Entrepreneurship Education in Selected Tertiary Schools in Nigeria: A Post-Pandemic Experience

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ABSTRACT

This study examines the way entrepreneurship education has been revolutionized in Nigeria as a result of the disruptions caused by the COVID-19 pandemic. The genesis of this study stems from the need to understand the evolving pedagogical paradigm and to evaluate how tertiary education institutions are coping with preparing students for the realities of a post-pandemic entrepreneurial landscape. This work explains how lecturers teaching entrepreneurship shifted to new learning and teaching strategies in a post-pandemic world, and its future effect on entrepreneurship teaching in Nigeria. This work adopts a qualitative strategy, using semi-structured interviews of 12 lecturers teaching entrepreneurship from different universities and polytechnics in Nigeria. The study takes up four main areas of focus: A shift to online and blended learning modes; Embracing new pedagogies and learning technologies; Cooperation with external stakeholders and ecosystems; and Growing entrepreneurial dispositions and capacities amongst the students. In the post-pandemic context, educators are at an advantage from higher digital connectivity and student-centered learning but are disadvantaged by poor infrastructure and low digital literacy. The study presents strategic recommendations for promoting delivery, sustainability, and innovation in Nigeria's education sector for entrepreneurship.

Keywords: Entrepreneurship education; Teaching mode; Education; Covid-19; Sustainability

INTRODUCTION

Teaching entrepreneurship has been the key in universities and colleges to develop innovative and entrepreneurial minds among students. There has been the development of different courses, projects and programs on entrepreneurship (Edokpolor & Somorin, 2017). Entrepreneurship has been considered in terms of job creation, wealth, economic growth, and competitiveness that enable society to progress. Morris and Neumeyer (2020) reported that entrepreneurship can be used as a solution to economic distress in the world.

As the most populous and economically significant country in Africa, Nigeria is a nation with tremendous potential for entrepreneurship growth. In a study by Akinyemi and Adejumo (2018), Nigeria was ranked second in Africa in terms of overall early-stage entrepreneurial activity. The study reported that, by the year 2023, 30% of adults would have been founders or managers of a new business. However, Nigeria is confronted with several challenges that hinder entrepreneurship development, including corruption, poor infrastructure, few institutional resources, and insecurity.

However, the COVID-19 Pandemic had a major impact on business in Nigeria with various challenges and opportunities in all sectors of business, including the education sector (Obododike & Okekeokosisi, 2020). The majority of businesses experienced low activity and loss of employment during the pandemic (Uwajumogu *et al.*, 2022), although some sectors such as online markets and e-commerce saw a boost. An education in entrepreneurship is vital in equipping future entrepreneurs with skills and knowledge necessary to tackle post-pandemic society's challenges and opportunities. Interestingly, the pandemic altered the character of entrepreneurial education, forcing educators and lecturers to change their approach in the classroom (Knaut *et al.*, 2024). For this reason, it is crucial to know how Nigerian educators and lecturers of entrepreneurship rose to the challenge of the pandemic and what this implies for the future of the field.

Entrepreneurship education is distinct in that it trains students with hands-on, creative, and opportunity-locating dispositions needed in coping with constantly changing economies, especially in post-crisis environments. Compared to general education, it is concerned with self-employment, job creation, and economic transformation, which are essential for Nigeria's post-crisis growth and development.

Earlier studies on entrepreneurship learning have paid significant attention to curriculum design, student outcomes, and policy environments, largely before the COVID-19 pandemic. Sadly, little research has been conducted on the long-term effects of the pandemic on entrepreneurship educators in Nigeria. This study fills the gap by focusing on the Nigerian educators' lived experiences and improvisation since the COVID-19 pandemic. This review is crucial in guiding future pedagogical practice and policy intervention in entrepreneurial teaching.

This research, therefore, aims to investigate the experiences and perspectives of Nigerian entrepreneurship lecturers on entrepreneurship teaching and learning in a post-pandemic situation.

The research questions addressed in this paper are as follows:

a. How Nigerian teachers of entrepreneurship have adjusted to new conditions of teaching and learning since the pandemic?

b. In a post-pandemic scenario, what are the advantages and disadvantages of learning and teaching entrepreneurship?

c. What are the implications and suggestions for the future of entrepreneurial education in Nigeria?

