



Level of Entrepreneurial Practice among Engineering Trade Students in Technical Colleges in Katsina State

Isaac John Ibanga^{1*}, Garba, Zakariya'u², Philip Sunday³

^{1*,3}*Department of electrical Technology Education, Faculty of Education., Modibbo Adama University, Yola, Adamawa State, Nigeria.*

²*Department of Technical Education, Shehu Shagari College of Education, Sokoto, Sokoto State Nigeria.*

Corresponding Email: ^{1*}isaacjohn@mau.edu.ng

Received: 11 August 2022 Accepted: 27 October 2022 Published: 30 November 2022

Abstract: *Determining the extent of entrepreneurial practice among engineering trade students in Technical Colleges in Katsina State, Nigeria, was the major goal of the study. The study used a descriptive survey research, and its sample size was 55 respondents, including 34 BBC students, 10 BBC instructors, and 9 administrators from the three GTCs in Katsina State. Whole-population sampling was utilized since the population was of an equitable size. The Entrepreneurship Awareness Questionnaire (EAQ), a structured questionnaire created by the researchers, was the tool utilized for data collection. The instrument was evaluated by three specialists, and Cronbach Alpha yielded a reliability rating of 0.86. The mean and standard deviation, together with an ANOVA with a 0.05 threshold, were used to answer the study questions and test the hypotheses. The results showed that engineering trade students at Katsina State's Government Technical Colleges have a modest level of awareness of entrepreneurship. Additionally, in Katsina State's Government Technical Colleges, engineering trade students exhibit a modest degree of interest in entrepreneurship. At order to increase awareness among technical college students, it was suggested that the government undertake entrepreneurial awareness campaigns in all government technical colleges. Additionally, frequent television programs should be produced by private persons who have excelled in entrepreneurship in order to spark students' interest in the field.*

Keywords: *Entrepreneurship, Entrepreneurial Practice, Engineering Trade Students, Technical Colleges, Vocational Education.*

1. INTRODUCTION

In Nigeria, technical colleges are considered to be the major institutions for vocational education. According to Abdulkadir and Ma'aji (2014), they provide comprehensive vocational



training aimed at preparing students for admission into a variety of jobs. According to Onyebuanyi and Oluka (2022), technical college education in Nigeria is responsible for the following: offering full-time courses of instruction and training in technology, applied science, and commerce, as well as in any other field of applied learning relevant to the needs of Nigeria's development in the areas of industrial, commercial, and vocational agriculture, professional studies in engineering, and performing any other duties that are deemed appropriate in the opinion of the instructor.

An essential component of vocational and technical education is engineering trade, which helps students develop the skills and knowledge they need to support themselves financially. Technical and management abilities developed in school must be put to the test independently outside of the classroom setting before engineering trade graduates may conduct entrepreneurship in their crafts at the technical college level. Entrepreneurial competence is a further essential trait required for self-employment. Entrepreneurship abilities are learnable. A person can receive training on how to recognize a business and create a strategy on how to set up and run the enterprise.

Aulia and Evanita (2020) claim that entrepreneurship is a crucial component of economic progress because it expresses its fundamental importance in a variety of ways, including: a) by spotting, evaluating, and seizing business opportunities; b) by founding new businesses and/or revitalizing existing ones by making them more dynamic; and c) by advancing the economy through innovation, competence, and job creation- as well as by generally enhancing societal well-being.

Entrepreneurial awareness, according to Okolie, et al. (2021), is a deliberate frame of mind toward starting a business. The goal of entrepreneurship education is to empower people to become familiar with the skills needed to start and run a business. Students who are aware can build new values into their present businesses using the knowledge they learn. One of the key elements influencing students' enthusiasm in entrepreneurship is awareness. Kimbu, et al. (2021) argued that a person's locus of control, need for accomplishment, tolerance of ambiguity, and innovativeness are all characteristics that influence their interest in starting their own business. On the other side, Sesen (2013) discovered that students' entrepreneurial curiosity is increased when they have access to business knowledge and are in a supportive atmosphere.

