

PERCIEVED INFLUENCE OF ENTREPRENEURSHIP EDUCATION ON STUDENTS' ENTREPRENEURIAL INTENTIONS, INNOVATION CAPACITY, AND SELF-RELIANCE AMONG VOCATIONAL AND TECHNICAL EDUCATION STUDENTS IN NIGERIAN UNIVERSITY

¹Daya Ufulul Lamech & ²Umar Mohammed Umar

¹Department of Business and Entrepreneurship Education, Federal University of Education, Pankshin, Plateau State.
mannufulul@gmail.com; 07039642740

²Department of Electrical and Electronics Engineering, Mai Idris Aloom Polytechnic Geidam, Yobe State
umarmohdumar33@gmail.com; 07035872255

Abstract

The study investigated the perceived influence of entrepreneurship education on students' entrepreneurial intentions, innovation capacity, and self-reliance among students in Nigerian Universities. The study adopted a descriptive survey research design. The population of the study comprised all 89 PhD students of the Faculty of Vocational and Technical Education (VTE) driven from Departments of Agricultural Education, Entrepreneurship Education, Business Education, Computer and Robotics Education, and Industrial Technical Education of the 2025/2026 academic session at the University of Nigeria, Nsukka (UNN). No sampling was carried out because the population was manageable. Two research questions guided the study. A structured questionnaire titled Entrepreneurship Education and Students' Development Questionnaire (EESDQ) was utilized for data collection. The instrument was validated by experts from the Faculty of Vocational and Technical Education, University of Nigeria, Nsukka. Cronbach Alpha reliability was used to determine the internal consistency of the instrument, and a reliability coefficient of 0.81 was obtained. Data were collected electronically using Google Forms distributed through online platforms. Mean and standard deviation were used to answer the research questions. The study revealed that from the perspective of postgraduate vocational and technical education (VTE) students, entrepreneurship education significantly enhances their entrepreneurial intentions, innovation capacity, and self-reliance. The findings also demonstrate that exposure to entrepreneurial training equips these advanced scholars with innovative thinking skills, business startup orientation, and economic independence necessary for sustainable national development. The study recommended practical-oriented entrepreneurship education, digital innovation training, mentorship programmes, and stronger university-industry collaboration for improved entrepreneurial outcomes among students.

Keywords: Entrepreneurship education, entrepreneurial intention, innovation capacity, self-reliance, vocational and technical education, students.

Introduction

Entrepreneurship education has become one of the most important educational reforms aimed at addressing unemployment, poverty, and economic dependency among graduates in Nigeria and across the world. The increasing demand for innovative and self-reliant graduates

has made entrepreneurship education a strategic tool for equipping students with entrepreneurial competencies, practical skills, creativity, and opportunity recognition abilities necessary for sustainable development (Drucker, 2021; Oduwaiye, 2022). Entrepreneurship education exposes learners to business creation processes, innovative thinking, and problem-solving experiences capable of promoting economic productivity and national growth. One major outcome associated with entrepreneurship education is entrepreneurial intention, which refers to students' willingness, readiness, and determination to establish business ventures and pursue self-employment opportunities after graduation (Ajzen, 2020; Audu, 2023). Students who possess strong entrepreneurial intentions are more likely to engage in enterprise creation and contribute meaningfully to economic transformation. Entrepreneurship education also enhances innovation capacity which involves the ability of students to generate creative ideas, develop innovative solutions, and adapt effectively to changing technological and economic realities (Okoro, 2022; Olorundare, 2023). Innovation capacity has become essential in modern societies because entrepreneurship and economic sustainability depend largely on creativity, innovation, and technological advancement. Furthermore, entrepreneurship education promotes self-reliance by equipping students with entrepreneurial and vocational competencies required for independent living, wealth creation, and reduced dependence on government employment opportunities (Akinwale, 2022; Eze, 2023). In Nigeria where graduate unemployment remains alarming, self-reliance has become a critical educational objective aimed at empowering graduates for sustainable livelihood. Despite the integration of entrepreneurship education into tertiary institutions, concerns still exist regarding the extent to which entrepreneurship education predicts entrepreneurial intentions, innovation capacity, and self-reliance among students in vocational and technical education. It is against this background that this study investigates entrepreneurship education as a predictor of students' entrepreneurial intentions, innovation capacity, and self-reliance among Nigerian students.

