

Entrepreneurial Mindset, Experiential Learning, and Innovation Ecosystems: Pathways to Entrepreneurial Success and Economic Transformation

Leonard Achile Ogwuche & Merith Ifeoma Anaba

Department of Business Administration, Veritas University, Abuja, Nigeria

Abstract: *This article examines the interconnected roles of entrepreneurial mindset, experiential learning, and innovation ecosystems in shaping entrepreneurial success and driving economic transformation, particularly within developing and emerging market contexts. Drawing upon a systematic synthesis of 74 scholarly sources, the study develops an integrated framework that articulates how individual-level cognitive and affective attributes interact with pedagogical interventions and broader ecosystem conditions to influence venture creation, innovation outcomes, and graduate employability. The article advances theoretical understanding by proposing a tripartite model that positions experiential learning as the mechanism through which entrepreneurial mindset is cultivated, and innovation ecosystems as the environmental architecture that determines whether mindset and learning translate into sustainable venture creation and economic impact. Six testable propositions are derived to guide future empirical inquiry. The findings carry significant implications for higher education institutions, policymakers, and entrepreneurship development practitioners seeking to design more effective interventions that bridge the gap between entrepreneurial ambition and realised economic outcomes. The article contributes to the entrepreneurship literature by offering a conceptually rigorous and contextually grounded synthesis that integrates previously disparate streams of research on entrepreneurial cognition, pedagogy, and ecosystem dynamics.*

Keywords: Entrepreneurial mindset, experiential learning, innovation ecosystems, entrepreneurial success, economic transformation, graduate employability

1. Introduction

Entrepreneurship has emerged as a central driver of economic development, job creation, and innovation across both advanced and emerging economies. The Global Entrepreneurship Monitor and related bodies of scholarship consistently demonstrate that entrepreneurial activity contributes substantially to gross domestic product, employment generation, and technological progress (OECD, 2023). Yet the translation of entrepreneurial ambition into sustained venture creation and measurable economic transformation remains uneven, particularly in developing economies where structural constraints, resource limitations, and institutional voids complicate the entrepreneurial process (Pennetta et al., 2024; Santos et al., 2021). Understanding the conditions under which entrepreneurship generates transformative economic outcomes requires attention to three interrelated domains: the cognitive and affective attributes that constitute an entrepreneurial mindset, the pedagogical and experiential mechanisms through which entrepreneurial competencies are developed, and the ecosystem conditions that enable or constrain entrepreneurial action.

The concept of entrepreneurial mindset has attracted considerable scholarly attention as a construct that captures the cognitive frameworks, motivational orientations, and behavioural dispositions that distinguish entrepreneurs from non-entrepreneurs and that predict entrepreneurial success (Pennetta et al., 2024). An entrepreneurial mindset encompasses opportunity recognition, risk propensity, innovativeness, proactiveness, and the capacity to learn from failure. Research suggests that while certain dispositional tendencies may be innate, entrepreneurial mindset is substantially malleable and can be cultivated through targeted educational and experiential interventions (Attah & Abdul, 2024; Hassan et al., 2021). This recognition has fuelled growing investment in entrepreneurship education and training programmes worldwide, with higher education institutions playing an increasingly prominent role in fostering entrepreneurial competencies among students and graduates.

Experiential learning has emerged as a particularly promising approach to entrepreneurship education, grounded in the premise that entrepreneurial competencies are best developed through direct experience, reflection, and iterative practice rather than through didactic instruction alone. Kolb's (1984) foundational work on experiential learning theory provides a theoretical rationale for pedagogical approaches that immerse learners in concrete experiences, facilitate reflective observation, encourage abstract conceptualisation, and promote active experimentation. In the context of entrepreneurship education, experiential approaches include

startup incubation, business simulations, mentoring relationships, action-based projects, and partnerships with external stakeholders (Mukesh et al., 2020; Scheuring & Thompson, 2025). Empirical evidence suggests that such approaches can enhance entrepreneurial intentions, develop practical skills, and improve graduate employability outcomes (Lackéus, 2020; Lyu et al., 2024; Overwien et al., 2024).

However, the effectiveness of experiential learning in entrepreneurship education is not uniform and depends on a range of contextual and individual factors. Course characteristics, student needs, educational fields, geographic location, and access to resources all moderate the relationship between experiential learning interventions and entrepreneurial outcomes (Duong, 2022; Hong, 2025; Liu et al., 2022). Moreover, the translation of individual entrepreneurial competencies into venture creation and economic impact depends critically on the broader innovation ecosystem within which entrepreneurs operate. Innovation ecosystems comprise the networks of actors, institutions, resources, and relationships that support or constrain entrepreneurial activity, including universities, incubators, accelerators, investors, government agencies, and industry partners (Hoang & Antoncic, 2003). The quality and configuration of these ecosystems vary substantially across regions and countries, with significant implications for entrepreneurial success and economic transformation.

Despite growing recognition of the importance of these three domains, the literature remains fragmented. Studies on entrepreneurial mindset often proceed independently of research on experiential learning, and both are frequently examined without adequate attention to ecosystem conditions. Conversely, ecosystem research sometimes neglects the micro-level cognitive and pedagogical processes through which entrepreneurial actors develop and deploy their capabilities. This fragmentation limits theoretical understanding and practical guidance. The present article addresses this gap by developing an integrated framework that articulates the interconnections among entrepreneurial mindset, experiential learning, and innovation ecosystems, and by deriving testable propositions to guide future empirical inquiry.

The article proceeds as follows. Section 2 reviews the literature on entrepreneurial mindset, experiential learning, and innovation ecosystems, synthesising key findings and identifying theoretical tensions. Section 3 presents the theoretical framework, drawing on experiential learning theory, human capital theory, and ecosystem perspectives to articulate an integrated model. Section 4 outlines the methodology, which involves a systematic synthesis of the 74 sources included in this review. Section 5 presents the findings and discussion, organised around six thematic areas that correspond to the key relationships in the integrated framework. Section 6 discusses theoretical, practical, and policy implications. Section 7 concludes with a summary, limitations, and directions for future research.

2. Literature Review

2.1 Entrepreneurial Mindset: Conceptual Foundations and Development

The construct of entrepreneurial mindset has been defined in multiple ways across the literature, reflecting the interdisciplinary origins of entrepreneurship research and the diverse theoretical traditions that inform it. At its core, entrepreneurial mindset refers to the cognitive and metacognitive structures that guide entrepreneurial thinking, decision-making, and action (Pennetta et al., 2024). These structures include beliefs about opportunity, attitudes toward risk and failure, self-efficacy perceptions, and motivational orientations that influence the pursuit of entrepreneurial goals. An entrepreneurial mindset is not simply a set of personality traits but a dynamic configuration of cognitive schemas, affective states, and behavioural inclinations that can be developed and refined over time.

Research on the components of entrepreneurial mindset has identified several key dimensions. Opportunity recognition refers to the ability to identify and evaluate potential business opportunities, a capability that depends on domain knowledge, pattern recognition, and alertness to market signals (Santos et al., 2021). Risk propensity encompasses the willingness to accept uncertainty and potential loss in pursuit of entrepreneurial goals, though the relationship between risk propensity and entrepreneurial success is complex and context-dependent. Innovativeness captures the tendency to generate novel ideas, approaches, and solutions, while proactiveness reflects a forward-looking orientation and willingness to take initiative. Together, these dimensions constitute what Pennetta et al. (2024) describe as the entrepreneurial ability model, a framework that integrates skills, competencies, and capabilities into a coherent whole.

The development of entrepreneurial mindset is influenced by a range of individual and contextual factors. Individual factors include prior experience, education, self-efficacy, and psychological capital. Contextual factors include family background, cultural norms, institutional support, and economic conditions. Research in African educational contexts suggests that entrepreneurial mindset can be cultivated through deliberate educational interventions that expose learners to entrepreneurial role models, provide opportunities for practical experience, and foster a culture of innovation and adaptability (Attah & Abdul, 2024). Similarly, studies of

undergraduate populations in various countries have found that entrepreneurship education can enhance entrepreneurial intentions by strengthening self-efficacy and shaping attitudes toward entrepreneurship (Astiana et al., 2022; Mei et al., 2020; Otache et al., 2019; Paray & Kumar, 2020; Wang et al., 2023).

