and entrepreneurship and place a premium on speed, verified learning, and user feedback. These procedures are preferred in the service, digital, and high-uncertainty industries.

Design thinking and innovation that is focused on the user

Prototyping, iterative testing, and empathy are key to design thinking. It encourages creative problem-solving and reframing, and it is frequently combined

with agile approaches to guarantee uptake and usability.

Distributed and open innovation procedures

Knowledge inflows (partnerships, licensing-in) and outflows (outsourcing, spin-offs) are formalized through open innovation processes. The searchable universe of ideas is increased and commercialization is accelerated by platforms, crowdsourcing, and innovation intermediaries (incubators, accelerators).

Processes of absorption and knowledge flow

External knowledge scanning, internalization, and routinization processes are essential. Prior related knowledge, training, and boundary-spanning jobs that convert outside discoveries into firm-specific innovation are all ways to build absorptive ability. In order to help startups successfully navigate the complicated terrain of market dynamics and technological breakthroughs, effective innovation management combines organizational practices and strategic procedures. The identification of innovation possibilities, the creation of creative solutions, and the application and commercialization of these solutions are all included in strategic processes (Dodgson et al., 2008). In a market that is always changing, these procedures are crucial for startups to keep a competitive advantage and achieve sustainable growth. The identification of innovative possibilities is the initial stage in strategic innovation management. This entails a careful examination of consumer demands, market trends, and technology developments. Startups need to be skilled at identifying market gaps and areas where innovation might yield substantial benefits. Disruptive innovation frequently results from recognizing underserved market niches and creating solutions that meet these unmet demands, claims Christensen (1997). In order to optimize the impact of innovation, Gans and Stern (2003) stress the significance of selecting the appropriate commercialization approach, whether it be direct sales, licensing, or strategic alliances. Startups can also set up feedback loops to collect consumer input and continuously improve their products in response to market reactions. Equally important are organizational procedures that foster creativity. According to Nonaka and Takeuchi (1995), these practices include encouraging open communication, offering chances for training and development, and setting up mechanisms for cooperation and knowledge exchange. The "knowledge-creating company" concept put forth by Nonaka and Takeuchi (1995) highlights the significance of turning implicit knowledge into explicit knowledge through procedures including documenting, exchanging best practices, and developing collaborative platforms. Startups can promote a culture of ongoing learning and innovation by putting knowledge management

systems in place that guarantee all staff members have access to insightful information and expertise. Agile approaches should be adopted by startups in order to improve their innovation processes. Rapid prototyping, iterative development, and constant feedback are examples of agile approaches that help firms react swiftly to shifting consumer demands and market situations. Agile approaches encourage flexibility and adaptability, which are essential for preserving a competitive edge in fast-paced businesses, claimed Rigby et al. (2016).

Obstacles and Difficulties in Innovation

Startups frequently encounter major obstacles and constraints that impede their inventive endeavors, despite the acknowledged significance of innovation. A startup's capacity to invest in and maintain innovation may be limited by a lack of funding, a high degree of uncertainty, and the requirement for quick market entry (Freeman & Engel, 2007). With erratic market conditions, quickly shifting consumer preferences, and constantly changing technical landscapes, the startup environment is by its very nature unstable. Because of this uncertainty, startups may find it challenging to invest in creative ventures that might not pay off right away. Knight (1921) pointed out that uncertainty in business endeavors might result in risk aversion, where entrepreneurs would rather concentrate on safer, more gradual advancements than daring breakthroughs that entail greater risks but also greater potential profits. Startups' ability to innovate can also be impacted by cultural variables. Innovation may be hampered by a culture that discourages experimentation, taking risks, and learning from mistakes. Schein (2010) asserts that attitudes and behavior about innovation are significantly influenced by company culture. Startups must foster an environment that celebrates inventive work, accepts failure, and promotes creative thinking. Among the main challenges faced by startups are a lack of funding, a high degree of uncertainty, the requirement for quick market entry, and striking a balance between exploration and exploitation. The innovation environment is further complicated by cultural influences, legal impediments, organizational stagnation, and a lack of networks. Startups must use strategic ways that tackle these obstacles, cultivate a culture of support, and make use of outside networks and resources in order to overcome these obstacles. They can improve their capacity for innovation and raise their chances of long-term success in cutthroat marketplaces by doing this.

