

Original Article

The Evolution of Entrepreneurship in the Digital Economy: A Cross-National Analysis

SUBASH

Independent Researcher, India.

ABSTRACT: *The Digital economy is recently changing the way of global entrepreneurship dramatically. With the evolution of digital technologies, including the Internet of Things (IoT), blockchain, Artificial Intelligence (AI), and big data analytics, novel forms of entrepreneurial ventures have emerged, altering the way firms build and run their businesses, as well as the foundation of the economy. In this paper, we present a comprehensive cross-national analysis of how entrepreneurship has evolved in response to the digital economy. The study of macroeconomic trends, policy implications, technological enablers and sociocultural factors in driving digital entrepreneurship across countries is explored. Using empirical data, case studies and comparative metrics, this study reveals key patterns of entrepreneurial activity that are affected by digital transformation. To categorise their digital readiness and entrepreneurial maturity, we examine how digital infrastructure affects startup success rates in different nations. The paper proposes that digital entrepreneurship is greatest in situations where innovation ecosystems, regulatory frameworks, digital literacy and access to capital combine. What's more, digital entrepreneurs not only are reshaping the core of traditional business sectors, but are also addressing social challenges through scalable, tech-enabled models. Policy recommendations and future research directions are outlined in the conclusion of this paper.*

KEYWORDS: *Digital economy, Entrepreneurship, Cross-national analysis, Innovation ecosystem, Startup ecosystem, Digital transformation, ICT, Economic development.*

1. INTRODUCTION

1.1. THE EVOLUTION OF ENTREPRENEURSHIP IN THE DIGITAL ECONOMY

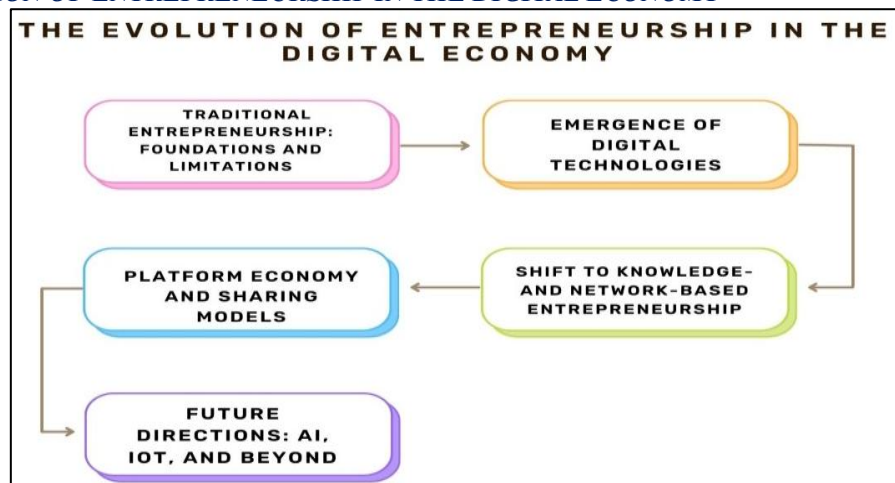


FIGURE 1 The evolution of entrepreneurship in the digital economy

1.1.1. TRADITIONAL ENTREPRENEURSHIP: FOUNDATIONS AND LIMITATIONS

Traditionally, traditional entrepreneurship is determined by the availability of physical capital, labor and the local market conditions. [1-4] to set up and grow their businesses, entrepreneurs heavily relied on access to financial resources, infrastructure and face-to-face networks. However, such models were often constrained by geographical boundaries, high entry barriers and low communication efficiency, thereby limiting scalability and innovation.

1.1.2. EMERGENCE OF DIGITAL TECHNOLOGIES

Digital technologies, such as the internet, mobile devices, and cloud computing, have begun to rapidly transform the entrepreneurial landscape. By reducing operational costs, increasing access to global markets, and facilitating real-time communication, these technologies have given rise to new business models. This opened up opportunities for entrepreneurs to use digital tools to reach customers directly, enabling processes to be agile and scalable.

1.1.3. SHIFT TO KNOWLEDGE- AND NETWORK-BASED ENTREPRENEURSHIP

The theoretical model of digital entrepreneurship has shifted the focus from more traditional resource-based firms to knowledge, innovation, and network effects. Increasingly, intangible assets such as intellectual property, data analytics, and digital platforms are what entrepreneurs rely on to create value. Digital ecosystems are connected, and thus, partners, through social media, allow startups to accelerate growth with the aid of resources that transcend physical boundaries.

1.1.4. PLATFORM ECONOMY AND SHARING MODELS

In the digital economy, platform-based business models, such as Uber, Airbnb, and Amazon, are among the most frequently mentioned changes. These are peer-to-peer interaction platforms that also leverage the network effect for rapid scale with little physical infrastructure required. With this, many traditional industries were disrupted by new ways of creating, delivering, and capturing value in the digital marketplace.

1.1.5. FUTURE DIRECTIONS

AI, IoT, and Beyond. Going forward, the future of entrepreneurship is unfolding with the help of emerging technologies, including artificial intelligence (AI), the Internet of Things (IoT), blockchain, and big data. These innovations enable more personalised products, automated decision-making, and decentralised business models. Digital ecosystems are evolving as entrepreneurship continues to expand, taking into account the ethical, regulatory, and inclusivity aspects that arise from new opportunities and challenges.

