

IMPACT OF ENTREPRENEURSHIP EDUCATION AND ENTREPRENEURIAL SKILLS ON EMPLOYMENT OPPORTUNITY FOR HIGHER NATIONAL DIPLOMA (HND) STUDENTS IN FEDERAL POLYTECHNICS IN EDO STATE

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ABSTRACT

RESEARCH ARTICLE

The study investigated the impact of entrepreneurship education and entrepreneurial skills on employment opportunity for Higher National Diploma (HND) students in Federal Polytechnics in Edo State, Nigeria, which are National Institute of Construction Technology and Management (NICTM), Uromi and Auchi Polytechnic, Auchi. The descriptive survey research design was adopted and the instrument for data collection was a modified 4-point likert in the form of a questionnaire, which comprised thirty-five (35) question items divided into sections A and B. The population of the study comprised HND 1 and 2 of the selected institutions. The simple random and stratified/proportional sampling techniques was used to select 328 respondents from both polytechnics studied, NICTM was 62 while Auchi polytechnic was 266. Data analysis was done using, frequencies, percentages and mean scores drawn from Statistical Package for Social Science (SPSS) with 2.5 benchmark as the significant level. The study reveals that HND students affirm the multifaceted roles of entrepreneurship education in their employment prospects with grand mean of 3.24, there is moderate satisfaction on teaching facility effectiveness with 3.14 grand mean, students perceive both the teaching methods and instructional strategies as generally effective with grand mean of 3.30, there is a strong positive relationship between entrepreneurship education and the acquisition of entrepreneurial skills with a grand mean of 3.40, the absence of any strong disagreement responses is notable and reflects a generally positive student experience on entrepreneurial skills with a grand mean of 3.55, respondents affirmed that there is strong perceived impact of entrepreneurship skills on employment opportunities with a grand mean of 3.49. the study recommends amongst others that there should be curriculum reform to incorporate risk-taking and networking, there should be improvement of teaching facilities and resources, there should be policy commitment to entrepreneurship education outcomes and continuous professional development for entrepreneurship lecturers

KEYWORDS: Entrepreneur, Entrepreneurship, Entrepreneurial, Education, Employment, Students, Federal Polytechnic

INTRODUCTION

The Nigerian Government has taken it upon them to focus on entrepreneurship in recent times, as this has become a strategic plan for the government to systematically fight against the increasing rate of unemployment and poverty. In collaborating with the government position, Adiak & Katura (2014) noted that the statistics on the unemployment rate in Nigeria show that people who graduated from higher institutions have not been able to get any job (white-collar or blue-collar jobs). The issue of unemployment has become a serious social and economic problem, which might lead unemployed graduates to engage in social crimes and injustice with a long frustrating period of joblessness. These unemployed graduates are possibly going to be unproductive and redundant with a gradual decay in the knowledge and skills acquired, which could have contributed to the economic growth of the nation. It is traumatic for graduates who invested their time and other resources way back at school with the optimism that jobs will be available upon their graduation (Rotimi, Enimola & Ochidi, 2021).

Entrepreneurship education obviously will foster a reduction in unemployment in Nigeria. Entrepreneurship education aims to adequately equip students of tertiary institutions with entrepreneurial competencies and skills necessary for a successful business venture before graduation. The attainment of the objectives will require diligent instructional delivery and regular monitoring since the fact remains that the implementation status of any academic content is the major factor that determines its effectiveness. Despite the introduction of entrepreneurial education in tertiary institutions to inculcate attitudes, values, psychological mindsets, and strategies necessary for the subsequent take-off venture among the university graduates, the rate at which it fosters the attitude of graduates towards considering entrepreneurship for self-reliance is not encouraging. The unemployment rate among graduates is increasing (Sania & Jamilb, 2020).

Dogan (2015) asserted that entrepreneurship education is an important instrument for encouraging entrepreneurial tasks because education provides the skills that students will use to start a business and become gainfully self-employed. To Sulaiman and Wan-Fauziah (2013) entrepreneurship education is seen as education designed to change the mind-set of students by equipping them with the skills to self-employed. This simply means that entrepreneurship education plays a key role in equipping polytechnics undergraduates with the skills to self-employed upon graduation. Entrepreneurship education provides a practical opportunity for polytechnic undergraduates to develop entrepreneurial skills in a challenging learning environment. Chhabra, Raghunathan & Rao (2020) stated that the essence of entrepreneurship education is to develop entrepreneurial skills in individuals to successfully evade being unemployed.

