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DIGITAL TRANSFORMATION IN ENTREPRENEURSHIP EDUCATION FOR SOCIETAL RESILIENCE IN IMO STATE

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Abstract

This study examined digital transformation in entrepreneurship education for societal resilience in Imo State. Specifically, the study assessed the contribution of digitally transformed entrepreneurship education to societal resilience and identified the challenges hindering the integration of digital technologies into entrepreneurship education in tertiary institutions. The study adopted a descriptive survey research design and was conducted in Imo State, Nigeria. The population consisted of 120 beneficiaries of the SkillUp Imo programme, all of whom were used as the sample through the census sampling technique. Data were collected using a researcher-developed questionnaire titled Digital Transformation in Entrepreneurship Education for Societal Resilience in Imo State Questionnaire (DTEEST). The instrument was validated by experts and yielded a reliability coefficient of 0.86 using the test–retest method. Data were analyzed using mean and standard deviation. The findings revealed that digitally transformed entrepreneurship education contributes positively to societal resilience in Imo State, with a grand mean of 2.80. Respondents agreed that it enhances responses to economic challenges, improves access to entrepreneurship knowledge, promotes innovation, strengthens networking and collaboration, builds entrepreneurial confidence, enhances self-employment opportunities, and develops relevant digital skills. However, respondents disagreed that it significantly strengthens adaptability to changing economic conditions and supports continuous learning during crises. The study further revealed that weak government policy implementation, limited internet connectivity, inadequate digital infrastructure, limited digital skills among lecturers and students, high costs of digital technologies, and poor institutional support constitute major barriers to the integration of digital technologies into entrepreneurship education, with a grand mean of 2.73. The study concluded that digitally transformed entrepreneurship education has considerable potential for enhancing societal resilience through improved innovation, employability, and entrepreneurial capacity. However, infrastructural, institutional, and policy-related challenges continue to limit its effectiveness. The study recommends improved digital infrastructure, regular capacity-building programmes for educators and learners, and stronger institutional support to facilitate the effective integration of digital technologies into entrepreneurship education.

Keywords: *Digital transformation, entrepreneurship education, societal resilience,*

Introduction

Education is essential for the development of any nation; therefore, it must be given serious attention at all levels of the educational system. Many developed countries have achieved significant economic growth through entrepreneurship education. In simple terms, entrepreneurship education refers to the process of equipping individuals with the skills, knowledge, and experiences needed to identify and successfully manage business opportunities (Akpan & Uwah, 2020). It enables learners to acquire competencies that contribute to individual, social, and economic development. Aisha (2021), as cited in

Abdullahi, Sulaiman, and Liman (2016), further emphasized that entrepreneurship education holds significant potential for individuals, families, communities, and nations as it promotes innovation, economic growth, job creation, and overall societal development.

Consequently, attention has shifted from merely determining what to teach to identifying the most effective ways of teaching entrepreneurship. Despite the growing interest in entrepreneurship education, teaching methods and curriculum content vary considerably across educational levels and regions. Entrepreneurship education provides a platform for young people to transform opportunities into viable business ventures and manage them effectively, thereby creating employment opportunities for themselves and others.

According to Enu (2024), the ultimate goal of entrepreneurship education is to enhance students' ability to anticipate and respond to societal changes while developing creativity, initiative, responsibility, and risk-management skills, enabling them to contribute meaningfully to personal development and broader societal advancement.

Over the past few decades, entrepreneurship education has experienced remarkable transformation, evolving from traditional classroom-based instruction to dynamic digital learning environments (Nabi 2017). The rapid advancement of digital technologies, further accelerated by the COVID-19 pandemic, has significantly reshaped the delivery and acquisition of entrepreneurial knowledge in higher education institutions worldwide (Liguori & Winkler, 2020). This transformation includes a wide range of technologies such as social networking platforms, mobile learning applications, learning management systems, and virtual simulation environments. Vial (2019) defines digital transformation as "a process that aims to improve an entity by triggering significant changes to its properties through combinations of information, computing, communication, and connectivity technologies." Within the educational sector, digital transformation represents a fundamental shift in how knowledge is created, shared, and applied in teaching and learning contexts. Beyond the adoption of digital tools, it involves the redesigning of pedagogical approaches, learning processes, and institutional practices to fully leverage digital capabilities.

In higher education, this transformation is evident in the increasing adoption of online and blended learning models, integration of social media and collaborative platforms, use of mobile learning technologies, and the emergence of data-driven personalized learning strategies (Bond et al., 2018). These developments have expanded opportunities to enhance student engagement, improve access to education, support flexible learning pathways, and accommodate diverse learning preferences.