The relationship between entrepreneurial mindset and entrepreneurial outcomes is mediated and moderated by multiple factors. Hassan et al. (2021) found that entrepreneurial motivations mediate the relationship between individual entrepreneurial orientation and entrepreneurial intentions, suggesting that motivational processes are critical to understanding how mindset translates into action. Wang et al. (2023) demonstrated that entrepreneurial self-efficacy mediates the effect of entrepreneurship education on entrepreneurial intention, and that psychological capital moderates this relationship. These findings underscore the importance of considering both cognitive and affective processes in understanding how entrepreneurial mindset influences behaviour.

2.2 Experiential Learning in Entrepreneurship Education

Experiential learning theory, as articulated by Kolb (1984), provides a foundational framework for understanding how individuals develop knowledge, skills, and dispositions through direct experience. According to Kolb, learning is best conceived as a process whereby knowledge is created through the transformation of experience. This process involves four stages: concrete experience, reflective observation, abstract conceptualisation, and active experimentation. Learners cycle through these stages, gradually developing more sophisticated understanding and capabilities. In the context of entrepreneurship education, experiential learning theory suggests that entrepreneurial competencies are best developed through opportunities to engage in entrepreneurial activities, reflect on those experiences, conceptualise lessons learned, and apply insights to new situations.

Empirical research supports the effectiveness of experiential approaches in entrepreneurship education. Lackéus (2020) compared three different experiential approaches to entrepreneurship education, including value creation, venture creation, and traditional business planning approaches. The findings indicated that value creation and venture creation approaches were more effective in developing entrepreneurial competencies than traditional approaches. Mukesh et al. (2020) conducted an experimental enquiry into action-embedded pedagogy in entrepreneurship education, finding that students who participated in action-based learning activities demonstrated higher levels of entrepreneurial self-efficacy and intention than those in control groups. These findings align with the broader literature on active learning, which consistently demonstrates that students learn more effectively when they are actively engaged in the learning process rather than passively receiving information.

Startup incubation and acceleration programmes represent a particularly intensive form of experiential learning in entrepreneurship education. These programmes typically provide aspiring entrepreneurs with access to workspace, mentoring, funding, networking opportunities, and technical assistance, while also requiring them to engage in the practical work of developing and launching a venture. Research on startup incubation partnerships in higher education suggests that such programmes can enhance entrepreneurial intentions and learning outcomes by providing students with authentic entrepreneurial experiences and access to relevant role models and networks (Attah et al., 2025b, 2026). The effectiveness of these programmes depends on a range of design factors, including the quality of mentoring, the relevance of training content, and the extent to which participants are able to engage in meaningful entrepreneurial activities.

Mentoring has been identified as a critical component of experiential entrepreneurship education. Nabi et al. (2025) conducted a systematic review of the impact of mentoring in higher education on student career development, finding that mentoring can enhance career-related outcomes including entrepreneurial intentions and career adaptability. Effective mentoring provides students with access to experienced entrepreneurs who can offer guidance, feedback, and encouragement, while also serving as role models who demonstrate the feasibility and desirability of entrepreneurial careers. However, the availability and quality of mentoring vary substantially across institutions and contexts, and the mechanisms through which mentoring exerts its effects are not fully understood.

Business simulations and serious games represent another experiential approach that has gained prominence in entrepreneurship education. Scheuring and Thompson (2025) explored the influence of experiential simulation learning on life skill development, finding that simulation-based learning can enhance skills such as problem-solving, decision-making, and communication. These skills are highly relevant to entrepreneurial success, suggesting that simulations can complement other experiential approaches in developing entrepreneurial competencies. However, the extent to which simulation-based learning transfers to real-world entrepreneurial contexts remains an open question, and further research is needed to establish the conditions under which transfer is most likely to occur.

2.3 Innovation Ecosystems and Entrepreneurial Success

The concept of the innovation ecosystem has emerged as a powerful framework for understanding the contextual conditions that shape entrepreneurial activity and outcomes. An innovation ecosystem comprises the network of actors, institutions, resources, and relationships that support or constrain innovation and entrepreneurship within a given geographic or sectoral context (Hoang & Antoncic, 2003). Key components of innovation ecosystems include universities and research institutions, incubators and accelerators, investors and financial institutions, government agencies and policy frameworks, industry partners and customers, and the cultural norms and social networks that facilitate or impede collaboration and knowledge exchange.

Research on innovation ecosystems has identified several characteristics that distinguish high-performing ecosystems from less developed ones. These include the availability of risk capital, the presence of experienced mentors and role models, the quality of physical and digital infrastructure, the strength of intellectual property protection, the openness of markets to new entrants, and the presence of supportive cultural attitudes toward entrepreneurship and risk-taking. The quality of these ecosystem components varies substantially across regions and countries, with significant implications for entrepreneurial success and economic transformation.

In developing economies, innovation ecosystems often face distinctive challenges. These include limited access to finance, weak institutional frameworks, inadequate infrastructure, and cultural norms that may discourage entrepreneurial risk-taking. Research in Nigerian and broader African contexts has documented these challenges and explored strategies for overcoming them. For example, studies of SME competitiveness in emerging markets have highlighted the moderating role of government incentives in shaping the relationship between sustainable practices and firm performance (Attah et al., 2025a). Similarly, research on entrepreneurial orientation and venture persistence has examined how environmental hostility affects the survival and growth of nascent enterprises (Onwe et al., 2025, 2026).

The relationship between innovation ecosystems and entrepreneurial outcomes is complex and bidirectional. On the one hand, ecosystem conditions shape the opportunities available to entrepreneurs and the resources they can access. On the other hand, entrepreneurial activity can contribute to ecosystem development by creating new ventures, generating employment, and attracting investment. This co-evolutionary dynamic suggests that efforts to promote entrepreneurship and economic transformation must attend to both individual-level capability development and ecosystem-level conditions.

2.4 Integrating Entrepreneurial Mindset, Experiential Learning, and Innovation Ecosystems

The preceding review suggests that entrepreneurial success and economic transformation depend on the interaction of three domains: individual entrepreneurial mindset, experiential learning processes, and innovation ecosystem conditions. Yet the literature remains fragmented, with limited integration across these domains. This article addresses this gap by developing an integrated framework that articulates the interconnections among these three domains and deriving testable propositions to guide future empirical inquiry.

The integrated framework proposed in this article rests on three core assumptions. First, entrepreneurial mindset is a dynamic construct that can be developed through experiential learning interventions. Second, experiential learning is most effective when it is embedded within supportive innovation ecosystems that provide access to resources, networks, and opportunities. Third, the translation of entrepreneurial mindset and experiential learning into venture creation and economic transformation depends on the alignment between individual capabilities and ecosystem conditions. These assumptions inform the theoretical framework presented in the following section.

3. Theoretical Framework

3.1 Experiential Learning Theory

Experiential learning theory provides the foundational theoretical lens for this article. Kolb's (1984) model conceptualises learning as a cyclical process involving four stages: concrete experience, reflective observation, abstract conceptualisation, and active experimentation. This model is particularly well-suited to entrepreneurship education because entrepreneurial competence is inherently practical and context-dependent. Entrepreneurs learn by doing, by reflecting on their experiences, by developing conceptual frameworks that explain their observations, and by testing those frameworks through further action.

The application of experiential learning theory to entrepreneurship education has several implications. First, it suggests that entrepreneurship education should prioritise opportunities for students to engage in authentic entrepreneurial activities, whether through venture creation, simulations, or partnerships with external organisations. Second, it highlights the importance of reflection and conceptualisation, suggesting that experience alone is insufficient for learning; students must also be supported in making sense of their experiences and integrating new knowledge with existing understanding. Third, it emphasises the iterative nature of learning,

suggesting that entrepreneurship education should provide multiple opportunities for students to cycle through the experiential learning process, progressively developing more sophisticated capabilities.

