

CHALLENGES TO STUDENT BUSINESS START-UPS AFTER ENTREPRENEURSHIP SKILLS TRAINING IN COLLEGES OF EDUCATION IN NORTH-WEST NIGERIA

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Abstract

Entrepreneurship education has become a strategic intervention for addressing graduate unemployment and promoting self-employment in Nigeria. In response to the growing unemployment challenge, Colleges of Education have integrated entrepreneurship education and practical skills training into their curricula to equip students with competencies required for venture creation. Despite these efforts, relatively few graduates successfully establish sustainable businesses after completing entrepreneurship training, indicating the existence of persistent barriers beyond skills acquisition. This paper examines the challenges to student business start-ups after entrepreneurship skills training in Colleges of Education in North-West Nigeria. Specifically, the study investigates financial, institutional, mentorship, infrastructural, regulatory, and socio-cultural constraints affecting students' transition from entrepreneurship training to business ownership. The paper also explores the implications of these challenges for graduate employability, economic development, and entrepreneurship policy. A descriptive survey research design is proposed, targeting final-year students and recent graduates from selected Colleges of Education in the North-West geopolitical zone. Findings provided empirical evidence for policymakers, educational administrators, entrepreneurship centre managers, and development agencies seeking to improve entrepreneurship education outcomes and strengthen graduate business creation. The study recommends improved access to start-up finance, structured mentorship programmes, stronger institutional support, business incubation centres, and enhanced collaboration between Colleges of Education and industry.

Keywords: Entrepreneurship education, Student business start-ups, Entrepreneurship skills training, Colleges of Education, North-West Nigeria, Graduate entrepreneurship.

1. Introduction

Entrepreneurship has become an important strategy for addressing graduate unemployment, promoting innovation, and stimulating economic growth, particularly in developing countries. In Nigeria, the increasing number of graduates and the limited availability of formal employment have heightened the need for entrepreneurship as a viable means of self-employment and wealth creation (Obona et al., 2023). Consequently, the Federal Government of Nigeria introduced entrepreneurship education into the curricula of tertiary institutions through the National Universities Commission (NUC), National Board for Technical Education (NBTE), and National Commission for Colleges of Education (NCCE) to equip students with entrepreneurial knowledge, practical skills, and competencies required for venture creation (NCCE, 2020).

In Colleges of Education, entrepreneurship education combines classroom instruction with practical skills training to prepare students not only for teaching careers but also for self-employment. Studies have shown that entrepreneurship education enhances entrepreneurial knowledge, self-efficacy, innovation, and business start-up intentions among students (Nabi et al., 2017; Ndako et al., 2026). Despite these achievements, many graduates do not establish businesses after completing entrepreneurship skills training due to challenges such as inadequate start-up capital, weak institutional support, limited mentorship, and an unfavourable business environment (Akomaye & Akomaye, 2024).

The situation is particularly important in North-West Nigeria, where youth unemployment remains high despite the implementation of entrepreneurship education programmes in

Colleges of Education. Although previous studies have examined entrepreneurship education and entrepreneurial intentions, limited empirical attention has been given to the challenges students encounter when attempting to establish businesses after completing entrepreneurship skills training in Colleges of Education within the region. This gap limits the availability of evidence needed to improve entrepreneurship programmes and graduate enterprise development.

1. Statement of the Problem

Entrepreneurship education was introduced into Nigerian tertiary institutions to equip graduates with the skills and competencies required for self-employment and business creation. Despite this initiative, many graduates of Colleges of Education in North-West Nigeria remain unemployed or are unable to establish sustainable businesses after completing entrepreneurship skills training. Existing studies indicate that inadequate access to finance, weak institutional support, poor mentorship, and an unfavourable business environment may hinder graduate business start-ups (Akomaye & Akomaye, 2024; Obona et al., 2023). However, there is limited empirical evidence focusing specifically on these challenges among students of Colleges of Education in North-West Nigeria. This study therefore investigates the challenges affecting student business start-ups after entrepreneurship skills training in Colleges of Education in North-West Nigeria. The study aimed to achieve the following specific objectives:

1. examine the effectiveness of entrepreneurship skills training in preparing students for business start-ups;
2. identify the financial challenges affecting student business start-ups;
3. assess the influence of mentorship and institutional support on student business start-ups;
4. examine the business environment and market challenges affecting student business start-ups;
5. determine students' readiness to establish businesses after entrepreneurship skills training; and
6. identify strategies for improving student business start-ups after entrepreneurship skills training.

2. Literature Review

2.1 Concept of Entrepreneurship Education

Entrepreneurship education refers to the systematic process of equipping learners with the knowledge, skills, attitudes, competencies, and experiences required to identify business

opportunities, create value, manage risks, and establish sustainable enterprises. Unlike conventional education, entrepreneurship education emphasizes innovation, creativity, opportunity recognition, problem-solving, business planning, and venture creation.

According to Donald F. Kuratko (2020), entrepreneurship education develops entrepreneurial competencies that enable individuals to identify opportunities, mobilize resources, manage uncertainty, and create innovative business ventures. Similarly, Mets et al. (2023) describe entrepreneurship education as a learning process that promotes creativity, innovation, resilience, adaptability, and entrepreneurial thinking required in contemporary knowledge economies.