Around the world, interest in entrepreneurship has increased (Purnamawati, Adiandari, Amrita & Perdanawati, 2020). An individual's conscious understanding and belief that they want to launch a new business endeavor and have plans to do so in the future can be referred to as having entrepreneurial interest. Olorundare and Kayode (2014) assert that entrepreneurship entails more than just starting a firm. Although starting a firm is undoubtedly a crucial component of entrepreneurship, it is not the whole story. A unique viewpoint that will penetrate entrepreneurial interest among Engineering trade students in Technical Colleges in Katsina state is created by the traits of looking for possibilities, taking risks, and having the determination to carry an idea through to completion. Despite how appealing entrepreneurship may seem, several factors make it unsuitable for students.



The high rates of unemployment and the fluctuations in the international trade cycles, which most of these nations have not before experienced, are the key factors of entrepreneurial interest. Due to this circumstance, entrepreneurs' prospective roles have a tendency to receive more attention. According to Purnamawati, Adiandari, Amrita, and Perdanawati (2020), entrepreneurship is one potential answer to the issues most nations confront. The issue of how to construct an entrepreneurial culture is one that many development organizations, such as educational and training institutions, are grappling with on a global scale, and many of them currently offer helpful and crucial aid, such as financial elements and guidance.

Today, entrepreneurship is a subject that is frequently taught in classrooms. Many business or management schools offer the major field of academic programs in entrepreneurship in addition to traditional business or management areas like finance, accounting, marketing, human resource management, and basic management. Some schools in the world offer courses in entrepreneurship. However, there is still much to be learned about incorporating entrepreneurship education into non-business programs, particularly at Katsina state's Technical Colleges.

Statement of the Problem

The ultimate way to combat youth unemployment, underemployment, and poverty is through entrepreneurship, especially when educated people are having trouble finding work (Brownhilder 2016). By increasing the contribution of labor to production, it is seen as a crucial factor in economic growth. Serpa and Ferreira (2019) claim that the Nigerian economy is mostly unorganized and has a poor potential to absorb educated people into formal employment. This makes unemployment issues worse, especially given the high rate of educated people entering the labor field. The issue is made more problematic by research that suggests that Nigeria's technical college graduates are best suited for white-collar employment since they lack the necessary practical skills to participate in entrepreneurship. This study aimed to assess the extent of entrepreneurial practice among engineering trade students at Technical Colleges in Katsina State against this background.

Purpose of the Study

The main purpose of the study was to determine the level of entrepreneurial practice among engineering trade students in Technical Colleges in Katsina State. Specifically, the study sought to:

1. Determined the engineering trade students' level of awareness of entrepreneurship in Government Technical Colleges of Katsina state
2. Determined the engineering trade students' level of interest in entrepreneurship in Government Technical Colleges of Katsina state

Research Questions

The following research questions were raised to guide the study:

1. What is the ENGINEERING TRADE students' level of awareness of entrepreneurship in Government Technical Colleges of Katsina state?
2. What is the ENGINEERING TRADE students' level of interest in entrepreneurship in Government Technical Colleges of Katsina state?



Hypotheses

The following null hypotheses were formulated and were tested at 0.05 level of significance

H₀₁: There is no significant difference in the mean responses of technical colleges administrators, teachers and students on the engineering trade students' level of awareness of entrepreneurship in Government Technical Colleges of Katsina state

H₀₂: There is no significant difference in the mean responses of technical colleges administrators, teachers and students on the engineering trade students' level of interest in entrepreneurship in Government Technical Colleges of Katsina state

3. METHODOLOGY

The study used a descriptive survey research approach. According to Gall, Gall, and Borg (1996), a descriptive survey is a type of research that gathers data from a sample that has been chosen to reflect a population to whom the study's results may be applied through the use of a questionnaire or an interview. The research area is Katsina state, which is situated between latitudes 7.6306° E and longitudes 12.3797° N. By the north and east, Zamfara and Kebbi State, Kano and Kaduna on the south, Katsina State is also bordered by the Niger Republic. 55 respondents made up the study's population, including 34 engineering trade students from the three Government Technical Colleges in Katsina State, 10 engineering trade professors, and 9 administrators. Whole-population sampling was utilized since the population was of a manageable size. The Entrepreneurship Awareness Questionnaire (EAQ), a structured questionnaire fashioned by the researchers, was the tool utilized for data collection. The questionnaire's responses were organized using a 5-point Likert scale. Three specialists from the Department of Technology Education at Modibbo Adama University in Yola, Adamawa State, verified the questionnaire. Utilizing the Cronbach alpha reliability approach, the instrument's reliability co-efficient was determined to be 0.86. The study's data were gathered by the researchers with assistance from two research assistants. The two study questions were answered using the mean statistic, and the hypotheses were tested using an ANOVA at a significance level of 0.05.