Collectively, entrepreneurship education develops the skills that enable individuals to participate meaningfully in all aspects of life, create something valuable, and gain financial independence, or personal satisfaction, or both. A key assumption of entrepreneurship education is that entrepreneurial skills can be developed among individuals via a practical learning environment (Steenekamp, 2013; Sirelkhatim & Gangi, 2015). Edokpolor (2020) stated that a study by Sanchez (2011) found that students' who participated in entrepreneurship education are more likely to be self-employed upon graduation due to a high level of entrepreneurial skills possessed by such students. Therefore, this study will investigate the impact of entrepreneurship education and entrepreneurial skills on employment opportunity for Higher National Diploma (HND) Students in Federal Polytechnics in Edo State, Nigeria

Statement of the Problem

Nigerian government through the Ministry of Education and other agencies in education sector mandated all academic institutions to establish a Centre for Entrepreneurship Development, and most Nigerian institutions, including polytechnics have complied with this directive. This is done in order to achieve the goal of entrepreneurship education. This shows that entrepreneurship education occupies a strategic position in most Nigerian institutions. The reason why Federal Government decided to integrate entrepreneurship education in the curriculum of federal institutions is to curb the increasing rates of social problems in the country and to inculcate entrepreneurial skills into students. Notably, the social problems that have engulfed most polytechnic graduates in Nigeria are unemployment and poverty. It is noted that unemployment rate is still on the increase as of late. Many polytechnic graduates are unemployed despite graduating with a good grade. Through observations some graduates from higher institutions are living in abject poverty; that is to say that these graduates are living below poverty line, while some are said to be surviving with menial jobs. Therefore, the high rates of unemployment and poverty suggested that graduates from numerous higher institutions in the country including polytechnics possessed a low-level of entrepreneurial skills, which appear to hinder their opportunity to be self-employed in order to be employers of labour. In order to curb the increasing rates of unemployment and poverty in Nigeria, there is a need for major stakeholders in entrepreneurship to collaboratively invest their resources both financial and otherwise on entrepreneurship education (Edokpolor & Owenvbiugie, 2017). Therefore, it is against this background that this study seeks to investigate will investigate the impact of entrepreneurship education and entrepreneurial skills on employment opportunity for Higher National Diploma (HND) Students in Federal Polytechnics in Edo State, Nigeria.

Objectives of the Study

The general objective of this study is to investigate impact of entrepreneurship education and entrepreneurial skills on employment opportunity for Higher National Diploma (HND) Students in Federal Polytechnics in Edo State, Nigeria. The specific objectives are to:

- i. ascertain the role entrepreneurship education play in federal polytechnic HND students' employment opportunity.
- ii. determine if the available teaching facilities are effective in teaching of entrepreneurship courses in federal polytechnics.
- iii. determine the effective teaching methods and strategies teachers currently employ in teaching entrepreneurship courses in federal polytechnics.
- iv. examine the relationship between entrepreneurship education and acquisition of entrepreneurial skills among federal polytechnic HND students.
- v. find out the experiences of federal polytechnic HND students on their entrepreneurial related skills.
- vi. establish impact of entrepreneurship skills on employment opportunities among federal polytechnic HND students.

Review of Related Literatures

The word “entrepreneur” is derived from the French verb “entreprendre”, which means ‘to undertake’. It simply means or refers to those who “undertake” the risk of new enterprises. An enterprise is said to be founded by an entrepreneur. The process of creation of an enterprise is called “entrepreneurship”. Entrepreneurship can be seen as a process of actions of an entrepreneur who is a person always in search of something new and exploits such ideas into gainful opportunities by accepting the risk and uncertainty with the enterprise.

Entrepreneurs are, thus, the seeds of industrial development and the fruits of industrial development are greater employment opportunities to unemployed youth, increase in per capita income, higher standard of living and increased individual saving, revenue to the government in the form of income tax, sales tax, export duties, import duties, and balanced regional development. Agu, Anidiobu and Ezinwa (2016) defined an entrepreneur as a person who has possession of a new enterprise, venture or idea and is accountable for the inherent risks and the outcome of a product. A broader definition by Agu, Anidiobu and Ezinwa (2016) stated that the entrepreneur shifts economic resources out of lower and into higher. An entrepreneur promotes employment rather than seeking for an employment.