Entrepreneurship education has become an important educational strategy for developing entrepreneurial competencies, creativity, innovation, and self-employment orientation among students in higher institutions. The increasing economic challenges and unemployment situation in Nigeria have made entrepreneurship education a major tool for empowering graduates with practical skills required for sustainable livelihood and enterprise creation. Drucker (2021) viewed entrepreneurship education as a systematic process of developing learners' ability to identify opportunities and transform innovative ideas into profitable ventures. Emphasizing, Oduwaiye (2022) described entrepreneurship education as an educational programme designed to equip students with entrepreneurial competencies,

managerial skills, and self-employment orientation necessary for economic survival. Similarly, Ogbuanya (2023) explained that entrepreneurship education involves the acquisition of practical entrepreneurial knowledge, innovative abilities, and problem-solving skills capable of preparing learners for dynamic labour market conditions. Ezeani and Igwe (2024) further assert that entrepreneurship education enhances entrepreneurial mindsets, opportunity recognition abilities, and resilience among students. These views indicate that entrepreneurship education develops entrepreneurial competencies capable of influencing students' entrepreneurial intentions, innovative capacities, and self-reliance. Since entrepreneurship education aims at shaping students' entrepreneurial orientation and innovative behaviour, it becomes necessary to examine entrepreneurial intentions as one of the major outcomes associated with entrepreneurial learning.

Entrepreneurial intention has attracted significant attention among scholars because it determines individuals' willingness and preparedness to establish business ventures. Entrepreneurial intention reflects students' commitment toward entrepreneurial activities and enterprise creation after graduation. Ajzen (2020) defined entrepreneurial intention as a conscious state of mind directing attention and action toward entrepreneurial behaviour. Krueger (2021) described entrepreneurial intention as the commitment and readiness of individuals to pursue entrepreneurial careers through opportunity recognition and venture establishment. Audu (2023) affirm that entrepreneurial intention refers to students' desire and motivation to become self-employed through entrepreneurial activities after graduation. Tanko (2024) also argued that entrepreneurial intention involves the mental preparedness of individuals to identify opportunities, take risks, and create innovative ventures capable of solving societal challenges. The views of these scholars suggest that entrepreneurial intention is an important outcome of entrepreneurship education because students exposed to entrepreneurial learning are more likely to develop positive attitudes toward enterprise creation and self-employment. However, entrepreneurial intentions alone may not guarantee entrepreneurial success without innovative abilities capable of transforming ideas into productive ventures. This therefore necessitates the discussion of innovation capacity.

Innovation capacity has become an essential requirement for entrepreneurship development and sustainable economic growth in modern societies. Innovation capacity enables individuals to generate creative ideas, solve problems effectively, and develop products or services capable of improving societal conditions. Schumpeter (2020) viewed innovation capacity as the ability of individuals to introduce new ideas, products, and methods capable of creating economic value. Okoro (2022) explained that innovation capacity refers to students'

ability to apply creativity, critical thinking, and problem-solving skills in addressing economic and social challenges. Olorundare (2023) maintained that innovation capacity involves the capability of individuals to generate novel ideas, adapt to changing environments, and utilize technological tools for productive purposes. Sani, Inusa, and Aminu (2024) further argued that innovation capacity includes proactive behaviour, opportunity recognition, and the development of innovative business ideas through entrepreneurial learning experiences. These perspectives indicate that entrepreneurship education enhances innovation capacity by exposing students to creativity-driven and problem-solving learning experiences. Innovation capacity complements entrepreneurial intentions because individuals with innovative abilities are more likely to establish sustainable enterprises and contribute meaningfully to economic development and sustainability. Nevertheless, the ultimate expectation of entrepreneurship education and innovation development is to produce economically independent individuals capable of sustaining themselves through acquired competencies. Therefore, self-reliance among students is utmost.

