



AN ANALYSIS OF ISSUES AND CHALLENGES OF DIGITAL ENTREPRENEURSHIP

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ABSTRACT

Digital entrepreneurship is an emerging, innovative framework that seeks to transform traditional business models into fully digital enterprises. It offers significant opportunities for growth, innovation, and value creation in an increasingly technology-driven environment. Broadly, digital entrepreneurship may be defined as the process by which business owners redesign organisational operations, strategies, and practices by integrating digital technologies into the core of their operations. The present study seeks to identify the key issues and challenges faced by digital entrepreneurs, as well as the benefits of adopting advanced technological tools. The analysis is based entirely on secondary data, collected from books, research reports, newsletters, magazines, journals, newspapers, and credible web resources. The findings indicate that the Government of India has introduced several initiatives and policy measures to foster a culture of innovation, start-up development, and digital transformation across the country. The study also incorporates valuable suggestions from academic researchers, entrepreneurs, and non-governmental organisations, with a particular focus on the needs of underserved sections of society, thereby enhancing the research's overall relevance and utility.

Keywords: Digital Entrepreneurship; Technology Adoption; Digital Transformation; Entrepreneurial Challenges

INTRODUCTION

Digital entrepreneurship refers to the evolving nature of entrepreneurship as business and digital technologies increasingly shape society. It highlights significant shifts in entrepreneurial practice, theory, and education. The concept encompasses the innovative ways in which entrepreneurs create, operate, and scale ventures in a digital environment, reflecting the broader transformation of economic activity driven by technological advancement, including:

- New practice of finding customers for entrepreneurial enterprises.
- New ways of designing and offering products, services and generating income, and reducing costs.
- Innovative opportunities to work together with platforms and partners, and sources of opportunity, risk, and competitive advantage.

Digital entrepreneurship creates new opportunities for individuals aspiring to become entrepreneurs. While some opportunities require advanced technical expertise, many are accessible to anyone who develops the essential skills of digital entrepreneurship. These skills include identifying customers online, prototyping digital business ideas, and refining business strategies using data. Together, these capabilities enable entrepreneurs to innovate, test, and scale their ventures effectively in a digital environment.¹

Entrepreneurs in the Digital Age

Entrepreneurs are defined by their ability to start and manage businesses, and their role is increasingly vital in sustaining economic growth across Asia. As developing Asian economies progress, the private sector has become a central driver of expansion and innovation. The rapid digitalisation of economic activity—accelerated further during the COVID-19 pandemic—has significantly lowered the cost of starting a business and created a wide range of new entrepreneurial opportunities. In this context, digital entrepreneurship has emerged as a powerful engine of growth in the post-pandemic world, enabling entrepreneurs to innovate, scale, and compete more effectively in a technology-driven environment.

The newly developed Global Index of Digital Entrepreneurship Systems (GIDES) evaluates the quality of an economy's environment for digital entrepreneurs. The index enables meaningful comparisons across 113 economies worldwide, providing a comprehensive view of digital-entrepreneurship readiness. According to the rankings, Singapore holds the top global position, while the Republic of Korea, Malaysia, and the People's Republic of China also perform strongly. In contrast, many Asian Development Bank (ADB) developing member economies lag significantly behind, indicating substantial room for improvement in their digital-entrepreneurship ecosystems. Recent analysis further highlights that a favourable entrepreneurial environment is crucial for nurturing dynamic entrepreneurs who innovate, scale businesses, and generate employment opportunities.



Digitalisation significantly facilitates entrepreneurship, yet it does not eliminate the inherent risk and uncertainty associated with starting a new business, where the probability of failure remains high. Strong institutional frameworks—particularly property rights and rule-of-law systems—play a crucial role in reducing these risks and providing entrepreneurs with a more predictable environment. Recent analysis of 230,000 individuals across 15 economies demonstrates a strong positive relationship between a favourable institutional environment and the emergence of dynamic, growth-oriented entrepreneurs. Evidence further suggests that entrepreneurship tends to be more vibrant in less corrupt economies, where transparency and accountability strengthen business confidence. While policymakers cannot directly identify or select the most innovative entrepreneurs, they can substantially influence entrepreneurial outcomes by creating an enabling environment. This includes providing essential “hardware,” such as high-speed broadband infrastructure, and “software,” such as reliable legal and regulatory systems, both of which are foundational to a thriving digital-entrepreneurship ecosystem.²

