

## Building Entrepreneurial Communities in Higher Education: Insights from Afe Babalola University as a Case Study

Adesina Oluwaseun Temitayo<sup>1\*</sup>, Nirmala Dorasamy<sup>1</sup>, Segun Ilugbusi<sup>2</sup>

<sup>1</sup>Department of Public Administration, Faculty of Management Sciences, Durban University of Technology, Greyville, Durban, South Africa, <sup>2</sup>Department of Business Administration, Faculty of College of Social and Management Sciences, Afe Babalola University, Aye, Ekiti, Nigeria. \*Corresponding Author's Email: suryantoadi503@gmail.com

### Abstract

Entrepreneurial communities within higher education play a pivotal role in fostering innovation, collaboration, and the development of future business leaders. Using Afe Babalola University (ABUAD) in Nigeria as a case study, this study explores the dynamics of creating and sustaining entrepreneurial communities in higher education institutions, with a focus on mentorship, peer networks, and collaboration. The research evaluates how ABUAD's entrepreneurship programme equips students with entrepreneurial skills while fostering a supportive ecosystem for student entrepreneurs. Through a mixed-method approach, combining a survey of 324 final-year students and interviews with eight faculty members, the study uncovers the critical role of mentorship and networking in motivating entrepreneurial ventures. Findings reveal that 96% of students participated in entrepreneurship courses. Despite successes, challenges such as limited funding and inadequate practical resources hinder entrepreneurial growth. The research highlights the importance of strengthening institutional support systems, emphasising the global relevance of entrepreneurial communities in enhancing student success and driving economic development. Insights from ABUAD serve as a model for other institutions aiming to cultivate thriving entrepreneurial ecosystems.

**Keywords:** Entrepreneurial Communities, Entrepreneurship Education, Mentorship, Networking, Student Entrepreneurs

### Introduction

Entrepreneurship is widely recognised as a pivotal force driving economic growth, job creation, and social innovation across the globe (1, 2). It catalyses transforming ideas into viable businesses, thereby generating employment opportunities, stimulating competition, and fostering technological advancements. In emerging economies like Nigeria, the role of entrepreneurship becomes even more critical, given the staggering youth unemployment rate exceeding 30% (3). High unemployment among young people not only exacerbates economic disparities but also fuels social challenges, making the promotion of entrepreneurial initiatives essential for both individual empowerment and national development. In this context, Higher Education Institutions (HEIs) emerge as key players in nurturing the next generation of entrepreneurs. HEIs are uniquely positioned to cultivate entrepreneurial mindsets, impart practical skills, and foster an environment

conducive to innovation and enterprise. By integrating entrepreneurship into their curricula, HEIs can equip students with the knowledge and tools necessary to identify opportunities, manage risks, and navigate the complexities of starting and sustaining a business. Moreover, HEIs facilitate the creation of strong entrepreneurial communities—networks of students, mentors, and industry professionals—that provide support, inspiration, and resources critical for entrepreneurial success. These communities foster collaboration, encourage the exchange of ideas, and promote shared knowledge, thereby creating a dynamic ecosystem where innovation can thrive (4, 5). Such ecosystems not only enhance the entrepreneurial capabilities of students but also contribute to broader economic resilience and sustainable development. Afe Babalola University (ABUAD), through its Entrepreneurship Programme (ABUEP), offers a compelling case study for understanding how HEIs can actively build and

This is an Open Access article distributed under the terms of the Creative Commons Attribution CC BY license (<http://creativecommons.org/licenses/by/4.0/>), which permits unrestricted reuse, distribution, and reproduction in any medium, provided the original work is properly cited.

(Received 12<sup>th</sup> March 2025; Accepted 18<sup>th</sup> June 2025; Published 20<sup>th</sup> July 2025)

sustain such entrepreneurial communities. By providing mentorship, peer networking, and hands-on experience, ABUEP integrates essential elements of entrepreneurial ecosystems that help students develop the skills and support networks needed to launch successful businesses (6). These initiatives, which connect students with industry experts and fellow entrepreneurs, are crucial in overcoming the practical challenges of starting a business, particularly in a country like Nigeria, where access to resources and capital is often limited.

Afe Babalola University (ABUAD) stands out as a notable case of entrepreneurial community development due to its holistic and institution-wide integration of entrepreneurship education. Unlike many universities that treat entrepreneurship as an isolated discipline, ABUAD embeds entrepreneurial thinking across diverse academic programmes, combining practical training, interdisciplinary learning, and leadership development. Key distinguishing features include its purpose-built infrastructure, such as innovation hubs and startup incubators, alongside structured mentorship, industry partnerships, and student-led entrepreneurship clubs. These elements collectively foster a dynamic ecosystem that supports innovation from idea to implementation. Moreover, ABUAD's proactive support for student ventures, emphasis on inclusivity, and alignment with national economic priorities elevate its model as exemplary in the context of African higher education.

This article examines the role of entrepreneurial communities within higher education, using ABUEP as a case study. It explores how mentorship, peer networks, and collaborative spaces within universities contribute to the creation of a thriving entrepreneurial ecosystem. By doing so, the article highlights the importance of such communities in preparing students to succeed as entrepreneurs, while also addressing the wider issue of youth unemployment in Nigeria. Building on the growing body of research on entrepreneurial ecosystems (7), this study aims to demonstrate the transformative potential of entrepreneurial communities in fostering sustainable economic growth and innovation through higher education.

## Theoretical Framework

This study is underpinned by two complementary theoretical perspectives: Etzkowitz's Triple Helix model and Ndofirepi's framework on entrepreneurship education in African contexts. Together, these theories provide a robust lens for understanding how entrepreneurial communities can be cultivated within higher education institutions, particularly in Africa. The Triple Helix model proposed highlights the interplay between university, industry, and government as a foundational driver of innovation and entrepreneurship. In this model, universities are not just centres of education and research, but active players in socio-economic development through partnerships with industry and state actors. Applied to the context of Afe Babalola University (ABUAD), this model helps explain how institutional policies, private sector engagement, and supportive government frameworks collectively shape an enabling entrepreneurial ecosystem. ABUAD's integration of industry collaborations, student innovation hubs, and policy-driven support mechanisms reflects the core principles of this model. Complementing this is emphasis on contextual entrepreneurship education in Africa, which advocates for curricula and pedagogical approaches that are locally relevant, opportunity-focused, and responsive to students' lived realities. This theoretical lens is especially pertinent for understanding ABUAD's efforts to nurture entrepreneurial mindsets through experiential learning, mentorship programs, and student-led ventures that resonate with African economic and social contexts.

The study on building entrepreneurial communities in higher education, using Afe Babalola University as a case study, aligns with Etzkowitz's Triple Helix model, which emphasises the dynamic interaction between universities, industry, and government in fostering innovation and entrepreneurship. ABUAD's approach reflects this model by integrating institutional support, private sector engagement, and policy backing to nurture entrepreneurial initiatives. Similarly, Ndofirepi's work on African entrepreneurship education highlights the importance of contextually relevant, opportunity-driven learning environments in developing entrepreneurial

mindsets among students. ABUAD's structured programmes and student-led initiatives resonate with this emphasis, illustrating how tailored educational strategies can cultivate entrepreneurial capacity within African universities.

By combining these perspectives, the study gains a nuanced understanding of how entrepreneurial communities emerge and thrive in higher education through structured institutional support, multi-stakeholder collaboration, and context-sensitive educational practices.

## Methodology

This study employed a pragmatic research paradigm and a mixed-methods sequential explanatory design to evaluate the impact of Afe Babalola University's (ABUAD) entrepreneurship programme on student success and skill acquisition. Quantitative data were gathered from a survey of 324 final-year students, representing a targeted sample from a population of 1,710 students, while qualitative insights were drawn from in-depth interviews with eight entrepreneurship lecturers, including two professors, three senior lecturers, and three junior lecturers. This integration of methods ensured a balanced analysis, combining statistical reliability with detailed experiential insights.