As a result, digital transformation has become a key driver of innovation in entrepreneurship education, enabling institutions to better prepare students for the demands of an increasingly digital and entrepreneurial world. (Kudelić et al., 2025) In addition, digital transformation is widely viewed as a broader organizational process driven by the adoption of digital technologies. Recent studies show that digital technologies have reshaped entrepreneurial and small business activities, including market sensing, customer engagement, innovation, and operational adaptation (Breidbach et al., 2018; Kudelić et al., 2025; Šmaguc & Kudelić, 2024). Digital transformation is therefore an emerging paradigm that introduces strategic, customer-centered changes in organizational infrastructure and processes through the effective use of information and communication technologies (Pihir et al., 2018).

In the context of entrepreneurship education, digital transformation refers to the integration of digital technologies into all aspects of teaching and learning, fundamentally changing how educational content is delivered, how learning experiences are designed, and how value is created for students. Furthermore, digital tools have been shown to promote sustainable innovation (Noer et al., 2025) and enhance learners' creative performance (Citraresmi et al., 2025). The integration of digital media into entrepreneurship education therefore goes beyond technological adoption; it represents a shift toward student-centered,

experiential, and collaborative learning approaches (Ratten, 2020). Moreover, entrepreneurship itself has become increasingly digital, with digital marketing, e-commerce platforms, and technology-driven business models forming essential components of modern entrepreneurial practice.

Consequently, entrepreneurship education must embrace digital transformation to equip learners with the competencies required to thrive in a rapidly evolving digital economy.

In recent times, various societies have faced diverse threats ranging from insecurity, unrest, and hardship to economic fluctuations. Nevertheless, entrepreneurial empowerment remains a promising approach to addressing these uncertainties. (Bakas 2017) Although entrepreneurship programmes hold significant potential, their implementation and integration into broader societal development strategies that could foster resilience remain constrained. Many society still lack a structured approach to building resilience. Addressing these challenges requires a deeper understanding of the role of entrepreneurial education in strengthening societal resilience. Societal resilience therefore is increasingly important as urbanization and globalization intensify the range of threats societies encounter (United Nations Office for Disaster Risk Reduction [UNDRR], 2015). The primary objective of societal resilience is the ability to withstand shocks and recover quickly when disruptive events occur. Strengthening societal resilience involves enhancing the capacity to adapt to sudden changes, withstand disruptions, and recover efficiently.

Essentially, societal resilience refers to the ability of a society to respond, adapt, and recover rapidly from adverse events. It reflects the readiness and collective capacity of a society to maintain its essential functions, structures, and identity while adapting to disruptions such as natural disasters and socio-economic shocks. Bakas (2017) affirms that societal resilience entails the ability of societies to adapt to challenges and recover quickly from adversity, while Norris et al. (2018) conceptualize resilience as a set of adaptive capacities including economic development, social capital, and effective information flow.The level of creativity, skills, and knowledge developed through entrepreneurial empowerment significantly influences long-term resilience. Nguyen and Smith (2024) argue that entrepreneurship education contributes to societal resilience by creating economic opportunities, fostering social networks, and providing a supportive environment for entrepreneurial activity and economic growth. Similarly, the OECD (2019) highlights that entrepreneurship education strengthens innovation capacity and employability, both of which are essential for adaptive and resilient societies.

Despite the increasing adoption of digital technologies in entrepreneurship education, there remains a significant gap in understanding their specific impact on learning outcomes, student participation, and entrepreneurial intentions (Liguori & Winkler, 2020). Existing studies have examined isolated aspects of digital learning in entrepreneurship contexts; however, there is still no comprehensive synthesis that provides clear, evidence-based guidance for educators and policymakers on effective technology integration (Ratten, 2020).

In Nigeria, despite the increasing importance of digital literacy and entrepreneurship in the modern economy, current curricula remain heavily focused on traditional domestic skills. This narrow orientation has created a significant gap in integrating digital competencies and entrepreneurial skills required for today's workforce. Educators also face challenges in adapting to rapid technological changes due to inadequate training, limited access to modern instructional resources, and insufficient institutional support (Nabi, 2017).

Consequently, the existing curriculum does not adequately prepare students for a digitalized and entrepreneurial environment, thereby limiting their capacity for innovation and economic empowerment. Addressing these gaps is essential to transforming entrepreneurship education into a dynamic discipline that fosters both digital and entrepreneurial competencies, ensuring that learners in Nigeria are equipped to meet the demands of the 21st century and contribute effectively to a rapidly evolving global economy.

It is against this background that the present study sought to examine issues on Digital Transformation in Entrepreneurship Education for Societal Resilience in Imo State.