3.2 Human Capital Theory

Human capital theory provides a complementary theoretical perspective that helps explain the relationship between education, experience, and entrepreneurial outcomes. According to human capital theory, individuals who possess higher levels of relevant knowledge, skills, and experience are better positioned to recognise and exploit entrepreneurial opportunities. Education and training represent investments in human capital that can enhance individual productivity and earnings, and that can also contribute to entrepreneurial success by developing the competencies required to start and grow ventures.

In the context of entrepreneurship, human capital includes both general and specific components. General human capital includes formal education, work experience, and general skills that are transferable across contexts. Specific human capital includes industry-specific knowledge, technical skills, and experience that are directly relevant to particular types of entrepreneurial activity. Research suggests that both forms of human capital are important for entrepreneurial success, though their relative importance varies depending on the type of venture and the stage of development.

Human capital theory helps explain why experiential learning is effective in developing entrepreneurial competencies. Experiential learning interventions provide opportunities for students to acquire both general and specific human capital relevant to entrepreneurship. Through internships, startup incubation, mentoring, and action-based projects, students develop practical skills, industry knowledge, and professional networks that enhance their entrepreneurial capabilities and career prospects. The effectiveness of these interventions depends on the quality of the learning experience and the extent to which students are able to transfer their learning to new contexts.

3.3 Ecosystem Theory

Ecosystem theory provides a third theoretical perspective that helps explain the contextual conditions that shape entrepreneurial success. Drawing on ecological and systems thinking, ecosystem theory conceptualises entrepreneurship as embedded within complex networks of actors, institutions, and resources. The health and vitality of an innovation ecosystem depend on the diversity of actors, the strength of connections among them, the availability of resources, and the presence of supportive institutions and policies.

Ecosystem theory suggests that entrepreneurial success cannot be understood solely in terms of individual attributes or educational interventions. Rather, it depends on the alignment between individual capabilities and ecosystem conditions. Entrepreneurs who possess strong mindsets and well-developed competencies may nevertheless fail if they operate in ecosystems that lack access to finance, markets, or supporting institutions. Conversely, entrepreneurs with modest capabilities may succeed in highly supportive ecosystems that provide access to resources, networks, and opportunities.

3.4 Integrated Framework

The integrated framework developed in this article combines experiential learning theory, human capital theory, and ecosystem theory to articulate the relationships among entrepreneurial mindset, experiential learning, and innovation ecosystems. The framework is grounded in the following propositions, which are presented here and will be elaborated in the findings and discussion section.

First, entrepreneurial mindset is positively associated with entrepreneurial intentions, behaviours, and outcomes. This proposition is grounded in the extensive literature demonstrating that cognitive and motivational factors predict entrepreneurial action.

Second, experiential learning interventions positively influence the development of entrepreneurial mindset and competencies. This proposition is grounded in experiential learning theory and supported by empirical evidence on the effectiveness of action-based pedagogies.

Third, the effectiveness of experiential learning interventions is moderated by individual and contextual factors, including educational background, geographic location, and access to resources.

Fourth, innovation ecosystem conditions moderate the relationship between individual entrepreneurial capabilities and venture creation outcomes. Supportive ecosystems enhance the translation of mindset and competencies into venture creation, while unsupportive ecosystems constrain it.

Fifth, experiential learning contributes to innovation ecosystem development by producing graduates with entrepreneurial competencies who can contribute to ecosystem vitality.

Sixth, the alignment between individual entrepreneurial capabilities and ecosystem conditions is positively associated with entrepreneurial success and economic transformation.

These propositions constitute the integrated framework that guides the remainder of this article. In the following sections, I present the methodology and then discuss the findings in relation to each proposition.

4. Methodology

4.1 Research Design

This article employs a systematic literature synthesis approach to develop an integrated framework on entrepreneurial mindset, experiential learning, and innovation ecosystems. The methodology is informed by established guidelines for conducting rigorous literature reviews in the social sciences, including the use of explicit search strategies, transparent inclusion and exclusion criteria, and systematic data extraction and analysis procedures.

4.2 Search Strategy

The literature search was conducted across multiple electronic databases, including Scopus, Web of Science, Google Scholar, and institutional repositories. Search terms were derived from the three core constructs of the review: entrepreneurial mindset (including terms such as entrepreneurial cognition, entrepreneurial orientation, and entrepreneurial self-efficacy), experiential learning (including terms such as action learning, experiential education, and startup incubation), and innovation ecosystems (including terms such as entrepreneurial ecosystem and entrepreneurial context). Boolean operators were used to combine search terms, and searches were limited to peer-reviewed journal articles, books, and book chapters published in English between 1984 and 2026.

4.3 Inclusion and Exclusion Criteria

Studies were included if they addressed at least one of the three core constructs, reported empirical or conceptual findings relevant to the relationships among the constructs, and were published in peer-reviewed outlets. Studies were excluded if they focused exclusively on non-entrepreneurial contexts, lacked theoretical or empirical rigour, or were not available in full text. The final sample comprised 74 sources, including journal articles, books, book chapters, and reports from international organisations.

4.4 Data Extraction and Analysis

Data were extracted from each source using a standardised extraction form that captured information on authors, year, publication outlet, research design, sample characteristics, key findings, and relevance to the three core constructs. The extracted data were then analysed using thematic analysis procedures, following the six-phase approach outlined by Braun and Clarke (2021). This involved familiarisation with the data, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the final report. The analysis was guided by the theoretical framework developed in Section 3 and was oriented toward identifying patterns and relationships that could inform the integrated framework.

4.5 Quality Assessment

The quality of included studies was assessed using criteria appropriate to the research design. For quantitative studies, criteria included sample size, measurement validity, and statistical rigour. For qualitative studies, criteria included depth of data collection, transparency of analysis, and credibility of findings. For conceptual studies, criteria included clarity of argumentation, integration of literature, and originality of contribution. In addition, methodological references on common method variance (Andersen et al., 2025), model fit indices (Cho et al., 2020; Hu & Bentler, 1999), and ethical standards (National Health Research Ethics Committee, 2007) were consulted to ensure that the synthesis reflected best practices in research methodology.

5. Findings and Discussion

5.1 Entrepreneurial Mindset and Entrepreneurial Outcomes

The literature provides robust evidence that entrepreneurial mindset is positively associated with entrepreneurial intentions, behaviours, and outcomes. Studies across diverse contexts have found that individuals with stronger entrepreneurial mindsets, characterised by opportunity recognition, risk propensity, innovativeness, and proactiveness, are more likely to intend to start a business, to engage in entrepreneurial activities, and to achieve entrepreneurial success.

Pennetta et al. (2024) conducted a systematic literature review of entrepreneurial skills, competencies, and capabilities, developing the entrepreneurial ability model. This model integrates cognitive, affective, and behavioural components into a comprehensive framework that explains how entrepreneurial abilities are developed and deployed. The model suggests that entrepreneurial mindset is not a fixed trait but a dynamic capability that can be cultivated through education and experience. This finding aligns with research by Santos et al. (2021), who compared social and traditional entrepreneurial intentions and found that while the two types of intentions share some common antecedents, they also differ in important ways. Social entrepreneurs are more strongly motivated by prosocial values and concerns, while traditional entrepreneurs are more strongly motivated by economic gain and independence.

Research in African contexts has contributed valuable insights into the development of entrepreneurial mindset. Studies have found that entrepreneurship education can enhance entrepreneurial intentions among African students, particularly when programmes are designed to address local contexts and challenges (Otache et al., 2019; Paray & Kumar, 2020). Attah and Abdul (2024) argued that cultivating an entrepreneurial mindset in African educational leaders is essential for fostering innovation and adaptability in educational systems. Their work highlights the importance of leadership in creating environments that support entrepreneurial thinking and action. Related research on emotional intelligence in leadership has shown that leaders who possess strong emotional intelligence are better able to build resilient teams and foster supportive organisational climates (Attah et al., 2024a).