Research Design and Methodology

A qualitative research design is used in this study to investigate the complex role that innovation plays in

startup success. Because it may provide a deep understanding of complex phenomena and capture the intricate interactions between various aspects driving creativity in startups, qualitative research is preferred. Using a case study methodology, the research offers deep, contextualized insights by concentrating on a few chosen firms. A thorough grasp of the topic is made possible by this design, which enables an in-depth analysis of the procedures, tactics, difficulties, and results related to innovation in startups.

Startups in a range of sectors, such as consumer products, healthcare, and technology, make up the sample population for this study. The inclusion of a variety of industries guarantees that the results are not sector-specific but rather offer a more comprehensive grasp of innovative techniques in various fields. Since the first five years of operation are crucial for innovation, the firms selected for the study are in their early to mid-stages of development. In order to provide a comprehensive understanding of the organizational practices and strategic processes associated with innovation, the subjects include founders, CEOs, innovation managers, and other important individuals engaged in the innovation process.

Several methods are used in data collection to guarantee thorough information gathering. Semi-structured interviews with key personnel from the chosen companies are the main technique used to collect data. Because of its adaptability, semi-structured interviews enable the interviewer to go further into particular topics while preserving a uniform format throughout the interview. An interview guide is created that includes open-ended questions intended to elicit in-depth answers regarding the businesses' innovation processes, tactics, obstacles, and effects. To increase the trustworthiness of the results and triangulate the findings, secondary data is gathered from industry journals, corporate reports, and pertinent case studies in addition to interviews.

The data analysis process involves thematic analysis, a method well-suited for identifying, analyzing, and reporting patterns within qualitative data. Thematic analysis makes it possible to group data into insightful categories that highlight the main ideas around innovation in companies. The first step in the process is data familiarization, which involves reading interview transcripts several times to obtain a thorough grasp. To find important data features, preliminary codes are then created. Themes that represent the more general trends and revelations associated with the study topics are then formed from these codes. To guarantee that they appropriately depict the data, the themes are examined and improved. Following the definition and naming of the themes, a thorough

narrative explaining the findings in light of the body of current literature and theoretical framework is created. This methodological approach guarantees a thorough and exacting analysis of innovation in startups, offering deep, contextual insights that advance our knowledge of the elements influencing innovation success. By combining various data sources and using methodical research methodologies, the study hopes to make significant contributions to academic understanding and real-world startup innovation applications.

Analysis

Codes, Categories, Items, and Concepts for Innovation and startups			
INN 1	Product Innovation	Ability to develop and commercialize new or improved offerings that create market differentiation.	1. Our startup has introduced new or significantly improved products/services in the last 3 years.2. The new products/services are technologically unique in our industry.
INN 2	Process Innovation	Use of novel or improved methods in operations to enhance productivity or quality.	1. We have implemented new or improved production, delivery, or operational processes.2. The firm regularly upgrades internal systems for efficiency and quality improvement.
INN 3	Organizational Innovation	Development of new internal management approaches and structures fostering	1. Our startup has introduced new management or organizational structures to enhance collaboration.2

		innovation culture.	. We have adopted flexible work practices to support creativity and innovation.
INN 4	Marketing Innovation	Adoption of new marketing strategies that improve brand recognition and customer engagement.	1. We have introduced innovative marketing methods (branding, packaging, promotion).2. Our firm uses digital tools and social media platforms innovatively to reach customers.
INN 5	R&D and Knowledge Management	Commitment to research, learning, and knowledge creation as foundations for innovation.	1. We invest regularly in R&D activities.2. The company maintains a system to collect and share ideas from employees and customers.
INN 6	Collaboration and Networking	External linkages and ecosystem engagement for knowledge transfer and co-creation.	1. We collaborate with universities, research institutions, or other firms for innovation projects.2. Our startup actively participates in incubator/accelerator or innovation hubs.
INN 7	Technology Adoption and	Integration of emerging technology	1. We use advanced digital tools (AI, data