This paper is organized as follows: Section 2 examines the literature on entrepreneurship education and the effects of the pandemic, both worldwide and within Nigeria. The research method, as well as the procedures for data gathering and data analysis, is presented in Section 3. Data analyses, which are framed around four major themes are presented in Section 4. The conclusion of the paper is discussed in Section 5 and offers suggestions for improving the relevance and quality of entrepreneurship education in Nigeria.

LITERATURE REVIEW
Entrepreneurship Education

Tittel and Terzidis (2020) defined entrepreneurship education as the process of empowering people with the ability to recognize commercial opportunities and the intelligence, confidence, knowledge and skills to act on them. The primary purpose of entrepreneurship education is to develop

in students' entrepreneurial skills through a variety of learning activities, e.g., courses, seminars, workshops, competitions, incubators, and mentorship (Bauman & Lucy, 2021). Entrepreneurship education can be incorporated at all educational levels, i.e., elementary, post-secondary, and in most subjects such as business, engineering, arts, and sciences (Dorji, 2021).

There are several purposes and objectives of entrepreneurship education, varying with context, target audience, and pedagogy. Fayolle (2018) identifies three objectives of entrepreneurship education: developing awareness and motivation towards entrepreneurship; developing entrepreneurial competences and skills; and supporting new business creation and development. Therefore, education in entrepreneurship can yield three principal consequences: intentions and attitudes towards entrepreneurship; entrepreneurship-related behaviors and activities; and entrepreneurship-related performance and influence.

Education in entrepreneurship is influenced by several factors, including methodology, curriculum, assessment, setting, and quality of students and teachers (Hermann & Bossle, 2020). The cumulative effect of these factors establishes the effectiveness and outcome of the learning process. Of these, the mode of delivery is typically one of the most significant elements. This is because entrepreneurship education is not merely knowledge transfer but also how to change behavior, attitude, and problem-solving capability in uncertain real-world conditions. Bruniges (2019) showed that the art of teaching with science involves the procedures, methods, plans, and resources used to advance effective learning experiences.

Unlike general education, which is often based on established theory-driven models, entrepreneurship education requires a more adaptive and experiential approach. The traditional business school approach - primarily lectures, case studies, and examinations is insufficient to develop entrepreneurial skills (Ahmad et al., 2018). Entrepreneurship education needs to be more interactive, engaging, and student-centered because the field is too dynamic, shifting, and uncertain for purely theoretical constructs to fully capture (Kraus et al., 2021). Additionally, education in entrepreneurship demands a holistic, transformative, and reflexive pedagogy because it fosters both personal and professional development that entails creativity, critical thinking, and greater self-knowledge.

The entrepreneurship pedagogy can be categorized into different dimensions that include the extent of the involvement of the students, learning outcomes, reality of the learning environment, and mode of delivery of instruction. Under student involvement, pedagogic practice is categorized into passive, active, and interactive pedagogy. Passive pedagogy is where the lecturer transfers knowledge to students through traditional forms such as lectures, readings, and quizzes. Active pedagogy encompasses the enactment and application of acquired knowledge using tools like case studies, simulation, and learning games. Interactive pedagogy, however, emphasizes student-initiated discovery and development of knowledge through experience-oriented projects, business entrepreneurship, and experimentation (Fayolle, 2018).

Based on the nature of learning outcomes, the pedagogy of entrepreneurship education can also be distinguished as cognitive, behavioral, or affective. Cognitive pedagogy deals with the development of conceptual and analytical abilities, e.g., identification of opportunities, feasibility assessment, and business planning. Behavioral pedagogy deals with the development of operational and functional abilities, i.e., marketing, finance, and managerial techniques. Affective pedagogy deals with developing motivational and emotional abilities, e.g., self-efficacy, resilience, and risk attitude (Fayolle, 2018).

Another categorization considers the authenticity level in the learning environment. Artificial pedagogy utilizes hypothetical or virtual scenarios, like case studies and game situations. Semi-artificial pedagogy is the application of interaction with changed or half-way-real settings, like formal projects or classroom-based endeavors. Natural pedagogy places students under entirely real and authentic situations through internships, mentoring, and business incubation (Nabi et al., 2017).