1.2. A CROSS-NATIONAL ANALYSIS

This provides the basis for understanding how digital entrepreneurship is influenced by national differences across these countries, as the development and success of entrepreneurial ventures are site contingent. Using a cross-national analysis, this research finds that infrastructure, policy frameworks, economic conditions, and cultural factors shape digital entrepreneurship ecosystems worldwide. Countries with the most developed digital infrastructure, such as Estonia, Singapore, and Israel, are continuously among the most innovative countries in the world; they also possess huge entrepreneurial potential. Such ICT infrastructure is present as an inherent advantage in these nations, enabling them to benefit from supportive government policies, well-developed networks, access to capital, mentorship, and markets. In these cities, ecosystems are marked by a high density of startups, ubiquity of cutting-edge technologies and the existence of bespoke sectors such as FinTechs, HealthTechs and EdTechs. On the contrary, the emerging countries such as India and Brazil have transitional digital entrepreneurship environments. While they have pushed past the border with great success in getting more people online and building innovation hubs, challenges abound, such as regulatory uncertainty, market fragmentation, and a skills gap. A digital readiness gap exists between these countries across regions and demographic groups, complicating the process by which these startups become inclusive and scalable. These nations need to bridge a gap with more mature digital economies, where efforts are underway to harmonize policies, improve digital literacy and build infrastructure to facilitate greater application and efficiency. Digital entrepreneurship is nascent in places like Kenya and Bangladesh due to infrastructural limitations, limited funding opportunities, and regulatory bottlenecks. But these markets are very young (with a huge proportion of young people), huge mobile connectivity and increasing ambition to create something. International development programs and localized policy interventions aimed at providing training in digital skills, affordable internet access and incubation of startups have proven to help activate entrepreneurial activity in these regions. Their importance for context-specific strategies is also demonstrated through cross-national comparisons. Although the Global Innovation Index and the Digital Economy and Society Index (DESI) are useful metrics for understanding countries' digital readiness, they should not be considered in isolation from the understanding of local economic structures, cultural attitudes towards risk and innovation, and institutional support mechanisms. This nuanced view enables policymakers and ecosystem builders to design interventions that overcome identified barriers and capitalise on unique strengths. Overall, we find that digital entrepreneurship is not a one-size-fits-all phenomenon, but rather the result of a complex interplay among technology, policy, culture, and economic factors. Awareness of these differences is crucial for promoting the growth of inclusive and sustainable digital ecosystems that can foster economic growth and social development in various national contexts.

2. LITERATURE SURVEY

2.1. TRADITIONAL VS DIGITAL ENTREPRENEURSHIP

Earlier academic scholarship regarding entrepreneurship had positioned resource-based theories as the main tools of analysis by focusing most early entrepreneurship work on markets, tangibles such as capital, land, labor and a favorable business environment as factors that influence the success of an entrepreneurial venture. As postulated by entrepreneurs, operations were conducted within well-defined geographic and economic constraints, and growth was linear and incremental. Unlike digital entrepreneurship, it represents a paradigm shift. [5-8] The network-centric model is widely applied, which is fundamentally knowledge-driven. Today's entrepreneurs use digital technologies to grow fast, to go global quickly, to profit from intangible assets like data, intellectual property and online reputation. In many ways, this transition has revolutionized the entrepreneurial scene, leading to more inclusive and distributed ways of creating business and innovation.

2.2. TECHNOLOGICAL INFLUENCE

The scope and scale of entrepreneurial opportunities have become far wider and deeper, considering the ability to leverage emerging technologies such as Artificial Intelligence (AI), the Internet of Things (IoT), and blockchain. Through the use of

these technologies, traditional dependence on infrastructure has been lowered (automation, data analytics and decentralized systems to improve trust in the systems). By drastically reducing entry barriers, from startup to operational costs, digital platforms such as app stores, freelance marketplaces, and e-commerce portals have made things easier. However, this democratization access has created micro entrepreneurship, where people can build or run small-scale businesses as long as they have an internet connection. For this reason, technology is empowering entrepreneurs and ultimately reshaping whole industries by enabling agility and innovation.

2.3. NATIONAL ECOSYSTEMS

Digital entrepreneurship succeeds or fails alongside the national ecosystem in which it exists. Digital startups are too small an industry to hide from innovation nationally; ICT infrastructure, forward-thinking innovation policies, and a positive regulatory environment are important in nurturing such an industry. For example, Estonia's e-governance model, Singapore's Smart Nation initiative, and Israel's startup policy have led to successful ecosystems in terms of generating high digital entrepreneurship. The Global Innovation Index, for example, and the Digital Economy and Society Index (DESI) are critical benchmarks for comparing nations' ability to adopt digital technologies. As indicated in Table 2.1, Israel, Singapore, and South Korea are two nations that should have technology-driven economies; they exhibit high startup density and high values of ICT in relation to GDP.

2.4. POLICY AND REGULATION

Digital entrepreneurship is dependent on the policy and regulatory environment for success or failure. Authors recognize that startups blossom more in countries where the bureaucrats show minimum red tape, low bureaucratic barriers and a high ease of doing business. Digital taxation policies, however, are becoming increasingly important as governments strive to fairly tax digital businesses while continuing to foster innovation. Among other key enablers are startup funding programs, including government grants, incubators, venture capital incentives, and public-private partnerships. These initiatives help mitigate early-stage risks and establish the essential support structures for scaling digital ventures. Regulation is important not only for protecting consumers and establishing a level playing field, but also for creating an environment in which investors can have confidence, thereby improving the overall entrepreneurial climate.