The quantitative phase utilised self-administered questionnaires to assess skill attainment, analysed using SPSS software for frequencies, means, and standard deviations. Complementing this, qualitative data from semi-structured interviews were thematically analysed using NVivo to identify key themes and subthemes, offering a richer understanding of the programme's outcomes. Triangulation was achieved by integrating both data sources, quantitative results provided measurable trends, while qualitative insights

offered deeper context. This approach ensured a more comprehensive and credible understanding of the university's entrepreneurial ecosystem. Findings demonstrated how ABUAD's initiatives foster entrepreneurship, with numerical data highlighting success rates and qualitative narratives providing context to the students' and lecturers' experiences. Ethical rigour was maintained through measures such as informed consent, voluntary participation, and confidentiality to ensure the reliability and validity of the findings.

## Results

### Demographic Profile of Participants

The demographic profile of participants reveals a predominantly mature and highly qualified group of educators, with 75% aged 40-59 years and 87.5% holding Ph.D. qualifications. A smaller representation of younger participants aged 20-39 years (25%) and those with M.Sc. degrees (12.5%) highlights a blend of experience and emerging perspectives. Most participants (62.5%) have been with the university for 1-5 years, while 37.5% possess 6-10 years of tenure, indicating a mix of newer and mid-career faculty. Gender representation skews heavily male (87.5%), reflecting broader trends in academia and entrepreneurship education, fields historically dominated by men. Academic ranks range from Assistant Lecturer to Professor, with 50% of participants at the Lecturer 1 level, offering diverse viewpoints shaped by varying roles and responsibilities. This demographic composition provides valuable context, showcasing a blend of traditional academic rigour, practical expertise, and varied tenure, all likely influencing the educators' perspectives on entrepreneurship education at ABUAD in Table 1.

**Table 1:** Demographic Profile of the Informant

Informants	Age range	Gender	Highest Qualifications	Number of years in the University	Position in the University
Participant 1	40-59 years	Male	Ph.D.	6-10 years	Professor
Participant 2	40-59 years	Male	Ph.D.	1-5 years	Associate Professor
Participant 3	20-39 years	Male	Ph.D.	1-5 years	Lecturer 1
Participant 4	40-59 years	Male	Ph.D.	6-10 years	Senior Lecturer
Participant 5	40-59 years	Male	Ph.D.	6-10 years	Senior Lecturer

Participant 6	40-59 years	Female	Ph.D.	6-10 years	Senior Lecturer
Participant 7	40-59 years	Male	M.Sc.	1-5 years	Assistant Lecturer
Participant 8	20-39 years	Female	MBA	1-5 years	Assistant Lecturer

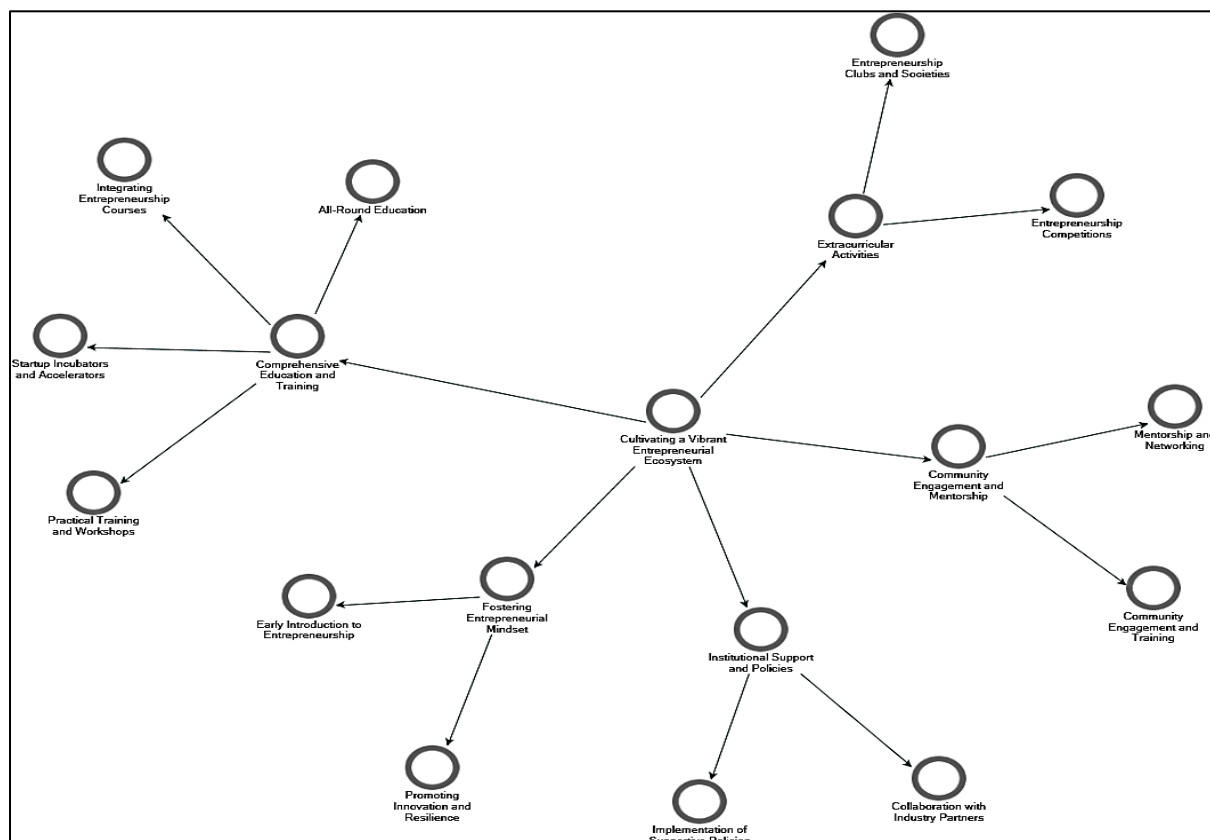
## Theme and subthemes

Table 2 presents the identified themes and subthemes, offering a comprehensive overview of how skills acquisition and entrepreneurship programmes contribute to building

entrepreneurial communities in higher education. This theme highlights these initiatives' perception, implementation, and impact on students' entrepreneurial development.

**Table 2:** Identified Themes and Subthemes

Themes	Subthemes
Cultivating a Vibrant Entrepreneurial Ecosystem.	<ul style="list-style-type: none"> <li>Comprehensive Education and Training.</li> <li>Fostering Entrepreneurial Mindset.</li> <li>Institutional Support and Policies.</li> <li>Community Engagement and Mentorship.</li> <li>Extracurricular Activities</li> </ul>



**Figure 1:** Visualization of the Theme

### Theme: Cultivating a Vibrant Entrepreneurial Ecosystem

Figure 1 shows how the institution cultivates a vibrant entrepreneurial ecosystem.

#### Subtheme 1: Comprehensive Education and Training

This subtheme examined the education and training at ABUAD that fosters entrepreneurship

within the institution. The following were the findings:

#### All-Round Education

Participants 1 and 8 highlighted ABUAD's commitment to a holistic educational experience that integrates academic, professional, leadership, and entrepreneurial training. This multifaceted approach prepares graduates for self-employment,

reducing dependency on traditional career paths. They emphasised that "AfeBabalolaUniversity, Ado-Ekiti (ABUAD) offers all-round education that includes academic, professional, leadership, and entrepreneurial training." This model aligns with scholarly perspectives advocating for a comprehensive framework in entrepreneurship education. Such frameworks emphasise the importance of curriculum design, skilled faculty, adequate resources, collaborative networks, and a supportive entrepreneurial culture (8, 9).

#### **Integrating Entrepreneurship Courses**

As a requirement, the NUC made it mandatory for universities to have a centre for entrepreneurship and to offer entrepreneurship courses (10). This position is corroborated by Participant 2 who highlighted the importance of integrating entrepreneurship courses into the university curriculum across various disciplines. This approach aims to provide students with essential business knowledge and skills, regardless of their primary field of study.