Therefore, entrepreneurship education is the process that exposes undergraduates to acquiring knowledge, special skills and experiences needed to succeed and for effective conquering and adaptation to the environment. Entrepreneurship education seeks to provide students with the knowledge, skills and motivation to encourage entrepreneurial success in a variety of settings. Variations of entrepreneurship education are offered at all levels of schooling from primary or secondary schools through graduate. Entrepreneurship education benefits students from all socioeconomic backgrounds because it teaches kids to think outside the box and nurtures unconventional talents and skills. Furthermore, it creates opportunity, ensures social justice, instills confidence and stimulates the economy (Florina & Sabrina, 2015).

The entrepreneurship education is a relatively new phenomenon in Nigerian higher education institutions, most especially in polytechnic sector. This occur when the Federal Government of Nigeria (FGN) adopted small and medium-sized enterprises (SMEs) as the building block of the country's economy and the right entrepreneurs to realize the objective of setting up small and medium scale enterprises were not available despite the existence of millions of unemployed polytechnic graduates who regrettably, do not have the requisite skills and experiences for entrepreneurship in the country (Nwekeaku, 2013). Responding to the need to produce workers with the necessary entrepreneurial skills and experiences, the FGN directed all higher education institutions in the country to run entrepreneurship studies programme as a compulsory course for all students irrespective of their disciplines with effect from 2007/2008 academic session (Okojie, 2009).

The target of entrepreneurship education is to empower graduates, irrespective of their areas of academic specialization, with knowledge and skills that will enable them to create their own income generating ventures, even if they are not able to secure jobs in the public sector. Entrepreneurship education is an orientation that seeks to transform graduates from job seekers into job creators in order to reduce graduate unemployment and increase students' interest in entrepreneurship as a career (kinsiku, & Olubunmi, 2014), The rationale for introducing entrepreneurship course in polytechnic curricular development is to help the students to acquire increased understanding of entrepreneurship. The focus is to equip them with relevant skills and competences that prepare the students to become entrepreneurs and managers of new businesses soon after graduation in order to increase their household income. Nevertheless, social and commercial entrepreneurial entry is facilitated by strong property rights and government activism that impacts on entrepreneurship (Anyadike, Emeh, & Ukah, 2012).

There is no doubt that entrepreneurship education will foster a reduction in unemployment in Nigeria. Entrepreneurship education will aim at adequately equipping students of polytechnic tertiary institutions with entrepreneurial competencies and skills necessary for a successful business venture before graduation. The attainment of the objectives will require diligent instructional delivery and regular monitoring since the fact remains that the implementation

status of any academic content is the major factor that determines its effectiveness. Despite the introduction of entrepreneurial education in tertiary institutions to inculcate attitudes, values, psychological mindsets, and strategies necessary for the subsequent take-off venture among the university graduates, the rate at which it fosters the attitude of graduates towards considering entrepreneurship for self-reliance is not encouraging. The unemployment rate among graduates is increasing (Sania & Jamilb, 2020). Unemployment has always been a pitiful problem in African countries, causing not only economic disruption but also a barrier to the fulfillment of dreams. In Nigeria, unemployment is observed to a serious problem that needs the government's immediate, consistent, and long-term attention.

The aim of entrepreneurial education was for knowledge acquisition by students to enable them setting up and floating a business with other skills needed for its survival and also to become successful entrepreneurs. Entrepreneurial education is part of the total educational system that involves the acquisition of skills, ideas and management abilities necessary for job creation. The inculcation of entrepreneurial education which leads to the acquisition of skills in the students of tertiary institutions will lead to the creation of awareness and understanding of the socio-economic and environmental situation for sustainable national development. It will also enhance job creation to reduce unemployment among graduates upon graduation. It will ensure stable national growth in the provision of employment options for Nigerian graduates. Entrepreneurial education could lead to capacity building of the beneficiaries mentally, physically and intellectually thereby placing them on the advantage of acquiring, interpreting, extrapolating information and consequently applying such capacities in building self in particular and the nation in general.

Osolor (2013) opined that entrepreneurial education will lead to opportunities for individuals and collective development of latent potentialities for self-fulfillment and actualization of set goals as entrepreneurs. Therefore, there is a need to embrace this type of education and provide all the necessary resources needed to make it functional. Entrepreneurial education equips future entrepreneurs with the necessary skills to meet the need to accelerate economic development through generating new ideas and converting those ideas into viable and profitable ventures (Turker & Selcuk, 2009).