3. METHODOLOGY

3.1. RESEARCH DESIGN

Digital entrepreneurship is a subject that this study adopts a mixed-methods research design, integrating both numerical data and contextual insights. A mixed-methods approach is employed to leverage the strengths of both quantitative and qualitative paradigms, yielding deeper and more broadly applicable findings. Accordingly, on the quantitative side, this research is based on the secondary analysis of data from reliable global indices and databases, such as the Digital Economy and Society Index (DESI), the Global Innovation Index (GII), and World Bank indicators. Sources of these data include measurable indicators of digital readiness in countries, their ICT infrastructure, startup density, and national innovation capacity. [9-12] Cross-country comparative and trend analysis is possible using such data to provide insight into macro-level enabling environments for digital entrepreneurship. The qualitative aspect of the research comprises primary case studies of selected digital startups and entrepreneurial ecosystems in countries that rank high on digital readiness indices (Estonia, Singapore, and Israel). This study, based on semi-structured interviews, document reviews, and thematic analysis, examines the lived experiences of digital entrepreneurs, the challenges they face, the policy environments they encounter, and the strategies they employ for success. As a qualitative component, this paper seeks to draw from rich and locale-specific experiences and allows for a finer-grained understanding of the socio-cultural and institutional factors shaping entrepreneurial behavior, which tends to be ignored in purely quantitative studies. The research design, therefore, aims to bridge the gap between theory and practice through the triangulation of secondary and primary data. Not only does it validate patterns uncovered through statistical data, but it also embeds them in the context of the narrative of real-world entrepreneurship. Taken together, this comprehensive approach facilitates the development of well-grounded, evidence-based conclusions and policy recommendations that, although empirically robust, are also practically meaningful to stakeholders in the digital entrepreneurship ecosystem.

3.2. DATA SOURCES

A range of data sources, including different types, are used in this study to achieve a holistic and multidimensional understanding of digital entrepreneurship across global contexts. The data is sourced from both secondary and primary sources, allowing the analysis to be grounded in authoritative statistical data and firsthand entrepreneurial insights. Internationally recognized institutions, including the World Bank, OECD (Organisation for Economic Co-operation and Development) and IMF (International Monetary Fund), provide macroeconomic indicators as well as regulatory benchmarks and innovation metrics, which are indispensable for the evaluation of national-level digital readiness and business environments. These reports provide unique insight into digital infrastructure, ease of doing business, ICT investment and policy frameworks of various countries. Moreover, there are industry-oriented databases, such as Crunchbase, Statista, or the Global Startup Ecosystem Report, which provide rich data regarding startup activity, venture capital, sector trends, and more, all in connection with entrepreneurial ecosystems. Granular information about startup density, fundraising rounds, founder demographics, and innovation hotspots is made available by these platforms, demonstrating an important landscape mapping of digital entrepreneurship. The use of such databases enables the study to compare ecosystem dynamics by region and sector, and to empirically ground theoretical constructs. In addition, a robust primary data collection effort, involving surveys of 100 digital

entrepreneurs in 12 countries, is implemented to complement the secondary data. The survey instrument comprises both closed-ended and open-ended questions designed to gather entrepreneurs' views on the following topics: opportunities, barriers, technology adoption, access to funding, and policy impacts. The countries covered are differentiated into high-performing digital economies and emerging markets to facilitate comparative analysis. Responses to the survey offer a direct insight into the experiences of digital entrepreneurs living in these varied regulatory and cultural contexts. The combination of secondary and primary sources lends an additional level of reliability, depth, and contextual richness to the research, enabling the support of well-rounded analysis and actionable conclusions.

3.3. VARIABLES CONSIDERED

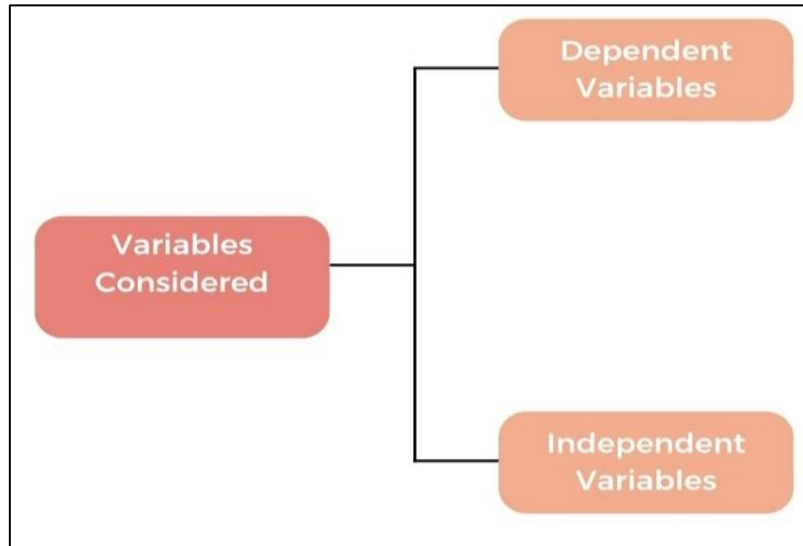


FIGURE 2 Variables considered

3.3.1. DEPENDENT VARIABLES

A key dependent variable in the study is the startup success rate, which measures the proportion of digital startups that progress beyond establishment to achieve significant revenue growth, expand into new markets, or exit successfully via acquisitions or IPOs. Therefore, it plays a crucial role as an indicator of the overall well-being and viability of an entrepreneurial venture in various ecosystems. The other dependent variable, the number of funding rounds secured by startups, is also very important, as it shows investors' faith and the funding strength required for scaling operations, product development, and achieving market penetration. Finally, the measure of international scalability captures which startups, having successfully entered first global markets, rapidly expand into global markets, reflecting their ability to harness digital platforms and networks internationally.