India has rapidly accelerated the digitisation of its economy and society, positioning itself alongside technologically advanced nations not only through the scale of its digital market but also through the remarkable speed of digital adoption in the past three to four years. By several indicators of digital adoption, India is already among the global leaders. The Aadhaar programme, capable of digitally verifying the identities of 1.2 billion people, stands as the world’s largest biometric identification system. India also has the second-largest mobile subscription base, with nearly 1.2 billion users, and the second-largest internet subscriber base, with approximately 560 million users. These developments underscore India’s emergence as a major digital economy with significant potential for digital entrepreneurship and innovation-driven growth.

Digitalisation is an Influential Enabler of Entrepreneurial Resilience

Information and communication technology (ICT) played a crucial role in sustaining the resilience of entrepreneurs and firms during the COVID-19 pandemic. Amid unprecedented mobility restrictions, the internet enabled entrepreneurs to continue selling products, coordinating with employees, and engaging with business partners. In doing so, digital technologies significantly softened the otherwise severe negative impact of the pandemic on entrepreneurial activity. For many businesses, ICT functioned as a lifeline, allowing them to survive conditions under which they would likely have ceased operations without digital connectivity.

Entrepreneurs in sectors such as food services experienced similar patterns during the pandemic. Restaurateurs who were forced to close their dining spaces relied heavily on online orders for takeout and home delivery, which became essential for business continuity. More broadly, while COVID-19 created unprecedented challenges for most firms, digital technology simultaneously opened new avenues for business growth. The need to minimise physical contact triggered a sharp surge in e-commerce demand, accelerating the shift toward digital business models.

Against this backdrop, Vo, Le, and Park (2022) conducted an empirical assessment of the impact of ICT on entrepreneurial resilience during the pandemic. Although it may appear intuitive that ICT-supported business survival during this global health and economic crisis, their study rigorously tested this assumption using firm-level data from the World Bank Enterprise Surveys. A key strength of this dataset is its comparability across multiple variables and economies, enabling robust cross-country analysis of how ICT adoption influenced entrepreneurial outcomes during COVID-19.³

Global Index of Digital Entrepreneurship Systems (GIDES)

The Global Index of Digital Entrepreneurship Systems (GIDES) evaluates the quality of digital framework conditions for entrepreneurship (DFCs) across 113 economies, using 103 indicators to capture the depth and maturity of each economy’s digital environment. Although the index focuses primarily on 21 developing members of the Asian Development Bank (ADB), it also includes 92 additional economies to enable meaningful global benchmarking. GIDES is designed to measure the extent to which digitalisation permeates society and the economy. Because digital technology is now infrastructural—allowing devices to connect almost anywhere—and because digital components can be integrated into nearly any product or service, digital connectivity has become ubiquitous. As a result, digital technology can penetrate virtually every function of society, driving the widespread digitalisation of economic and social systems.

The Global Index of Digital Entrepreneurship Systems (GIDES) is structured around eight pillars, each representing a set of conditions that support entrepreneurship. For every pillar, a corresponding digital weight is calculated to capture the extent to which an economy’s conditions are digitally enabled. This produces two versions of each pillar: the non-digitalised Entrepreneurial Framework Conditions (EFCs) and the digitalised Digital Framework Conditions (DFCs). GIDES is computed as the bottleneck-corrected average of the eight DFCs, generating a score ranging from 0 to 100 that reflects the overall strength of an economy’s digital entrepreneurship system.