#### **Practical Training and Resources**

The participants emphasised the importance of ABUAD offering practical training and resources that support entrepreneurship. Participant 2 noted that the ABUAD Entrepreneurship programme "Offers practical training sessions, workshops, and seminars conducted by successful entrepreneurs, industry experts, and alumni," an approach that provides students with real-world insights and experiences, essential for their entrepreneurial development. Insights from successful entrepreneurs and industry experts help to bridge the gap between theory and practice, build relevant entrepreneurial skills, offer networking opportunities, and enhance students' confidence and risk-taking abilities (11).

#### **Startup Incubators and Accelerators**

The participants underscored the importance of establishing startup incubators and accelerators within university campuses to support student entrepreneurs. These facilities provide crucial resources, mentorship, funding, and networking opportunities that are essential for launching and scaling startups. Participant 2. particularly emphasised the importance of "Establishing startup incubators and accelerators within the university campus to support student entrepreneurs." The integration of incubators and

accelerators into entrepreneurship education is supported by literature, highlighting their positive impact on the success and growth of early-stage ventures. Incubators provide access to physical space, technical resources, and administrative support, which can significantly reduce the initial costs and barriers associated with starting a new business. Such expertise can help student entrepreneurs navigate challenges and avoid common pitfalls (12).

#### **Funding and Grants**

Participant 2 highlights the critical need for providing student entrepreneurs with access to funding opportunities, grants, and scholarships. This financial support can play a pivotal role in overcoming initial financial barriers and enabling students to launch and sustain their ventures. As he noted, "Provide access to funding opportunities, grants, and scholarships specifically for student entrepreneurs." (Participant 2). Financial constraints are often a significant barrier for aspiring student entrepreneurs. Access to funding opportunities, grants, and scholarships can alleviate these barriers, allowing students to focus on developing their business ideas without the immediate pressure of financial instability (13). This support is essential for covering startup costs, such as product development, marketing, and operational expenses. Providing student entrepreneurs with access to funding opportunities, grants, and scholarships is crucial for overcoming financial barriers and fostering a supportive entrepreneurial environment.

In Nigeria, for example, the Central Bank of Nigeria (CBN) has established the Entrepreneurship Development Centres (EDCs) in six Nigerian universities to provide training and support to aspiring entrepreneurs. The Bank of Industry (BOI) has also established several funds and programmes to provide financial and technical support to entrepreneurs. By integrating these financial aids into entrepreneurship education programmes, ABUAD has significantly enhanced the entrepreneurial potential of their students and contributed to the creation of successful and sustainable startups. This resonates with the view that scholarships and grants can help level the playing field, allowing talented and innovative students who might otherwise lack the financial

resources to pursue their entrepreneurial aspirations (14).

### **Subtheme 2: Fostering an Entrepreneurial Mindset**

The lack of an entrepreneurship culture within HEIs can hinder the effectiveness of entrepreneurship education. Previous scholars have argued that if students and faculty do not see entrepreneurship as a viable career path, they may not take entrepreneurship education seriously (15). HEIs must work to create an environment that fosters an entrepreneurship mindset and culture. This includes promoting entrepreneurship events, showcasing successful student entrepreneurs, and providing opportunities for students to network with successful entrepreneurs (16). In light of this, subtheme 2 explores the ways ABUAD has fostered an entrepreneurial mindset. From the data gathered, the following was uncovered:

#### **Early Introduction to Entrepreneurship**

Participant 6 emphasises the importance of introducing entrepreneurship education early in the school curriculum to familiarise students with business concepts and foster an entrepreneurial mindset from a young age (17). This approach can significantly influence students' attitudes towards entrepreneurship and their propensity to engage in entrepreneurial activities later in life. As noted, there is a need for the "Introduction of entrepreneurship education early in schools to familiarise students with business concepts and foster an entrepreneurial mindset from a young age" (Participant 6). From the statement, one could draw out that introducing entrepreneurship education early in schools can help students develop an entrepreneurial mindset from a young age, making them more inclined to pursue entrepreneurial ventures later in life. Research indicates that early exposure to entrepreneurial concepts can shape students' thinking and attitudes, making them more likely to consider entrepreneurship as a viable career path.

Early entrepreneurship education can also help reduce the fear of failure among students. Educational programmes can build resilience and a positive attitude towards failure by teaching students that failure is a part of the learning process and encouraging them to take calculated risks. This is crucial for entrepreneurial success, as

the ability to persevere through setbacks is a key trait of a successful entrepreneur (18).

### **Promoting Innovation and Resilience**

Another way of fostering an entrepreneurship mindset is by promoting innovation and resilience. Participants 1 and 8 highlighted the role of entrepreneurship education in promoting innovation and resilience among youths. For them, entrepreneurship education "... promotes innovation and resilience in youths." (Participant 1 & Participant 8). The above narrative suggests that entrepreneurship education promotes innovation and resilience, helping youths to be self-employed and be useful to society. This agrees with the position that entrepreneurship can be a powerful tool for promoting economic development, job creation, and innovation (19).

### **Subtheme 3: Institutional Support and Policies**

As highlighted in the literature, the entrepreneurship community plays a critical role in advocating for policies and regulations that support the growth of startups. Nevertheless, it has been a subject of debate that entrepreneurship intention is not a stable characteristic but can be influenced by environmental factors such as social norms, perceived support, and institutional policies (20). For instance, if an individual perceives high levels of support from their environment, such as family, friends, and society, they are more likely to develop high levels of entrepreneurship intention and engage in entrepreneurship activities. Owing to this, sub-theme 3 explores institutional support and policies influencing entrepreneurship intention at ABUAD.

#### **Implementation of Supportive Policies**

Participant 7 underscores the importance of implementing supportive policies that promote entrepreneurship and eliminate regulatory barriers. These measures can significantly aid young people in starting and growing their businesses more effectively. This position is critical given that the policy framework for entrepreneurship development in Nigeria is still weak, and there is a need to develop policies that will promote and support entrepreneurship education (21). Convinced of the possible positive implications, the participant argued the need for the "Implementation of policies that will promote entrepreneurship and remove regulatory barriers that may hinder young people from starting and

growing businesses." (Participant 7). The insights provided by Participant 7 align with the broader literature, emphasising the need for strategic policy interventions to nurture and sustain entrepreneurial activities.

Supportive policies are essential for creating an enabling environment for entrepreneurship. These policies can include tax incentives, simplified business registration processes, access to funding, and protection of intellectual property rights. According to the Global Entrepreneurship Monitor (GEM) report, favourable government policies are critical for the growth of entrepreneurial activities, as they provide the necessary support and infrastructure for startups to thrive.

Regulatory barriers often pose significant challenges to new and small businesses. These can include complex licensing requirements, bureaucratic red tape, and restrictive labour laws. By removing or simplifying these barriers, governments can facilitate easier entry and growth for young entrepreneurs. Countries with fewer regulatory procedures for business startups have higher rates of entrepreneurial activity (22). Supportive policies can also encourage innovation and investment in new ventures. Policies that provide grants, subsidies, and tax credits for research and development (R&D) can incentivise young entrepreneurs to innovate. More so, government policies and programmes that support R&D and innovation are crucial for fostering a dynamic entrepreneurial ecosystem (23).

#### **Collaboration with Industry Partners**

The Entrepreneurship community provides opportunities for start-ups to connect with other entrepreneurs, investors, and mentors. This networking helps to create relationships that can lead to potential partnerships, collaborations, and investment opportunities (24). Participant 2 emphasises the importance of fostering collaborations with industry partners, startup ecosystems, and local businesses. These collaborations can significantly enhance entrepreneurship education by providing students with practical experiences, research opportunities, and tailored entrepreneurship initiatives. As posited, building an entrepreneurial community entails "Fostering collaborations with industry partners, startup ecosystems, and local businesses to create internship programmes, joint research

projects, and entrepreneurship initiatives tailored to students' needs." (Participant 2). The insights from Participant 2 align with the broader literature, highlighting the multifaceted benefits of industry collaborations in entrepreneurship education. Indeed, experiential learning through industry collaborations enhances students' entrepreneurial capabilities by exposing them to real business challenges and solutions Rae, 2007. Hence, university-industry partnerships are vital for creating entrepreneurial ecosystems that support startup growth and development. Industry collaborations provide students with valuable networking opportunities, connecting them with potential mentors, investors, and collaborators. These connections can be instrumental in launching and scaling their businesses. For example, collaboration among start-ups can lead to the sharing of resources, knowledge, and expertise, which can lead to the development of innovative ideas and solutions (25). The Entrepreneurship community can facilitate collaboration by providing co-working spaces, incubators, and accelerators, where start-ups can work together and share ideas (26). The community can also organise collaborative projects and events, such as hackathons and innovation challenges, that bring together start-ups with complementary skills and expertise (27). By fostering these collaborations, universities can better prepare students for entrepreneurial success, ensuring they have the skills, knowledge, and connections needed to thrive in the business world.