Independent variables, such as ICT infrastructure (including internet penetration, broadband speed, mobile connectivity, and access to digital tools), are fundamental to the quality and availability of ICT infrastructure and, therefore, necessary for digital entrepreneurship. Our results indicate that a robust ICT infrastructure helps lower operational barriers and enhance communication, collaboration, and innovation capabilities, positively impacting startup performance. Also important is the level of education within a country or region, which will determine the availability of the much-needed skilled talent to enable digital innovation, develop new technologies, and manage complex business processes. Consequently, higher education levels suggest high entrepreneurial capacity and adaptability.

3.4. ANALYTICAL FRAMEWORK

GDP per capita is used as a proxy for cross-market development and purchasing power. GDP per capita is a useful variable in that it proxies by and large for economies that are more or less supportive for startups; for instance, economies with greater GDP per capita tend to provide better access to resources (e.g. human capital, start-up capital, land, fixed capital), consumer markets and investment capital. [13-15] Finally, the regulatory environment, ease of doing business, startup-friendly policies, taxes, and intellectual property protections have a significant impact on entrepreneurial activity. A transparent, flexible, and supportive regulatory framework encourages risk-taking, attracts investment, and promotes rapid business growth. However, excessive regulation can stifle innovation and hinder new ventures.

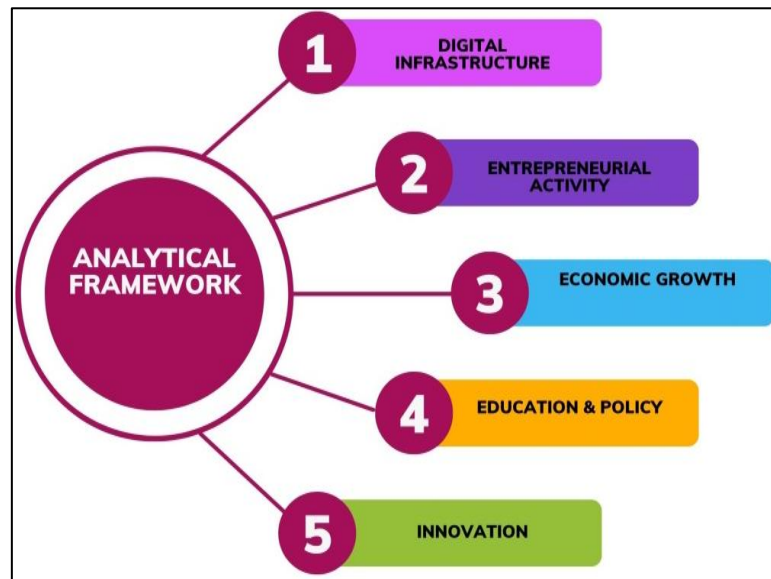


FIGURE 3 Analytical framework

3.4.1. DIGITAL INFRASTRUCTURE

The analytical framework's construct can be based on digital infrastructure, which includes high-speed internet, mobile networks, cloud computing, and digital platforms. Digital infrastructure is robust and allows entrepreneurs to achieve digital access to critical resources and communication of resources, among others and digital deployment of solutions at scale. It minimizes the need for high capital expenditure and becomes the technological basis for the development and delivery of digital products and services, which entail lower entry barriers. The digital economy severely lacks digital entrepreneurial activity without a reliable digital infrastructure.

3.4.2. ENTREPRENEURIAL ACTIVITY

The processes of opportunity recognition, venture creation, and business development in the digital space are collectively referred to as entrepreneurial activity. It includes setting up a startup, innovating in the business model and scaling a digital enterprise. However, entrepreneurial activity is at its best when there is access to funding, skilled labor, mentorship and markets. Taking an active digital entrepreneurship makes the competition move ahead and contributes to technological innovation, which finally results in the development of new products and services that can disrupt the traditional industry.

3.4.3. ECONOMIC GROWTH

Digital infrastructure and entrepreneurial activity are the primary factors that influence economic growth within this framework. Successful digital entrepreneurship that creates jobs and increases productivity, alongside increased exports, helps improve a nation's gross national product (GDP). The growth of digital startups typically diversifies the economy, increases its resilience to economic shocks, and promotes long-term, sustainable development. Ultimately, economic growth can then spur additional investments in infrastructure and human capital, thereby creating a virtuous circle.

3.4.4. EDUCATION & POLICY

The analytical framework identifies education and policy as enabling factors that determine the nature of digital infrastructure as well as the extent of entrepreneurial activity. Digital literacy, technical skills, and an entrepreneurial mindset required for business are acquired through quality education systems. Governments, at the same time, formulate policies on regulation, taxation, money, and intellectual property rights to set the stage for entrepreneurial initiatives, either making them easier or more difficult. Effective policy interventions, such as providing equitable access to digital tools, promoting innovation, and reducing bureaucratic obstacles, are crucial to achieving these goals.