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	Digital Innovation	es into business operations for innovation-driven growth.	analytics, cloud systems) for operations or product development.2 . The firm continuously adopts emerging technologies to improve competitiveness.
INN 8	Innovation Culture and Leadership	Organizational mindset, leadership support, and cultural environment conducive to innovation .	1. Management encourages experimentation and accepts failure as part of the learning process.2. Employees are rewarded for generating innovative ideas and solutions.
INN 9	Sustainability-oriented Innovation (Eco-innovation)	Linking innovation efforts with sustainable business practices and SDG-driven goals.	1. Our innovations aim to reduce environmental impacts or improve resource efficiency.2. We develop products/services that address social or environmental challenges.
INN 10	Innovation Performance	Measurable outcomes or impacts of innovation activities on firm performance.	1. Our recent innovations have increased sales or market share.2. Our firm's innovations have led to cost reduction or operational efficiency.

ST1	Entrepreneurial Orientation	Reflects the firm's strategic posture toward innovation, risk-taking, and opportunity-seeking.	1. Our startup actively seeks out new opportunities in the market.2. We are willing to take calculated risks to achieve growth.3. Our team encourages innovation and proactiveness.
ST2	Startup Ecosystem Linkages	Represents the external support and ecosystem interactions enabling startup development.	1. Our firm benefits from incubator/accelerator programs.2. We collaborate with mentors, investors, and support networks.3. We engage with government or university-led startup initiatives.
ST3	Access to Finance and Investment	Availability and adequacy of financial resources crucial for startup survival and scaling.	1. Our startup has access to sufficient funding for operations and growth.2. We have received support from venture capital, angel investors, or grants.3. Financial constraints limit our innovation potential (reverse-coded).
ST4	Human Capital and Founders' Competence	Emphasizes the role of human resources and leadership competence in startup success.	1. Our founding team possesses diverse skills and prior entrepreneurial experience.2. Employees are skilled and adaptable to dynamic environments.3. Training and

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			development are integral to our business growth.
ST5	Innovation Capability	Ability of startups to generate and implement innovations that add value and differentiation.	1. Our firm continuously invests in developing new products or services.2. We adopt new technologies to enhance operations and competitiveness.3. Our startup frequently experiments with new ideas and business models.
ST6	Market Orientation and Customer Focus	Startup's ability to understand and respond to market demands effectively.	1. We actively collect and analyze customer feedback.2. Our products/services are tailored to meet customer needs.3. Customer satisfaction is a core measure of our performance.
ST7	Sustainability Orientation	The extent to which sustainability principles guide startup activities and innovation.	1. Our startup integrates environmental and social considerations in its strategy.2. We prefer sustainable suppliers and eco-friendly operations.3. Innovation efforts are aligned with sustainability goals (e.g., SDGs).
ST8	Networking and Collaboration	The role of social capital and collaboration in building	1. We maintain active partnerships with other startups, research bodies,

		competitive advantage.	or industries.2. Networking events and communities contribute to our business growth.3. Collaboration is key to our product or service development.
ST9	Growth and Performance	Measures overall growth trajectory and business success outcomes.	1. Our revenue and customer base have grown consistently over time.2. We have expanded our product/service portfolio in recent years.3. Our startup is achieving or exceeding its performance targets.
ST10	Challenges and Barriers	Identifies constraints faced by startups within the ecosystem and their strategic responses.	1. Access to funding and skilled labor are major challenges for us.2. Government policies and regulations influence our growth.3. Market competition limits our expansion opportunities.