Methodology

The study investigated the impact of entrepreneurship education and entrepreneurial skills on employment opportunity for Higher National Diploma (HND) students in Federal Polytechnics in Edo State. The study used descriptive research design. The selected population for this study comprised the population of HND 1 and 2 in Federal polytechnics in Edo State, Nigeria, which are National Institute of Construction Technology and Management (NICTM), Uromi and Auchi Polytechnic, Auchi. The questionnaire used as the only instrument for data collection. It comprised thirty-five (35) question items divided into sections A and B. The questionnaire will be subjected to validity and reliability tests. The simple random and stratified/proportional sampling techniques was used to select 328 respondents from both polytechnics studied, NICTM was 62 while Auchi polytechnic was 266 . Data analysis was done using, frequencies, percentages and mean scores drawn from Statistical Package for Social Science (SPSS) with 2.5 benchmark as the significant level.

Results and Discussion of Findings

Table 1: Respondents Distribution According to demographic information

ITEM	FREQUENCY	PERCENTAGE
Institution of students		
National Institute of Construction Technology and Management (NICTM), Uromi, Edo State	62	18.9%
Auchi Polytechnic, Auchi	266	81.1%
Total	328	100
Gender		
Male	182	55.5%
Female	146	44.5%
Total	328	100
Classes of students		
HND 1	135	41.2%
HND 2	193	58.8%
Total	328	100

Table 1 revealed the respondent's distribution according to demographic information, it shows that Auchi Polytechnic dominates the sample at 81.1%, which represents 266 students, while NICTM, Uromi accounts for 18.9%, which represents 62 students. For gender, male students had 55.5% , representing 182 respondents while female students had 44.5% representing 146 respondents. For Class of students HND 2 students form the majority at 58.8% (193 students) compared to HND 1 at 41.2% (135 students).

Table 2: Roles of Entrepreneurship Education in Federal Polytechnic HND Students' Employment Opportunity

S/N	Roles of Entrepreneurship Education	SA	A	D	SD	Total	Mean	SD
1	Entrepreneurship education equips students with practical skills necessary to start and manage a business	130	185	5	8	328	3.33	0.63
2	It enhances students' employability	100	141	82	5	328	3.02	0.78
3	It provides the students with opportunity to network with entrepreneurs	98	221	6	3	328	3.26	0.53
4	It equips students with knowledge and skills to pursue diverse career paths	255	73	0	0	328	3.78	0.42
5	It helps students to develop a risk-taking mindset for business opportunities	49	128	119	32	328	2.59	0.86
6	It fosters innovation and creativity among students	156	165	2	5	328	3.44	0.59
	Grand Mean						3.24	

Significant mean level = 2.50

The data in Table 2 presents the perspectives of HND students on the roles that entrepreneurship education plays in shaping their employment opportunities. Item 1 (Entrepreneurship education equips students with practical skills necessary to start and manage a business) recorded a mean of 3.33 with a standard deviation of 0.63. Item 2 (It enhances students' employability) returned a mean of 3.02 (SD = 0.78). Item 3 (It provides the students with opportunity to network with entrepreneurs) obtained a mean of 3.26 (SD = 0.53). Item 4 (It equips students with knowledge and skills to pursue diverse career paths) recorded the highest mean in this table at 3.78 (SD = 0.42). Item 5 (It helps students to develop a risk-taking mindset for business opportunities) had the lowest mean of 2.59 (SD = 0.86). Item 6 (It fosters innovation and creativity among students) yielded a mean of 3.44 (SD = 0.59), reflecting strong agreement that entrepreneurship education stimulates creative thinking and innovation. The grand mean is 3.24, which falls in the "Agree" range, indicating that respondents generally affirm the positive roles entrepreneurship education plays in their employment opportunities. The standard deviations across items are relatively low, suggesting a reasonable level of consistency in responses.

Table 3: Effectiveness of Available Teaching Facilities of Entrepreneurship Courses in Federal Polytechnics

S/N	Effectiveness of Available Teaching Facilities	SA	A	D	SD	Total	Mean	SD
1	The classrooms are well-equipped with necessary teaching aids	125	139	64	0	328	3.19	0.74
2	There are adequate material resources available for students to learn about entrepreneurship	8	209	85	26	328	2.61	0.67
3	The teaching facilities provide access to industry experts and mentors	132	158	28	10	328	3.26	0.74
4	There are adequate ICT facilities to support entrepreneurship education	145	149	34	0	328	3.34	0.66
5	The teaching facilities provide access to resources for business planning and financial management	32	256	38	2	328	2.97	0.49
6	The teaching facilities are well maintained, clean and safe	24	281	21	2	328	3.00	0.40
7	The teaching facilities are conducive for collaborative learning	215	99	14	0	328	3.61	0.57
	Grand Mean						3.14	