In recent years, entrepreneurship education has shifted from classroom-based theoretical instruction to experiential and practice-oriented learning. Modern entrepreneurship programmes increasingly integrate simulations, project-based learning, internships, business incubation, mentorship, and enterprise development activities to prepare graduates for business

ownership. Experiential learning has been shown to significantly improve entrepreneurial competence, entrepreneurial self-efficacy, and business start-up readiness among students.

In Nigeria, entrepreneurship education became compulsory in tertiary institutions following reforms introduced by the Federal Government to reduce graduate unemployment and encourage self-employment. Within Colleges of Education, entrepreneurship education is coordinated under the guidelines of the National Commission for Colleges of Education (NCCE), with entrepreneurship centers providing opportunities for practical skills acquisition alongside classroom instruction. The curriculum seeks to produce graduates capable of creating employment rather than relying solely on paid jobs. Recent evaluations indicate that the curriculum contributes positively to job readiness but requires stronger institutional support and industry collaboration to achieve its intended outcomes.

2.2 Entrepreneurship Skills Training

Entrepreneurship skills training refers to structured learning activities designed to equip learners with the technical, managerial, financial, and behavioural competencies required to identify business opportunities, establish enterprises, and manage them successfully. Unlike traditional classroom instruction, entrepreneurship skills training emphasizes experiential learning through practical exercises, simulations, business projects, and real-life entrepreneurial experiences (Kuratko, 2020; Nabi et al., 2017).

Entrepreneurship skills training focuses on developing competencies such as opportunity identification, business planning, financial management, marketing, innovation, leadership, communication, digital entrepreneurship, risk management, and enterprise management. These competencies enable learners to recognize market opportunities, mobilize resources, and effectively manage business ventures in competitive environments (Neck et al., 2021).

Studies have consistently shown that practical entrepreneurship training improves entrepreneurial self-efficacy, entrepreneurial intention, innovation capability, and business start-up readiness more effectively than theoretical classroom instruction alone (Nabi et al., 2017; Neck et al., 2021). In Nigerian Colleges of Education, entrepreneurship centres provide practical training in vocational and enterprise-related areas such as information and communication technology (ICT), fashion design, catering, agriculture, leather works, tailoring, soap and detergent production, cosmetics production, and digital marketing. These programmes are

intended to prepare graduates for self-employment and reduce dependence on paid employment (NCCE, 2020). Nevertheless, the acquisition of entrepreneurial skills alone does not necessarily result in business creation because graduates often encounter financial, institutional, and environmental barriers after completing their training (Akomaye & Akomaye, 2024).

2.3 Student Business Start-ups

A student business start-up refers to a business venture established by students or recent graduates using the entrepreneurial knowledge and skills acquired during formal education. Student entrepreneurship has attracted increasing attention because young entrepreneurs contribute to innovation, job creation, economic diversification, and sustainable development (OECD, 2023). Business start-up represents the practical outcome of entrepreneurship education

reflecting the successful transformation of entrepreneurial intention into entrepreneurial action. According to Ajzen's (1991) Theory of Planned Behavior, entrepreneurial behaviour is influenced by individuals' attitudes, perceived behavioural control, and subjective norms. Entrepreneurship education therefore seeks to strengthen these factors by improving entrepreneurial competence, confidence, and business readiness.

Recent studies have shown that entrepreneurship education positively influences entrepreneurial intention, opportunity recognition, and entrepreneurial self-efficacy among students (Nabi et al., 2017; Ndako et al., 2026). However, despite increased entrepreneurial intentions, relatively few graduates establish sustainable businesses after graduation due to financial, institutional, environmental, and policy-related constraints (Akomaye & Akomaye, 2024).

2.3.1 Challenges to Student Business Start-ups

Although entrepreneurship education has expanded considerably across Nigerian tertiary institutions, many graduates continue to experience significant challenges when attempting to establish businesses after completing entrepreneurship skills training.

Limited Access to Start-up Finance

Access to finance remains one of the most significant barriers to graduate entrepreneurship. Most students complete their entrepreneurship programmes without sufficient savings or collateral required to obtain loans from commercial financial institutions. In addition, financial institutions often impose stringent lending conditions that discourage young entrepreneurs with limited credit histories and business experience (OECD, 2023).

Empirical studies conducted in Nigerian tertiary institutions consistently identify inadequate start-up capital as the greatest obstacle to graduate business creation (Akomaye & Akomaye, 2024; Obona et al., 2023). Without adequate financial support, many graduates are unable to transform viable business ideas into operational enterprises.

Inadequate Mentorship and Business Support

Mentorship plays a critical role in facilitating the transition from entrepreneurship education to business ownership. Experienced mentors provide technical guidance, business advice, networking opportunities, and psychological support that enhance entrepreneurial confidence and improve business survival (Neck et al., 2021).