Objectives of the Study

The main objective of this study is to examine Digital Transformation in Entrepreneurship Education for Societal Resilience in Imo State. Specifically, the study sought to:

1. Assess the contributions of digitally transformed entrepreneurship education to societal resilience in Imo State.
2. Identify the challenges hindering the integration of digital technologies into entrepreneurship education for enhancing societal resilience in tertiary institutions in Imo State.

Research question

The following research questions guided the study

1. What are the contributions of digitally transformed entrepreneurship education to societal resilience in Imo State?
2. What challenges hinder the integration of digital technologies into entrepreneurship education for enhancing societal resilience in tertiary institutions in Imo State?

Methodology

The study adopted a descriptive survey research design to examine *Digital Transformation in Entrepreneurship Education for Societal Resilience in Imo State*. According to Idaka and Anagbogu (2018), this design is appropriate for studying variables whose conditions or effects have already occurred without manipulation. The study was conducted in Imo State. The choice of the area was informed by the fact that Imo State is widely regarded as an educational hub in South-East Nigeria, The population for the study consisted of **120** beneficiaries of Skillup Imo programmes. Due to the relatively small and manageable size of the population, the entire population was used as the sample (census sampling technique). Data were collected using a structured questionnaire titled **"**Digital Transformation in Entrepreneurship Education for Societal Resilience in Imo State Questionnaire" (DTEEST). The instrument was validated by two experts in the field of education and research methodology to ensure its relevance, clarity, and appropriateness in measuring the intended variables.

The reliability of the instrument was established using the test–retest method, which yielded a reliability coefficient of **0.86**, indicating a high level of consistency. The questionnaire was administered personally by the researcher with the assistance of two briefed research assistants through direct contact with respondents to ensure proper distribution and completion. All 120 copies of the questionnaire were retrieved immediately after completion, resulting in a 100% return rate. The data collection process lasted for one week. The data obtained were coded and analyzed using mean and standard deviation to address the research questions. The mean was used to determine the level of agreement of respondents with each item, while the standard deviation was used to measure the extent of variability in their responses, and the decision rule of 2.5 was used to determine the if it was accepted or rejected.

Research Question 1 What are the contributions of digitally transformed entrepreneurship education to societal resilience in Imo State?

Table 1: Mean of respondents responses on contribution of digitally transformed entrepreneurship education to societal resilience in Imo Stat

S/N	Items	Mean ($\bar{x}$)	SD	Remark
1	Improves response to economic challenges like unemployment and inflation.	3.19	0.64	Agreed

2	Increases access to entrepreneurship knowledge across locations.	2.75	0.55	Agreed
3	Strengthens adaptability to changing economic conditions.	2.42	0.56	Disagreed
4	Helps reduce youth unemployment	2.65	0.54	Agreed
5	Supports continuous learning during crises and disruptions.	2.23	0.55	Disagreed
6	Improves networking and collaboration among entrepreneurs.	3.23	0.43	Agreed
7	Builds confidence in starting and managing businesses.	3.45	0.45	Agreed
8	Promotes innovation among learners	2.67	0.24	Agreed
9	Enhances ability to create self-employment opportunities.	2.73	0.36	Agreed
10	Builds relevant digital skills for modern business survival.	2.65	0.38	Agreed
Grand Mean	**Overall Assessment**	**2.80**	**0.47**	**Agreed**

Grand Mean = 2.8

Table 1 show that respondents generally agreed that digitally transformed entrepreneurship education contributes to societal resilience in Imo State, as indicated by a grand mean of 2.80. They particularly agreed that it improves responses to economic challenges SD = 0.56, enhances access to entrepreneurship knowledge SD = 0.54, reduces youth unemployment SD = 0.55, promotes innovation SD = 0.43, strengthens networking SD = 0.45, builds confidence SD = 0.24, supports self-employment SD = 0.36, and develops digital skills SD = 0.38.

However, they disagreed that it strengthens adaptability to economic changes and supports continuous learning during crises. Overall, the findings indicate a positive but moderate contribution to societal resilience, with some limitations in adaptability and crisis learning

Research Question 2 What challenges hinder the integration of digital technologies into entrepreneurship education for enhancing societal resilience in tertiary institutions in Imo State?

Table 2: Mean of respondents on challenges that hinder the integration of digital technologies into entrepreneurship education for enhancing societal resilience in tertiary institutions in Imo State?