Significant mean level = 2.50

Table 3 assesses the effectiveness of teaching facilities available for entrepreneurship education in federal polytechnics. Item 1 (The classrooms are well-equipped with necessary teaching aids) returned a mean of 3.19 (SD = 0.74). Item 2 (There are adequate material resources available for students to learn about entrepreneurship) had the lowest mean in this table at 2.61 (SD = 0.67). Item 3 (The teaching facilities provide access to industry experts and mentors) achieved a mean of 3.26 (SD = 0.74). Item 4 (There are adequate ICT facilities to support entrepreneurship education) recorded a mean of 3.34 (SD = 0.66). Item 5 (The teaching facilities provide access to resources and tools for business planning and financial management) obtained a mean of 2.97 (SD = 0.49). Item 6 (The teaching facilities are well

maintained, clean and safe) yielded a mean of 3.00 (SD = 0.40). Item 7 (The teaching facilities are conducive for collaborative learning) recorded the highest mean in this table at 3.61 (SD = 0.57). The grand mean for Table 3 is 3.14, which is within the "Agree" range but on the lower end, indicating moderate satisfaction with the availability and effectiveness of teaching facilities in federal polytechnics.

Table 4: Effective Teaching Methods and Strategies Employed in Teaching Entrepreneurship Courses in Federal Polytechnics

S/N	Effective Teaching Methods and Strategies	SA	A	D	SD	Total	Mean	SD
1	Lecture methods are effective in teaching entrepreneurship courses	36	276	12	4	328	3.05	0.44
2	Case study method is effective in teaching entrepreneurship courses	142	128	48	10	328	3.23	0.81
3	Group discussion method is effective in teaching entrepreneurship courses	75	241	10	2	328	3.19	0.50
4	Design-based method is effective in teaching entrepreneurship courses	110	218	0	0	328	3.34	0.47
5	Games method (business games and simulation) are effective in teaching entrepreneurship courses	81	226	13	8	328	3.16	0.60
6	Cooperative learning method is effective in teaching entrepreneurship courses	120	186	18	4	328	3.29	0.62
7	By using practical hands-on experiences	188	115	25	0	328	3.50	0.63
8	Through mentorship by pairing students with experienced entrepreneurs or industry experts	210	113	5	0	328	3.62	0.51
9	By collaborating with businesses and organizations to provide real-world experience	280	48	0	0	328	3.85	0.35
10	By encouraging students to develop and pitch business plans to potential investors	192	51	3	82	328	3.08	1.26
11	By inviting successful entrepreneurs to share their experiences and insights	73	255	0	0	328	3.22	0.42
12	By assigning students projects that require real-world application of entrepreneurship	93	188	32	15	328	3.09	0.75
	Grand Mean						3.30	

Significant mean level = 2.50

Table 4 presents respondents' views on the effectiveness of various teaching methods and instructional strategies currently employed in teaching entrepreneurship courses in federal polytechnics. Items 1-6 address teaching methods while Items 7-12 address instructional strategies. Item 1 (Lecture methods are effective) recorded a mean of 3.05 (SD = 0.44). Item 2 (Case study method is effective) obtained a mean of 3.23 (SD = 0.81). Item 3 (Group discussion method is effective) had a mean of 3.19 (SD = 0.50). Item 4 (Design-based

method is effective) achieved a mean of 3.34 (SD = 0.47). Item 5 (Games method is effective) yielded a mean of 3.16 (SD = 0.60). Item 6 (Cooperative learning method is effective) recorded a mean of 3.29 (SD = 0.62). Item 7 (By using practical hands-on experiences) yielded a mean of 3.50 (SD = 0.63). Item 8 (Through mentorship) achieved a mean of 3.62 (SD = 0.51). Item 9 (By collaborating with businesses and organizations) recorded the highest mean in this table at 3.85 (SD = 0.35). Item 10 (Encouraging students to pitch business plans) had a mean of 3.08 (SD = 1.26). Item 11 (By inviting successful entrepreneurs) obtained a mean of 3.22 (SD = 0.42). Item 12 (Assigning real-world project) yielded a mean of 3.09 (SD = 0.75). The grand mean for Table 4 is 3.30, falling comfortably in the "Agree" range. The strategies sub-section (Items 7-12) generally recorded higher means than the methods sub-section (Items 1-6), suggesting that practical, industry-connected approaches are more highly valued by students.