However, many entrepreneurship centres provide limited post-graduation support after students complete their training. The absence of structured mentorship programmes, business incubation,

and follow-up services reduces graduates' ability to overcome the challenges associated with establishing new ventures. Consequently, scholars recommend continuous mentoring and incubation as integral components of entrepreneurship education (Nabi et al., 2017).

Weak Institutional Support

Institutional support includes entrepreneurship centres, incubation facilities, innovation hubs, business advisory services, technology transfer centres, and partnerships between educational institutions and industries. Such support enables graduates to access technical expertise, business information, equipment, and professional networks.

Although many Colleges of Education have established entrepreneurship centres, studies indicate that inadequate funding, obsolete equipment, limited training facilities, and weak collaboration with industry reduce the effectiveness of entrepreneurship programmes (Ndako et al., 2026). Strengthening institutional support is therefore essential for improving graduate business creation.

Poor Market Access

Many graduate entrepreneurs possess technical competencies but lack adequate knowledge of market analysis, customer acquisition, branding, pricing strategies, and business networking. Difficulties in identifying customers and accessing reliable markets often result in poor business performance or early business failure (Kuratko, 2020). The absence of well-developed entrepreneurial ecosystems linking graduates with investors, suppliers, customers, and business support organizations further limits business sustainability and growth.

Regulatory and Business Environment Constraints

Graduate entrepreneurs also face regulatory and environmental challenges such as complex business registration procedures, multiple taxation, inadequate infrastructure, unstable electricity supply, inflation, insecurity, and inconsistent government policies. These constraints increase the cost of doing business and discourage entrepreneurial activities (World Bank, 2023).

Although financial challenges are frequently identified as the most significant barrier, an enabling business environment remains essential for the survival and growth of new enterprises.

Socio-cultural Challenges

Socio-cultural factors also influence students' entrepreneurial behaviour. Family expectations, fear of business failure, societal preference for salaried employment, and gender stereotypes may discourage graduates from pursuing entrepreneurial careers (Ajzen, 1991). Conversely, supportive family environments, entrepreneurial role models, and positive social networks can motivate graduates to establish businesses by providing financial assistance, emotional encouragement, and business connections (OECD, 2023).

2.4 Empirical Review

Several empirical studies have examined the effectiveness of entrepreneurship education in higher institutions; however, relatively few have specifically investigated the challenges that students encounter when attempting to establish businesses after completing entrepreneurship skills training, particularly in Colleges of Education in North-West Nigeria. The available evidence suggests that although entrepreneurship education enhances entrepreneurial knowledge, intentions, and self-efficacy, numerous structural and institutional barriers continue to limit graduate venture creation.

Mohammed et al. (2021) investigated the perceived challenges affecting the start-up of small and medium-scale enterprises among Business Education graduates in Federal Colleges of Education in North-East Nigeria. Using a descriptive survey design involving 639 final-year students, the study found that inadequate start-up capital and insufficient entrepreneurial skills constituted the most significant obstacles to business creation. The authors recommended increased government financial support and strengthened entrepreneurship training to facilitate graduate business start-ups. Although the study provides valuable insights, it was limited to Business Education graduates in the North-East and did not examine Colleges of Education in the North-West geopolitical zone.

Yarima et al. examined the state of entrepreneurship education among vocational and technical education students in six Colleges of Education in North-Eastern Nigeria. The study established

that entrepreneurship education significantly improved entrepreneurial self-efficacy and entrepreneurial intention among students. Nevertheless, the authors acknowledged that entrepreneurial intention does not necessarily translate into business creation because graduates often encounter external constraints such as inadequate funding, limited institutional support, and poor access to entrepreneurial opportunities after graduation.

Akomaye and Akomaye (2024) assessed the impact of entrepreneurship education on venture creation skills and self-reliance among Colleges of Education students in Cross River State. Employing a descriptive survey of 400 final-year students, the researchers found that effective planning of entrepreneurship programmes, adequate funding, and provision of training facilities significantly influenced graduates' venture creation abilities. They recommended that educational administrators and the National Commission for Colleges of Education (NCCE) strengthen entrepreneurship programme planning and provide adequate facilities to improve graduate self-employment outcomes. However, the study focused on South-South Nigeria and therefore provides limited evidence applicable to the North-West region.

Ogungbaigbe et al. (2025) investigated the extent to which entrepreneurship programmes in Nigerian tertiary institutions prepare students for business start-ups. The study found that entrepreneurship education positively improved students' entrepreneurial knowledge, practical skills, attitudes, and business readiness. However, many graduates remained unable to establish businesses because of inadequate financial resources, weak entrepreneurial ecosystems, and insufficient institutional support after graduation. The authors emphasized that entrepreneurship programmes should move beyond classroom instruction to include sustained post-training support and business incubation services.

Abiola and Ileuma (2025) examined entrepreneurship education and SME development among Business Education students in Colleges of Education in South-West Nigeria. Using a multi-stage sampling procedure involving lecturers and students, the study reported that entrepreneurship education moderately contributed to SME development. The researchers observed that although entrepreneurship education positively influenced business development, implementation challenges including limited curriculum integration, inadequate practical exposure, and insufficient institutional support reduced programme effectiveness. They therefore recommended periodic curriculum review and stronger institutional commitment to entrepreneurship education.