Afe Babalola University's entrepreneurial success is driven by enabling policies, innovative funding models, and strategic alliances. The university integrates compulsory entrepreneurship education across disciplines and operates a dedicated Entrepreneurship Centre, aligning with national policy goals. It supports student ventures through internal seed funding, partnerships with private and non-governmental bodies, and hands-on training via university-owned enterprises. Strategic alliances with industry, development agencies, and international institutions further provide mentorship, funding, and exposure. Together, these elements reflect a deliberate institutional effort consistent with the Triple Helix

model, fostering a vibrant entrepreneurial ecosystem within higher education.

#### **Subtheme 4: Community Engagement and Mentorship**

As revealed in the literature, the role of the Entrepreneurship community in business start-ups is critical to the success of new ventures. The community plays various roles such as resource provision, mentorship and coaching, market opportunities, networking, collaboration, and advocacy that contribute to the growth of the entrepreneurship ecosystem. Additionally, the entrepreneurship community helps foster a culture of trust, promoting open communication and providing mentorship and guidance to start-ups (28). Subtheme 4 explores the influence of community engagement and mentorship in entrepreneurship at ABUAD.

#### **Community Engagement and Training**

Participant 4 underscored the pivotal role of community engagement and training programmes in fostering entrepreneurship and empowering local communities. These initiatives extend beyond the university's immediate academic environment, reflecting a broader commitment to societal impact. As Participant 4 explained, "The UNESCO Chair in Entrepreneurship Education and Sustainable Development aims to promote entrepreneurial culture, capacity building, training, and empowerment within and outside ABUAD." This focus not only nurtures entrepreneurial skills among students but also builds capacity and drives empowerment in the surrounding community, creating a ripple effect of innovation and economic development.

The UNESCO Chair in Entrepreneurship Education and Sustainable Development at ABUAD plays a pivotal role in advancing the university's commitment to fostering entrepreneurship and sustainable development. Participant 4 specifically highlighted its notable contributions through initiatives such as the annual agri-business and agri-preneurship training programme. This programme, designed for local food producers, exemplifies how ABUAD connects academic expertise with community impact, equipping participants with the skills and knowledge needed to thrive in agricultural entrepreneurship. As stated, "The Chair organizes an annual agri-business and agri-preneurship training

programme for local food producers" (Participant 4), underscoring its significance in promoting both local economic empowerment and sustainable practices.

Community engagement and training programmes, such as those organized by the UNESCO Chair at ABUAD play a vital role in promoting entrepreneurship and empowering local communities. The specific focus on agri-business and agri-preneurship is particularly relevant in regions where agriculture is a significant part of the economy. These training programmes not only enhance the skills of local food producers but also promote innovation and sustainability in agricultural practices (29), highlights the importance of entrepreneurship in agriculture, noting that innovative approaches and business skills are crucial for modernising and improving the agricultural sector. Capacity-building initiatives in entrepreneurship education significantly enhance participants' abilities to identify opportunities and develop viable business models (30).

Effective entrepreneurship education requires engagement with the business community. This engagement provides students with exposure to real-world Entrepreneurship experiences and opportunities to network with business leaders (31). However, many HEIs have limited engagement with the business community, which limits the opportunities available to their students. HEIs must work to establish partnerships with local businesses and entrepreneurs to provide their students with valuable Entrepreneurship experiences.

#### **Mentorship and Networking**

As revealed in the literature, entrepreneurs need guidance and advice from experienced mentors who can provide insight into the industry, help them develop their skills, and provide feedback on their business ideas (32). One view is that Entrepreneurship attainment is primarily influenced by the personal characteristics and skills of the entrepreneur, such as self-efficacy, creativity, risk-taking propensity, and networking abilities (33). Higher education institutions should invest in resources such as libraries, computer labs, and research centres to provide students with the necessary tools for research and innovation. The institution should also provide access to



funding and mentorship opportunities to support student entrepreneurship initiatives (34).

Participant 5 underscored the pivotal role of mentorship and networking in entrepreneurship education, highlighting how these elements bridge the gap between theoretical learning and practical application. By connecting students with experienced entrepreneurs and industry professionals, mentorship fosters invaluable guidance and insights, while networking creates opportunities for collaboration and resource sharing. These components significantly enhance students' entrepreneurial skills and knowledge, equipping them to navigate real-world challenges effectively. As Participant 5 succinctly stated, "Through research, training, community engagement, societally relevant publications, mentorship, and networking," ABUAD strengthens the entrepreneurial capacity of its students, blending academic rigour with practical exposure. Access to funding and mentorship opportunities for student entrepreneurship initiatives in Nigeria is limited, which hinders the development and growth of student-led entrepreneurship ventures. Providing mentorship and networking opportunities can help students connect with experienced entrepreneurs and industry professionals, enhancing their entrepreneurial skills and knowledge. Hence, it is critical to connect students with an entrepreneurship community that provides mentorship and coaching through various channels such as incubators, accelerators, and business support organisations (35). Mentorship and networking help build students' confidence by providing them with a support system and reducing the uncertainty associated with entrepreneurship. By learning from the experiences of successful entrepreneurs, students are better equipped to handle challenges and make informed decisions. This is attributable to the fact that mentorship and coaching provide entrepreneurs with valuable advice and help build relationships with experienced industry player (36).

#### **Subtheme 5: Extracurricular Activities**

Another way of cultivating a vibrant entrepreneurial ecosystem among the students in ABUAD is through extracurricular activities. It was uncovered that engaging in entrepreneurship

competitions and or joining entrepreneurship clubs and societies can spur creativity and innovation.

#### **Entrepreneurship Competitions**

Participant 2 emphasised the transformative role of entrepreneurship competitions and challenges within educational institutions. These initiatives provide a dynamic platform for students to conceptualise, develop, and pitch their business ideas, fostering innovation and practical learning. As Participant 2 succinctly stated, "Organise entrepreneurship competitions and challenges to encourage students to develop and pitch their business ideas." This approach supports the idea that such activities not only allow students to express their creativity but also provide valuable opportunities for constructive feedback and potential funding (37). By integrating these competitions into their programmes, institutions create an environment that nurtures entrepreneurial skills and provides a tangible pathway for students to translate their ideas into viable ventures. This dual benefit of skill enhancement and access to resources underscores the critical value of such initiatives in fostering entrepreneurial mindsets.

#### **Entrepreneurship Clubs and Societies**

Participant 2 stressed the importance of tailoring entrepreneurship education to the cultural context of students, as this significantly influences their approach to creativity and innovation. Recognising these cultural dimensions can help shape programmes that resonate more deeply with students' unique perspectives and experiences. To foster collaboration and practical engagement, Participant 2 also suggested establishing entrepreneurship clubs and societies. These platforms would enable students to connect with like-minded peers, exchange ideas, and collaborate on innovative projects. As noted, "Encourage the formation of entrepreneurship clubs and societies where students can connect with like-minded peers, share ideas, and collaborate on projects" (Participant 2). Essentially, entrepreneurship clubs and societies create a supportive environment where students with a passion for entrepreneurship can gather. These communities foster a sense of belonging and provide encouragement, motivation, and inspiration to members. These clubs help cultivate a supportive

entrepreneurial ecosystem within universities, fostering students' entrepreneurial ambitions. Thus, encouraging such community-building activities in universities to support entrepreneurship education can create a more supportive and dynamic environment for budding entrepreneurs.