3.4.5. INNOVATION

Innovation is an inherently dynamic force intermeshed with entrepreneurial activity, education and policy. It aims to create and apply new ideas, technologies, and processes that enhance value creation in digital ventures. Competition starts with Innovation & differentiates startups in a crowded market. Supportive education systems encourage creativity, problem-solving, and progressive policies favour research, development, intellectual property protection, and collaboration between academia and industry. Together, these elements establish an innovation-led growth-conducive ecosystem.

3.5. DATA ANALYSIS TECHNIQUES

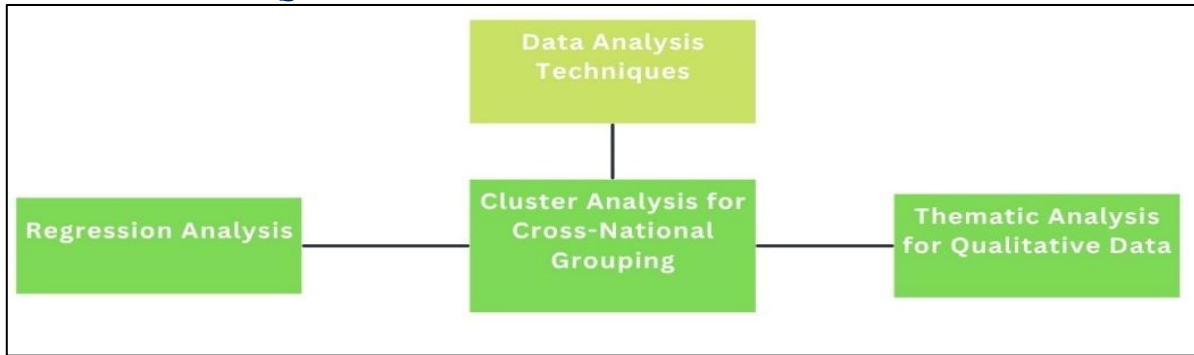


FIGURE 4 Data analysis techniques

3.5.1. CLUSTER ANALYSIS FOR CROSS-NATIONAL GROUPING

Countries are grouped based on their similarity in characteristics related to digital entrepreneurship, using cluster analysis with variables including digital readiness scores, startup density, ICT investment, and policy environments. It is an unsupervised learning method that produces natural clusters or patterns within the data, enabling researchers to categorise countries into groups such as high-performing digital ecosystems, emerging markets, or lagging economies. Through the clustering results, we can conduct a comparative analysis and benchmark each other, learning about the contextual differences and making relevant recommendations within each cluster according to their specific ecosystem dynamics.

3.5.2. THEMATIC ANALYSIS FOR QUALITATIVE DATA

Qualitative data, collected through interviews, surveys and case studies with digital entrepreneurs, are subjected to thematic analysis. The method involves coding textual data to unearth recurrent themes, patterns, and insights about challenges, strategies, policy impacts, and innovation practices. Thematic analysis is, by systematically organizing and interpreting the qualitative responses, able to offer a rich, nuanced understanding of entrepreneurial experiences that enriches quantitative findings. It allows for the exploration of the complexity of social and cultural factors affecting digital entrepreneurship, which can't be reflected in numbers.

4. RESULTS AND DISCUSSION

4.1. CROSS-NATIONAL PATTERNS

TABLE 1 Cross-national patterns

Cluster	Avg. Startup Survival Rate	Avg. ERI Score
Cluster A: High Digital Maturity	78%	89%
Cluster B: Transitional Economies	54%	61%
Cluster C: Nascent Digital Ecosystems	32%	43%

4.1.1. CLUSTER A:

High Digital Maturity. Countries, such as Israel and Singapore, with high rates of digital maturity and strong startup ecosystems, combined with high rates of development, fall into Cluster A. With an average startup survival rate of 78% and an ERI of 89%, these nations demonstrate their great capacity to foster digital entrepreneurship. With a high ERI score, we know that a strong support infrastructure is in place, including good access to funding, innovation-friendly regulations, and established mentor networks. Ecosystems in Cluster A countries provide resources to digital entrepreneurs on an efficient scale, helping to sustain long-term growth and support innovation.

4.1.2. CLUSTER B:

Transitional Economies. Countries in Cluster B, such as India and Brazil, are in the transitional phase on the path to becoming digital entrepreneurs, but several structural challenges still mark their journey. These economies have moderate digital infrastructure and expanding entrepreneurial activity, boasting an average startup survival rate of 54% and an ERI score of 61%. Nonetheless, Cluster A has no policy inconsistencies, no fragmented markets, and easy access to high-quality resources. Nonetheless, bureaucracies at various levels, along with a lack of digital literacy and an underdeveloped investment ecosystem, pose significant obstacles to traditional parties in Kenya. These nations could accelerate their transition to higher digital maturity by focusing on improving policy clarity and infrastructure.