Self-reliance has become one of the major goals of entrepreneurship education in developing countries where unemployment and economic dependency continue to affect graduates. Self-reliance emphasizes individuals' ability to utilize acquired entrepreneurial competencies and practical skills for independent living and wealth creation. Nyerere (2020) described self-reliance as the ability of individuals to depend on their productive capacities and acquired skills for solving personal and societal challenges without excessive dependence on external support. Akinwale (2022) viewed self-reliance as an individual's ability to utilize entrepreneurial and vocational competencies for sustainable livelihood and economic empowerment. Eze (2023) explained that self-reliance involves economic independence, confidence, and the ability of graduates to establish enterprises capable of generating income and employment opportunities. Adeola (2024) further maintained that self-reliance refers to individuals' capability to survive economically through acquired entrepreneurial and innovative skills rather than relying solely on government employment opportunities. These views indicate that entrepreneurship education contributes significantly to self-reliance by equipping students with entrepreneurial intentions, innovation capacity, and practical competencies necessary for enterprise creation and sustainable living. Therefore, the relationship among entrepreneurship education, entrepreneurial intentions, innovation capacity, and self-reliance forms the basis of this study.

Statement of the Problem

Entrepreneurship education was introduced into Nigerian tertiary institutions to promote innovation, entrepreneurial competencies, and self-reliance among students. Ideally, students in vocational and technical education programmes are expected to possess strong entrepreneurial intentions, innovative abilities, and self-employment orientation due to the practical and skill-based nature of their academic disciplines. The expectation is that entrepreneurship education should empower students to become job creators, innovators, and contributors to sustainable national development.

However, the current reality in Nigeria indicates that unemployment, dependence on white-collar jobs, and low entrepreneurial startup culture among graduates continue to persist despite the implementation of entrepreneurship education programs. Many students still experience difficulties translating entrepreneurial knowledge into innovative ventures and sustainable business opportunities. Prevailing studies have shown that entrepreneurship education contributes positively to entrepreneurial intention and innovation development among students, yet the practical outcomes among students in vocational and technical education remain uncertain. Also, most previous studies focused mainly on undergraduate populations and entrepreneurial intentions with little attention given to doctoral students in vocational and technical education disciplines in the Universities. This creates a knowledge gap regarding the extent to which entrepreneurship education predicts entrepreneurial intentions, innovation capacity, and self-reliance among students across Agricultural Education, Entrepreneurship Education, Business Education, Computer and Robotics Education, and Industrial Technical Education departments. Therefore, the problem of this study is to determine the extent to which entrepreneurship education predicts students' entrepreneurial intentions, innovation capacity, and self-reliance among vocational and technical education students.

Purpose of the Study

The main purpose of this study was to investigate perceived influence of entrepreneurship education on students' entrepreneurial intentions, innovation capacity, and self-reliance among Nigerian students. Specifically, the study sought to determined:

1. The perceived influence of entrepreneurship education on students' entrepreneurial intentions among Nigerian students.
 2. The perceived influence of entrepreneurship education on students' innovation capacity and self-reliance among Nigerian students.
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Research Questions

The following research questions guided the study:

3. What is the perceived influence of entrepreneurship education on students' entrepreneurial intentions among Nigerian students?
4. What is the perceived influence of entrepreneurship education on students' innovation capacity and self-reliance among Nigerian students?

Methodology

The study adopted a descriptive survey research design. The study was conducted in the Faculty of Vocational and Technical Education, University of Nigeria, Nsukka. The population of the study comprised 82 PhD students in the 2025/2026 academic session captured from Agricultural Education, Entrepreneurship Education, Business Education, Computer and Robotics Education, and Industrial Technical Education departments. No sampling was carried out because the population was manageable.