#### **Insights from the Qualitative Component**

The qualitative findings highlight how ABUAD is effectively building an entrepreneurial community within higher education. Participants emphasised the university's holistic approach, integrating interdisciplinary entrepreneurship courses, practical training, and startup incubators to equip students with both the knowledge and resources necessary for entrepreneurial success. Early exposure to entrepreneurship, supported by funding opportunities, grants, and mentorship programmes, fosters innovation and resilience among students. Additionally, the establishment of entrepreneurship clubs and societies encourages peer collaboration and idea-sharing, while industry partnerships and supportive policies strengthen the connection between academia and real-world business challenges. These efforts collectively contribute to a vibrant entrepreneurial ecosystem, preparing students to lead and innovate in a dynamic business environment.

#### **The Quantitative Component**

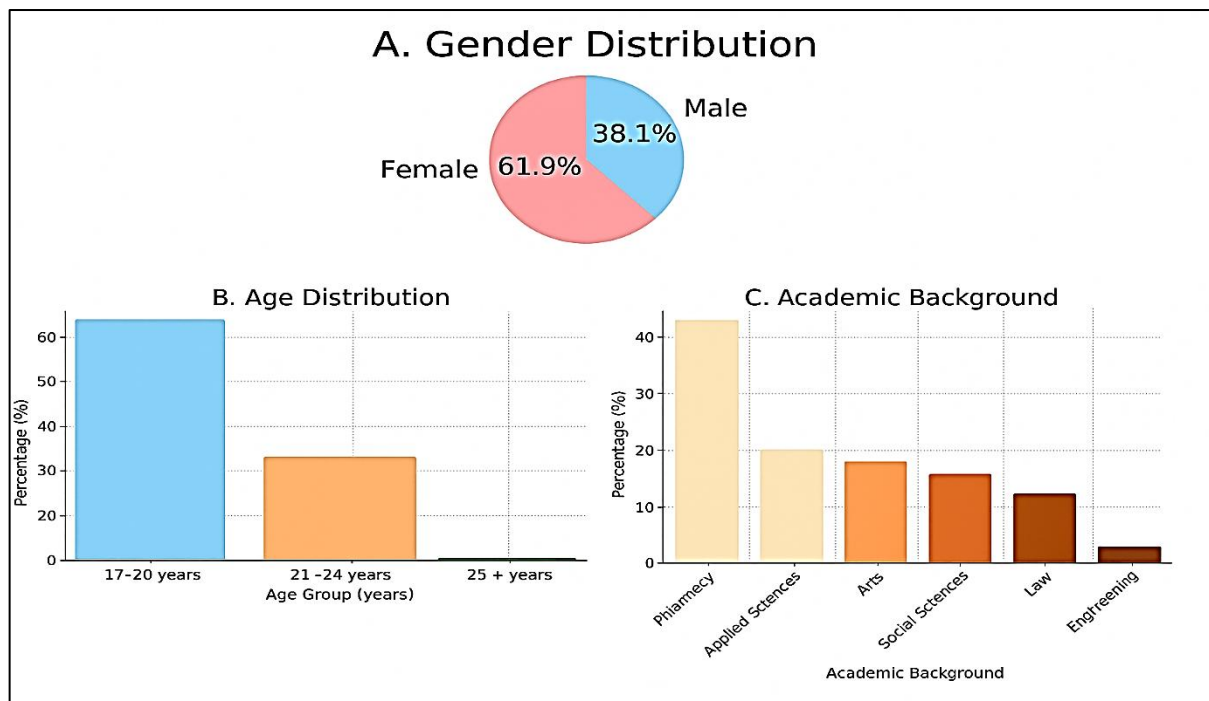
This section delves into the quantitative findings of the study, complementing the thematic insights from staff on fostering entrepreneurial communities within Afe Babalola University. Using a questionnaire distributed to 324 students, with a 100% response rate, the data was analysed through descriptive and inferential statistics, presented in frequency tables. The focus is on evaluating the university's role in building entrepreneurial communities by examining the impact of its entrepreneurship programme on student success, skill development, and the cultivation of a supportive ecosystem that fosters

innovation, collaboration, and resilience among aspiring entrepreneurs.

#### **The Demographic Profile of the Study**

The demographic profile of the study participants' highlights key aspects of gender, age, and academic background, offering valuable insights into fostering entrepreneurial communities in higher education. Gender distribution reveals that females constituted 61.9% of respondents, while males made up 38.1%. This higher female participation reflects broader trends of increasing female representation in education and entrepreneurship. These dynamics underscore the need for inclusive policies and programmes that address unique challenges faced by female entrepreneurs, such as access to funding and mentorship, thereby fostering equitable opportunities in entrepreneurial ecosystems.

Age distribution indicates that 65.9% of respondents were aged 17–20 years, followed by 32.2% aged 21–24 years, with minimal representation from older age groups. This concentration of younger participants suggests the study primarily captures the perspectives of students at the early stages of their academic or entrepreneurial journeys. Younger individuals often exhibit high levels of innovation and risk-taking but may lack resources and experience, highlighting the importance of targeted support for early-stage entrepreneurs within higher education. Academic background shows diverse representation, with Pharmacy students accounting for 46.7%, followed by equal participation from Applied Sciences and Arts (14.6% each). Smaller contributions came from Social Sciences (10.8%), Law (7.1%), and Engineering (1.2%), among others. This cross-disciplinary interest in entrepreneurship aligns with the growing integration of entrepreneurial education across fields, demonstrating the potential for collaborative and innovative entrepreneurial communities that leverage varied expertise.



**Figure 2: Demographic Profile Visualisation**

Figure 2 provides a visual overview of participants' demographics across gender, age, and academic background. Panel A shows a gender imbalance, with 61.9% female and 38.1% male respondents. Panel B highlights that most participants (around 65%) are aged 17–20, indicating a predominantly young, likely undergraduate population. In Panel C,

students from Pharmacy represent the largest academic group at 45%, with fewer participants from Applied Sciences, Arts, Social Sciences, Law, and Engineering. These visuals offer useful context for interpreting the study, particularly in relation to the educational and professional backgrounds of the respondents.

**Table 3: Responses to University Support and Resources for the Entrepreneurship Programme**

		Frequency	Percent
Did you receive sufficient support and resources from the university's Entrepreneurship Programme?	No	114	35,3
	Yes	209	64,7
	Total	323	100,0

### University Support and Resources for the Entrepreneurship Programme

Table 3 illustrates students' perceptions of the support and resources provided by the university's entrepreneurship programme, a critical component in building entrepreneurial communities in higher education. The data reveals a notable divide: 64.7% of respondents feel they receive sufficient support and resources, indicating that the programme is generally effective in fostering entrepreneurial activity. This positive feedback reflects the success of existing initiatives, including mentorship, Resource allocation, and entrepreneurial content, which align with the programme's goal of

cultivating a vibrant entrepreneurial ecosystem. However, the programme's ability to sustain and enhance this success will depend on its adaptability to emerging trends and student needs. Conversely, 35.3% of respondents expressed dissatisfaction, highlighting areas requiring improvement. This underscores gaps in mentorship, networking opportunities, resource availability, or the alignment of entrepreneurial education with student expectations. These findings align with Kirby (38), who emphasises the importance of creating an environment that not only teaches entrepreneurship but actively supports it through accessible resources, robust mentorship networks, and practical opportunities.

Likewise, ongoing improvement is essential to keep pace with students' changing needs and the ever-evolving nature of entrepreneurship (39).

Addressing these gaps is essential for fostering a more inclusive and effective entrepreneurial community within the university.