The eight EFC pillars are further grouped into general and systemic framework conditions, each of which is assessed in both non-digital and digitalised forms. The general framework conditions describe the broader entrepreneurial environment and include:

- Culture and informal institutions
- Formal institutions, regulation, and taxation
- Market conditions
- Physical infrastructure

Each of these conditions is then digitalised using a corresponding digital weight, enabling GIDES to capture the extent to which digitalisation shapes the entrepreneurial environment. Systemic framework conditions describe an economy's resource base for entrepreneurship, encompassing human capital, knowledge creation and dissemination, finance, and networking and support. These resource conditions directly correspond to the major stages of the entrepreneurial process—stand-up, start-up, and scale-up—and determine how effectively entrepreneurs can progress from idea generation to business expansion. Each systemic framework condition is then digitalised using a corresponding digital weight, enabling GIDES to capture the extent to which digitalisation enhances or constrains entrepreneurial activity. An economy's digital entrepreneurship system is therefore defined by the combined strength of its general and systemic framework conditions, as represented across the eight GIDES pillars.

The general framework conditions regulate how effectively the systemic conditions support each stage of the entrepreneurial process, and together they shape the national entrepreneurial dynamic. An economy's overall GIDES score is calculated as the bottleneck-corrected average of the digitalised versions of both general and systemic framework conditions, providing a comprehensive measure of its digital-entrepreneurship readiness.⁴

REVIEW OF LITERATURE

Vineela (2018)⁵ examines the key issues that differentiate digital from traditional entrepreneurship. The study shows that digital entrepreneurship plays a very important role in empowering an entrepreneur to carry out all the activities accurately and effectively. Further study revealed that the problems of virtuality and the need for market orientation are also discussed. This helps a digital entrepreneur adjust business strategies to make the business more effective and stronger. The main objective of Lakshmi and Shankar's (2020)⁶ study was to examine the role of digital entrepreneurship in the country's economic development—the other digitalisation and technology in business, and the role of digitalisation in business. The study shows that computerised innovations offer unprecedented development opportunities for ventures and, consequently, local communities. Zhao Yang (2021)⁷ investigated the role of mentorship in digital entrepreneurship with mediating effects of organisational psychology and knowledge sharing. This study has used PLS-SEM to assess these relationships. The study found that mentorship plays a vital role in knowledge sharing, reinforcement, and innovation, which subsequently affect digital entrepreneurship, except for reinforcement. This study has contributed to the literature by exploring the emerging concept of digital entrepreneurship during this pandemic and its influence on normal education in China. Bowen and Morris (2024)⁸ suggest analysing the determinants influencing SMEs' inclination to embrace the Metaverse. Nakpodia et al. (2024)⁹ highlight the lack of documentation about the utilisation of digital technologies by social entrepreneurs in underdeveloped nations to address communal issues during the COVID-19 pandemic. The study investigates the utilisation of digital technologies by social entrepreneurs, the organisational factors at different levels, and the resulting innovative outcomes. Saumya (2025)¹⁰ explores how digital entrepreneurship leverages technologies like e-commerce platforms, artificial intelligence, and blockchain to transform business operations and achieve global scalability. The paper also identifies opportunities in emerging markets and consumer-focused strategies. Through real-world case studies and actionable insights, it provides a roadmap for success in the competitive online marketplace, emphasising adaptability, continuous innovation, and ethical practices as key drivers of sustainable growth. Digital entrepreneurship has emerged as a transformative force in the global economy, significantly contributing to GDP growth, fostering innovation, and driving employment. It eliminates traditional barriers to entry, enabling small and medium-sized enterprises (SMEs) and underrepresented communities to engage with global markets.

METHODOLOGY

The primary objective of this study was to identify the issues and challenges faced by digital entrepreneurs and to examine the benefits of technological advancement tools used in digital entrepreneurship. The research adopted a secondary-data-based approach, relying on information collected from a wide range of credible sources, including books, annual reports, academic journals, magazines, and authenticated web resources. This method enabled a comprehensive understanding of existing

scholarly perspectives and empirical evidence related to digital entrepreneurship. The analysis further highlights that the Government of India has introduced several initiatives and policy measures to foster a culture of innovation and entrepreneurship in the country. These efforts have strengthened the digital ecosystem and enhanced opportunities for emerging digital entrepreneurs.

OBJECTIVES OF THE STUDY

- To identify the issues and challenges faced by Digital Entrepreneurs.
- To study the benefits and advanced technologies that drive Digital Transformation.