4. RESULTS

Research Questions 1: What is the Engineering trade students' level of awareness of entrepreneurship in Government Technical Colleges of Katsina State?

Table 1: Mean and Standard Deviation on the Level of Awareness of Entrepreneurship

		N_A = 9	N_T=10	N_S=36	N= 55		
S/No.	ITEMS	\bar{x}_A	\bar{x}_T	\bar{x}_S	\bar{x}_G	δ	Remark
1.	Students are aware that participating in entrepreneurship education makes them self-reliant	3.22	3.20	3.18	3.19	0.59	MA
2.	Students are aware that participating in entrepreneurship	3.11	3.10	3.09	3.09	0.30	MA



	education encourages them to be job creators						
3.	Students are aware that participating in entrepreneurship education allows training and tutoring in the skills relevant to the management of the small business Centre	3.89	3.80	3.79	3.81	0.44	HA
4.	Students are aware that through entrepreneurship education graduates are equipped with the training and support necessary to help them establish career in small business Centre	2.89	2.80	2.79	2.81	0.40	MA
5.	Students are aware that participating in entrepreneurship education helps in skill acquisition that will make them fit into the manpower needs of the society	2.78	2.70	2.68	2.70	0.70	MA
6.	Students are aware that participating in entrepreneurship education stimulates industrial and economic growth of rural and less developed areas	4.11	4.10	4.09	4.09	0.30	HA
7.	Students are aware that participating in entrepreneurship education makes them identifying new business opportunities.	3.11	3.10	3.09	3.09	0.30	MA
8.	Students are aware that participating in entrepreneurship education serve as means of reducing unemployment in Nigerian society	3.89	3.80	3.76	3.79	0.57	HA
9.	Students are aware that participating in entrepreneurship education helps to prepare student's psychologically for risk taking	3.11	2.90	2.88	2.92	0.33	MA
10.	Students are aware that participating in entrepreneurship education helps in proper utilizing human resources	2.89	2.80	2.79	2.81	0.56	MA
	Group Mean				3.23		MA



\bar{x}_T = Mean of Teachers, \bar{x}_A = Mean of Administrators, \bar{x}_S = Mean of Students, \bar{x}_G = Grand Mean, δ = Standard deviation, n_T = Number of Teachers, n_A = Number of Administrators, N = Total Number of Respondents, ML = Moderately Aware, HL = Highly Aware

The level of entrepreneurship awareness among engineering trade students at Katsina State's Government Technical Colleges is displayed in Table 1. The respondents—school administrators, teachers, and engineering trade students—identified items 1, 2, 4, 5, 7, 9 and 10 as pupils with a moderate level of entrepreneurial awareness, with mean values ranging between 2.70 and 3.19 and their standard deviations falling between 0.30 and 0.59. With mean scores of 3.81, 4.09, and 3.79 respectively, and standard deviations of 0.44, 0.30, and 0.57, items 3, 6, and 8 demonstrate that students have a high level of awareness. The engineering trade students in Government Technical Colleges appear to have a modest level of awareness of entrepreneurship, according to the group mean of 3.23.

Research Question 2

What is the engineering trade students' level of interest in entrepreneurship in Government Technical Colleges of Katsina state?