The relationship between entrepreneurial mindset and outcomes is mediated by motivational and self-efficacy processes. Hassan et al. (2021) found that entrepreneurial motivations mediate the relationship between individual entrepreneurial orientation and entrepreneurial intentions. Wang et al. (2023) demonstrated that entrepreneurial self-efficacy mediates the effect of entrepreneurship education on entrepreneurial intention, and that psychological capital moderates this relationship. These findings suggest that efforts to develop entrepreneurial mindset should attend not only to cognitive factors but also to motivational and affective processes.

Table 1: Summary of Key Studies on Entrepreneurial Mindset

Author(s)	Year	Focus	Key Finding
Pennetta et al.	2024	Entrepreneurial ability model	Integrates skills, competencies, and capabilities into a dynamic framework.
Santos et al.	2021	Social vs. traditional entrepreneurial intentions	Prosocial values distinguish social entrepreneurs, while economic gain distinguishes traditional entrepreneurs.
Hassan et al.	2021	Entrepreneurial orientation and intentions	Entrepreneurial motivations mediate the relationship.
Wang et al.	2023	Entrepreneurship education and intention	Self-efficacy mediates the relationship; psychological capital moderates the relationship.
Attah & Abdul	2024	Entrepreneurial mindset in African educational leaders	Mindset can be cultivated through deliberate interventions.
Otache et al.	2019	Entrepreneurship education in Nigeria	Education enhances entrepreneurial intentions.
Paray & Kumar	2020	Entrepreneurship education in HEIs	Age, gender, and degree background moderate the effects.

5.2 Experiential Learning and Entrepreneurial Competence Development

The literature strongly supports the effectiveness of experiential learning in developing entrepreneurial competencies. Studies consistently find that students who participate in experiential learning activities, including startup incubation, business simulations, mentoring, and action-based projects, demonstrate higher levels of entrepreneurial self-efficacy, intention, and competence than those who receive traditional didactic instruction.

Lackéus (2020) compared three experiential approaches to entrepreneurship education and found that value creation and venture creation approaches were more effective than traditional business planning approaches in developing entrepreneurial competencies. Mukesh et al. (2020) conducted an experimental study of action-embedded pedagogy and found that students in the experimental group demonstrated significantly higher entrepreneurial self-efficacy and intention than those in the control group. These findings align with the broader literature on active learning, which demonstrates that students learn more effectively when they are actively engaged in the learning process.

Startup incubation programmes represent an intensive form of experiential learning that provides students with authentic entrepreneurial experiences. Attah et al. (2025b, 2026) examined the implications of experiential learning and startup incubation partnerships on entrepreneurial intentions and learning outcomes. Their findings suggest that such partnerships can enhance both intentions and learning outcomes by providing students with access to real-world entrepreneurial experiences, mentoring, and networks. The effectiveness of these programmes depends on the quality of the partnership, the commitment of stakeholders, and the extent to which students are able to engage in meaningful entrepreneurial activities.

Mentoring has been identified as a critical component of experiential entrepreneurship education. Nabi et al. (2025) conducted a systematic review of the impact of mentoring in higher education on student career development, finding that mentoring can enhance career-related outcomes including entrepreneurial intentions and career adaptability. Effective mentoring provides students with access to experienced entrepreneurs who can offer guidance, feedback, and encouragement, while also serving as role models. However, the availability and quality of mentoring vary substantially across institutions and contexts.

Business simulations and serious games represent another experiential approach that has gained prominence. Scheuring and Thompson (2025) explored the influence of experiential simulation learning on life skill development, finding that simulation-based learning can enhance skills such as problem-solving, decision-making, and communication. These skills are highly relevant to entrepreneurial success, suggesting that simulations can complement other experiential approaches in developing entrepreneurial competencies.

Table 2: Experiential Learning Approaches in Entrepreneurship Education

Approach	Key Features	Representative Studies	Documented Outcomes
Startup incubation	Workspace, mentoring, funding, networking	Attah et al. (2025b, 2026)	Enhanced entrepreneurial intentions and learning outcomes
Action-based projects	Real-world projects, reflective practice	Mukesh et al. (2020)	Higher self-efficacy and intention
Business simulations	Simulated business environments, decision-making	Scheuring & Thompson (2025)	Improved problem-solving and decision-making skills
Mentoring	Guidance from experienced entrepreneurs	Nabi et al. (2025)	Enhanced career adaptability and intentions
Value creation pedagogy	Creating value for external stakeholders	Lackéus (2020)	Superior competency development compared to traditional approaches

5.3 Pedagogical Innovation and Contextual Moderators

The effectiveness of experiential learning interventions is moderated by a range of contextual and individual factors. Research has examined how educational fields, geographic location, course characteristics, and student needs influence the outcomes of entrepreneurship education.

Duong (2022) explored the link between entrepreneurship education and entrepreneurial intentions, finding that educational fields moderate this relationship. Students in business-related fields may respond differently to entrepreneurship education than students in other fields, suggesting that programmes should be tailored to the specific needs and backgrounds of different student populations.

Liu et al. (2022) examined how course characteristics and student needs influence teaching effectiveness in entrepreneurship education, finding that courses that are aligned with student needs and that incorporate active learning methods are more effective than those that do not.

Geographic location has also been identified as a moderator of the relationship between entrepreneurship education and outcomes. Hong (2025) examined the moderating impact of geographic location on the relationship between vocational students' employability skills and career success, finding that location matters. Students in urban areas may have access to more resources and opportunities than those in rural areas, suggesting that place-based factors should be considered in designing and evaluating entrepreneurship education programmes.

The broader literature on graduate employability provides additional insights into contextual moderators. Amarathunga et al. (2024) conducted a systematic literature review of graduate employability skills and identified trending avenues and research gaps. Their review highlights the importance of aligning educational provision with labour market needs and of developing a broad range of skills, including technical, interpersonal, and entrepreneurial skills. Behle (2020) developed a framework to classify and measure employability gain, providing a useful tool for evaluating the effectiveness of educational interventions. Healy et al. (2022) mapped graduate employability and career development in higher education research, identifying key themes and gaps in the literature.

The transition from education to employment is a critical period that shapes career trajectories. Research on school-to-work transitions has examined the factors that contribute to successful transitions, including employability factors (Tuononen & Hyytinen, 2022), career engagement (Grosemans et al., 2024), and the navigation of liminal spaces (Tomlinson, 2024). Steiner et al. (2022) reviewed research on antecedents and outcomes of contemporary school-to-work transitions, highlighting the complexity of these transitions and the need for comprehensive support systems. Zhong and Xu (2023) examined the relationship between precarious employment and subjective career success during the school-to-work transition, finding that precarious employment can negatively affect career success perceptions. Related work on graduate work-readiness has emphasised the importance of employability-focused training perspectives in higher education (Attah & Ndubuisi-Okolo, 2026). Research has also examined the role of training and development in reducing employee turnover intention, highlighting the importance of human resource practices for retaining talent (Anaba et al., 2025b).

Table 3: Contextual Moderators of Experiential Learning Effectiveness

Moderator	Mechanism	Representative Studies
Educational field	Disciplinary background shapes receptivity and relevance	Duong (2022)
Course characteristics	Alignment with student needs and active learning methods	Liu et al. (2022)
Geographic location	Access to resources and opportunities varies by location	Hong (2025)
Student needs	Motivation and goals influence engagement and outcomes	Liu et al. (2022)
Psychological capital	Resilience and optimism moderate intervention effects	Wang et al. (2023)

5.4 Innovation Ecosystems and Entrepreneurial Success

Innovation ecosystems provide the contextual conditions that enable or constrain entrepreneurial success. The literature on innovation ecosystems has identified several key components and characteristics that distinguish high-performing ecosystems from less developed ones.

Hoang and Antoncic (2003) conducted a critical review of network-based research in entrepreneurship, highlighting the importance of networks for resource access, opportunity recognition, and legitimacy. Networks provide entrepreneurs with access to information, capital, and support that would otherwise be unavailable. The strength and diversity of networks influence entrepreneurial outcomes, with strong ties providing trust and support and weak ties providing access to novel information and diverse perspectives.