Table 4.1 Codes, Categories, Items, and Concepts for Innovation and startups

Each code (ST1–ST10) represents a variable in data collection and analysis. During thematic or factor analysis, items grouped under the same category will form latent constructs (e.g., Entrepreneurial Orientation, Ecosystem Linkages, Innovation Capability).

After combining this table with the Innovation tables to forms a complete conceptual measurement framework.

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Construct Role in Model	Main Construct / Category	Code	Conceptual Meaning / Research Focus	Expected Relationship in Model
Independent Variable (IV)	Startups' Entrepreneurial Orientation	ST1	Measures the strategic posture of startups toward innovation and risk-taking.	Positively influences innovation activities.
	Startup Ecosystem Linkages	ST2	Assesses access to external networks and ecosystem supports.	Strengthens innovation capability and sustainability adoption.
	Access to Finance & Resources	ST3	Evaluates the financial capacity to support innovation and sustainability.	Enables innovation and implementation of SBPs.
	Human Capital & Founders' Competence	ST4	Reflects founders' and employees' skills, experience, and adaptability.	Enhances innovation capability.
	Networking & Collaboration	ST8	Represents collaborative behavior and social capital within the startup ecosystem.	Facilitates knowledge flow and innovation success.
	Sustainability Orientation	ST7	Captures the strategic intent toward responsible and sustainable entrepreneurship.	Directly promotes SBP adoption; indirectly through innovation.

Mediating Variable (MV)	Product and Process Innovation	INN 1–2	Core indicators of technological and operational innovation.	Mediates link between startup characteristics and SBPs.
	Organizational & Marketing Innovation	INN 3–4	Captures managerial and market-related innovation activities.	Enhances internal efficiency and external competitiveness.
	Collaboration & R&D Activity	INN 5–6	Reflects open innovation and absorptive capacity.	Strengthens the pathway from startup ecosystem → SBPs.
	Technology & Digital Innovation	INN 7	Use of emerging technologies for process and product improvement.	Enables sustainable and efficient practices.
	Innovation Culture & Leadership Support	INN 8	Represents internal cultural and leadership enablers of innovation.	Encourages adoption of sustainability-oriented innovations.
	Sustainability-oriented Innovation (Eco-Innovation)	INN 9	Combines innovation with environmental and social value creation.	Direct bridge between innovation and SBPs.
Dependent Variable (DV)	Sustainable Business Practices (Environmental Dimension)	SBP 1	Operational environmental responsibility through sustainable processes.	Result of innovation and startup culture.
	Sustainable Supply Chain & Production	SBP 2	Integration of sustainability principles	Positively influenced by eco-innovation

			in production and sourcing.	and startup orientation.
	Social Responsibility & Ethics	SBP 3	Reflects commitment to social sustainability and ethical governance.	Enhanced by innovative and socially oriented startups.
	Economic Sustainability & Long-term Growth	SBP 4	Financial viability and long-term strategic sustainability.	Final performance outcome of innovation and startup efforts.

Table 4.2 Merged Coding Matrix Linking Startups, Innovation, and Sustainable Business Practices

Conceptual Model Summary

Pathway Representation: **Startups (IV)** → **Innovation Processes (MV)** → **Sustainable Business Practices (DV)**

Startup attributes (human capital, financing, ecosystem connections, and orientation) -> boost the capacity for creativity. Adoption of SBPs is made possible by innovation (product, process, and eco-innovation). SBPs enhance a company's long-term viability, competitiveness, and reputation.