A structured questionnaire titled Entrepreneurship Education and Students' Development Questionnaire (EESDQ) was used for data collection. The instrument consisted of twenty (20) items with two sections A and B, A is the Demographic information and B the questionnaire items designed to elicit responses on entrepreneurship education, entrepreneurial intentions, innovation capacity, and self-reliance. The questionnaire was structured on a four-point rating scale; strongly agreed (SA), agreed (A), Strong Disagreed (SD) and disagreed (D), 4 for (SA), 3 for (A), 2 for (SD) and 1 for (D). The instrument was validated by experts in Vocational and Technical Education and Measurement and Evaluation. Cronbach Alpha was used to determine the internal consistency of the instrument, yielding a reliability coefficient of 0.81 which indicated that the instrument was reliable for the study. Data were collected electronically using Google Forms shared through online platforms such as WhatsApp and email. Mean and standard deviation were used to answer the research questions.

Research Question 1: To what extent does entrepreneurship education predict students' entrepreneurial intentions among Nigerian students?

The data presentation in Table 1 revealed that all items (1-10) had their mean ($\bar{X}$) values ranging from 2.60 to 3.31, which fall within the Agreed (A) range. This shows that all the items are strong indicators of the perceived positive influence of entrepreneurship education on students' entrepreneurial intentions. The Table also shows that the standard deviation (SD) of

the items ranges between 0.77-1.03 which are all less than 1.96 which indicates that the responses of the respondents were close to each other.

Table 1: Mean rating and standard deviation of responses of response on how entrepreneurship education predicts students' entrepreneurial intentions among Nigerian students

S/N	Item Statements	X	SD	Remark
1	Entrepreneurship education has increased my interest in establishing a business venture after graduation.	3.31	0.77	A
2	Exposure to entrepreneurship courses has strengthened my confidence in becoming self-employed.	2.77	0.87	A
3	Entrepreneurship education has improved my ability to identify business opportunities in society.	3.30	1.00	A
4	Practical entrepreneurial activities in my programme motivate me to consider entrepreneurship as a career option.	2.63	0.94	A
5	Entrepreneurship education has increased my willingness to take entrepreneurial risks.	2.96	0.91	A
6	I intend to establish a business enterprise as a result of the entrepreneurial knowledge acquired during my studies.	2.93	0.94	A
7	Entrepreneurship education has positively influenced my attitude toward business ownership.	2.60	0.98	A
8	Entrepreneurial training has enhanced my determination to become financially independent.	3.00	0.92	A
9	Entrepreneurship education has increased my interest in creating employment opportunities myself and for others.	2.69	0.97	A
10	Entrepreneurship education has strengthened my commitment toward pursuing entrepreneurial activities after graduation.	2.66	1.03	A

Research Question 2: To what extent does entrepreneurship education predict students' innovation capacity and self-reliance among Nigerian students?

The data revealed that (item 12) had the highest mean value of 3.54 which falls within the strongly agreed (SA). This indicate that the respondent with strongly agreed that item 12 is a predictor of students' innovation capacity and self-reliance among Nigerian students. Furthermore, 9 items (11,13,14,15,16,17,18,19,20) had their mean (X) ranging from 2.60 -3.49 which belong to the category of Agreed (A) which indicate that the 9 items are predictors of students' innovation capacity and self-reliance among Nigerian students. The Table also shows that the standard deviation (SD) of the items ranges between 0.63-1.03 which are all less than 1.96 which indicates that the responses of the respondents were close to each other and the mean.

Table 2: Mean rating and standard deviation of responses of respondents on how entrepreneurship education predicts students' innovation capacity and self-reliance among Nigerian students

S/N	Item Statements	X	SD	Remark
11	Entrepreneurship education has improved my ability to develop creative solutions to problems.	3.36	0.72	A
12	Entrepreneurship education has enhanced my innovative thinking skills.	3.54	0.63	SA
13	Exposure to entrepreneurship education has increased my ability to utilize technology for productive purposes.	2.91	1.03	A
14	Entrepreneurship education has improved my ability to generate new business ideas.	3.17	0.88	A
15	Entrepreneurship education has encouraged me to think independently and creatively.	3.34	0.72	A
16	Entrepreneurship education has equipped me with practical skills for self-reliance.	3.09	0.81	A
17	Entrepreneurial training has increased my ability to survive economically without depending on government employment.	3.11	0.77	A
18	Entrepreneurship education has prepared me to create sustainable sources of income.	3.49	0.76	A
19	Entrepreneurship education has enhanced my confidence in utilizing my skills for independent living.	3.13	0.82	A
20	Entrepreneurship education has empowered me to contribute meaningfully to economic development through innovation and self-employment.	2.60	0.98	A