Table 5: Relationship Between Entrepreneurship Education and Acquisition of Entrepreneurial Skills Among Federal Polytechnic HND Students

S/N	Relationship Between EE and Acquisition of Entrepreneurial Skills	SA	A	D	SD	Total	Mean	SD
1	Entrepreneurship education can influence students' entrepreneurial intentions, shaping their goals and aspirations	260	48	8	12	328	3.70	0.69
2	Entrepreneurship education helps students develop essential competencies necessary for success in entrepreneurship	147	178	3	0	328	3.44	0.51
3	Entrepreneurship education helps students to turn their idea into reality	144	132	52	0	328	3.28	0.72
4	Entrepreneurship education teaches students on how to develop business plans, manage resources and make informed decisions	153	175	0	0	328	3.47	0.50
5	By acquiring entrepreneurship skills, polytechnic graduates can increase their chances of getting employed or creating their own job opportunities	98	181	31	18	328	3.09	0.78
	Grand Mean						3.40	

Significant mean level = 2.50

Table 5 examines how entrepreneurship education relates to the acquisition of entrepreneurial skills among HND students in federal polytechnics. Item 1 (Entrepreneurship education can influence students' entrepreneurial intentions) recorded the highest mean of 3.70 (SD = 0.69). Item 2 (EE helps students develop essential competencies) obtained a mean of 3.44 (SD = 0.51). Item 3 (EE helps students to turn their ideas into reality) yielded a mean of 3.28 (SD = 0.72). Item 4 (EE teaches students to develop business plans and manage resources) recorded a mean of 3.47 (SD = 0.50). Item 5 (Acquiring skills increases chances of employment) obtained a mean of 3.09 (SD = 0.78). The grand mean for Table 5 is 3.40, indicating a consistently positive relationship between entrepreneurship education and the acquisition of entrepreneurial skills. The low standard deviations across items (especially Items 2 and 4) point to high respondent consensus.

Table 6: Experiences of Federal Polytechnic HND Students on their Entrepreneurial-Related Skills

S/N	Experiences of HND Students on Their Entrepreneurial Skills	SA	A	D	SD	Total	Mean	SD
1	Developing skills to analyse problems, identify solutions and make informed decisions	210	118	0	0	328	3.64	0.48
2	Building professional networks, communicating effectively with stakeholders and negotiating deals	84	196	48	0	328	3.11	0.62
3	Identifying, assessing and mitigating risks in business ventures	91	194	43	0	328	3.15	0.62
4	Developing a mindset to adapt to changing environment and bounce back from setbacks	119	183	18	8	328	3.26	0.67
5	Prioritizing tasks, managing time effectively and meeting deadlines	218	110	0	0	328	3.66	0.47
6	Building leadership skills, managing teams and working collaboratively to achieve business objectives	139	148	41	0	328	3.30	0.68
	Grand Mean						3.35	

Significant mean level = 2.50

Table 6 explores the self-reported experiences of HND students regarding the entrepreneurial skills they have developed through their education. Item 1 (Developing skills to analyse problems and make informed decisions) had a mean of 3.64 (SD = 0.48). Item 2 (Building professional networks and communicating with stakeholders) returned a mean of 3.11 (SD = 0.62). Item 3 (Identifying, assessing and mitigating risks) obtained a mean of 3.15 (SD = 0.62). Item 4 (Developing a mindset to adapt to change) achieved a mean of 3.26 (SD = 0.67). Item 5 (Prioritizing tasks and managing time effectively) recorded the highest mean of 3.66 (SD = 0.47). Item 6 (Building leadership skills and working collaboratively) yielded a mean of 3.30 (SD = 0.68). The grand mean for Table 6 is 3.35, confirming a positive student experience regarding the entrepreneurial skills developed. T

Table 7: Impacts of Entrepreneurship Skills on Employment Opportunities Among Federal Polytechnic HND Students

S/N	Impact of Entrepreneurship Skills on Employment Opportunities	SA	A	D	SD	Total	Mean	SD
1	Entrepreneurship skills increase employability for students after graduation	175	111	38	4	328	3.39	0.74
2	Entrepreneurship education equips students with the skills and knowledge to start their own businesses	117	196	15	0	328	3.31	0.55
3	Entrepreneurship skills reduce unemployment among students after graduation	226	94	8	0	328	3.66	0.52
4	Entrepreneurship education promotes self-reliance among	122	206	0	0	328	3.37	0.48

	graduates, reducing dependence on white-collar jobs							
5	Entrepreneurship skills enable students to create their own income-generating opportunities	238	82	6	2	328	3.70	0.53
	Grand Mean						3.49	