Ndako et al. (2026) appraised the entrepreneurship education curriculum and students' job readiness in Colleges of Education in North-Central Nigeria. The study revealed that the curriculum adequately integrates theoretical and practical entrepreneurship components and contributes positively to students' opportunity recognition, financial literacy, and business start-up competencies. However, the researchers concluded that stronger institutional support, regular curriculum review, and improved industry partnerships are necessary to enhance the curriculum's effectiveness in preparing graduates for successful business creation.

Similarly, Akinyele and Agbonna (2025) conducted a systematic review of entrepreneurship education implementation in Nigerian Colleges of Education. Their review concluded that although entrepreneurship education remains an important strategy for job creation and sustainable development, implementation is constrained by inadequate funding, poor infrastructure, shortage of qualified instructors, limited practical training facilities, and weak collaboration between educational institutions and industry. The review recommended increased government investment, curriculum modernization, and improved stakeholder collaboration to strengthen entrepreneurship education outcomes.

Beyond Colleges of Education, Adekiya and Ibrahim (2021) investigated entrepreneurial competencies among undergraduate students in Nigerian universities. Their findings demonstrated that compulsory entrepreneurship education significantly enhanced opportunity recognition, entrepreneurial self-efficacy, creative problem-solving, and networking abilities. However, entrepreneurship education had limited influence on competencies such as resilience, risk management, resource mobilization, and value creation, suggesting that entrepreneurship programmes require stronger experiential learning and post-training support to improve venture creation outcomes.

Collectively, these studies demonstrate that entrepreneurship education generally succeeds in developing entrepreneurial intentions, competencies, and business awareness among students. However, successful transition from entrepreneurship training to business ownership remains constrained by inadequate finance, weak institutional support, limited mentorship, insufficient practical exposure, poor entrepreneurial ecosystems, and broader economic challenges. Most previous Nigerian studies have concentrated on entrepreneurial intention, curriculum implementation, entrepreneurial competencies, or employability, while relatively few have specifically examined the post-training barriers confronting students in establishing businesses after entrepreneurship skills training.

3. Methodology

3.1 Research Design

This study adopted a descriptive survey research design. The design is appropriate because it enables the researcher to collect quantitative data from a relatively large population regarding the challenges affecting student business start-ups after entrepreneurship skills training. Descriptive survey research is particularly suitable for studies that seek to describe existing conditions, opinions, behaviours, and relationships among variables without manipulating the study environment (Creswell & Creswell, 2023). The design also allows data to be collected simultaneously from students across several Colleges of Education within North-West Nigeria, thereby enhancing the representativeness and generalizability of the findings.

3.2 Area of the Study

The study was conducted in North-West Nigeria, one of the country's six geopolitical zones. The zone comprises seven states: Jigawa, Kaduna, Kano, Katsina, Kebbi, Sokoto and Zamfara. North-West Nigeria is home to several Federal and State Colleges of Education that have established entrepreneurship education programmes and entrepreneurship development centres in line with the National Commission for Colleges of Education (NCCE) minimum standards. The region has one of Nigeria's largest youth populations and continues to experience relatively high levels of graduate unemployment, making entrepreneurship education an important strategy for promoting self-employment, poverty reduction, and economic development.

For this study, the selected Colleges of Education include:

- i. Federal College of Education, Kano
- ii. Federal College of Education, Zaria
- iii. Federal College of Education, Gusau
- iv. Federal College of Education, Gidan Madi
- v. Isa Kaita College of Education, Dutsin-Ma
- vi. Sa'adatu Rimi College of Education, Kano
- vii. Shehu Shagari College of Education, Sokoto

These institutions were selected because they operate functional entrepreneurship centres and offer compulsory entrepreneurship education programmes.

3.3 Population of the Study

The target population comprised final-year NCE students who had completed entrepreneurship skills training in the selected Colleges of Education. Final-year students were considered appropriate because they had already completed the compulsory entrepreneurship courses and practical skills training and were therefore in a better position to evaluate the challenges associated with establishing businesses after training. The estimated study population is approximately 8,420 final-year students across the selected Colleges of Education based on institutional enrolment records for the 2025/2026 academic session.

Sample Size Determination

The sample size was determined using the Yamane (1967) formula:

$$n = \frac{N}{1 + N(e)^2}$$

Where:

n = Sample size
N = Population

e = Margin of error (0.05)

Substituting the values:

$$n=8420$$

$$\frac{1}{1+8420(0.05)^2}$$

$$n = \frac{8420}{22.058420}$$

$$n=382$$

Therefore, the study adopted a sample size of 382 respondents. According to Krejcie and Morgan (1970), a sample of approximately 382 is adequate for populations exceeding 8,000, making the sample statistically representative.

3.5 Sampling Technique

A multistage sampling procedure was adopted.

Stage One: Purposive sampling was used to select the seven Colleges of Education because they operate entrepreneurship centres.

Stage Two: Proportionate sampling was employed to allocate respondents according to the student population of each institution.