Research in developing economies has examined the specific challenges and opportunities associated with innovation ecosystems in these contexts. Studies have documented the importance of government incentives, access to finance, infrastructure, and institutional support for SME competitiveness and growth (Attah et al., 2025a). Onwe et al. (2025, 2026) examined the role of entrepreneurial orientation in mediating the relationship between environmental hostility and the persistence of nascent enterprises, finding that entrepreneurial orientation can buffer the negative effects of hostile environments. This finding suggests that individual-level

capabilities can partially compensate for ecosystem deficiencies. Research on sustainable practices and SME competitiveness has further demonstrated that government incentives can moderate the relationship between sustainable practices and firm performance in emerging markets (Attah et al., 2025a).

The relationship between innovation ecosystems and entrepreneurial outcomes is complex and bidirectional. Solomon et al. (2024) examined the role of foreign direct investment in unlocking sustainable development in Nigeria's non-oil sector, highlighting the importance of external investment for ecosystem development. Ezenwakwelu et al. (2018, 2019) studied innovation strategies and exchange rate management in Nigerian manufacturing firms, finding that both internal capabilities and external conditions shape firm performance. Ogbo et al. (2015, 2018) examined business process reengineering and competitiveness in Nigerian banks, demonstrating the importance of organisational adaptation to changing environmental conditions. Research has also examined the contribution of small and medium scale enterprises to economic growth, highlighting the role of SMEs in economic development (Attah & Wada, 2023). Studies on agricultural cooperatives and their impact on economic development have similarly demonstrated the importance of collective action and institutional support for rural entrepreneurship (Haruna et al., 2020).

The literature also highlights the role of specific ecosystem actors and institutions. Universities and research institutions contribute to innovation ecosystems by producing knowledge, developing human capital, and fostering entrepreneurial culture. Incubators and accelerators provide support services, mentoring, and access to networks. Investors and financial institutions provide capital for venture creation and growth. Government agencies and policy frameworks shape the regulatory environment and provide incentives for entrepreneurial activity. The quality and alignment of these actors and institutions determine the overall health and vitality of the innovation ecosystem.

Research on organisational leadership and change management has emphasised the importance of effective leadership for navigating complex environments and driving sustainable development (Attah et al., 2017). Studies on inclusive leadership have further shown that leaders who embrace diversity and foster inclusive climates can enhance organisational performance and innovation (Lamidi & Attah, 2025). These findings underscore the importance of leadership and governance for ecosystem development.

5.5 Digital Transformation and Artificial Intelligence in Entrepreneurship

Digital transformation and artificial intelligence (AI) are increasingly recognised as important drivers of entrepreneurship and economic transformation. Research has examined how AI can enhance business processes, decision-making, and customer experiences, and how digital technologies can enable new forms of entrepreneurial activity.

Attah and Anaba (2025) examined the potential of AI for business and entrepreneurship transformation, highlighting its role in enhancing processes, decision-making, and customer experiences. AI technologies can automate routine tasks, provide data-driven insights, and enable personalised customer interactions, thereby freeing entrepreneurs to focus on higher-value activities. Attah et al. (2024b) examined the use of AI in enhancing strategic and operational decision-making in business organisations, finding that AI can improve decision quality and speed when appropriately implemented.

The adoption of AI and digital technologies by entrepreneurs depends on a range of factors, including access to technology, digital literacy, and organisational readiness. Ogwuche et al. (2026) examined the relationship between digital transformation, sustainable leadership, and organisational resilience in emerging markets, finding that digital transformation can enhance resilience when supported by effective leadership. Ogwuche and Attah (2025) studied the adoption of social media as a promotional tool by small businesses, finding that marketing variables influence adoption decisions. These findings suggest that digital transformation is not automatic but depends on deliberate strategies and capabilities.

The implications of digital transformation for entrepreneurship education are significant. As digital technologies become more pervasive, entrepreneurship programmes must equip students with the digital literacy and technology management skills required to leverage these tools effectively. Experiential learning approaches that incorporate digital technologies, such as virtual simulations and online collaboration platforms, can help students develop these skills. However, access to technology and digital infrastructure varies across contexts, and efforts to integrate digital technologies into entrepreneurship education must address these disparities.

5.6 Sustainable Entrepreneurship and Economic Transformation

Sustainable entrepreneurship has emerged as a critical dimension of entrepreneurship and economic transformation. Sustainable entrepreneurs seek to create economic value while also addressing social and environmental challenges, thereby contributing to sustainable development.

Attah et al. (2025a) examined the relationship between sustainable practices and SME competitiveness in emerging markets, finding that government incentives moderate this relationship. Their findings suggest that sustainable practices can enhance competitiveness when supported by appropriate policy frameworks. Felix and Attah (2026) examined the potential of rural agro-entrepreneurship for sustainable development, focusing on the role of strategic public policy initiatives in Kogi State, Nigeria. Their work highlights the importance of policy support for rural entrepreneurship and the potential of agriculture as a driver of sustainable development. Research on sustainable marketing strategies has further emphasised the importance of reframing consumer value in post-crisis economies to promote sustainable consumption and production patterns (Anaba et al., 2025a).

The broader literature on sustainable entrepreneurship and economic development provides additional insights. Anaba and Attah (2026) conducted a longitudinal analysis of startup characteristics on net job creation, finding that certain startup characteristics are associated with greater job creation. Etuh et al. (2026) examined how strategic human resource planning mediates the job creation impact of SMEs, highlighting the importance of human resource management for entrepreneurial success. These findings suggest that sustainable entrepreneurship contributes not only to environmental and social goals but also to economic development through job creation and SME growth.

The relationship between entrepreneurship and economic development is complex and context-dependent. Research in Nigerian and African contexts has examined various dimensions of this relationship. Adeyemi et al. (2018) studied the effect of brain drain on economic development in selected African countries, finding that the loss of skilled human capital can impede development. Anekwe et al. (2018) examined the effect of entrepreneurship development on poverty alleviation in Nigeria, finding that entrepreneurship can contribute to poverty reduction when supported by appropriate policies. Ndubuisi-Okolo et al. (2020) studied entrepreneurship education and managerial competence among SMEs in Anambra State, Nigeria, finding that education can enhance managerial competence. Research on waste management and sustainable development has highlighted the importance of environmental sustainability for long-term economic development (Ndubuisi-Okolo et al., 2016). Studies on the symbiotic relationship between national security and national development have further emphasised the importance of stable and secure environments for economic progress (Onama et al., 2020).

Research on human resource management in educational institutions has highlighted the importance of effective HR practices for organisational performance (Etuh et al., 2026). Studies on employee job attitudes have similarly emphasised the importance of understanding and influencing employee attitudes for organisational success (Ndubuisi-Okolo et al., 2017). These findings underscore the importance of human capital development and management for entrepreneurship and economic transformation.

Table 4: Entrepreneurship and Economic Development: Key Findings from Nigerian and African Contexts

Study	Focus	Key Finding
Attah et al. (2025a)	Sustainable practices and SME competitiveness	Government incentives moderate the relationship
Felix & Attah (2026)	Rural agro-entrepreneurship	Policy initiatives support sustainable development
Anaba & Attah (2026)	Startup characteristics and job creation	Certain characteristics predict net job creation
Etuh et al. (2026)	HR planning and SME job creation	Strategic HR planning mediates job creation impact
Adeyemi et al. (2018)	Brain drain and economic development	Skilled human capital loss impedes development
Anekwe et al. (2018)	Entrepreneurship and poverty alleviation	Entrepreneurship contributes to poverty reduction
Solomon et al. (2024)	FDI and sustainable development	Foreign investment supports non-oil sector growth
Ezenwakwelu et al. (2019)	Exchange rate and manufacturing performance	External conditions shape firm performance
Ogbo et al. (2018)	Business process reengineering in banks	Organisational adaptation enhances competitiveness
Haruna et al. (2020)	Agricultural cooperatives and economic development	Collective action supports rural development

5.7 Synthesis: An Integrated Framework for Entrepreneurial Success and Economic Transformation

The findings reviewed in the preceding sections support the development of an integrated framework that articulates the relationships among entrepreneurial mindset, experiential learning, and innovation ecosystems. The framework posits that entrepreneurial

mindset, comprising cognitive, affective, and behavioural components, is a foundational determinant of entrepreneurial intentions and actions. Individuals with stronger entrepreneurial mindsets are more likely to recognise opportunities, to intend to start ventures, and to persist in the face of challenges. However, mindset alone is insufficient for entrepreneurial success. Experiential learning interventions are necessary to develop the practical competencies, self-efficacy, and networks required to translate mindset into action.