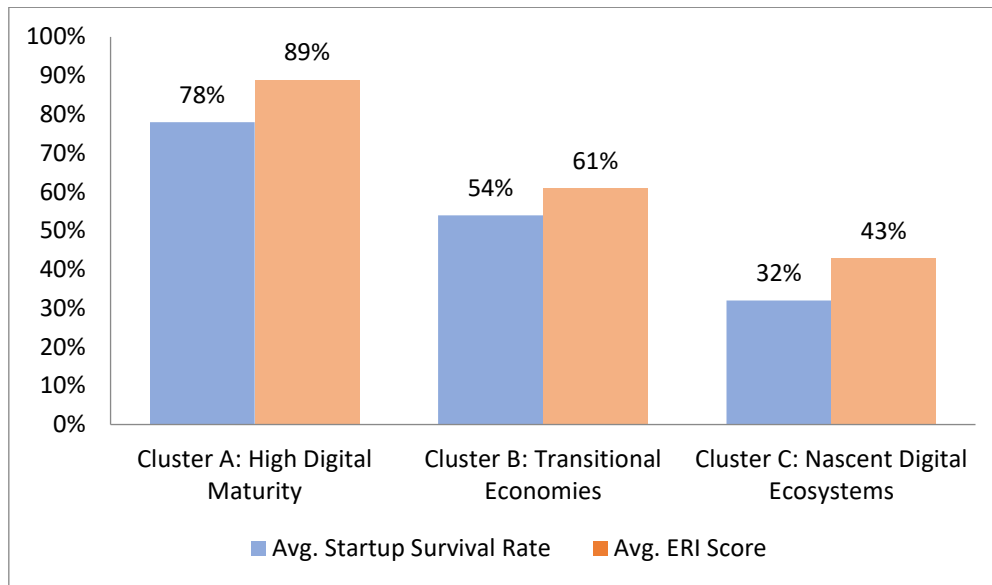


FIGURE 5 Graph representing cross-national patterns

4.1.3. Cluster C:

Nascent Digital Ecosystems. Cluster C comprises nascent digital ecosystems, such as those in Kenya and Bangladesh, which were also in the infancy of digital entrepreneurship at the time. Great infrastructural deficits and regulatory barriers make the average startup survival rate in these countries only 32 percent, and ERI's score is 43 percent. Access to reliable internet, skilled talent and funding are all very limited. Furthermore, the regulatory environments do little to advance the growth of digital ventures. The flawless across, Tower at Citiscape Should Be An Emphasis Due To These Emerging Markets. Thus, Tailored Policy Interventions To Build Foundational Digital Infrastructure And Build Entrepreneurial Capacity Are Needed To Support These Emerging Markets. Filling these gaps will lead to stronger ecosystem development and a greater chance that startups in these regions will succeed over the long term.

4.2. DIGITAL BUSINESS MODELS

Platform-based business models revolutionized how goods and services are exchanged – and thus largely shape the digital entrepreneurship landscape. The models of Uber and Airbnb are perfect examples of this kind of model, as they leverage network effects. The more users they have, the more valuable the platform becomes, allowing them to scale quickly without incurring excessive capital expenditures. Their supply and demand efficiently make matches across Decentralized networks; something that is disrupting industries that were once cornerstone ones, such as Hospitality and Transportation. Due to its flexibility and scalability, the platform model has been a dominant player in digital entrepreneurship, developing new ways to create and engage customers that were not previously available. Subsequently, Software as a Service (SaaS) startups have emerged because they can offer solutions to nearly all industries for cloud-based software. Subscription-based revenues offer predictable streams of income, and in addition, it's easier for SaaS companies to scale. In addition, it reduces the requirement for costly customer-side software installation and maintenance, thereby increasing accessibility and adoption. In digital entrepreneurship, in particular, this business model is attractive because it allows for continuous innovation, the integration of customer feedback, quick product updates, and closer ties between providers and users. Beyond these large models, the study finds that niche digital innovations are emerging across sectors that solve vertical-specific problems with vertical-specific solutions. Interactive technology is opening up financial services to FinTech startups, which range from mobile payment platforms to blockchain technologies and peer-to-peer lending systems, promoting financial inclusiveness and security. Telemedicine, AI diagnostics and wearable health devices are used by HealthTech ventures to provide more accessible healthcare and better patient outcomes, particularly in underserved areas. Likewise, EdTech companies benefit from the use of online learning platforms, virtual classrooms and personalized education tools to democratize education around the world. The diversification seen here illustrates the evolution of digital entrepreneurship away from generic solutions into the very core of industry-specific contexts, which simultaneously propel technological advancement as well as social impact. Taken together, these emerging digital business models describe an entrepreneurial capitalism in the digital age that is inherently dynamic, driven by the importance of innovation, scalability and specialization across industrial sectors to the future growth of the world's economy.

4.3. CHALLENGES AND CONSTRAINTS

While digital entrepreneurship has been expanding fast around the world, many of the challenges that hinder startups' growth and sustainability still exist, especially in emerging and nascent ecosystems. The digital divide is one of the most persistent obstacles to technology adoption. One definition of access refers to having unequal access to digital technologies and the internet across regions and socioeconomic groups. In fact, in many developing countries, the infrastructure for reliable broadband is severely limited, connectivity is expensive, and digital literacy is low. Thus, venturing into the digital economy is an option available only to a very few aspiring entrepreneurs. This gap hinders innovation in the digital entrepreneurship

ecosystem and reduces its diversity and inclusiveness, thereby limiting market presence. Startups in the digital sector face significant cybersecurity concerns, in addition to challenges with infrastructure. Due to a lack of resources, many start-up companies struggle to implement effective cybersecurity. Because of this, they may be attacked by data breaches, ransomware, and identity thieves, facing financial losses, damage to their reputation, and legal consequences. As cyber threats become more advanced, startups should focus on cybersecurity to maintain a good relationship with investors and customers, but finding the right security solutions and people often proves to be a big challenge.