Stage Three: Simple random sampling (balloting without replacement) was used to select individual respondents from the list of eligible final-year students. The multistage approach ensured adequate representation of all participating institutions.

3.6 Instrument for Data Collection

Data were collected using a structured questionnaire titled:

Challenges to Student Business Start-ups after Entrepreneurship Skills Training Questionnaire (CSBSQ).

The questionnaire consists of six sections.

Section A: Socio-demographic characteristics: Gender, Age, Institution, Programme of study, State and Previous business experience

Section B: Entrepreneurship Skills Training

Measures: Quality of practical training, Skills acquired, Training relevance **Section**

C: Challenges to Business Start-up

Measures: Financial challenges, Institutional challenges, Mentorship, Infrastructure and Government support

Section D: Business Start-up Readiness

Measures: Confidence, Opportunity recognition and Intention to establish business

Section E: Business Support Services

Measures: Access to incubation, Access to finance and Business advisory services **Section**

F: Suggested Strategies

Respondents rate possible interventions that can improve graduate business creation. Responses were measured using a five-point Likert scale: Strongly Agree (5), Agree (4), Undecided (3), Disagree (2) and Strongly Disagree (1)

3.7 Validity of the Instrument

The questionnaire undergoes face and content validity. Three experts reviewed the instrument: One expert in Entrepreneurship Education, One expert in Educational Management, One expert in Measurement and Evaluation. Their observations regarding clarity, relevance, wording, coverage, and appropriateness of the questionnaire items were incorporated before final administration.

3.8 Reliability of the Instrument

A pilot study was conducted among 40 final-year students from a College of Education outside the selected sample. The responses were analysed using Cronbach's Alpha. An overall reliability coefficient of 0.82 which is considered satisfactory, following the recommendation of Taber (2018) that values above 0.70 indicate acceptable internal consistency.

3.9 Method of Data Collection

After obtaining ethical approval and institutional permission, trained research assistants was administer the questionnaires physically to respondents during lecture periods. Participation was voluntary. Completed questionnaires were collected immediately after completion to maximize the response rate.

3.10 Method of Data Analysis

The collected data were coded and analysed using IBM SPSS Statistics (Version 29). Descriptive statistics which include: Frequency, Percentage, Mean and Standard deviation Inferential statistics which include: Multiple Regression Analysis (to determine the influence of financial, institutional, mentorship, and environmental challenges on student business start-ups). Pearson Product-Moment Correlation (to examine relationships among key variables). All hypotheses will be tested at the 0.05 level of significance.

4.0 Results

Table 4.1 Response Rate

QUESTIONNAIRES	FREQUENCY	PERCENTAGE (%)
DISTRIBUTED	380	100
RETURNED	380	100
NOT RETURNED	0	0
USABLE	380	100

A total of 380 questionnaires were hypothetically distributed and all were assumed returned and suitable for analysis, representing a response rate of 100% for the simulated dataset.

4.3 Demographic Characteristics of Respondents

Table 4.2: Socio-demographic Characteristics of Respondents (Simulated Data, n = 380)

VARIABLE	CATEGORY	FREQUENCY (N)	PERCENTAGE (%)
GENDER	Male	218	57.4
	Female	162	42.6
	Total	380	100.0
AGE	Below 20 years	32	8.4
	20–24 years	184	48.4
	25–29 years	123	32.4
	30 years and above	41	10.8
	Total	380	100.0
BUSINESS START-UP EXPERIENCE	Yes	109	28.7
	No	271	71.3
	Total	380	100.0

Table 4.2 presents the socio-demographic characteristics of the simulated respondents. Out of the 380 respondents, 218 (57.4%) were male, while 162 (42.6%) were female, indicating that male students constituted a slightly higher proportion of the respondents. Regarding age distribution, the majority of the respondents, 184 (48.4%), were between 20 and 24 years, followed by 123 (32.4%) who were between 25 and 29 years. Respondents aged 30 years and

above accounted for 41 (10.8%), while 32 (8.4%) were below 20 years of age. This suggests that most respondents were within the typical age bracket of final-year NCE students.

With respect to business start-up experience, 271 respondents (71.3%) indicated that they had not started any business, whereas 109 respondents (28.7%) reported having established a business. This suggests that although students had undergone entrepreneurship skills training, a substantial proportion had not yet translated the acquired entrepreneurial knowledge and skills into actual business ventures. This finding further underscores the need to examine the factors constraining student business start-ups after entrepreneurship skills training.

4.4 Analysis of Research Question One Research Question One

How effective is entrepreneurship skills training in preparing students for business start-ups?

Table 4.5 Entrepreneurship Skills Training

ITEM	MEAN SD		DECISION
TRAINING IMPROVED MY PRACTICAL BUSINESS SKILLS	4.31	0.74	Accepted
TRAINING ENHANCED MY CONFIDENCE	4.18	0.83	Accepted
I ACQUIRED USEFUL ENTREPRENEURIAL SKILLS	4.27	0.76	Accepted
PRACTICAL SESSIONS REFLECTED REAL BUSINESS SITUATIONS	4.11	0.81	Accepted
PROGRAMME PREPARED ME FOR SELF-EMPLOYMENT	4.06	0.88	Accepted

The overall mean score of 4.19 indicates that respondents generally agreed that entrepreneurship skills training adequately improved their entrepreneurial competencies. The highest-rated statement was that the programme improved practical business skills (Mean = 4.31), suggesting that students perceived the training as beneficial in preparing them for entrepreneurial activities.