**Table 4:** Detailed Support and Resources from the University's Entrepreneurship Programme

Category	Varieties	Frequency	Percent
General Support	Yes, a lot, many supports, plenty of support.	30	9.3%
Internet Access	Access to free internet and free internet supply.	14	4.3%
Equipment and Resources	Adequate equipment and availability of resources needed.	15	4.6%
Facilities	Big ICT building, comfortable lecturer room, laboratory, library.	14	4.3%
Electricity	Full electricity supply, full light, and electricity.	9	2.8%
Training and Teaching	Adequate training, facilitators, and a good environment for learning.	14	4.3%
Freedom to Practice	Freedom to do small business, freedom to implement.	3	0.9%
Practical Skills	Practical skills in marketing, practice and training.	1	0.3%
Specific Areas	Bakery, barbing saloon, computer centre.	4	1.2%
Miscellaneous	Various options for entrepreneurship and collaboration.	4	1.2%
Non-Specific/Unsure/ Negative	No, nil, none, not sure, not yet, nothing.	70	21.7%
Total		323	100%

Table 4 provides an in-depth analysis of the support and resources offered by the university's entrepreneurship programme, highlighting both strengths and areas requiring improvement within the context of building entrepreneurial communities in higher education. While some respondents acknowledged a range of support mechanisms, the data underscores significant gaps that need addressing to foster a more robust entrepreneurial ecosystem. A small proportion (9.3%) of respondents identified receiving general support, which, though foundational, lacks the specificity required to meet diverse entrepreneurial needs. More detailed and targeted support mechanisms are essential to better equip students for entrepreneurial success. Key resources, such as reliable internet access, were emphasised by 4.3% of respondents as critical for research, networking, and skill development. Similarly, the availability of adequate equipment and facilities, noted by 4.6% of respondents, supports practical learning and entrepreneurial experimentation. Infrastructure, including ICT buildings, laboratories, libraries, and comfortable learning environments, plays a pivotal role in fostering innovation and collaboration. Reliable

electricity (2.8%), quality training environments (4.3%), and the freedom to engage in small businesses (0.9%) were highlighted as essential for experiential learning and skill application.

However, practical skills training cited by only one respondent (0.3%), points to the need for greater emphasis on hands-on experience in entrepreneurship education. Specialised resources, such as bakery and computer centres (1.2%), along with diverse collaboration opportunities (1.2%), reflect the importance of catering to specific entrepreneurial interests and promoting interdisciplinary engagement.

Notably, a significant portion of respondents (21.7%) either did not specify or were unsure about the support they received. This suggests a gap in awareness or satisfaction with the programme's offerings, underscoring the need for improved communication and tailored support services. The university can, therefore, strengthen its entrepreneurship programme by creating a supportive environment where students can thrive, innovate, and contribute to building a vibrant entrepreneurial community in higher education.

**Table 5:** Responses on the Role of Entrepreneurial Communities in Facilitating Business Ventures

		Frequency	Percent
Do you think entrepreneur communities can facilitate business ventures by student entrepreneurs?	No	61	18.9
	Yes	253	78.3
	Maybe	9	2.8
	Total	323	100

### The Role of Entrepreneurial Communities in Facilitating Business Ventures by Student Entrepreneurs

Table 5 highlights respondents' perceptions of entrepreneurial communities and their role in facilitating student business ventures, emphasising their importance within the framework of building entrepreneurial communities in higher education. The majority (78.3%) affirm that entrepreneurial communities significantly enhance student entrepreneurship by offering essential support, networking opportunities, and resources. This strong endorsement underscores the recognition of these communities as catalysts for innovation, collaboration, and resource-sharing, vital elements in nurturing entrepreneurial ecosystems. A smaller segment (18.9%) expressed scepticism, potentially due to limited exposure or negative personal experiences, while 2.8% were uncertain, suggesting gaps in awareness or mixed experiences. These responses point to variability in the effectiveness and inclusivity of entrepreneurial communities, emphasising the need for universities to strengthen their impact and accessibility. Extant literature supports the transformative role of entrepreneurial communities. They offer mentorship, access to capital, and networks of like-minded individuals, all of which contribute to entrepreneurial success. Support programs within these communities have been shown to significantly enhance business outcomes (40). However, not all entrepreneurial communities fulfil their promise, as some fall short due to exclusivity or limited resources (41). Addressing these challenges is crucial for universities aiming to build inclusive and effective entrepreneurial ecosystems that empower all students.

### Insights from the Quantitative Component

The study reveals that while the entrepreneurship programme at Afe Babalola University effectively supports a majority of students (64.7%) through

mentorship, resources, and infrastructure essential for fostering entrepreneurial activities, significant gaps remain. These include limited practical training, specific resource accessibility, and perceived inclusivity, as noted by 35.3% of respondents. Entrepreneurial communities were overwhelmingly recognised (78.3%) as crucial for facilitating student ventures and providing mentorship, networking, and collaboration opportunities vital to entrepreneurial success. However, scepticism and uncertainty among some respondents underscore the need for improved programme communication and the inclusivity of entrepreneurial ecosystems. Addressing these challenges is imperative for creating vibrant, supportive entrepreneurial communities in higher education.

## Discussion

The findings reveal that Afe Babalola University (ABUAD) has effectively harnessed its entrepreneurship programme to build a vibrant entrepreneurial community, reflecting the integration of Etzkowitz's Triple Helix model and Ndofirepi's framework on entrepreneurship education in African contexts. Through mentorship, practical training, and interdisciplinary courses, the university equips students with the skills and confidence necessary for entrepreneurial success. This aligns with Etzkowitz's emphasis on the dynamic interplay between universities, industry, and government in fostering innovation, as ABUAD's collaborative networks with industry partners and policy-driven support mechanisms create an enabling environment for entrepreneurial ventures (42). Similarly, African entrepreneurship education's focus on contextually relevant, opportunity-driven learning is evident in ABUAD's tailored educational strategies, which integrate experiential learning and student-led initiatives to resonate with African economic and social realities.

Mentorship, networking, and collaboration emerge as central pillars in ABUAD's approach, directly contributing to a dynamic entrepreneurial ecosystem. By connecting students with experienced entrepreneurs, mentorship fosters confidence and provides crucial industry insights, consistent with the argument on the transformative impact of guidance. Networking opportunities, supported by entrepreneurship clubs and industry collaborations, enable students to form valuable connections with peers, investors, and mentors, fostering an environment of mutual growth (43). Collaborative initiatives, such as incubators and accelerators, amplify these efforts by offering platforms for resource sharing and innovation, resonating with Triple Helix model emphasis on multi-stakeholder collaboration to drive entrepreneurial success. African entrepreneurship education framework further underscores the importance of these context-sensitive approaches, as ABUAD's programmes address local challenges like limited access to resources, empowering students to navigate real-world business constraints. While these elements are foundational to ABUAD's success, challenges such as limited funding and practical training opportunities highlight the need to ensure equitable access to these resources.

Comparatively, ABUAD aligns with global trends advocating comprehensive entrepreneurship education frameworks but faces challenges in scalability and inclusivity. International models, such as those in Silicon Valley, demonstrate the benefits of extensive industry engagement and accessible venture funding (44), areas where ABUAD can enhance its efforts. Moreover, the influence of systemic factors, such as policy support and regulatory environments, underscores the need for a holistic approach to entrepreneurship education. ABUAD's proactive integration of industry partnerships and supportive policies reflects this, but addressing gaps in resource accessibility and inclusivity remains essential, aligning with the call for context-specific educational practices that cater to diverse student needs (45). This focus on multi-stakeholder collaboration and locally relevant strategies offers a replicable model for fostering innovation and economic growth in similar institutional settings.