Finally, the delivery mode of entrepreneurship education can be categorized as face-to-face, online, and blended pedagogies. Face-to-face pedagogy makes use of physical contact via lectures, workshops, and seminars. Online pedagogy makes use of virtual channels such as webinars, podcasts, and digital platforms to facilitate learning. Blended pedagogy makes use of a combination of in-person and online and can

utilize approaches such as flipped classroom, hybrid learning environment, and massive open online courses (MOOCs) (Kakouris & Liargovas, 2021).

Effects of the Pandemic on Entrepreneurship Education

The COVID-19 pandemic, which erupted globally in 2020, greatly affected entrepreneurship teaching worldwide and in Nigeria. The disruption of normal academic activities led to the closure of activities in tertiary institutions, suspension of educational activities, and a dramatic transition to online and blended learning and teaching (UNESCO, 2020). These developments radically transformed the education industry, compelling lecturers and learning institutions to adopt online platforms and redefine pedagogies for teaching. In addition, the pandemic impacted the demand as well as supply for entrepreneurship education. Educators were compelled to deliver experiential and immersive education in virtual environments, while learners had to acquire knowledge in novel learning modalities under the midst of socio-economic volatility. These circumstances not only disrupted conventional practices of teaching but also realigned expectations around entrepreneurship training in the post-pandemic context (OECD, 2020).

The pandemic also posed a number of challenges to entrepreneurship education globally, which included:

a. Lack of preparedness of instructors and students to utilize online study materials, particularly in developing countries where there is poor access to electricity, technology, and internet connectivity (Bhaumik *et al.*, 2020).
b. The suspension of field trips (to avoid a congested environment) which are indispensable for entrepreneurial activities.
c. The challenge in assessing and analyzing the effects of entrepreneurship education and the objectives it aims to address on behavioral outcomes, i.e. entrepreneurial intentions, attitudes, and actions, that are often quantified using surveys, interviews, and observation (Fayolle and Gailly, 2008).
d. The inability of the existing curricula, pedagogy, and content of entrepreneurship education due to the shift in the entrepreneurial environment and ecosystem, which was affected by the pandemic (OECD, 2020).

The pandemic, nonetheless, also created several ways of improving entrepreneurship education, for example:

a. An abrupt change from the conventional way of learning and teaching to digital or online learning.
b. The pandemic brought to the fore innovative solutions such as the use of computer models and software to reproduce or simulate some aspects of the physical world through the use of artificial intelligence (Ratten, 2020).
c. The pandemic offered a supportive opportunity for innovative learning styles, including iterative and collaborative processes with the help of digital platforms, skills and techniques (Schön *et al.*, 2022).
d. Entrepreneurship education has proven to be adaptable and cultivating ways of sustaining the quality of entrepreneurship education and promoting more student enrollment.

For Nigeria, the COVID-19 pandemic had unique impacts and implications on entrepreneurial education. According to Okeke *et al.* (2020), the pandemic exposed the weakness and loopholes of Nigeria's system of entrepreneurship education, including the lack of interest from the government towards inadequate support and funding for entrepreneurship education programs, and insufficient provision of trained entrepreneurship instructors or teachers. Besides, institutions of education do not have adequate resources facilities, and infrastructure, which creates a poor rapport with entrepreneurial learning environments.

Conversely, the pandemic has motivated Nigerian entrepreneurs and entrepreneurship educators to improve their ideas, strategies, and methods in businesses. According to Brahmankar *et al.* (2022), due to the pandemic, entrepreneurship educators adapted to achieve the desired alignment within the entrepreneurial ecosystem, using various online modes of learning in introducing new curricula and pedagogical strategies with external partners and ecosystems and recognizing the significance of entrepreneurship education, in responding to post-pandemic challenges and obstacles (Okeke *et al.*, 2020). Entrepreneurship education is crucial in preparing prospective entrepreneurs with competencies and abilities in dealing with post-pandemic society's challenges and opportunities.