Discussion of Findings

The findings of the study on the entrepreneurship education as a predictor of students' entrepreneurial intentions, innovation capacity, and self-reliance among vocational and technical education students in Nigerian university revealed that entrepreneurship education significantly enhances entrepreneurial intentions, innovation capacity, and self-reliance among students in Nigerian Universities. The findings also demonstrate that exposure to entrepreneurial training equips students with innovative thinking skills, business startup orientation, and economic independence necessary for sustainable national development

The findings of this study are in consonance with the study conducted by Audu (2023) on entrepreneurship education and entrepreneurial intention among university students in Nigeria. The study revealed that entrepreneurship education significantly influenced students' entrepreneurial intentions by improving their interest in self-employment, business startup orientation, and entrepreneurial confidence. The relationship between the study and this study lies in the fact that both studies established that entrepreneurship education positively predicts students' willingness and readiness to establish business ventures after graduation. The two studies also emphasized that entrepreneurial exposure enhances students' attitudes toward enterprise creation and economic independence.

The findings also agree with the study carried out by Olorundare (2023) on entrepreneurship education and innovation capacity among Nigerian youths. The study found that entrepreneurship education significantly improved students' creativity, innovative thinking, and problem-solving abilities necessary for enterprise development and sustainable economic growth. The interrelationship between the study and the present study is that both studies recognized innovation capacity as an important outcome of entrepreneurship education. Both studies further maintained that entrepreneurial learning experiences equip students with the innovative competencies required to adapt to changing technological and economic realities.

Furthermore, the findings are consistent with the study conducted by Akinwale (2022) on entrepreneurship education and graduate self-reliance in Nigeria. The study revealed that entrepreneurship education contributes significantly to self-reliance by equipping students with practical entrepreneurial skills, business management competencies, and self-employment orientation. The relationship between Akinwale's study and the current study is that both studies established that entrepreneurship education promotes economic independence and reduces graduates' dependence on white-collar jobs. Both studies equally emphasized that entrepreneurship education empowers students with the competencies needed for sustainable livelihood and wealth creation.

Conclusion

Based on the findings of the study, it was concluded that entrepreneurship education is a significant perceived predictor of students' entrepreneurial intentions, innovation capacity, and self-reliance among vocational and technical education students. Crucially, the empirical evidence from this study highlights the specific perspectives of PhD students within the Faculty of Vocational and Technical Education at the University of Nigeria, Nsukka (UNN). As advanced scholars preparing to enter the leadership and policy space of technical education, their insights establish that entrepreneurship education successfully equips students with entrepreneurial competencies, innovative thinking abilities, opportunity recognition skills, and practical experiences necessary for enterprise creation and sustainable livelihood.

The study further concluded that exposure to entrepreneurial training enhances students' willingness to engage in self-employment, develop innovative business ideas, and become economically independent. While these positive outcomes are distinctly reflective of the postgraduate VTE students at UNN, they underscore the broader institutional value of entrepreneurship education as an important educational strategy for promoting job creation,

innovation, and sustainable national development across vocational and technical education programmes in Nigerian universities.

Recommendations

Based on the findings of the study, the following recommendations were made:

1. Lecturers should explicitly anchor their teaching methods in problem-based learning, independent creative tasks, and experiential case studies to maximize students' inherent inventive capacities.
2. Institutional administrators must transit from purely theoretical assessments to structural, hands-on enterprise create projects that actively incentivize postgraduate students to pursue business ownership post-graduation.
3. University administrators should deliberately invest in modern digital laboratories, e-commerce training modules, and production technologies to bridge technical execution discrepancies among scholars.
4. The university should establish functional business incubation cells, mentorship structures, and seed-funding channels to help students convert identified opportunities into operational self-reliance models.
5. Vocational and technical curricula should be continuously optimized around high-value, marketable technical competencies that guarantee immediate post-graduation economic survival and community wealth creation.

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