Experiential learning interventions, including startup incubation, action-based projects, mentoring, and simulations, are most effective when they are designed to align with the needs and backgrounds of learners and when they are embedded within supportive innovation ecosystems. The effectiveness of these interventions is moderated by individual factors such as psychological capital and prior experience, and by contextual factors such as educational field, geographic location, and access to resources.

Innovation ecosystems provide the environmental conditions that enable or constrain the translation of individual capabilities into venture creation and economic impact. Supportive ecosystems provide access to finance, markets, networks, and institutions that facilitate entrepreneurial activity. Unsupportive ecosystems impose barriers and constraints that can prevent even capable entrepreneurs from succeeding. The alignment between individual capabilities and ecosystem conditions is therefore critical for entrepreneurial success.

The framework also recognises the bidirectional relationship between entrepreneurship and ecosystem development. Entrepreneurial activity contributes to ecosystem vitality by creating new ventures, generating employment, and attracting investment. Experiential learning programmes that produce graduates with entrepreneurial competencies can therefore contribute to ecosystem development, creating a virtuous cycle of capability development and economic transformation.

The integrated framework yields six testable propositions:

Proposition 1: Entrepreneurial mindset is positively associated with entrepreneurial intentions, behaviours, and outcomes.

Proposition 2: Experiential learning interventions positively influence the development of entrepreneurial mindset and competencies.

Proposition 3: The effectiveness of experiential learning interventions is moderated by individual and contextual factors, including educational background, geographic location, and access to resources.

Proposition 4: Innovation ecosystem conditions moderate the relationship between individual entrepreneurial capabilities and venture creation outcomes.

Proposition 5: Experiential learning contributes to innovation ecosystem development by producing graduates with entrepreneurial competencies who can contribute to ecosystem vitality.

Proposition 6: The alignment between individual entrepreneurial capabilities and ecosystem conditions is positively associated with entrepreneurial success and economic transformation.

These propositions provide a foundation for future empirical research and offer guidance for practitioners and policymakers seeking to design more effective entrepreneurship education and ecosystem development interventions.

6. Implications

6.1 Theoretical Implications

This article makes several theoretical contributions to the entrepreneurship literature. First, it integrates previously disparate streams of research on entrepreneurial mindset, experiential learning, and innovation ecosystems into a coherent framework. While each of these domains has received substantial attention in the literature, they have rarely been examined in an integrated manner. By articulating the relationships among them, this article advances theoretical understanding of the conditions under which entrepreneurship contributes to economic transformation.

Second, the article extends experiential learning theory by specifying the conditions under which experiential learning is most effective in entrepreneurship education. The framework identifies individual and contextual moderators that influence the

effectiveness of experiential learning interventions, thereby providing a more nuanced understanding of how and when these interventions work.

Third, the article contributes to ecosystem theory by articulating the bidirectional relationship between individual entrepreneurial capabilities and ecosystem conditions. While previous research has examined either individual-level or ecosystem-level factors, this article integrates both levels of analysis, showing how they interact to shape entrepreneurial outcomes.

Fourth, the article advances understanding of entrepreneurship in developing and emerging market contexts. By synthesising research from Nigerian and broader African contexts, the article highlights the distinctive challenges and opportunities associated with entrepreneurship in these contexts, and identifies strategies for overcoming barriers and leveraging opportunities.

6.2 Practical Implications

The findings of this article have several practical implications for entrepreneurship educators, programme designers, and institutional leaders.

First, entrepreneurship education programmes should prioritise experiential learning approaches that provide students with authentic opportunities to engage in entrepreneurial activities. Didactic instruction alone is insufficient to develop the practical competencies, self-efficacy, and networks required for entrepreneurial success. Programmes should incorporate startup incubation, action-based projects, mentoring, and simulations that allow students to learn by doing.

Second, programmes should be tailored to the needs and backgrounds of different student populations. The effectiveness of experiential learning interventions is moderated by educational field, geographic location, and student needs. Programme designers should therefore conduct needs assessments and adapt their approaches to the specific contexts in which they operate.

Third, institutions should invest in building and maintaining partnerships with external stakeholders, including businesses, incubators, investors, and government agencies. These partnerships provide students with access to real-world experiences, mentoring, and networks that are essential for entrepreneurial competence development.

Fourth, institutions should attend to the ecosystem conditions that shape entrepreneurial outcomes. While educational institutions can develop individual capabilities, they cannot single-handedly create the conditions for entrepreneurial success. Institutions should therefore advocate for policies and investments that strengthen innovation ecosystems, including access to finance, infrastructure, and supportive regulatory frameworks.

6.3 Policy Implications

The findings of this article also have implications for policymakers seeking to promote entrepreneurship and economic transformation.

First, policymakers should invest in entrepreneurship education at all levels of the educational system. Entrepreneurship education can enhance entrepreneurial intentions and competencies, contributing to venture creation and economic development. Investments in entrepreneurship education should prioritise experiential learning approaches that have been shown to be effective.

Second, policymakers should support the development of innovation ecosystems through targeted investments and policy reforms. This includes improving access to finance for entrepreneurs, investing in physical and digital infrastructure, streamlining regulatory processes, and fostering a culture of entrepreneurship and innovation.

Third, policymakers should recognise the importance of contextual factors in shaping entrepreneurial outcomes. Policies and programmes should be tailored to local contexts, taking into account the specific challenges and opportunities associated with different regions and sectors.

Fourth, policymakers should support research on entrepreneurship and economic transformation. Continued investment in research is essential for understanding the complex relationships among entrepreneurial mindset, experiential learning, innovation ecosystems, and economic outcomes, and for developing evidence-based policies and programmes.

7. Conclusion

This article has developed an integrated framework for understanding the relationships among entrepreneurial mindset, experiential learning, and innovation ecosystems, and their implications for entrepreneurial success and economic transformation. Drawing upon a systematic synthesis of 74 scholarly sources, the article has articulated six testable propositions and discussed theoretical, practical, and policy implications.

The article's core argument is that entrepreneurial success and economic transformation depend on the interaction of individual and contextual factors. Entrepreneurial mindset provides the cognitive and motivational foundation for entrepreneurial action, but mindset alone is insufficient. Experiential learning interventions are necessary to develop the practical competencies, self-efficacy, and networks required to translate mindset into action. The effectiveness of these interventions depends on individual and contextual moderators. Innovation ecosystems provide the environmental conditions that enable or constrain the translation of individual capabilities into venture creation and economic impact. The alignment between individual capabilities and ecosystem conditions is critical for entrepreneurial success.

The article contributes to the entrepreneurship literature by integrating previously disparate streams of research and by developing a framework that can guide future empirical inquiry. The six propositions derived from the framework provide a foundation for testing the relationships among entrepreneurial mindset, experiential learning, innovation ecosystems, and entrepreneurial outcomes.

The article has several limitations. First, it relies on a synthesis of existing literature rather than primary data collection. While the synthesis is systematic and comprehensive, it is limited by the availability and quality of existing research. Second, the article focuses primarily on developing and emerging market contexts, particularly Nigeria and Africa. While this focus is valuable, it limits the generalisability of the findings to other contexts. Third, the article does not examine in detail the specific mechanisms through which experiential learning interventions influence entrepreneurial outcomes. Future research should address these limitations through empirical studies that test the propositions developed in this article.

Future research should also examine the role of digital technologies in entrepreneurship education and ecosystem development, the relationship between sustainable entrepreneurship and economic transformation, and the conditions under which entrepreneurship contributes to poverty reduction and inclusive growth. Comparative research across different countries and regions would help identify the contextual factors that shape the effectiveness of entrepreneurship education and ecosystem development interventions.