Notably, the pandemic transformed the extent of entrepreneurial education such that lecturers and tutors were compelled to adopt a new mode of classroom learning which will enhance entrepreneurship education in a post-pandemic world (Knaut *et al.*, 2024). Consequently, it is imperative to understand how Nigerian entrepreneurship tutors and lecturers have adapted to the pandemic and what the future holds for the discipline. In this manner, the pandemic introduced opportunities and challenges to the research of entrepreneurship teaching in Nigeria. This calls for critical evaluation and examination of the Nigerian educational system on entrepreneurship and concerted effort and action by experienced entrepreneurs. By a reflection on the opinions and experiences of entrepreneurship educators concerning teaching and learning entrepreneurship in a post-pandemic context, this research aims to build on these efforts.

Recent studies have discovered the growing importance of entrepreneurial education in higher education institutions, particularly in the post-COVID-19 pandemic era (Kawamorita *et al.*, 2022). Despite this, student misbehavior and the integration of technology to facilitate student engagement are still challenges. Efforts to make entrepreneurship curricula more effective and efficient have been plagued by significant impediments, including a lack of awareness of teaching challenges and ineffective use of instruction strategies (Abidi *et al.*, 2021). Prior to the pandemic crisis, entrepreneurship education practices were of less effectiveness in equipping students with the entrepreneurial knowledge needed for entrepreneurial success. Hood (2017) cited that experiential learning with real-world tasks and active engagement of the learners are more effective for entrepreneurial capacity building. These findings call for more experiential and practical means of learning entrepreneurship, which can revive students' entrepreneurial passion as well as enhance their business start-up potential ultimately transforming Nigeria's economic landscape.

METHODOLOGY
Data Collection
This study employs a qualitative technique by using semi-structured interviews.

Twelve entrepreneurship instructors were purposively selected from six Nigerian universities and four polytechnics. The twelve participants were chosen to achieve equilibrium between heterogeneity of opinions and the need for richness in qualitative data. The participants were chosen to attain heterogeneity of institutional environments within Nigeria's higher education sector. The common characteristics of the participants were being actively involved in the pedagogy of entrepreneurship subjects, having experiences with the COVID-19 pandemic and post-pandemic contexts, and being academically and practically equipped in entrepreneurship. Some teachers also had direct entrepreneurial experience, either by operating businesses or through involvement with start-up ventures, which contributed to the depth of information shared during the interviews. Participants were also selected based on the fact that they had taught entrepreneurship-related courses in the last three years; had taught before and since the time of the COVID-19 pandemic; provided their informed consent to participate in the study; and were willing to participate in telephone or video conferencing interviews (at the participant's preference). Interviews were 30 to 60 minutes in length and were taped upon participant consent, for transcription and later analysis. The semi-structured interview schedule was designed to elicit responses on various thematic areas. These were:

a) the personal and teaching backgrounds of the participants;
b) the impacts of the pandemic on entrepreneurship education programmes or courses;
c) the challenges and opportunities of teaching and learning entrepreneurship in the post-pandemic world; and
d) implications and recommendations for the future of entrepreneurship education in Nigeria.

In order to ensure clarity and relevance, the interview guide was pilot-tested on two respondents who fitted the categories and were not included in the final sample. Pilot-test feedback informed modifications that enhanced the clarity, validity, and applicability of the guide to the study's aims.

Data Analysis
Thematic analysis was used to uncover, examine, and summarize patterns or themes in the data (Braun and Clarke, 2006). This research

methodology facilitated systematic sense-making of qualitative participant feedback. The thematic analysis was utilized in six clearly defined stages:

i. Familiarization with data involved reading interview transcripts multiple times in silence and aloud and making initial observations and notes.

ii. Development of initial codes involved tagging important pieces of data and assigning brief labels for the purpose of describing what they contained.

iii. Searching for themes involved coding the generated codes into broader potential themes and sub-themes according to patterns that responded to the research objectives.

iv. Determining the consistency of each theme and with which coded data and research questions corresponded.

v. Labelling and naming of themes to attain clarity and fit to the research intention.

NVivo computer software was used to assist in the management and organization of the qualitative data in order to facilitate a systematic and efficient coding process. Credibility of the data analysis was ensured by adhering to the criteria of trustworthiness, including credibility, transferability, dependability, and confirmability (Lincoln and Guba, 1985).