S/N	Items	Mean ($\bar{x}$)	SD	Remark
1	Lack of adequate digital infrastructure (e.g., internet, computers).	3.29	0.54	Agreed
2	Insufficient funding for digital entrepreneurship education.	2.25	0.67	Disagreed
3	Poor electricity supply affecting digital learning activities.	2.32	0.42	Disagreed
4	Limited digital skills among lecturers and students	2.86	0.53	Agreed
5	High cost of acquiring and maintaining digital technologies.	2.57	0.64	Agreed
6	Poor institutional support for digital entrepreneurship programs.	2.63	0.47	Agreed
7	Lack of updated digital learning content for entrepreneurship	2.17	0.78	Disagreed
8	Limited access to reliable internet connectivity on campus.	3.42	0.56	Agreed
9	Weak government policy implementation on digital education.	3.56	0.68	Agreed

10	Resistance to change from traditional to digital teaching methods.	2.23	0.56	Disagreed
Grand Mean	**Overall Assessment**	**2.73**	**0.59**	**Agreed**

Grand Mean = 2.73

The table indicates that respondents agreed that several challenges hinder the integration of digital technologies into entrepreneurship education in tertiary institutions in Imo State, with a grand mean of 2.73. The major challenges identified include weak government policy implementation SD = 0.54, limited access to reliable internet connectivity SD = 0.67, lack of adequate digital infrastructure SD = 0.42, limited digital skills among lecturers and students SD = 0.42, high cost of acquiring digital technologies SD = 0.53, and poor institutional support SD = 0.64.

However, respondents disagreed that insufficient funding SD = 0.47, poor electricity supply SD = 0.78, lack of updated digital learning content SD = 0.56, and resistance to change are major constraints SD = 0.68. Overall, the findings show that infrastructural and policy-related issues are the most significant barriers to effective integration of digital technologies in entrepreneurship education for enhancing societal resilience.

Discussion of the Findings

The findings revealed that digitally transformed entrepreneurship education contributes positively to societal resilience in Imo State, as indicated by the grand mean score of 2.80. Respondents agreed that it improves responses to economic challenges such as unemployment and inflation, increases access to entrepreneurship knowledge, promotes innovation, strengthens networking and collaboration, builds confidence in business creation, enhances self-employment opportunities, and develops relevant digital skills for modern business survival. These findings corroborate the assertion of Kudelić et al. (2025) that digital transformation has become a key driver of innovation in entrepreneurship education, enabling educational institutions to better prepare learners for the demands of a rapidly evolving digital economy. The findings also support Noer et al. (2025), who reported that digital technologies promote sustainable innovation by equipping learners with the skills and competencies required to identify and exploit entrepreneurial opportunities.

Similarly, the result is consistent with the study of Citraresmi et al. (2025), which found that digital tools enhance learners' creativity and innovative performance, thereby improving their capacity to contribute to economic and social development. Furthermore, the findings align with Ratten (2020), who argued that the integration of digital technologies into entrepreneurship education extends beyond the mere use of technological tools and fosters student-centered, experiential, and collaborative learning experiences that strengthen entrepreneurial capabilities and resilience. The findings revealed that major challenges hindering the integration of digital technologies into entrepreneurship education include weak government policy implementation, limited access to reliable internet connectivity, inadequate digital infrastructure, limited digital skills among lecturers and students, the high cost of acquiring and maintaining digital technologies, and poor institutional support.

This is evidenced by the grand mean score of 2.73. The findings are consistent with those of Liguori and Winkler (2020), who observed that despite the growing adoption of digital technologies in entrepreneurship education, significant gaps remain in understanding and effectively implementing technology-enhanced learning. Their study highlighted the need for stronger institutional frameworks and support systems to maximize the benefits of digital transformation in entrepreneurship education. The findings also support Ratten (2020), who noted that the effective integration of digital technologies requires strategic planning, adequate infrastructure, and supportive educational policies to ensure meaningful learning outcomes. Furthermore, the findings agree with Nabi (2017), who identified inadequate training, limited access to modern instructional resources, and insufficient institutional

support as major barriers preventing educators from adapting effectively to rapid technological changes.

Conclusion

The study concludes that digitally transformed entrepreneurship education plays a positive but moderate role in enhancing societal resilience in Imo State. It contributes significantly to improving entrepreneurial knowledge, innovation, networking, confidence, and self-employment among learners. However, its effectiveness is limited in areas such as adaptability to economic changes and continuous learning during crises.

Furthermore, the integration of digital technologies into entrepreneurship education is constrained mainly by infrastructural deficiencies, weak policy implementation, inadequate digital skills, and poor institutional support. These challenges hinder the full realization of the potential of digital entrepreneurship education in strengthening societal resilience.

Recommendations

Based on the findings, the following recommendations were made:

1. Government and relevant education authorities should improve digital infrastructure in tertiary institutions by providing stable internet connectivity, functional ICT facilities, and other essential digital learning resources to support effective entrepreneurship education.
2. Tertiary institutions should organize regular training and capacity-building programmes for lecturers and students to enhance their digital skills and improve the effective integration of digital technologies into entrepreneurship education.
3. Institutional management should strengthen support for entrepreneurship education by providing adequate funding, promoting the use of modern digital learning tools, and fostering partnerships with

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