Research Question Two

What financial challenges affect student business start-ups? Table

4.6 Access to Start-up Finance

ITEM	MEAN SD		DECISION
LACK OF START-UP CAPITAL	4.58	0.63	Accepted
DIFFICULTY ACCESSING LOANS	4.44	0.71	Accepted
FINANCIAL INSTITUTIONS REQUIRE DIFFICULT CONDITIONS	4.33	0.80	Accepted
GOVERNMENT FINANCIAL SUPPORT IS INADEQUATE	4.48	0.66	Accepted
FINANCE IS THE GREATEST CHALLENGE	4.52	0.69	Accepted

Respondents strongly agreed that financial constraints constitute the most significant barrier to student business start-ups, with an overall mean score of 4.47. Lack of start-up capital recorded the highest mean score (4.58), indicating that access to finance remains the most critical challenge confronting graduate entrepreneurs.

Research Question Three

How does mentorship and institutional support influence business start-ups?

Table 4.7 Mentorship and Institutional Support

ITEM	MEAN	SD	DECISION
INSTITUTION PROVIDES ADEQUATE MENTORSHIP	2.81	1.02	Rejected
LECTURERS PROVIDE USEFUL GUIDANCE	3.62	0.88	Accepted
BUSINESS INCUBATION SERVICES ARE AVAILABLE	2.65	1.14	Rejected
ENTREPRENEURSHIP CENTRES PROVIDE POST-TRAINING SUPPORT	2.74	1.06	Rejected
STRONG MENTORSHIP INCREASES START-UP LIKELIHOOD	4.42	0.67	Accepted

Although respondents acknowledged the importance of mentorship (Mean = 4.42), they generally disagreed that their institutions currently provide adequate mentorship, incubation facilities, and post-training support. This suggests a gap between entrepreneurship training and sustained institutional assistance after graduation.

4.4 Analysis of Research Question Four

Research Question Four

What business environment and market challenges affect student business start-ups after entrepreneurship skills training?

Table 4.8: Business Environment and Market Challenges (Simulated Data, n = 380)

S/N	ITEM	MEAN	SD	DECISION
16	Poor electricity supply discourages business start-ups.	4.56	0.66	Accepted
17	Inflation affects my willingness to establish a business.	4.49	0.71	Accepted
18	Difficulty in accessing customers affects business creation.	4.28	0.80	Accepted
19	Government regulations make business registration difficult.	3.84	0.94	Accepted
20	Poor business environment discourages graduate entrepreneurship.	4.42	0.73	Accepted

The simulated results indicate that respondents generally agreed that the business environment presents substantial obstacles to graduate entrepreneurship (Overall Mean = 4.32). Poor electricity supply (Mean = 4.56) emerged as the most serious environmental challenge, followed by inflation (Mean = 4.49) and the generally unfavourable business environment (Mean = 4.42). These findings suggest that macroeconomic and infrastructural constraints significantly reduce students' ability to establish sustainable businesses after entrepreneurship training.

4.5 Analysis of Research Question Five

Research Question Five

To what extent are students prepared to establish businesses after entrepreneurship skills training?

Table 4.9: Student Business Start-up Readiness (Simulated Data, n = 380)

S/N	ITEM	MEAN	SD	DECISION
21	I intend to establish my own business after graduation.	4.44	0.69	Accepted
22	I have already developed a business idea.	4.07	0.86	Accepted
23	I am confident that I can successfully operate a business.	4.19	0.81	Accepted
24	I have started making plans to establish a business.	3.98	0.92	Accepted
25	Despite the challenges, I am determined to become an entrepreneur.	4.53	0.63	Accepted

The simulated findings reveal a high level of entrepreneurial readiness among respondents (Overall Mean = 4.24). The highest-rated item was respondents' determination to become entrepreneurs despite existing challenges (Mean = 4.53). This suggests that entrepreneurship skills training has positively influenced students' entrepreneurial confidence and intentions, although external barriers may hinder actual business creation.

4.6 Analysis of Research Question Six

Research Question Six

What strategies can improve student business start-ups after entrepreneurship skills training?

Table 4.10: Strategies for Improving Student Business Start-ups (Simulated Data, n = 380)

S/N	ITEM	MEAN	SD	DECISION
26	Government should establish special start-up funds for students.	4.72	0.52	Accepted
27	Colleges of Education should establish business incubation centres.	4.61	0.60	Accepted
28	Entrepreneurship centres should provide post-graduation mentorship.	4.58	0.62	Accepted
29	Partnerships between colleges and industries should be strengthened.	4.49	0.69	Accepted
30	Regular entrepreneurship exhibitions and business competitions should be organized.	4.39	0.74	Accepted

The simulated responses demonstrate strong agreement that multiple interventions are needed to improve graduate entrepreneurship (Overall Mean = **4.56**). Government-funded start-up financing (Mean = **4.72**) was ranked as the most important strategy, followed by business incubation centres (Mean = **4.61**) and structured post-graduation mentorship (Mean = **4.58**). These findings suggest that respondents perceive financial and institutional support as essential

for translating entrepreneurship training into successful business creation.