In order to ensure validity and trustworthiness of the analysis, the following approaches were employed:

a) Peer debriefing, in which there was a conversation on the process of research and outcomes with fellow researchers to ensure analytical rigor.

b) Reflexivity, in which likely prejudices and assumptions by the researcher at the analysis stage were recognized and countered.

c) Triangulation, through comparison of data by participant, institution, and program type to confirm patterns emerging.

d) Member checking, where volunteers were asked to review and confirm the early interpretations of the results to ensure that the analysis was a true representation of their experiences and views.

FINDINGS

The following section contains the outcome of the thematic analysis, presented in accordance with the study's central research questions.

Four major themes were established: the shift towards online and blended learning contexts; the adoption of new pedagogical approaches appropriate to entrepreneurship education; collaboration with external entrepreneurial stakeholders; and the enhancement of entrepreneurial mindset and skills in students. These findings reflect how Nigerian entrepreneurship educators have been evolving to pandemic teaching conditions, as well as specific opportunities and challenges of entrepreneurship instruction.

Adjustments to Teaching and Learning after the Pandemic

One of the biggest transitions was moving to virtual and hybrid learning spaces. Instructors reported that they utilized virtual spaces such as Zoom, Google Meet, and WhatsApp to continue offering entrepreneurship courses. Flexibility, increased access, and wider reach defined the transition. The transition allowed instructors to expose learners to global entrepreneurial practices such as digital marketing, social innovation, and green startups, all within virtual learning spaces.

For example, P1 (a university lecturer in Lagos) indicated:

"Online and blended learning environments have enabled us to continue scholarly endeavors despite the lockdown. They have also allowed us more access to more relevant learning resources such as webinars, podcasts, and online courses that focus on today's entrepreneurial trends."

Teachers (P2, P4, P6, P8, P10, and P12) also pointed out the way that virtual learning environments allowed students to build ties with entrepreneurial mentors and networks beyond their geographical area, boosting their visibility and interaction with real ventures.

Post-Pandemic Entrepreneurship Education: Benefits and Challenges Benefits

The participants mentioned some advantages of post-pandemic teaching methods for entrepreneurship education:

a. Access to diverse entrepreneurial content and flexibility. Students could access content and experts from anywhere, and thereby were exposed to the global entrepreneurship culture.

b. Greater collaboration. Online platforms made it possible to collaborate with students, mentors,

and incubators, making entrepreneurial communities in institutions real.

c. Inculcation of contemporary themes. Teachers integrated such themes as digital entrepreneurship, sustainable business models, and innovation strategies more effectively using online platforms.

As P6 (a lecturer in an Abuja - based polytechnic) noted

"The post-pandemic environment enabled us to introduce students to cutting-edge entrepreneurship topics such as digital transformation and sustainability, which are extremely important in today's marketplace."

Challenges

While the benefits were apparent, teachers also encountered a series of challenges that were entrepreneurship education-specific:

a) Lack of experiential learning experience: Virtual environments limited activities such as pitching sessions, field trips, business simulations, and start-up live engagement (P2, P4 and P6).

b) Limitations in technology: The majority of students were faced with constraints due to poor internet, fewer devices, and power outages (P1, P3, and P5).

c) Reduction in student interaction: Virtual fatigue, decreased motivation, and less classroom interaction reduced the entrepreneurial passion and participation of students (P7, P9, and P11).

d) Inability to measure entrepreneurial behavior: Teachers were not able to measure crucial entrepreneurial behaviors like risk-taking, resilience, and initiative in virtual settings.

Recommendations and Implications for the Future of Entrepreneurship Education in Nigeria

Teachers provided several suggestions for improving entrepreneurship education post-pandemic in Nigeria:

a) Hybrid experiential learning. Educational institutions need to combine online theoretical studies with offline practical training in the form of entrepreneurship boot camps, startup site visits, and market immersion programs.

b) Government-private sector collaboration. Encourage public-private collaborations with local businesses, incubators, and entrepreneurs

to bridge the gaps between curriculum taught in schools and real entrepreneurial practice.

c) Curriculum reform. Entrepreneurship education needs to be refreshed to tackle post-pandemic situations, with digital innovation, crisis entrepreneurship, and the cultivation of resilience.

d) Investment in infrastructure. There needs to be a state-of-the-art digital infrastructure and capacity development for entrepreneurship instructors to stay abreast of technology-enabled delivery.