In conclusion, entrepreneurship has the potential to drive economic transformation and improve livelihoods, particularly in developing and emerging market contexts. Realising this potential requires a holistic approach that attends to individual entrepreneurial mindset, experiential learning processes, and innovation ecosystem conditions. By integrating these domains, this article provides a framework that can guide research, practice, and policy in the pursuit of entrepreneurial success and economic transformation.

References

- Adeyemi, R. A., Akowe, J., Ebenezer, J. T., & Attah, E. Y. (2018). The effect of brain drain on the economic development of developing countries: Evidence from selected African countries. *Journal of Health and Social Issues*, 7(2), 66–76.
- Amarathunga, B., Khatibi, A., Talib, Z. M., Azam, S. M., & Tham, J. (2024). Graduate employability skills, trending avenues and research gaps: A systematic literature review and bibliometric analysis. *Asian Education and Development Studies*, 13(4), 320–339.
- Anaba, M. I., & Attah, E. Y. (2026). Entrepreneurship and employment generation: A longitudinal analysis of startup characteristics on net job creation. *International Journal of Academic Accounting, Finance & Management Research*, 10(4), 10–21.
- Anaba, M. I., Ayuk, A. T., & Attah, E. Y. (2025a). Sustainable marketing strategies for economic recovery: Reframing consumer value in post-crisis economies. *Ovidius University Annals, Economic Sciences Series*, 25(2).
- Anaba, M. I., Ukonu, I. O., Attah, E. Y., & Ajiboye, M. O. (2025b). The role of training and development in reducing employee turnover intention. *International Journal of Academic Multidisciplinary Research*, 9(12), 243–256.
- Andersen, R., Thomakos, D., & Wood, G. (2025). Common method variance (CMV) bias: Its implications, how to detect it, and how to handle it. *Human Resource Development International*, 1–13.
- Anekwe, R. I., Ndubuisi-Okolo, P., & Attah, E. Y. (2018). Effect of entrepreneurship development on poverty alleviation in Nigeria. *IOSR Journal of Business and Management*, 20(2), 88–87.
- Astiana, M., Malinda, M., Nurbasari, A., & Margaretha, M. (2022). Entrepreneurship education increases entrepreneurial intention among undergraduate students. *European Journal of Educational Research*, 11(2), 995–1008.
- Attah, E. Y., & Abdul, M. Y. (2024). Cultivating entrepreneurial mindset in African educational leaders: Strategies for fostering innovation and adaptability. *International Journal of Entrepreneurship and Business Innovation*, 7(4), 73–86.

- Attah, E. Y., Adejoh, E., & Edino, F. O. (2025a). Sustainable practices and SMEs competitiveness in emerging markets: The moderating role of government incentives. *International Journal of Academic and Applied Research*, 9(7), 160–168.
- Attah, E. Y., & Anaba, M. I. (2025). Harnessing artificial intelligence for business and entrepreneurship transformation: Enhancing processes, decision making, and customer experiences. *International Journal of Academic Multidisciplinary Research*, 9(2), 130–136.
- Attah, E. Y., Gimba, J. T., Obi-Anike, H. O., Ameh, A. A., & Abdul, M. Y. (2025b). Experiential learning and startup incubation partnerships: Implications on entrepreneurial intentions and learning outcomes. *The International Journal of Management Education*, 100095.
- Attah, E. Y., Gimba, J. T., Obi-Anike, H. O., Ameh, A. A., & Abdul, M. Y. (2026). Experiential learning and startup incubation partnerships: Implications on entrepreneurial intentions and learning outcomes. *The International Journal of Management Education*, 24(3), 101432.
- Attah, E. Y., & Ndubuisi-Okolo, P. U. (2026). Entrepreneurship education and graduate work-readiness: An employability-focused training perspective in higher education. *Education + Training*, 1–16.
- Attah, E. Y., Obera, V. A., & Sani, P. (2017). Effective leadership and change management for sustainable development in Nigeria. *International Journal of Public Administration and Management Research*, 4(2), 37–42.
- Attah, E. Y., Ogwuche, L. A., & Aliyu, J. A. (2024a). Emotional intelligence in leadership: A key to building resilient teams. *International Journal of Academic and Applied Research*, 8(12), 20–23.
- Attah, E. Y., Onalo, S. M., & Obi-Anike, H. O. (2024b). Leveraging artificial intelligence in enhancing strategic and operational decision-making in business organizations. *International Journal of Academic Multidisciplinary Research*, 8(12), 152–155.
- Attah, E. Y., & Wada, J. (2023). Assessing the contribution of small and medium scale enterprises to the economic growth of Kogi State, Nigeria. *African Journal of Economics and Sustainable Development*, 6(1), 129–136.
- Behle, H. (2020). Students' and graduates' employability: A framework to classify and measure employability gain. *Policy Reviews in Higher Education*, 4(1), 105–130.
- Braun, V., & Clarke, V. (2021). *Thematic analysis: A practical guide*. SAGE Publications.
- Canton, H. (2021). Organisation for Economic Co-operation and Development (OECD). In *The Europa directory of international organizations 2021* (pp. 677–687). Routledge.
- Cho, G., Hwang, H., Sarstedt, M., & Ringle, C. M. (2020). Cutoff criteria for overall model fit indexes in generalized structured component analysis. *Journal of Marketing Analytics*, 8(4), 189–202.
- Duong, C. D. (2022). Exploring the link between entrepreneurship education and entrepreneurial intentions: The moderating role of educational fields. *Education + Training*, 64(7), 869–891.
- Etuh, S. P., Elias, S. U., & Attah, E. Y. (2026). From entrepreneurial ambition to employment outcomes: How strategic human resource planning mediates the job creation impact of SMEs. *International Journal of Academic and Applied Research*, 10(6), 56–67.
- Ezenwakwelu, C. A., Attah, E. Y., & Onyejiaku, C. C. (2018). Innovation strategies and enterprise competitiveness in developing West Africa economies. *IOSR Journal of Humanities and Social Science*, 23(12), 55–68.
- Ezenwakwelu, C. A., Okolie, P. I., Attah, E. Y., Lawal, K. O., & Akoh, O. (2019). Exchange rate management and performance of Nigerian manufacturing firms. *Academy of Entrepreneurship Journal*, 25(4), 1–13.
- Felix, L. K., & Attah, E. Y. (2026). Harnessing rural agro-entrepreneurship potentials for sustainable development: The role of strategic public policy initiatives in Kogi State, Nigeria. *Gusau Journal of Business Administration*, 5(1), 220–234.
- Gabrielsson, J., Hägg, G., Landström, H., & Politis, D. (2020). Connecting the past with the present: The development of research on pedagogy in entrepreneurial education. *Education + Training*, 62(9), 1061–1086.
- Grosemans, I., Forrier, A., & De Cuyper, N. (2024). Dynamic interconnections between career engagement and perceived employability among recent graduates: A latent change score modeling approach. *Higher Education, Skills and Work-Based Learning*, 14(4), 850–864.
- Haruna, A. A., Attah, E. Y., & Onje, S. O. (2020). Impact of agricultural cooperative to the economic development of Kogi State, Nigeria. *EPRA International Journal of Research and Development*, 5(1), 60–66.
- Haruna, R., Attah, E. Y., & Ndubuisi-Okolo, P. (2014). Understanding and overcoming the challenge of youth unemployment in Nigeria. *Review of Public Administration and Management*, 3(5), 206–214.
- Hassan, A., Anwar, I., Saleem, I., Islam, K. B., & Hussain, S. A. (2021). Individual entrepreneurial orientation, entrepreneurship education and entrepreneurial intention: The mediating role of entrepreneurial motivations. *Industry and Higher Education*, 35(4), 403–418.
- Healy, M., Hammer, S., & McIlveen, P. (2022). Mapping graduate employability and career development in higher education research: A citation network analysis. *Studies in Higher Education*, 47(4), 799–811.
- Hoang, H., & Antoncic, B. (2003). Network-based research in entrepreneurship: A critical review. *Journal of Business Venturing*, 18(2), 165–187.
- Hong, L. Y. (2025). Vocational students' employability skills and career success: Exploring the moderating impact of geographic location. *Higher Education, Skills and Work-Based Learning*, 1–24.

- Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, 6(1), 1–55.
- Jackson, D., & Bridgstock, R. (2021). What actually works to enhance graduate employability? The relative value of curricular, co-curricular, and extra-curricular learning and paid work. *Higher Education*, 81(4), 723–739.
- Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development*. Prentice-Hall.
- Lackéus, M. (2020). Comparing the impact of three different experiential approaches to entrepreneurship in education. *International Journal of Entrepreneurial Behaviour & Research*, 26(5), 937–971.
- Lamidi, K. F., & Attah, E. Y. (2025). Inclusive leadership as a driver of organizational diversity and performance: A multilevel perspective. *International Journal of Academic Accounting, Finance & Management Research*, 9(6), 418–425.
- Liu, M., Gorgievski, M. J., Qi, J., & Paas, F. (2022). Increasing teaching effectiveness in entrepreneurship education: Course characteristics and student needs differences. *Learning and Individual Differences*, 96, 102147.
- Lyu, J., Shepherd, D., & Lee, K. (2024). The impact of entrepreneurship pedagogy on nascent student entrepreneurship: An entrepreneurial process perspective. *Studies in Higher Education*, 49(1), 62–83.
- Mei, H., Lee, C. H., & Xiang, Y. (2020). Entrepreneurship education and students' entrepreneurial intention in higher education. *Education Sciences*, 10(9), 257.
- Mukesh, H. V., Pillai, K. R., & Mammen, J. (2020). Action-embedded pedagogy in entrepreneurship education: An experimental enquiry. *Studies in Higher Education*, 45(8), 1679–1693.
- Nabi, G., Walmsley, A., Mir, M., & Osman, S. (2025). The impact of mentoring in higher education on student career development: A systematic review and research agenda. *Studies in Higher Education*, 50(4), 739–755.
- Nabulsi, N., McNally, B., & Khoury, G. (2021). Improving graduateness: Addressing the gap between employer needs and graduate employability in Palestine. *Education + Training*, 63(6), 947–963.
- National Health Research Ethics Committee. (2007). *National code for health research ethics*. Federal Ministry of Health.
- Ndubuisi-Okolo, P. U., Anekwe, R. I., & Attah, E. Y. (2016). Waste management and sustainable development in Nigeria. *European Journal of Business and Management*, 8(17), 132–144.
- Ndubuisi-Okolo, P. U., Attah, E. Y., & Anigbogu, T. (2017). Influencing employees' job attitude in Nigeria: A critical review. *IOSR Journal of Business and Management*, 19(12), 31–41.
- Ndubuisi-Okolo, P. U., Attah, E. Y., & Chime, U. F. (2020). Entrepreneurship education and managerial competence among SMEs in Anambra State, Nigeria. *EPRA International Journal of Research and Development*, 6(5), 173–180.
- OECD. (2023). *OECD entrepreneurship at a glance 2023*. OECD Publishing.
- Ogbo, A. I., Attah, E. Y., Ewurum, U. J. F., & Ugbo, C. O. (2015). Business process reengineering and performance of Nigerian commercial banks in North Central. *International Journal of Contemporary Applied Sciences*, 2(10), 1–15.
- Ogbo, A. I., Attah, E. Y., & Ukpere, W. I. (2018). Improving the competitiveness of Nigerian deposit money banks through business process re-engineering. *Journal of Reviews on Global Economics*, 7, 926–933.
- Ogwuche, L. A., & Attah, E. Y. (2025). Effects of marketing variables on adoption of social media as promotional tool by small businesses in the Federal Capital Territory, Abuja. *IOASD Journal of Business and Management Studies*, 2(2), 41–49.
- Ogwuche, L. A., Onalo, S. M., Elias, S. U., & Attah, E. Y. (2026). Sustainable leadership, digital transformation, and organisational resilience in emerging markets: A moderated serial mediation model. *International Journal of Academic Multidisciplinary Research*, 10(5), 417–431.
- Onama, G. O., Amana, I. A., & Attah, E. Y. (2020). An outline of the symbiotic relationship between national security and national development. *EPRA International Journal of Research and Development*, 5(8), 172–177.
- Onwe, C. C., Attah, E. Y., & Aikhomu, J. (2025). Entrepreneurial orientation as a mediator of the environmental hostility to the persistence of nascent enterprises' relationship. *Asia-Pacific Journal of Business Administration*, 1–20.
- Onwe, C. C., Attah, E. Y., & Aikhomu, J. (2026). Entrepreneurial orientation as a mediator of the environmental hostility to the persistence of nascent enterprises' relationship. *Asia-Pacific Journal of Business Administration*, 18(5), 1240–1259.
- Otache, I., Umar, K., & Audu, Y. (2019). Entrepreneurship education and entrepreneurial intentions: A perspective of Nigerian undergraduates. *Education + Training*, 61(5), 612–633.
- Overwien, A., Jahnke, L., & Leker, J. (2024). Can entrepreneurship education activities promote students' entrepreneurial intention? *The International Journal of Management Education*, 22(1), 100928.
- Paray, Z. A., & Kumar, S. (2020). Does entrepreneurship education influence entrepreneurial intention among students in HEIs? The role of age, gender and degree background. *Journal of International Education in Business*, 13(1), 55–72.
- Pennetta, S., Anglani, F., & Mathews, S. (2024). Navigating through entrepreneurial skills, competencies and capabilities: A systematic literature review and the development of the entrepreneurial ability model. *Journal of Entrepreneurship in Emerging Economies*, 16(4), 1144–1182.
- Santos, S. C., Nikou, S., Brännback, M., & Liguori, E. W. (2021). Are social and traditional entrepreneurial intentions really that different? *International Journal of Entrepreneurial Behavior & Research*, 27(7), 1891–1911.
- Scheuring, F., & Thompson, J. (2025). Enhancing graduate employability: Exploring the influence of experiential simulation learning on life skill development. *Studies in Higher Education*, 50(2), 256–270.

- Solomon, T., Agari, E. P., & Attah, E. Y. (2024). Unlocking sustainable development through enhancing foreign direct investment in Nigeria's non-oil sector. *International Journal of Academic and Applied Research*, 8(11), 208–213.
- Steiner, R., Hirschi, A., & Akkermans, J. (2022). Many roads lead to Rome: Researching antecedents and outcomes of contemporary school-to-work transitions. *Journal of Career Development*, 49(1), 3–17.
- Tomlinson, M. (2024). Conceptualising transitions from higher education to employment: Navigating liminal spaces. *Journal of Youth Studies*, 27(8), 1079–1096.
- Tuononen, T., & Hyytinen, H. (2022). Towards a successful transition to work: Which employability factors contribute to early career success? *Journal of Education and Work*, 35(6–7), 599–613.
- Underdahl, L., Akojie, P., Magabo, M. A., Reed, R. R., Haynes, S., Marzano, M., & Patterson, M. S. (2023). A framework to enhance graduate employability. *International Journal of Doctoral Studies*, 18, 55.
- Wahab, M. H. S., Hosen, M., Islam, M. A., Chowdhury, M. A. M., Jantan, A. H., & Wahab, S. A. (2025). Graduate employability: A bibliometric analysis. *Global Business and Organizational Excellence*, 44(2), 38–57.
- Wang, X. H., You, X., Wang, H. P., Wang, B., Lai, W. Y., & Su, N. (2023). The effect of entrepreneurship education on entrepreneurial intention: Mediation of entrepreneurial self-efficacy and moderating model of psychological capital. *Sustainability*, 15(3), 2562.
- Wong, H. Y., & Chan, C. K. (2022). A systematic review on the learning outcomes in entrepreneurship education within higher education settings. *Assessment & Evaluation in Higher Education*, 47(8), 1213–1230.
- Zhong, H., & Xu, J. (2023). Precarious employment and subjective career success during the school-to-work transition. *Psychology Research and Behavior Management*, 2327–2339.