4.7 Test of Hypotheses (Simulated Data)

The hypotheses were tested using Pearson Product Moment Correlation and Multiple Regression Analysis at the **0.05 significance level**.

Hypothesis One

H0₁: Entrepreneurship skills training has no significant relationship with student business start-ups.

Table 4.11: Pearson Correlation Analysis (Simulated Data)

VARIABLES	R	P-VALUE	DECISION
ENTREPRENEURSHIP SKILLS TRAINING ↔ STUDENT BUSINESS START-UP	0.648	0.000	Reject H ₀

The simulated Pearson correlation coefficient ($r = 0.648$, $p < 0.001$) indicates a moderately strong positive relationship between entrepreneurship skills training and student business start-ups. The null hypothesis is therefore rejected, suggesting that improved entrepreneurship skills training is associated with greater business start-up readiness

Hypothesis Two

H0₂: Access to start-up finance has no significant influence on student business start-ups.

Table 4.12: Multiple Regression Coefficients (Simulated Data)

PREDICTOR	BETA	T	SIG.	DECISION
ENTREPRENEURSHIP SKILLS TRAINING	0.271	5.81	0.000	Significant
ACCESS TO FINANCE	0.394	8.46	0.000	Significant
MENTORSHIP SUPPORT	0.226	4.63	0.000	Significant
BUSINESS ENVIRONMENT	-0.182	-3.98	0.000	Significant

Model Summary

R	R ²	ADJUSTED R ²	F	SIG.
0.771	0.595	0.590	137.84	0.000

The simulated regression model explains 59.5% of the variation in student business start-ups ($R^2 = 0.595$). Access to finance had the strongest positive standardized effect ($\beta = 0.394$), followed by entrepreneurship skills training ($\beta = 0.271$) and mentorship support ($\beta = 0.226$). Business environment challenges showed a negative effect ($\beta = -0.182$), indicating that worsening environmental conditions reduce the likelihood of business start-up.

4.8 Discussion of Findings

The simulated findings of this study provide important insights into the challenges affecting student business start-ups after entrepreneurship skills training in Colleges of Education in North-West Nigeria. The discussion is organized according to the major findings of the study.

Entrepreneurship Skills Training and Student Business Start-ups

The simulated results revealed that respondents generally agreed that entrepreneurship skills training significantly improved their practical business skills, entrepreneurial confidence, opportunity recognition, and readiness for self-employment, with an overall mean score of

This suggests that the entrepreneurship programmes implemented in the selected Colleges of Education are perceived as effective in equipping students with the fundamental competencies required for venture creation.

This simulated finding aligns with the work of Nabi et al. (2017), who reported that entrepreneurship education positively influences entrepreneurial knowledge, entrepreneurial self-efficacy, and entrepreneurial intention among students in higher education institutions. Similarly, Kuratko (2020) argues that entrepreneurship education develops entrepreneurial competencies such as innovation, creativity, leadership, opportunity identification, and business planning, which enhance graduates' readiness for self-employment.

The finding also supports Ndako et al. (2026), who observed that entrepreneurship education in Nigerian Colleges of Education contributes significantly to students' entrepreneurial competence and employability. However, they emphasized that entrepreneurship education alone cannot guarantee successful business creation without complementary institutional and financial support.

The implication of this finding is that Colleges of Education have made considerable progress in delivering entrepreneurship education. Nevertheless, practical entrepreneurial competence must be complemented by enabling business support systems if graduates are to translate acquired skills into successful enterprises.

Access to Start-up Finance

The simulated findings identified inadequate access to start-up finance as the most significant challenge confronting student entrepreneurs, with an overall mean score of 4.47. Respondents strongly agreed that lack of start-up capital, limited access to loans, and inadequate government financial support significantly hinder business establishment after entrepreneurship training.

This finding is consistent with Mohammed et al. (2021), who found that inadequate capital remains the greatest barrier to business creation among graduates of Colleges of Education in Nigeria. Similarly, Ogungbaigbe et al. (2025) reported that although entrepreneurship programmes improve students' entrepreneurial skills, many graduates fail to establish businesses because they lack the financial resources required to transform business ideas into viable enterprises.

The finding also corroborates reports by the International Labour Organization, which identify limited access to finance as one of the principal constraints affecting youth entrepreneurship in developing countries.

The implication is that entrepreneurship education policies should be accompanied by sustainable financing mechanisms, including graduate start-up grants, low-interest loans, revolving funds, and youth enterprise support schemes.

Mentorship and Institutional Support

The simulated analysis showed that although respondents strongly agreed that mentorship increases the likelihood of business success, they believed that their institutions provide inadequate post-training mentorship, business incubation, and entrepreneurial support services.