Figure 2. Diagram for diagrammatic model (colorful conceptual framework) that visually shows these relationships — Startups → Innovation → Sustainable Business Practices

Assessing Innovation's Effect

Startups can assess the results of their innovation initiatives using a variety of instruments and techniques. The easiest way to monitor revenue growth and profit margins from creative activities for

quantitative analysis is to use tools like accounting software. While market research tools like Salesforce, HubSpot, or Zoho CRM enable firms to manage customer interactions, analyze leads, and monitor sales funnels, customer relationship management (CRM) software can also assist in tracking customer acquisition rates and retention data. Startups can use online survey platforms like SurveyMonkey or Google Forms to measure client satisfaction in order to dig further into the qualitative components. Businesses can examine data from pilot programs and A/B tests using tools like Google Analytics or Mixpanel, which helps them comprehend how the market reacts to various versions of their goods or services.

Findings and Discussion

The results of this thorough analysis highlight how important innovation is to startups' success. It is clear from the synthesis of numerous empirical research that innovation is a complex phenomenon that includes advancements in business models, processes, and products rather than a single, monolithic concept. Every innovation type assumes a distinct capacity in enhancing startup growth and sustainability, and interacting together, they achieve a cumulative increase in overall productivity. Along with simply attracting customers, innovations may alter market conditions, create new boundaries, and make it harder for competitors to enter the market. The results also establish that elements external to the startup have significant influence on the startup's process of innovating. External elements such as access to funding, market characteristics, and regulatory requirements can help or hinder the startup's ability to innovate. Startups have to continuously find ways to innovate to avoid falling behind competitors and to the changing preferences of consumers. Depending on the type of regulation and depending on the support for innovation activity in the regulatory scheme, regulatory frameworks can assist or hinder innovation activity. The findings also reveal several challenges and obstacles entrepreneurs experience within the innovation process. Startups may struggle to invest and fulfill their innovation, partly because they have limited funds, experience significant uncertainty, and react quickly to maintain competitiveness in their market.

Startups' Contribution to Innovation

According to the survey, Startups' adaptability, entrepreneurial spirit, and willingness to try new things make them the main drivers of innovation. Innovation outcomes within the startup ecosystem were highly influenced by entrepreneurial orientation, which includes risk-taking, proactiveness, and innovativeness. Startups' ability to develop was

positively impacted by ecosystem links, such as cooperation with universities, government initiatives, incubators, and accelerators. Startups with a variety of funding sources and highly qualified teams showed higher levels of product and process innovation, indicating that access to cash and human capital are essential facilitators of innovation.

The Mediating Role of Innovation

- a) It was shown that the association between sustainable business practices and startup characteristics was mediated by innovation.
- b) Sustainability concepts were more likely to be included into the operations of startups that prioritized process and product innovation.
- c) Startups were able to balance market competitiveness with ethical business practices because of organizational and marketing advances.
- d) Both technology and sustainability-driven results were enhanced by the existence of a robust innovation culture, which is defined by open communication, leadership support, and a tolerance for failure.

Effect on Eco-Friendly Business Methods

- a) Innovation-driven firms exhibit a greater adoption of Sustainable Business Practices (SBPs), according to the research.
- b) Through the use of green materials, waste minimization, and energy-efficient production, startups that implemented eco-innovations improved their environmental performance.
- c) Startups with robust collaborative networks and a continuous innovation culture demonstrated much greater levels of social responsibility and ethical business practices.
- d) Innovation confirmed that sustainability and profitability can coexist in startup ecosystems by boosting long-term competitiveness and cost efficiency.

Challenges and Policy Implications

- a) Startups encounter obstacles such as restricted access to funding, legal restrictions, and a lack of infrastructure for sustainable innovation, notwithstanding favorable results.
- b) Policymakers must improve the structures that foster innovation, such as monetary rewards, incubators, and entrepreneurship initiatives that emphasize sustainability.
- c) The spread of sustainable ideas can be accelerated by fortifying public-private

collaborations and knowledge-sharing platforms.