## Summary of Findings

The study highlights Afe Babalola University's (ABUAD) progress in building entrepreneurial communities through a holistic, interdisciplinary approach to entrepreneurship education. The demographic analysis revealed a diverse mix of educators and students, with faculty predominantly male (87.5%) and highly qualified (87.5% holding Ph.Ds.), while female students constituted 61.9% of respondents. Students were primarily aged 17-20 years, reflecting the perspectives of early-stage entrepreneurs. The university's programme integrates academic, professional, and leadership training, fostering innovation and creativity across disciplines such as Pharmacy (46.7%), Applied Sciences, and Arts (14.6% each). Key elements like practical training, startup incubators, and extracurricular activities, such as entrepreneurship clubs and competitions, significantly contribute to a vibrant entrepreneurial culture. Despite these strengths, challenges persist. While 64.7% of respondents affirmed sufficient support and resources, 35.3% reported gaps in mentorship, access to equipment, and practical skill development. Entrepreneurial communities were recognised by 78.3% of respondents as crucial for networking, mentorship, and collaboration, although 18.9% were sceptical, underscoring the need for more inclusivity and awareness. Addressing barriers such as financial constraints, regulatory challenges, and limited resources remains critical. Enhancing mentorship, increasing funding, and fostering interdisciplinary collaboration can bolster ABUAD's entrepreneurial ecosystem, ensuring its continued role as a model for building entrepreneurial communities in higher education. These results are further substantiated by existing literature, enhancing the robustness of the study's outcomes. For example, the finding that 64.7% of students perceived the university's entrepreneurship programme as supportive aligns with assertion that effective entrepreneurship education requires strong institutional backing, including access to mentorship and resources. Similarly, the overwhelming recognition of entrepreneurial communities by 78.3% of respondents echoes the work of Neck (46), who emphasise the role of such communities in

providing essential support structures, including funding access, guidance, and collaborative networks. Integrating these perspectives strengthens the interpretation of results and situates the findings within a broader academic discourse on entrepreneurship education and ecosystem development.

### **Implications of Findings**

The findings underscore the critical role of entrepreneurship education (EE) in fostering economic development and addressing youth unemployment in Nigeria. Through its interdisciplinary and holistic programme, ABUAD exemplifies how universities can cultivate entrepreneurial mindsets, practical skills, and leadership capacities among students, aligning with national goals for socio-economic growth. The university's integration of entrepreneurship into various disciplines and provision of startup support, mentorship, and networking opportunities has created a vibrant entrepreneurial ecosystem that prepares students to innovate and lead in a dynamic business environment. This model, if replicated across other institutions, could significantly contribute to building robust entrepreneurial communities nationwide, reinforcing the role of higher education in driving economic transformation. However, the study also highlights challenges that need addressing, such as limited access to funding, practical training, and entrepreneurial resources. These barriers underline the importance of systemic interventions by policymakers and institutions to enhance programme inclusivity and effectiveness. Improved mentorship, targeted funding, and context-specific support policies, alongside continuous programme evaluation and adaptation, are essential for sustaining entrepreneurial success. Additionally, fostering a supportive socio-economic environment through strategic government and private sector collaboration can further nurture the entrepreneurial culture observed at ABUAD. This would not only empower students but also catalyse broader societal benefits, promoting innovation, employment creation, and economic resilience in Nigeria.

### **Limitation of the Study**

This study acknowledges the inherent limitations of a single-case design within Afe Babalola University's distinctive institutional context. While key findings like interdisciplinary curriculum integration, mentorship frameworks, and student engagement strategies offer transferable models for other institutions, certain elements remain context-specific. ABUAD's compulsory entrepreneurship policy, localized industry partnerships, and unique resource infrastructure reflect its particular socio-academic ecosystem. The identified challenges of funding constraints and resource disparities have universal relevance, though their manifestations may vary across institutional settings. Future research would benefit from explicitly distinguishing between broadly applicable principles and context-bound implementations to enhance the study's scholarly utility and practical adaptability for diverse higher education environments.

### **Recommendations**

From the findings of the study, the following recommendations are advanced:

To foster inclusivity and diversity in entrepreneurial education, HEIs globally should address gender imbalances by implementing strategies to encourage female participation. Increasing representation promotes varied perspectives and innovative solutions, enriching the entrepreneurial ecosystem. Moreover, integrating early exposure to entrepreneurial concepts across educational levels can cultivate entrepreneurial mindsets and prepare students for future challenges, as emphasised (47).

HEIs should prioritise experiential learning by expanding practical training opportunities through internships, business simulations, and partnerships with industry. Establishing entrepreneurship centres or incubators that provide resources, mentorship, and networking opportunities is vital. These centres act as hubs for entrepreneurial activity, fostering collaboration and innovation, as supported. Additionally, curriculum standardisation and interdisciplinary approaches can equip students from diverse academic backgrounds with essential entrepreneurial skills while ensuring uniform quality across institutions.

To support students financially, HEIs should create funding mechanisms like seed funds, grants, or collaborations with external partners. Addressing financial barriers enables student entrepreneurs to focus on venture development and sustainability, as strengthening mentorship networks by connecting students with experienced professionals and organising structured networking events can enhance their market readiness and scalability. Incorporating modules on marketing strategies, financial management, and customer engagement will also equip students with practical tools for entrepreneurial success. Finally, HEIs must advocate for policy environments that encourage entrepreneurship. Reducing bureaucratic hurdles, ensuring policy consistency, and promoting ethical business practices create a stable foundation for entrepreneurial growth. Institutions should emphasise continuous feedback mechanisms, flexible learning schedules, and innovation-driven curricula to adapt to evolving global challenges. By adopting these strategies, HEIs can build resilient entrepreneurial communities that empower students to contribute to economic development worldwide.

## Conclusion

The study on building entrepreneurial communities in higher education, using insights from Afe Babalola University, highlights the transformative potential of entrepreneurial education in fostering innovation, resilience, and economic empowerment. By addressing challenges such as gender imbalance, financial constraints, and uneven access to resources, higher education institutions can create inclusive ecosystems that nurture entrepreneurial talent across diverse demographics. The findings underscore the importance of experiential learning, interdisciplinary approaches, and robust mentorship networks in equipping students with the skills and confidence needed to thrive in competitive environments. Moreover, the study reaffirms the critical role of HEIs in driving societal change by integrating entrepreneurial thinking into their curricula and operations. With strategic partnerships, expanded practical training opportunities, and sustained policy advocacy, HEIs globally can replicate and

adapt these insights to create globally relevant entrepreneurial communities. Ultimately, this research not only contributes to the discourse on entrepreneurship education but also provides actionable recommendations that pave the way for higher education institutions to become incubators of innovation, catalysts for economic development, and engines of societal transformation.

## Abbreviation

Not applicable.

## Acknowledgement

None.

## Author Contributions

All authors contribute equally.

## Conflict of Interest

Not applicable.

## Ethics Approval

Not applicable.

## Funding

None.

## References

1. Audretsch DB. Entrepreneurship capital and economic growth. *Oxf Rev Econ Policy*. 2007; 23(1):63–78.
2. Stoica O, Roman A, Rusu VD. The Nexus between Entrepreneurship and Economic Growth: A Comparative Analysis on Groups of Countries. *Sustainability*. 2020; 12(3):1186.
3. Nafiu AT, Ogbadu EE, Yakubu S. Entrepreneurship and the Economic Problems in Nigeria: an Empirical investigation. *Dir Open Access J*. 2018: <https://doaj.org/article/02fe69f143ab4487b970867e67100f4a>
4. Li Z, Jiang B, Bi S, Feng J, Cui Q. Impact of different types of entrepreneurial alertness on entrepreneurial opportunities identification. *Front Psychol*. 2022; 13. <https://doi.org/10.3389/fpsyg.2022.888756>
5. Wales W, Gupta VK, Marino L, Shirokova G. Entrepreneurial orientation: International, global and cross-cultural research. *Int Small Bus J*. 2019;37(2):95–104.
6. Scheidgen K, Brattström A. Berlin is Hotter Than Silicon Valley! How Networking Temperature Shapes Entrepreneurs' Networking Across Social Contexts. *Entrep Theory Pract*. 2022;47(6):2233–62.
7. Inada Y. Entrepreneurship education: scholarly progress and future challenges. *Asia Pac Bus Rev*. 2023;30(4):854–7.
8. Albourini F, Ahmad AMK, Abuhashesh M, Nusairat NM. The effect of networking behaviors on the