Table 2: Mean and Standard Deviation on the Level of Interest in Entrepreneurship

		$N_A = 9$	$N_T = 10$	$N_S = 36$	$N = 55$		
S/No.	ITEMS	\bar{x}_A	\bar{x}_T	\bar{x}_S	\bar{x}_G	δ	Remark
1.	Students see technological changes as sources of entrepreneurial opportunity because they make it possible for me to do things in more productive ways	3.22	3.20	3.18	3.19	0.59	ML
2.	Students have participatory interest in engineering trade practice as a trade	3.11	3.10	3.09	3.09	0.30	ML
3.	Students have entrepreneurial participatory interest but lack impetus for fear of risk	3.00	2.90	2.88	2.91	0.30	ML
4.	Students have entrepreneurial participatory interest but lacks adequate skills in enterprise	3.11	3.10	3.09	3.09	0.30	ML
5.	Students' entrepreneurial participatory interest are not capture during entrepreneurial lessons	3.22	3.20	3.18	3.19	0.59	ML
6.	Students loss entrepreneurial participatory interest when unable to identify an opportunity	3.22	3.20	3.18	3.19	0.59	ML



7.	Student entrepreneurial participatory interest deterred by too many people in chosen area	3.11	3.10	3.09	3.09	0.30	ML
8.	Frequently experiences a restlessness that keeps them from learning and trying new things	2.89	2.80	2.79	2.81	0.44	ML
9.	Students' entrepreneurial participatory interest are captured by the reality of the lessons	3.22	3.20	3.18	3.19	0.59	ML
10.	Trying new ideas makes students feel comfortable during entrepreneurship education lesson	3.11	3.10	3.09	3.09	0.30	ML
	Group Mean				3.08		ML

\bar{x}_T = Mean of Teachers, \bar{x}_A = Mean of Administrators, \bar{x}_S = Mean of Students, \bar{x}_G = Grand Mean, δ = Standard deviation, n_T = Number of Teachers, n_A = Number of Administrators, N = Total Number of Respondents, ML = Moderate Level

Table 2 depicts the level of entrepreneurial interest among engineering trade students at Katsina State's government technical colleges. With mean values between 2.18 and 3.19 and a standard deviation that spans between 0.30 and 0.59, the respondents—school administrators, teachers, and engineering trade work students—indicate that kids have a modest level of interest in entrepreneurship. The engineering trade students in the Government Technical Colleges of Katsina State appear to have a modest degree of interest in entrepreneurship, according to the group mean of 3.08.

Hypothesis 1: There is no significant difference in the mean responses of Technical Colleges administrators, teachers and students on the Engineering trade students' level of awareness of entrepreneurship in Government Technical Colleges of Katsina state.

Table 3: ANOVA on Students' Level of Awareness of Entrepreneurship

	Sum of Squares	Mean Square	df	F	p	Remark
Between Groups	.052	.026	2			
				.850	.433	Accept
Within Groups	1.524	.030	50			

The findings of testing Hypothesis 1 between Technical Colleges administrators, teachers, and Engineering trade work trade students on the degree of students' knowledge of entrepreneurship Government Technical Colleges are shown in Table 3. The outcome showed that the 0.05 level of significance was examined, and $F(2, 50) = 0.850$, $p\text{-value} = 0.433$. The null hypothesis is accepted because the p -value exceeds the level of significance.



Hypothesis 2: There is no significant difference in the mean responses of Technical Colleges administrators, teachers and students on the Engineering trade students’ level of interest in entrepreneurship in Government Technical Colleges of Katsina state

Table 4: ANOVA on the Students’ Level of Interest in Entrepreneurship

	Sum of Squares	Mean Square	df	F	p	Remark
Between Groups	.017	.009	2			
				.092	.913	Accepted
Within Groups	4.691	.094	50			

The results of testing hypotheses two between technical college administrators, instructors, and engineering trade students on their degree of interest in starting their own business are shown in Table 4. The outcome showed that the 0.05 threshold of significance was examined, and $F(2, 50) = 0.092$, $p\text{-value} = 0.913$. The null hypothesis is accepted because the $p\text{-value}$ exceeds the level of significance.

5. FINDINGS AND DISCUSSION

The study's findings showed that engineering trade students at Katsina State's Government Technical Colleges have a modest level of knowledge of entrepreneurship. According to Abualbasal and Badran (2019) and Okpara, et al. (2022) students in post-primary institutions are exposed to entrepreneurial studies because it is believed that society only authorizes persons of school age to be in school. This finding supports their assertions. And any attempt by a parent to teach their children any aspect of commerce would be referred to as "child labor." Given that their curriculum does not allow students to pursue entrepreneurial endeavors. Mishi and Shaw (2014) maintained that there is a low level of entrepreneurial awareness among young secondary school graduates because their curriculum forbids them from engaging in any type of business activities, with the exception of those who may not have the financial means to pay for their own tuition at tertiary institutions. These students may be advised to pursue another career in order to avoid becoming wayward and less useful to society.