Additionally, having unclear regulations in the field poses a significant challenge for digital entrepreneurs. Many laws and regulations are still being updated to keep pace with new digital technologies, including blockchain, artificial intelligence, and businesses built on platforms. There is therefore uncertainty about the rules for compliance, data privacy, taxes, and protecting intellectual property. Because the rules can be so unclear, entrepreneurs and businesses may become more reluctant to risk money or effort on new ideas. Moreover, the different ways in which laws are applied cause issues for startups seeking to expand beyond their native jurisdiction. It is essential to address these issues collectively to develop an engaging digital environment. Startups can innovate confidently, increase their scale, and boost the wider economy and inclusion with the right support from the government, investment in digital infrastructure, cybersecurity, and flexible rules.

4.4. ROLE OF GOVERNMENT AND POLICY

Support from governments has been crucial for the progress and success of digital startups worldwide. In India, the Startup India program employs a range of methods to foster innovation, including financial support, tax breaks, and the establishment of incubation centres nationwide. They help startups manage their business expenses and, at the same time, provide a platform where people can collaborate, learn from one another, and share ideas. Because the program streamlines regulatory processes, setting up new businesses and expanding them has become faster. This program by Estonia is seen as an example of forward-thinking digital policies that enable global entrepreneurs to manage their businesses in the EU solely with the help of the internet. With this new system, people can avoid location issues and handle much less paperwork or in-office visits. With e-Residency, entrepreneurs worldwide can utilise Estonia's online government services, expand their businesses across the EU, and contribute to global innovation. Singapore's Smart Nation initiative showcases the significant improvements that can result from the government's effective application of digital tools. The use of technology in Singapore has led to a superior digital setting that gives new businesses easy access to important infrastructure, up-to-date data and strong relationships with public and private organizations. Thanks to the proactive government, businesses, citizens, and government offices can cooperate easily, allowing startups to develop new products addressing urban issues, financial technologies, and healthcare. They demonstrate that targeted, carefully planned government interventions can ease entrepreneurial barriers, increase the availability of necessary resources and help firms compete successfully globally. Boosting digital literacy, promoting innovation networks and adapting regulations for new technologies are ways governments can greatly help in growing vibrant tech entrepreneurship and favorable economic and social change.

4.5. GENDER AND INCLUSIVITY

TABLE 2 Gender and inclusivity

Gender	% of Total Respondents
Male	70%
Female	30%

Women are entering the digital economy in increasing numbers, resulting in a global upward trend in female digital entrepreneurship. Although more women are starting businesses, they still encounter significant and unequal challenges when seeking funding. Out of the 100 digital entrepreneurs we studied, female-run startups received 30% less investment than male-led startups, despite their business results, in terms of revenue, customer acquisition, and scalability, being similar. Many people link the funding gap to social prejudices, a lack of influential contacts and having few people to mentor women who are starting new businesses. How societal and gender stereotypes affect investors can lead to unequal results for everyone. Differences in networks are also very significant. Generally, men who are entrepreneurs gain access to more venture capitalists, angel investors, and industry contacts, which play a significant role in their business funding and development. Unfortunately, women often miss out on these important connections, as they lack the necessary introductions for investment and key agreements. Because there are few women mentors in tech and entrepreneurship, this creates more difficulties for women running their businesses successfully. There are positive results emerging from various efforts aimed at including all genders. As a result, female entrepreneurship funds, women-focused accelerators, and networking groups are being established worldwide to support women by providing targeted financial assistance, mentorship, and skill development. These programs help close the gap by enabling women to access resources and meet people they previously could not meet. Ensuring digital entrepreneurship is diverse and inclusive is about fairness and also motivates new and better ideas. Various cultures and experiences help mix ideas and make the team better at finding solutions, resulting in higher-quality goods, services and more effective marketing. When women play a larger role and achieve success in digital startups, the overall ecosystem benefits

financially and becomes stronger; therefore, inclusive approaches should be at the top of the priorities for those who govern and influence businesses.