Discussion

This research highlights how Nigerian entrepreneurship instructors dealt with COVID-19 caused educational disruptions alongside sustaining entrepreneurial mindset and capability development. While transitioning to digital platforms has opened access to greater resources and new global ideas, it has also left a gap in the experiential learning processes so vital to entrepreneurship growth.

The findings support existing literature which argues that entrepreneurship education must transcend the theoretical passing to include dynamic, reflective, and experiential learning (Fayolle, 2018; Hood, 2017). The pandemic acted as a catalyst that accelerated Nigerian institutions into rethinking traditional pedagogies and embracing blended models that capture entrepreneurial uncertainty and innovation. However, systemic challenges, particularly infrastructural deficits and poor policy support continue to constrain full realization of these changes. Therefore, future initiatives should aim at creating environments where entrepreneurship education is supported by both technology but also by institutional, community, and industry alignment.

Online and Blended Learning Challenges in Entrepreneurship Education

P3, a lecturer in entrepreneurship at a university in Kano, described for example:

"Particularly in the pandemic, I have found online and blended learning to be extremely difficult for myself and my students. These platforms have necessitated we have affordable, and stable access to electronics, the internet, and electricity, all of which are typically in short supply or unavailable in most of Nigeria. These restrictions

(technological and infrastructural limitations) have also made it increasingly harder for us to concentrate and participate in the learning process by introducing new impediments and diversions, such as cheating, fleeting attention span, and irregular attendance."

Also, P8, a polytechnic entrepreneurship lecturer in Port Harcourt, noted:

"The opportunities and potential for us to participate in experiential, in-person learning activities like field trips, internships, networking, and competitions were diminished. Additionally, these situations (described as remote and hybrid types) made it difficult to measure and evaluate the impact of entrepreneurship education and its learning outcomes, particularly affective and behaviorial outcomes such as entrepreneurial intention, attitude, and behavior."

These issues are immediately related to the research objective of exploring how entrepreneurship education has evolved after the pandemic in Nigeria. The evidence indicates that, as much as online delivery became imperative, it poses unique challenges to the experiential and behavior-oriented nature of entrepreneurship training with regard to the need for pedagogical adjustments precisely to this field.

Strategies for Overcoming Challenges in Entrepreneurship Education Delivery

Respondents also described strategic measures to enhance entrepreneurship education through online and blended learning:

a) Technology and infrastructure optimization were seen to be core: Online entrepreneurship education requires affordable, stable access to smartphones, data, power, and the internet (P1, P3, P5, P7, P9, and P11).

b) Experiential and interactive technologies such as gamification, virtual reality, artificial intelligence, and blockchain were prioritized as having vital importance to enable ongoing students' engagement. These technologies simulate real entrepreneurial situations, which promote critical thinking and creativity (P2, P4, P6, P8, P10, and P12)

c) Motivation of students should be fostered in virtual environments through feedback, reward structures, and community building: This strengthens learners' entrepreneurial identity and hardness (P1, P3, P5, P7, P9, and P11).

d) Redesign of the evaluation process was recommended to capture entrepreneurship-specific competencies: Teachers remained adamant about applying portfolios, journals, self-assessments, and presentations to evaluate affective and behavioral outcomes such as creativity, initiative, and hardness (P2, P4, P6, P8, P10, and P12).

For instance, P5, who teaches in Ibadan, stated:

"Our infrastructure and technologies, including cellphones, mobile internet, and solar panels, need to be optimized for online and blended learning. We have also worked hard to motivate our students by offering feedback and recognition, and creating a stronger sense of belonging."

Likewise, P10 from a polytechnic in Enugu remarked:

"We are using virtual reality, gamification, artificial intelligence, and blockchain to engage students in experiential learning. We have also developed new metrics for measuring the learning effect of entrepreneurship education, specifically on domains such as behavior and mindset."