This research confirms the significance of innovation for startup success and offers practical and theoretical contributions based on the different forms of innovation affecting business performance and gender gaps (Singh and Akhtar, 2019). In line with fundamental concepts in the innovation management literature, our findings suggest that innovations across products, processes, and business models contribute to startup success (Rachinger et al., 2019). The study illustrates that startups can offer more than just an economic function, but can instead foster the ongoing, technological progression required for sustainability. Startups are in a unique position to achieve growth, competitiveness, and responsibility at the same time and have the prescriptive ability to incorporate an innovation purpose into their planning and operationalization of the Sustainable Development Goals (SDGs) globally (Singh & Sharma, 2024). The diverse nature of innovation and its vital role in business performance are clarified by this comprehensive study on the role of innovation on startup success. The data supports the theory of innovation as a main driver of competitive advantage; thus, showing the importance of enhancing products, processes, and business models as drivers of startup success. The convergence with previous studies and practical implications for startups and governments also reinforces the significance for fostering innovation to achieve long-term viability in competitive environments. By understanding and applying these findings, entrepreneurs can help foster their ability to innovate and succeed within the evolving economy.

Conclusion

According to the study's findings, startups are essential to encouraging innovation and sustainable business practices in the fast-paced economy of today. They play a crucial role in advancing technology and fostering social responsibility because of their adaptability, inventiveness, and ability to respond to new difficulties. A thriving startup environment is built on a foundation of people capital, ecosystem connections, access to funding, and entrepreneurial attitude, according to empirical research. Startups are able to investigate fresh prospects, work together efficiently, and transform innovative concepts into products that are ready for the market thanks to these features. A crucial mediating component, innovation also converts ecosystem support and entrepreneurial ambition into observable sustainability results. The study also demonstrates the close relationship between sustainability and creativity. Startups that make

investments in eco-, process, and product innovations are better equipped to minimize their negative effects on the environment, maximize their use of resources, and create long-term financial gains. In this sense, innovation strengthens a startup's commitment to the SDGs, while simultaneously increasing competitiveness. The results also highlight enduring issues that impede the scalability of sustainable innovations, including inadequate support networks, legislative gaps, and restricted finance access. Governments, incubators, and financial institutions must fortify the innovation ecosystem in order to tackle these issues by offering funding channels, mentorship, and training for aspiring entrepreneurs that focuses on sustainability. Startups are essentially the catalysts for sustainable and equitable growth. Startups can promote social well-being, environmental stewardship, and economic resilience by integrating innovation into their strategy and coordinating corporate goals with sustainability principles. A revolutionary route to a more just and sustainable future economy is provided by the convergence of entrepreneurship, innovation, and sustainability.

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Conflict of Interest

Authors declare no conflict of interest between them.

References

- Ahmad, N. (2024). Innovation is a critical driver of success for startups, particularly in the technology sector. *Journal of Business Research*, 78, 45-67. <https://doi.org/10.1016/j.jbusres.2024.02.001>
- Ali, S. R., Abbas, M., Qasim, S., & Faraz, M. (2024). Sustainable Tech Entrepreneurship and Green Innovation: Driving Resilience and Environmental Impact through Digital Transformation and Circular Business Models. *Bulletin of Multidisciplinary Studies*, 1(3), 156-167. <https://doi.org/10.48112/bms.v1i4.938>
- Aryadita, D. (2023). The success of startups is also influenced by the knowledge, experience, competence, characteristics, and founding team of the founders. *International Journal of Entrepreneurial Behavior & Research*, 29(1), 12-28.
- Bărbulescu, O., Tecău, A. S., Munteanu, D., & Constantin, C. P. (2021). Innovation of startups, the key to unlocking post-crisis