Significant mean level = 2.50

Table 7 investigates the perceived impacts of entrepreneurship skills on the employment opportunities of HND students in federal polytechnics. Item 1 (Entrepreneurship skills increase employability after graduation) returned a mean of 3.39 (SD = 0.74). Item 2 (EE equips students with skills to start their own businesses) yielded a mean of 3.31 (SD = 0.55). Item 3 (Entrepreneurship skills reduce unemployment) achieved a mean of 3.66 (SD = 0.52). Item 4 (EE promotes self-reliance among graduates) recorded a mean of 3.37 (SD = 0.48). Item 5 (Entrepreneurship skills enable income-generating opportunities) recorded the highest mean at 3.70 (SD = 0.53). The grand mean for Table 7 is 3.49, the highest among all six tables, indicating the strongest level of agreement about the impact of entrepreneurship skills on employment opportunities. The consistently low standard deviations suggest high respondent consensus throughout.

Discussion of Findings

Roles of Entrepreneurship Education

The findings from Table 2 (Grand Mean = 3.24) reveal that HND students affirm the multifaceted roles of entrepreneurship education in their employment prospects. The highest rated item, which is equipping students with knowledge to pursue diverse career paths (Mean = 3.78) aligns with Neck and Greene (2011), who argue that entrepreneurship education is no longer solely about teaching students to start businesses but about developing a mindset applicable to diverse professional contexts. Similarly, Kuratko (2005) contends that entrepreneurship education transforms students' career trajectories by broadening their vocational horizons. The fostering of innovation and creativity (Mean = 3.44) also reflects the findings of Lackeus (2015), who underscores innovation as the cardinal outcome of entrepreneurship education, enabling graduates to create value in employment or self-employment settings.

Effectiveness of Teaching Facilities (Table 3)

The grand mean of 3.14 for teaching facility effectiveness indicates moderate satisfaction. While facilities conducive for collaborative learning scored impressively (Mean = 3.61), the adequacy of material resources emerged as a critical gap (Mean = 2.61). This corroborates Okeke (2018), who found that underfunding of vocational and technical education institutions in Nigeria leads to inadequate learning infrastructure that undermines pedagogical outcomes. The World Bank (2019) similarly documented that resource-constrained environments diminish the quality of technical education in sub-Saharan Africa, a finding that resonates with the Nigerian polytechnic context.

Effective Teaching Methods and Strategies (Table 4)

With a grand mean of 3.30, Table 4 confirms that students perceive both the teaching methods and instructional strategies as generally effective. The highest-rated item, which is industry-academia collaboration (Mean = 3.85) aligns strongly with the experiential learning

theory of Kolb (1984), which posits that learning is most effective when it is grounded in concrete, real-world experiences. This finding is echoed by Neck and Corbett (2018), who argue that entrepreneurship education must bridge the gap between classroom instruction and industry practice through structured collaborations.

Relationship Between Entrepreneurship Education and Skill Acquisition (Table 5)

The grand mean of 3.40 in Table 5 confirms a strong positive relationship between entrepreneurship education and the acquisition of entrepreneurial skills. The finding that EE influences entrepreneurial intentions (Mean = 3.70) is consistent with Ajzen's (1991) Theory of Planned Behaviour, which posits that intentions are the most immediate antecedents of entrepreneurial behaviour, and that education plays a critical role in shaping those intentions. Krueger, Reilly, and Carsrud (2000) further established that entrepreneurship education significantly and positively predicts entrepreneurial intention among students.

Experiences of HND Students on Entrepreneurial Skills (Table 6)

The absence of any strong disagreement responses across all items in Table 6 is notable and reflects a generally positive student experience. Time management emerged as the most strongly developed skill (Mean = 3.66), followed by analytical and decision-making skills (Mean = 3.64). These findings are consistent with Man, Lau, and Chan (2002), who identified time management and decision-making as core entrepreneurial competencies. The development of these competencies through polytechnic education suggests a degree of curriculum effectiveness in skill-building.