DISCUSSION AND ANALYSIS

Issues and Challenges of Digital Entrepreneurs

- **Develop a Business Website:** Creating a functional website is one of the most essential steps for any digital entrepreneur. In today's business environment, ventures without an online presence struggle to remain competitive. Fortunately, developing a basic website has become relatively simple and accessible. Entrepreneurs should ensure their business website is active, user-friendly, and regularly updated, as it is the primary platform for showcasing products, engaging customers, and establishing credibility in the digital marketplace.
- **Managing social media accounts:** Effective management is essential for digital entrepreneurs. Social media platforms—such as Facebook, WhatsApp, and Instagram—serve as highly influential and profitable marketing channels. Maintaining an active presence on these platforms enables entrepreneurs to reach global target audiences, humanise their brand, and engage directly with customers through widely used digital services. By leveraging these platforms strategically, businesses can enhance visibility, build trust, and strengthen customer relationships in an increasingly competitive digital marketplace.
- **High Competition:** The ease of starting an online business has intensified competition across most digital markets. As entry barriers are low, many industries have become highly saturated, making it increasingly difficult for new digital entrepreneurs to differentiate their offerings and establish a strong market presence. Standing out, therefore, requires strategic positioning, innovation, and consistent value creation.
- **Technical Challenges:** Running an online business requires a foundational level of technical competence. Digital entrepreneurs often need to understand skills such as web design, website maintenance, search engine optimisation, and digital marketing to operate effectively in a competitive environment. Acquiring these skills enhances operational efficiency and reduces dependence on external technical support.
- **Constant Need for Adaptation:** The digital marketplace is highly dynamic, characterised by rapid technological advancements and continuously evolving consumer behaviour. As a result, digital entrepreneurs must engage in continuous learning, regularly update their tools and strategies, and adapt to emerging technologies and market trends to remain competitive and sustain long-term growth.

Benefits of Digital Entrepreneurship

The major benefits of digital entrepreneurship are outlined below:

- **Continuous Work:** Digital entrepreneurship enables individuals to work and travel simultaneously. As long as entrepreneurs have a stable internet connection and adequate electricity, they can operate their business from virtually any location, offering unprecedented mobility and flexibility.
- **Flexible Job Time:** Digital entrepreneurs can design work schedules that distribute tasks throughout the day. Although the initial stages of business development demand significant effort, once the venture stabilises, entrepreneurs benefit from greater flexibility in managing their time and workload.
- **Social Networks:** Social media platforms expose entrepreneurs to diverse ideas and creative inspiration, especially during periods of mental fatigue or idea stagnation. These platforms also serve as powerful tools for brand promotion, customer engagement, and client acquisition, enabling entrepreneurs to reach vast audiences.
- **Wider Reach:** Unlike traditional businesses constrained by geographical boundaries, digital enterprises can access a global customer base. This expanded reach enhances market potential and increases growth opportunities.
- **Cost-Effective Operations:** Establishing an online business typically requires a lower initial investment than brick-and-mortar ventures. Reduced overhead costs make digital entrepreneurship more accessible and financially viable for new entrants.

- **Flexible Business Models:** The digital ecosystem supports a wide range of business models—such as e-commerce, subscription services, freelancing platforms, and digital content creation—allowing entrepreneurs to explore multiple revenue streams and adapt to market demands.
- **Innovative Marketing Strategies** Digital entrepreneurs can leverage advanced marketing tools, including social media marketing, email campaigns, search engine optimisation (SEO), and analytics-driven advertising. These tools enable precise targeting, improved customer engagement, and enhanced brand visibility.