- success of entrepreneurial startups. *Manag Sci Lett.* 2020;25:21–32.
9. Nguyen TT. Impact of entrepreneurship environmental support factors to university students' entrepreneurship self-efficacy. *Manag Sci Lett.* 2019;1321–8.  
<https://doi.org/10.5267/j.msl.2019.11.026>
  10. Oyejoke A. Entrepreneurship education: a remedy to youth unemployment in Nigeria. *Int J Adv Acad Res.* 2021;33–42.  
<https://doi.org/10.46654/ij.24889849.a6121127>
  11. Rasmussen EA, Sørheim R. Action-based entrepreneurship education. *Technovation.* 2005;26(2):185–94.
  12. Cohen S, Hochberg YV. Accelerating Startups: The Seed Accelerator phenomenon. *SSRN Electron J.* 2014. <https://doi.org/10.2139/ssrn.2418000>
  13. Nasirun N, Noor SM, Yusoff RZ, Othman AA. Student engagement, student interactions and student satisfaction in blended learning: a case of entrepreneurship education. *AdvSciLett.* 2017;23(8): 7952–5.
  14. Martin BC, McNally JJ, Kay MJ. Examining the formation of human capital in entrepreneurship: A meta-analysis of entrepreneurship education outcomes. *J Bus Ventur.* 2012; 28(2):211–24.
  15. Scott T, Guan W. Challenges facing Thai higher education institutions financial stability and perceived institutional education quality. *Power Educ.* 2022;15(3):326–40.
  16. Acevedo R, Soto-Bubert A. Challenges facing higher education institutions in Chile in training learners in entrepreneurship and the future of work. Chile a Case Study. *Int J High EducManag.* 2021; 08(01).  
<https://doi.org/10.24052/ijhem/v08n01/art-1>
  17. Reynolds P, Bosma N, Autio E, Hunt S, De Bono N, Servais I, et al. Global Entrepreneurship Monitor: Data Collection Design and Implementation 1998?2003. *Small Bus Econ.* 2005; 24(3):205–31.
  18. Erdogan KD. Is it necessity or opportunity?: A research into the drivers of migrant entrepreneurs in Germany and The Netherlands. 2019.  
<https://essay.utwente.nl/80201/>
  19. Keller PG, Kozlinska I. Entrepreneurial Affect and Emotions in Entrepreneurship Education Impact Research: A Systematic Review and Research agenda. *EntrepEduc Pedagogy.* 2019;2(4):281–307.
  20. Schoonmaker M, Gettens R, Vallee G. Building the entrepreneurial mindset through Cross-Functional Innovation teams. *EntrepEduc Pedagogy.* 2019;3(1):41–59.
  21. Ubogu R. Entrepreneurship Education: Challenges and Strategies towards Promoting Entrepreneurship in Higher Education in Nigeria. *Acad J Interdiscip Stud.* 2020;9(5):125.
  22. Djankov S, La Porta R, Lopez-De-Silanes F, Shleifer A. The regulation of entry. *Q J Econ.* 2002;117(1):1–37.
  23. Lerner J. Entrepreneurship, public policy, and cities. World Bank, Washington, DC eBooks. 2014.  
<https://doi.org/10.1596/1813-9450-6880>
  24. Wei J, Chen Y, Zhang Y, Zhang J. How does entrepreneurial Self-Efficacy influence innovation behavior? Exploring the mechanism of job satisfaction and Zhongyong thinking. *Front Psychol.* 2020; 11.  
<https://doi.org/10.3389/fpsyg.2020.00708>
  25. Ahmed BS, AmroushF, Maati MB. The intelligence of E-CRM applications and approaches on online shopping industry. In: *Advances in marketing, customer relationship management, and e-services book series.* 2018;70–82.  
<https://doi.org/10.4018/978-1-5225-7766-9.ch006>
  26. Okoye V. Effect of entrepreneurship education on unemployment reduction in anambra state, Nigeria. *Afr J Bus Econ Dev.* 2021; 59–74.  
<https://doi.org/10.46654/ajbed.1425>
  27. Olominu T. Youth Education, Unemployment and Entrepreneurship in Nigeria: Pointers for Accessing SDG Goal 8. *Young Afr Leaders J Dev.* 2018;2(1):9.
  28. De Nicola NM, Anees NU, Maurizi NAM. Relationships between entrepreneurial education and entrepreneurial intentions and activities. *J US-China Public Adm.* 2022; 19(3).  
<https://doi.org/10.17265/1548-6591/2022.03.003>
  29. Arumugam U, Manida M. Agripreneurship for sustainable economic development in India. *ComFin Res.* 2023; 11(4):15–23.
  30. Fayolle A, Gailly B. The Impact of entrepreneurship education on entrepreneurial attitudes and intention: Hysteresis and persistence. *J Small Bus Manag.* 2013; 53(1):75–93.
  31. Usman A, Hamid A. The status and challenges of entrepreneurship education in vocational higher education institutions in Indonesia *J Entrep Bus.* 2022 Dec 29;27(2):130.
  32. Yitshaki R. Advice seeking and mentors' influence on entrepreneurs' role identity and business-model change. *J Small Bus Manag.* 2024; 1–41.  
<https://doi.org/10.1080/00472778.2024.2307494>
  33. Blume BD. Differentiating the effects of entrepreneurs' intelligence and educational attainment on venture outcomes. *Int J EntrepBehav Res.* 2018; 25(3):518–37.
  34. Mukhtar S, Wardana LW, Wibowo A, Narmaditya BS. Does entrepreneurship education and culture promote students' entrepreneurial intention? The mediating role of entrepreneurial mindset. *Cogent Educ.* 2021; 8(1).  
<https://doi.org/10.1080/2331186x.2021.1918849>
  35. Guerrero M, Lira M. Entrepreneurial university ecosystem's engagement with SDGs: looking into a Latin-American University. *Community Dev.* 2023;54(3):337–52.
  36. Seikkula-Leino J, Salomaa M. Entrepreneurial Competencies and Organisational Change—Assessing Entrepreneurial Staff Competencies within Higher Education Institutions. *Sustainability.* 2020;12(18):7323.
  37. Mei W, Symaco L. University-wide entrepreneurship education in China's higher education institutions: issues and challenges. *Stud High Educ.* 2020;47(1):177–93.
  38. Kirby DA. Entrepreneurship education: can business schools meet the challenge? *Educ Train.* 2004;46(8/9):510–9.

39. Wasim J, Youssef MH, Christodoulou I, Reinhardt R. The Path to entrepreneurship: The role of social networks in driving entrepreneurial learning and education. *Organ Behav Teach Rev.* 2023;48(3):459–93.
40. Chrisman JJ, McMullan E, Hall J. The influence of guided preparation on the long-term performance of new ventures. *J Bus Ventur.* 2005;20(6):769–91.
41. Xu Z, Dobson S. Challenges of building entrepreneurial ecosystems in peripheral places. *J Entrep Public Policy.* 2019;8(3):408–30.
42. Broström A. The Triple Helix: University–industry–government innovation in action – By Henry Etzkowitz. *Pap RegSci Assoc.* 2011;90(2):441–2.
43. Rae D. Connecting enterprise and graduate employability. *Education + Training.* 2007; 49(8/9):605–19.  
<https://doi.org/10.1108/00400910710834049>
44. Pauwels C, Clarysse B, Wright M, Van Hove J. Understanding a new generation incubation model: The accelerator. *Technovation.* 2015;50–51:13–24.
45. Sirelkhatim F, Gangi Y. Entrepreneurship education: A systematic literature review of curricula contents and teaching methods. *Cogent Bus Manag.* 2015; 2(1).  
<https://doi.org/10.1080/23311975.2015.1052034>
46. Neck HM, Meyer GD, Cohen B, Corbett AC. An Entrepreneurial System view of new venture creation. *J Small Bus Manag.* 2004; 42(2):190–208.
47. Paiva T, Felgueira T, Alves C, Gomes N, Salgado S, Salaberri M. An education model to empower women in tech entrepreneurship. *Front Educ.* 2024; 9. <https://doi.org/10.3389/educ.2024.1474584>