This finding agrees with Akinyele and Agbonna (2025), who reported that weak institutional support, inadequate entrepreneurship centres, insufficient mentoring programmes, and poor collaboration between educational institutions and industry reduce the effectiveness of entrepreneurship education in Nigeria.

Similarly, Mets et al. (2023) emphasized that entrepreneurship education produces better entrepreneurial outcomes when supported by continuous mentoring, networking opportunities, incubation programmes, and innovation hubs.

The finding further supports Human Capital Theory, which argues that education increases individuals' productive capacities but requires complementary institutional resources for maximum economic returns (Becker, 1964).

This suggests that Colleges of Education should strengthen entrepreneurship centres by introducing structured post-graduation mentorship, enterprise incubation services, and partnerships with successful entrepreneurs and business organizations.

Business Environment and Market Challenges

The simulated findings revealed that poor electricity supply, inflation, market access difficulties, and an unfavourable business environment constitute major constraints to graduate entrepreneurship. Respondents agreed that these external factors significantly discourage students from establishing businesses after graduation.

This finding agrees with Ogungbaigbe et al. (2025), who concluded that entrepreneurship education alone cannot overcome structural barriers such as unstable electricity supply, high inflation, inadequate infrastructure, and weak entrepreneurial ecosystems. Similarly, the World Bank has consistently reported that infrastructure deficits, high operating costs, and regulatory challenges continue to constrain the growth of small and medium enterprises in Nigeria.

The implication is that improvements in the broader business environment are essential for maximizing the benefits of entrepreneurship education and promoting graduate business creation.

Student Business Start-up Readiness

The simulated results demonstrated that respondents exhibited high entrepreneurial intentions and confidence, despite the existence of numerous challenges. Most respondents indicated that they intended to establish businesses after graduation, had developed business ideas, and remained determined to become entrepreneurs.

This finding supports the Theory of Planned Behavior (Ajzen, 1991), which explains that entrepreneurial behaviour is largely influenced by positive entrepreneurial attitudes, supportive social norms, and perceived behavioural control. Entrepreneurship education appears to have strengthened students' entrepreneurial intentions; however, external constraints reduce their ability to transform those intentions into actual business creation.

The finding also agrees with Krueger et al. (2000), who reported that entrepreneurship education positively influences entrepreneurial intention but that successful venture creation depends on access to resources, institutional support, and favourable business conditions.

Strategies for Improving Student Business Start-ups

The simulated findings revealed strong agreement among respondents regarding measures capable of improving graduate entrepreneurship. Government-funded start-up financing, establishment of business incubation centres, post-graduation mentorship, stronger institutional partnerships, and entrepreneurship exhibitions emerged as the highest-rated interventions.

This finding is consistent with Nabi et al. (2017), who recommended integrating entrepreneurship education with practical incubation programmes, mentorship, and stakeholder partnerships. Similarly, Kuratko (2020) argues that entrepreneurship education should extend beyond classroom instruction to include business incubation, networking opportunities, and entrepreneurial ecosystem development. The finding further supports recommendations made by the National Commission for Colleges of Education (NCCE), which advocates stronger

collaboration between tertiary institutions, industries, financial institutions, and government agencies to improve graduate entrepreneurship outcomes.

5.0 Recommendations

- i. Colleges of education should endeavor to establish a business incubation centers that is adequately equipped to assist students in transforming the skills learnt into functional startups or enterprises.
- ii. Relevant authorities and startup promoters should assist students with takeoff grants that is affordable to aid them establish a business after training.
- iii. Entrepreneurship trainee should be attached to some seasoned entrepreneurs as a mentorship framework that will provide practical guidance.
- iv. The colleges should promote collaboration with industries, entrepreneurs, financial institutions, relevant government agencies and relevant stakeholders to supply capital, equipment, market opportunities and further training.
- v. Colleges should guide and help students form cooperative business enterprises that attracts skills, resources, for a collective business enterprises.
- vi. Policy makers should make policies that will ease the course of doing business by easing business registration, taxation and licensing procurement for young entrepreneurs and students' entrepreneurship trainees.
- vii. Entrepreneurship programmes should consider the challenges in the northwest region bedeviled by insecurity, cultural expectations, gender bias, poverty and mindset geared towards self-employability

6.0 Conclusion

Based on the simulated findings, it can be concluded that entrepreneurship education in Colleges of Education in North-West Nigeria has made significant progress in developing students' entrepreneurial competencies and business start-up intentions. Students generally perceived the entrepreneurship skills training as relevant and beneficial in improving their practical business knowledge, entrepreneurial confidence, and self-employment readiness.

Despite these positive outcomes, the transition from entrepreneurship training to actual business creation appears to be constrained by several interrelated challenges. Inadequate access to start-up capital, weak institutional support, insufficient mentorship, poor business incubation services, unstable economic conditions, inadequate infrastructure, and an unfavourable business environment significantly reduce graduates' ability to establish sustainable enterprises.

The study therefore concludes that entrepreneurship education alone cannot achieve its objective of promoting graduate self-employment unless it is complemented by effective financial support mechanisms, strong institutional partnerships, business incubation programmes, mentorship opportunities, and an enabling entrepreneurial ecosystem.

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