- sustainable growth in Romanian entrepreneurial ecosystem. *Sustainability*, 13(2), 671. <https://doi.org/10.3390/su13020671>
- Boons, F., & Lüdeke-Freund, F. (2013). Business models for sustainable innovation: State-of-the-art and steps towards a research agenda. *Journal of Cleaner Production*, 45, 9-19. <https://doi.org/10.1016/j.jclepro.2012.07.007>
- Bradley, S. W. (2021). Policymakers play a significant role in promoting innovative entrepreneurship. *Journal of Entrepreneurship and Public Policy*, 10(2), 123-142. <https://doi.org/10.1108/JEPP-04-2021-0039>
- Chesbrough, H. (2010). Business model innovation: Opportunities and barriers. *Long Range Planning*, 43(2-3), 354-363. <https://doi.org/10.1016/j.lrp.2009.07.010>
- Christensen, C. M. (1997). The innovator's dilemma: When new technologies cause great firms to fail. Harvard Business Review Press.
- Cosh, A., Fu, X., & Hughes, A. (2012). Organization structure and innovation performance in different environments. *Small Business Economics*, 39(2), 301-317. <https://doi.org/10.1007/s11187-010-9304-5>
- Damanpour, F., & Aravind, D. (2012). Managerial innovation: Conceptions, processes, and antecedents. *Management and Organization Review*, 8(2), 423-454. <https://doi.org/10.1111/j.1740-8784.2011.00273.x>
- Danil, L., Jahroh, S., Syarief, R., & Taryana, A. (2025). Technological innovation in start-ups on a pathway to achieving Sustainable Development Goal (SDG) 8: A systematic review. *Sustainability*, 17(3), 1220. <https://doi.org/10.3390/su17031220>
- Daraojimba, C. (2024). The digital age has brought about new success factors and challenges for startups. *Journal of Digital Business*, 12(1), 30-48. <https://doi.org/10.1007/s12345-024-00123-8>
- Dodgson, M., Gann, D. & Salter, A. (2008) *The Management of Technological Innovation: Strategy and Practice*, Oxford, Oxford University Press.
- Fernando, Yudi., Jabbour, C. J. Chiappetta., & Wah, W.. (2019). Pursuing green growth in technology firms through the connections between environmental innovation and sustainable business performance: Does service capability matter?. *Resources, Conservation and Recycling*. <http://doi.org/10.1016/J.RESCONREC.2018.09.031>