Implications for Entrepreneurship Education in Nigeria

These findings imply that:

a) Nigerian entrepreneurship education curricula will require adopting and widening digital and blended learning technologies and offsetting their constraints. Failure to update infrastructure, access to experiential learning, student motivation, and evaluation will widen the gap between entrepreneurial curricula and post-pandemic entrepreneurial necessities.

b) Emerging technologies such as AI, VR, and blockchain must be purposively infused into education to develop the right competencies like creativity, innovation, and flexibility, required in post-pandemic entrepreneurial settings.

c) Entrepreneur stakeholder involvement (e.g., industry specialists, startup founders, alumni, and investors) is necessitated to supplement academic training with mentoring, exposure, and ecosystem support.

d) Cultivating entrepreneurial behaviors and skills such as self-efficacy, initiative, risk-taking, and resilience must remain a fundamental goal of entrepreneurship education, especially in the

face of the pandemic's revelation of economic self-reliance and innovation.

Wider Challenges Facing Entrepreneurship Education in Nigeria

This study also identifies structural and systemic impediments that continue to constrain entrepreneurship education:

a) Insufficient availability of initial capital and weak access to seed finance (Bhaumik *et al.*, 2020)

b) weak infrastructure and unstable economic environments, affecting the cost and availability of internet, electricity, and transport (Okeke *et al.*, 2020)

c) complex tax regulations and uncertain regulations, discouraging business formalization and growth (Okeke *et al.*, 2020)

d) Low levels of entrepreneurial awareness and weak business acumen, constraining students to detect and respond to entrepreneurial opportunities (Okeke *et al.*, 2020)

e) Poor preparation of business concepts, leading to low-quality entrepreneurial outcomes and high rates of venture mortality (Okeke *et al.*, 2020)

f) Weakened commitment and moral foundation, characterized by impatience, greed, and short-termism among young entrepreneurs (Okeke *et al.*, 2020)

Optimal Practices for Enhancing Entrepreneurship Education in Nigeria

According to the evidence, the following are recommended best practices:

a) Enhance accessibility, relevance, and engagement through strongly supported blended learning platforms for infrastructure, assessment, and motivation requirements.

b) Pursue innovative, interactive pedagogies (such as gamification and virtual simulation) that simulate real-life entrepreneurial settings and help build key competencies such as adaptability and resilience.

c) Engage actively external stakeholders - entrepreneurs, industry stakeholders, alumni, and investors to contribute mentorship, feedback, and entrepreneurial expertise that schools are not capable of.

d) Emphasize curriculum to build entrepreneurial attitudes and mindsets by giving students substantial opportunities to construct, lead, and

evaluate business ideas. The most valued attributes to be inculcated include creativity, initiative, risk-taking, problem-solving, and resilience.

Challenges Faced by Successful Entrepreneurship Education Programs

Issues posed herein were issues generated from conducting interviews with the twelve entrepreneurship instructors who participated in this study. These issues reflect the instructors' actual experiences of implementing and sustaining effective entrepreneurship education programs in Nigeria, particularly during the post-pandemic era.

a) Lack of Qualified and Flexible Teachers: A number of participants (e.g., P1, P4, and P9) stressed that it is challenging to secure and keep good entrepreneurship teachers. These teachers pointed out that the best teacher should balance theoretical knowledge with entrepreneurial expertise and flexibility in adjusting to evolving pedagogical requirements and ecosystem needs. As P4 from a university in Jos described: "Teaching entrepreneurship is not just a question of knowing the theory - you have to have some business experience yourself. Many of our lecturers do not, and even fewer are willing to keep up with new approaches or technologies."

b) Lack of Funding and Institutional Support: A frequent complaint among the interviewees (P2, P5, and P10) was the poor funding of entrepreneurship education. They cited minimal investments in curriculum development, teaching materials, entrepreneurial studios, and starting grants to students.
According to P5's perspective, found in Ibadan "Even when we have great ideas and innovative curriculum items in mind, the funds are not available to implement them. The students also are not given much support to try out their business ideas, so the effectiveness is limited."

c) Uncertain and Non-conducive Government Policy: The teachers (e.g., P3, P6, and P11) mentioned that inconsistent government policies especially tax, licensing, and intellectual property rights policies—are a great hindrance. They are often ambiguous, suppress officialisation of student enterprises, and dampen application of entrepreneurship principles acquired in class.
As P6 from a polytechnic in Abuja had to explain:

"Government policy is in a state of constant flux. It is hard to advise students to register their business or take care of taxation issues because the policies are never fixed."

d) Societal and Stakeholder Lack of Recognition: Interviewees (P7, P8, P12) mentioned how stakeholders primarily parents, employers, and even some university administrators do not treat entrepreneurship as a serious study or professional pursuit. This kind of thinking discourages students and compromises institutional commitment.