Impact of Entrepreneurship Skills on Employment Opportunities (Table 7)

Table 7 recorded the highest grand mean (3.49) across all tables, affirming the strong perceived impact of entrepreneurship skills on employment opportunities. The findings that entrepreneurship skills reduce unemployment (Mean = 3.66) and enable income-generating opportunities (Mean = 3.70) resonate with the seminal work of Schumpeter (1934), who described the entrepreneur as a driver of economic dynamism and job creation. In the Nigerian context, Okafor and Ameh (2015) confirmed that entrepreneurship education at the polytechnic level serves as a mechanism for reducing graduate unemployment by equipping students with self-employment capabilities. The strong support for entrepreneurship education promoting self-reliance (Mean = 3.37; 0 D, 0 SD) is significant in a country where youth unemployment exceeds 30% (NBS, 2023). This is consistent with Ogundele, Idris, and Ahmed (2012), who documented that graduates of entrepreneurship-integrated programmes in Nigerian polytechnics demonstrated higher rates of self-employment within two years of graduation compared to those without such training.

Summary of Findings

The study investigated entrepreneurship education and employment opportunities among HND students in federal polytechnics across six dimensions. The following are the key findings:

1. Entrepreneurship education is perceived to play significant roles in equipping students with practical business skills, broadening career paths, fostering innovation and providing networking opportunities.
2. Teaching facilities in federal polytechnics are moderately effective. While collaborative learning environments and ICT facilities were relatively satisfactory, material resources and business planning tools were perceived as inadequate, pointing to infrastructure gaps.

3. Industry-academia collaboration, mentorship, and hands-on practical experiences were the most highly rated strategies. Among teaching methods, the design-based method and cooperative learning were the most effective. The lecture method, while widely used, was the least effective among the methods assessed.

4. A strong positive relationship was established between entrepreneurship education and the acquisition of entrepreneurial competencies, particularly in shaping business intentions, developing essential skills and teaching business planning. There was near-universal agreement on the role of EE in building resource management competencies.

5. HND students reported overall positive experiences in developing entrepreneurial skills, particularly in time management, analytical thinking and leadership. Networking and risk management skills development lagged slightly behind other competencies.

6. Entrepreneurship skills were strongly perceived to increase employability, reduce unemployment, promote self-reliance and enable income generation. This dimension recorded the highest grand mean, affirming the central thesis that entrepreneurship education positively impacts employment outcomes for polytechnic HND graduates.

Conclusion

This study has provided compelling empirical evidence that entrepreneurship education plays a pivotal role in shaping the employment prospects and entrepreneurial competencies of HND students in federal polytechnics. Across all six dimensions examined, which are roles, teaching facilities, teaching methods, skill acquisition, student experiences and employment impact, respondents consistently affirmed the positive contributions of entrepreneurship education to their personal and professional development. Despite the overall positive outcomes, the study identified several critical gaps that must be addressed to maximize the impact of entrepreneurship education on graduate employability. These include insufficient material resources, limited development of risk-taking mindset and gaps in networking and communication skill formation. The findings of this study affirm that entrepreneurship education, when effectively delivered with adequate facilities and active pedagogical strategies, is a powerful instrument for reducing graduate unemployment and fostering economic self-reliance among polytechnic graduates in Nigeria.

Recommendations Based on Findings

Based on the findings of this study, the following recommendations are made:

1. **Curriculum Reform to Incorporate Risk-Taking and Networking:** Federal polytechnics should revise their entrepreneurship curriculum to place greater emphasis on developing students' risk-taking orientation, networking skills and communication competencies.
2. **Improvement of Teaching Facilities and Resources:** The federal government and polytechnic management should increase funding for entrepreneurship education infrastructure, specifically for the provision of adequate material resources, business planning tools and financial management simulation software. Public-private partnerships should be explored to bridge infrastructure deficits.
3. **Adoption of Active and Industry-Connected Teaching Methods:** Institutions should prioritize industry-based learning approaches including industry-academia collaboration, mentorship programmes and hands-on project assignments. The lecture

method should be supplemented with more active pedagogies such as case studies, business simulation games and design-based learning.

4. Strengthening Industry-Academia Linkages: Federal polytechnics should formalize partnerships with industries, small and medium enterprises (SMEs) and entrepreneurship ecosystems to provide students with real-world learning experiences.
5. Policy Commitment to Entrepreneurship Education Outcomes: Policymakers should develop outcome-based assessment frameworks that track the employment and self-employment trajectories of polytechnic graduates to evaluate the actual impact of entrepreneurship education. Incentive programmes such as microcredit schemes and post-graduation enterprise support should be created to help graduates actualize their entrepreneurial skills.
6. Continuous Professional Development for Entrepreneurship Lecturers: Entrepreneurship educators should receive regular training in contemporary, active learning pedagogies and real-world entrepreneurship practice. Lecturers should be encouraged to engage with the business community to keep course content relevant and applicable to current labour market realities.

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