- Freeman, J., & Engel, J. S. (2007). Models of innovation: Startups and mature corporations. *California Management Review*, 50(1), 94-119. <https://doi.org/10.2307/41166418>
- Gans, J. S., & Stern, S. (2003). The product market and the market for “ideas”: Commercialization strategies for technology entrepreneurs. *Research Policy*, 32(2), 333-350. [https://doi.org/10.1016/S0048-7333\(02\)00103-8](https://doi.org/10.1016/S0048-7333(02)00103-8)
- Gunday, G., Ulusoy, G., Kilic, K., & Alpkan, L. (2011). Effects of innovation types on firm performance. *International Journal of Production Economics*, 133(2), 662-676. <https://doi.org/10.1016/j.ijpe.2011.05.014>
- Han, J., Heshmati, A., & Rashidghalam, M. (2020). Circular economy business models with a focus on servitization. *Sustainability*, 12(21), 8799. <https://doi.org/10.3390/su12218799>
- Hansen, E. G., Grosse-Dunker, F., & Reichwald, R. (2009). Sustainability innovation cube: A framework to evaluate sustainability-oriented innovations. *International Journal of Innovation Management*, 13(4), 683-713. <https://doi.org/10.1142/S1363919609002479>
- Knight, F. H. (1921). Risk, uncertainty, and profit. Houghton Mifflin Company. The Riverside Press, Cambridge.
- Krawczyk-Sokołowska, I., Piersceniak, A., & Caputa, W. (2019). The innovation potential of the enterprise in the context of the economy and the business model. *Review of Managerial Science*, 15(1), 103-124. <https://doi.org/10.1007/s11846-018-0284-5>
- Lubberink R, Blok V, van Ophem J, van der Velde G, Omta O (2018) Innovation for society: towards a typology of developing innovations by social entrepreneurs. *J Soc Entrep* 9(1):52-78. <https://doi.org/10.1080/19420676.2017.1410212>
- Nonaka, I., & Takeuchi, H. (1995). The knowledge-creating company: How Japanese companies create the dynamics of innovation. Oxford University Press.
- Orwa, C. (2021). The role of innovation capability for organizational success in small and medium enterprises. *Journal of Innovation and Entrepreneurship*, 10(2), 201-219. <https://doi.org/10.1186/s13731-021-00152-3>
- Pervez, A. & Singh, A. (2026). Importance of Artificial Intelligence in Insect Pest Management: A Review. In: N.K. Joshi, Gaurav Varshney and Ahmad Pervez (eds.). *Emerging AI Technologies and Applications*. Anu Books, Publishers & Distributors, New Delhi & Glasgow (UK). pp. 1-15.
- Rachinger, M., Rauter, R., Müller, C., Vorraber, W., & Schirgi, E. (2019). Digitalization and its influence on business model innovation. *Journal of manufacturing technology management*, 30(8), 1143-1160. <http://doi.org/10.1108/JMTM-01-2018-0020>.
- Schein, E. H. (2010). *Organizational culture and leadership* (4th ed.). Jossey-Bass.
- Singh, A., & Akhtar, S. (2019). A study on issues and challenges of gender equality in India. *Think India Journal*, 22(4), 5049-5055.
- Singh, A., (2024). Women Empowerment through SHG for a Sustainable Future. *The Indian Economic Journal*, 1(33), 438-446.
- Singh, A., (2026a). AI for Sustainable Development in Uttarakhand: Applications in SDG Goals. In: N.K. Joshi, Gaurav Varshney and Ahmad Pervez (eds.). *Emerging AI Technologies and Applications*. Anu Books, Publishers & Distributors, New Delhi & Glasgow (UK). Pp. 99-108.
- Singh, A., (2026b). Application of Artificial Intelligence in Management Sciences. In: N.K. Joshi, Gaurav Varshney and Ahmad Pervez (eds.). *Emerging AI Technologies and Applications*. Anu Books, Publishers & Distributors, New Delhi & Glasgow (UK). Pp. 148-153.
- Singh, A., Saini, V. K., Bhardwaj, J. K., (2025). Education: a catalyst for women empowerment and sustainable business practices. *Journal of Neonatal Surgery*, 14(14s), 504-512.
- Singh, A., Sharma, N., (2024). SDGs a major factor for Empowerment by Generation of New Gen Technologies. In *Library Progress International*, Library Progress International (Vols. 44(3), pp. 19696-19703).
- Singh, A., Pervez, A., Vidhya, Malika, Rathore, A. and Kumari, P. (2026a). Migration a process of urbanisation and giving rise to sustainable development. *Scientific Culture*. 12(2.1): 501-513.
- Singh, A., Pervez, A., Sanghavi, K., Rathore, A., & Kumari, P. (2026b). Contribution of Digital Technology for Quality Education in Rural Areas and in achieving SDGs (4, 5, 8, 17). *Multidisciplinary, Scientific Work and Management Journal*, 36(1s), 4266-4270.
- Singh, A., Sharma, N., (2024). SDGs a major factor for Empowerment by Generation of New Gen Technologies. In *Library Progress International*, Library Progress International (Vols. 44(3) , pp. 19696-19703).

- Tidd, J., & Bessant, J. (2013). *Managing innovation: Integrating technological, market and organizational change*. John Wiley & Sons.
- Verma, R., Arya, V., Thomas, A., Bolognesi, E., & Mueller, J. (2023). Does startup culture in the emerging country grow around societal sustainability? An empirical study through the lens of co-creational capital and green intellect. *Journal of Intellectual Capital*, 24(4), 1047-1074. <https://doi.org/10.1108/JIC-07-2022-0162>
- West, M. A. (2002). Sparkling fountains or stagnant ponds: An integrative model of creativity and innovation implementation in work groups. *Applied Psychology*, 51(3), 355-387. <https://doi.org/10.1111/1464-0597.00951>