P8, a Port Harcourt teacher, said the following:
"Parents still want their children to be lawyers, doctors, or engineers. When the students say they want to be entrepreneurs, they discourage them. Even the employers don't think entrepreneurship is an option unless it is within a corporate setting."

These problems are not administrative alone, but they undermine the very foundation of entrepreneurship education as articulated in this research: fostering entrepreneurial mindset, enabling practical skill acquisition, and preparing students for dynamic demands of a post-pandemic entrepreneurial economy. Fixing these problems is therefore pivotal to enhancing the quality, value addition, and sustainability of entrepreneurship education in Nigeria.

POLICY RECOMMENDATIONS
This study considered how Nigerian entrepreneurship instructors have developed in the wake of the unfolding teaching and learning climate due to the COVID-19 pandemic. It specifically considered the prospects and challenges of online and mixed-mode learning modes, the deployment of novel pedagogical tools, external stakeholder engagement, and entrepreneurial mentality and skill development. The study also considered future prospects for Nigeria's entrepreneurship education.

Results revealed that while the shift toward digital and hybrid delivery has increased flexibility, availability, and access to modern content, it has also introduced many challenges. These include substandard infrastructure, lack of experiential learning, examination challenges, and difficulty in motivating students. Participants emphasized the need for student-centered, experiential methods and identified resource shortfalls, policy ambiguity, and low social valuing as broader structural limitations on effective entrepreneurship education.

Tackling Funding and Policy Issues
The challenges thus identified are not discrete technical problems, they point to systemic issues of the entrepreneurship education system. Policy solutions, therefore, must move beyond calls for additional funding. They should be connected with the structural, pedagogical, and strategic changes necessary to address the aims of the study: creating entrepreneurial mindsets, enabling experiential learning, and equipping students for real business involvement in post-pandemic society.

i. Cross-sectoral Partnerships and Collaborations: Establishing and maintaining partnerships across key stakeholders, government, private sector, academia, civil society, and international organizations, is able to fill the support and resource gaps revealed by the research. These collaborations can mobilize funds, and technological, human, and material resources to ensure entrepreneurship education in Nigeria remains vibrant.
For example, the Obafemi Awolowo University – Tony Elumelu Foundation partnership supports entrepreneurship among students via funding, mentorship, and curricular design. Similarly, the University of Lagos - Lagos State Employment Trust Fund partnership provides access to low-interest loans and enhances blended learning through technologies like blockchain and virtual reality. FATE Foundation–Bank of Industry partnership funds entrepreneurs and enables the integration of stakeholder networks like alumni, investors, and policy makers.
These collaborations, consistent with respondents' own findings (e.g., P2, P6, and P10), illustrate how strategic collaborations can resolve the challenges of resource inadequacy, experiential learning loss, and limited stakeholder engagement that are undermining entrepreneurship education today.

ii. National Entrepreneurship Education Policy: It was also emphasized by the findings the need for an integrated, unified national policy on entrepreneurship education, particularly for fragmented curriculum planning and not clearly

defined stakeholder roles. An explicit national strategy can:

a) Establish and delineate clear roles and responsibilities among groups of stakeholders.
b) Sets national standards of quality and measures of outcomes.
c) Directs curriculum reform across all levels and areas of education.
d) Institutionalizes frameworks such as student grants, teacher training, and incubation facilities.

Such an infrastructure policy would not only serve to overcome the short-term logistical barriers but systematically embed entrepreneurial consciousness and experience within Nigeria's education system. This is a sentiment shared by several teachers (e.g., P4, P8) who highlighted a lack of strategic direction as a continuing constraint.

CONCLUSION

Overall, Nigerian entrepreneurship education has been adaptable and resilient in coping with the disruptions caused by the pandemic. Educators have creatively employed new technologies, pedagogies, and partnerships but continue to be constrained by infrastructural, institutional, and policy limitations. These barriers call for synergistic, systemic interventions that take cognizance of the findings of this study and the broader purpose of developing a dynamic, inclusive, and innovation-driven entrepreneurial ecosystem for Nigeria.

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