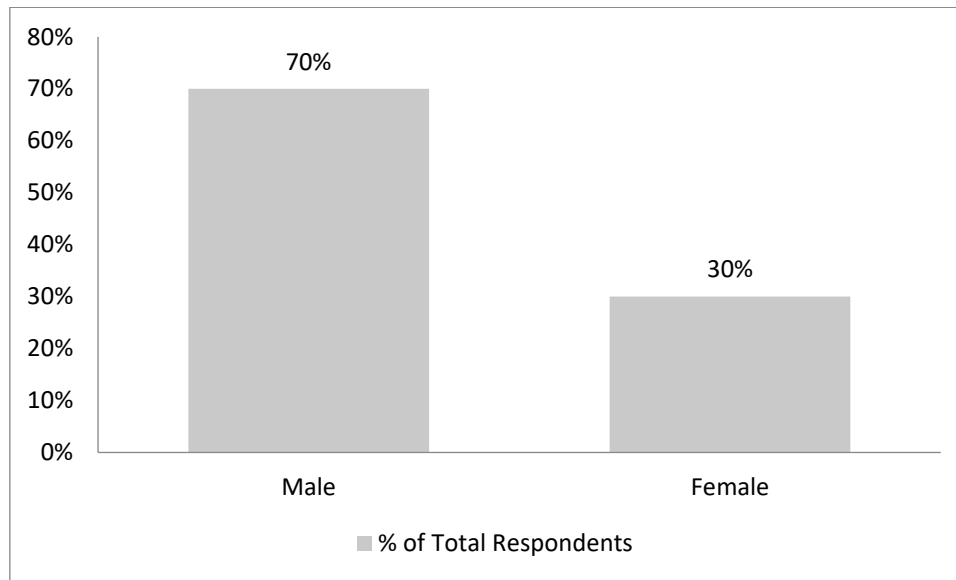


FIGURE 6 Graph representing gender and inclusivity

5. CONCLUSION

It has been proven that the digital economy has greatly reshaped entrepreneurship, altering its usual rules and motivators. From our analysis, we see that places with advanced digital infrastructures, strong innovative environments and rules that help startups perform better in the world of entrepreneurship. The grouping of countries by their digital readiness highlights how investment in digital spaces fosters new business survival and interest. Essential to this movement are major government actions and investments in technology infrastructure, which help lower obstacles, offer opportunities, and encourage policies that support new ideas. All of these elements come together to form environments where digital entrepreneurs find success, expand their businesses, and contribute to the economy.

These findings have led to several suggestions that can help promote faster and more inclusive digital entrepreneurship globally. Before anything else, focusing on digital education is very important. Making sure people have the right digital skills and entrepreneurial attitude early on will help create a wide range of new innovators. Making it simpler for startups to deal with regulations is crucial in places where lots of official requirements can stop entrepreneurs from starting a business. Startups will have an easier time predicting how things will go if processes are organized, guidelines are straightforward, and laws adapt to change. Furthermore, setting up public-private innovation hubs helps governments, academia, investors and entrepreneurs team up more effectively. Such hubs quickly disseminate knowledge, provide coaching, and offer access to capital for all players in the ecosystem.

Moving forward, we need more studies to better understand digital entrepreneurship. By following startups over several years, these studies will reveal what factors affect the companies' ability to succeed or fail. Moreover, learning about the use of AI in business decisions, such as market analysis and customer handling, can expose new problems and opportunities in digital enterprises. To conclude, by comparing regions within continents, we can identify the distinct differences that cultural, economic, and policy situations lead to, which help shape appropriate interventions. These directions, when followed together, will provide better strategies for developing ecosystems that encourage growth and inclusion on a worldwide scale in the digital entrepreneurial field.

REFERENCES

- [1] Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99-120.
- [2] Nambisan, S. (2017). Digital entrepreneurship: Toward a digital technology perspective of entrepreneurship. *Entrepreneurship theory and practice*, 41(6), 1029-1055.
- [3] Sussan, F., & Acs, Z. J. (2017). The digital entrepreneurial ecosystem. *Small business economics*, 49, 55-73.
- [4] Dutta, S., Lanvin, B., Rivera León, L., & Wunsch-Vincent, S. (Eds.). (2023). *Global Innovation Index 2023: Innovation in the face of uncertainty*. Wipo.
- [5] Ismail, M. H., Khater, M., & Zaki, M. (2017). Digital business transformation and strategy: What do we know so far? *Cambridge Service Alliance*, 10(1), 1-35.
- [6] Parker, G. G., Van Alstyne, M. W., & Choudary, S. P. (2016). *Platform revolution: How networked markets are transforming the economy and how to make them work for you*. WW Norton & Company.

- [7] Block, J. H., Fisch, C. O., & Van Praag, M. (2017). The Schumpeterian entrepreneur: A review of the empirical evidence on the antecedents, behaviour and consequences of innovative entrepreneurship. *Industry and innovation*, 24(1), 61-95.
- [8] Autio, E., Nambisan, S., Thomas, L. D., & Wright, M. (2018). Digital affordances, spatial affordances, and the genesis of entrepreneurial ecosystems. *Strategic Entrepreneurship Journal*, 12(1), 72-95.
- [9] Van Welsum, D. (2016). Enabling digital entrepreneurs. World Bank.
- [10] Giones, F., & Brem, A. (2017). Digital technology entrepreneurship: A definition and research agenda. *Technology Innovation Management Review*, 7(5), 44-51.
- [11] Wang, L., & Shao, J. (2023). Digital economy, entrepreneurship and energy efficiency. *Energy*, 269, 126801.
- [12] Gontareva, I., Chorna, M., Pawliszczy, D., Barna, M., Dorokhov, O., & Osinska, O. (2018). Features of entrepreneurship development in the digital economy. *TEM Journal*, 7(4), 813.
- [13] Bensaid, W., & Azdimousa, H. (2021). Digital entrepreneurship vs. Traditional entrepreneurship: the setting up of a global conceptual model. *International Journal of Economic Studies And Management*, 1(1), 86-92.
- [14] Song, A. K. (2019). The Digital Entrepreneurial Ecosystem—a critique and reconfiguration. *Small Business Economics*, 53(3), 569-590.
- [15] Jawad, M., Naz, M., & Maroof, Z. (2021). Era of digital revolution: Digital entrepreneurship and digital transformation in emerging economies. *Business Strategy & Development*, 4(3), 220-228.