Technologies that Drive Digital Transformation

Key technologies driving digital transformation include:

- **Internet of Things (IoT):** IoT extends internet connectivity to physical devices and objects, enabling remote monitoring, control, and integration with digital systems. This connectivity generates real-time data that supports new business models, applications, and services across sectors such as manufacturing, healthcare, logistics, and smart homes.
- **Next Generation Wireless Networks (5G and beyond):** Advanced wireless networks offer significantly higher speeds—up to 200 times faster than 4G—along with lower latency and improved reliability. Through technologies such as network slicing, 5G enables customised virtual networks for diverse applications. These capabilities are essential for innovations like autonomous vehicles, smart cities, and large-scale IoT deployments.
- **Cloud Computing:** Cloud computing provides flexible, on-demand access to computing resources, including software, storage, networking, and processing power. By converting fixed IT costs into scalable, usage-based expenses, cloud services allow firms to innovate rapidly, reduce operational costs, and enhance business agility.
- **Artificial Intelligence (AI):** AI enables machines and systems to perform cognitive tasks such as sensing, language processing, pattern recognition, learning, and decision making. Already embedded in everyday applications—such as personalised recommendations on streaming platforms—AI is increasingly driving the development of advanced software systems and autonomous robots capable of making and executing decisions without human intervention.
- **Big Data Analytics:** Big data refers to datasets characterised by high volume, velocity, and variety, often generated through IoT devices and digital interactions. Big data analytics enables organisations to extract insights from these datasets to develop new products and services, optimise processes, enhance organisational methods, and support data-driven innovation across industries.
- **High-Performance Computing (HPC):** HPC involves aggregating large amounts of processing power to achieve performance levels far beyond those of standard computers. It enables rapid computation, complex simulations, and large-scale data processing, supporting fields such as scientific research, financial modelling, climate forecasting, and AI development.
- **Quantum Computing (QC):** Quantum computing uses qubits, which can exist in multiple states simultaneously (0, 1, or both), unlike classical binary systems. Although still emerging and facing significant technical challenges, QC promises exponential improvements in processing power. Its potential applications include AI acceleration, cryptography, optimisation problems, and advanced cloud computing.
- **Blockchain Technology:** Blockchain is a distributed digital ledger maintained across a network of computers. The ledger is continuously updated to ensure all copies remain identical, making records transparent, tamper-resistant, and verifiable. Any attempt to alter stored information breaks the chain, alerting all nodes. Key applications include smart contracts, cryptocurrencies, digital identity, and supply chain management.

CONCLUSION

Digital technology has significantly strengthened the growth of entrepreneurship in India, creating new pathways for economic development and social progress. As digital tools become more accessible, this transformation is expected to help the country address persistent challenges such as economic constraints, unemployment, and regional disparities. A digitally empowered entrepreneurial ecosystem will increase the number of entrepreneurs, resulting in fewer job seekers and more job creators. To sustain this momentum, entrepreneurship must be actively promoted across all levels of society—including schools, colleges, villages, districts, states, and training institutions—so that individuals everywhere can participate in and contribute to India's digital transformation.

The prospective opportunities offered by digital and emerging technologies increasingly outweigh their associated challenges. However, these opportunities can also reshape firms' strategic choices, shifting competition from traditional rivalry to technology-driven rivalry, thereby creating new avenues for firms to invest in sustainable competitive advantage. Emerging innovations such as AI and high-performance computing (HPC) may function as either opportunities or threats, depending on



how effectively firms integrate them into their operations. Implementing advanced digital technologies in entrepreneurial processes often requires reconfiguring labour roles, digitising traditional workflows, and aligning organisational structures, practices, and policies with the demands of new technologies.

The impact of COVID-19 further accelerated this transformation, fundamentally altering how firms operate and underscoring the need to cultivate and leverage digital knowledge, skills, and capabilities to remain competitive in the evolving digital landscape. As firms adapt, they can increasingly exploit the strategic benefits of AI-driven tools in decision-making, process optimisation, and long-term value creation.

Many new entrants are encouraged by optimistic narratives surrounding the potential of digital entrepreneurship, yet many lack the realistic capacity or resources needed to succeed. To address this gap, policy interventions must focus on broader structural issues, including reducing gender and age disparities in digital skills, enhancing the self-confidence of young girls in STEM fields, and expanding internet access and digital business support services, particularly in rural and underserved regions. While such measures will strengthen the overall environment for digital entrepreneurship, they are not sufficient on their own. More targeted support for underprivileged self-employed groups is essential to help them adopt digital technologies, improve business performance, and sustain new digital start-ups. Tailored interventions of this kind are critical for ensuring that the benefits of digital transformation are inclusive and equitably distributed.

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