The study's conclusions showed that engineering trade students at Katsina State's government technical colleges have a modest degree of interest in entrepreneurship. The results are consistent with Ohanu and Ogbuanya (2018) argument that secondary school pupils lack interest in entrepreneurship since the topic is taught as a unit module integrated into another subject rather than as a standalone subject. Students' lack of interest in the subject may result from this inaction of not making entrepreneurial studies/education a stand-alone subject. In order for students to make the right decisions and develop the necessary entrepreneurial tendencies, Aladejebi (2018) and Oguntimehin (2018) reported that while entrepreneurship education is thought to be a powerful tool for influencing students' learning orientation and expression of entrepreneurial implementation interest, the students still need to be properly guided.



The study's conclusions showed that there is no statistically significant difference in the mean replies of Technical Colleges administrators, teachers, and students on the degree of entrepreneurship awareness among engineering trade students at Katsina state's Government Technical Colleges. The results are in line with those of Ahmad, Mehrdad, Atieh, and Gholamhossein (2012), who argued that students needed entrepreneurial skills to help them become independent. A careful examination of students' entrepreneurial awareness, however, reveals that most students' entrepreneurial awareness is motivated by their familial history because they want to be like their parents. Pupils from entrepreneurial families often comprehend concepts better than students whose parents work for either public or private institutions or businesses. According to the findings of Aladejebi (2018), who examined college students' entrepreneurial abilities and level of awareness of entrepreneurship, only 10% of the students interviewed were aware of the benefits of being an entrepreneur and were prepared to participate in the process, while 68% of the students wanted to work for public institutions and the remaining 22% wanted to be educators.

The mean replies of Technical Colleges administrators, teachers, and students on the degree of entrepreneurial interest among Engineering trade students in Government Technical Colleges of Katsina State did not differ significantly. The results support Ugwu (2012) claim that what pupils see and hear increases their interest. Students should be educated to grasp the advantages that come with being an entrepreneur for this reason. Ezeani, Eke and Ugwu (2015) also advocated for exposing pupils to entrepreneurial education at a young age in order to increase their drive for independence and to become job creators rather than job seekers.

6. CONCLUSION

Based on the study's findings, it was deduced that engineering trade students in Government Technical Colleges of Katsina State have a moderate level of awareness and interest in entrepreneurship. There were no statistically significant differences in the mean responses of Technical Colleges administrators, teachers, and students on the Engineering trade students' level of awareness and interest in entrepreneurship.

Recommendations

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

1. To increase awareness among technical college students, the government should establish an entrepreneurial awareness campaign in all of its technical colleges.
2. Private persons who have achieved success in entrepreneurship could plan recurring television programs that will encourage students to pursue it.

7. REFERENCES

1. Abdulkadir M. & S.A. Ma'aji (2014). Assessment of workshop facility management practice in technical colleges in Niger state. *International Journal of Scientific and Research Publications* 4 (7) 1.



2. Abualbasal, A. M., & Badran, R. E. (2019). Students' attitude towards entrepreneurship at princess sumaya university for technology. *Journal of Entrepreneurship Education*, 22(1), 1-19.
3. Ahmad, Y. F., Mehrdad, P., Atieh, S., & Gholamhossein, H. (2012). How to enhance student's entrepreneurial skills: An academia's perspective. *African Journal of Business Management*, 6(11), 4250-4254.
4. Aladejebi, O. (2018). The effect of entrepreneurship education on entrepreneurial intention among tertiary institutions in Nigeria. *Journal of Small Business and Entrepreneurship Development*, 5(2), 1-14.
5. Aulia, M., & Evanita, S. (2020, March). The influence of locus of control, need for achievement and campus environment on students' entrepreneurship interest of Universitas Negeri Padang. In 4th Padang international conference on education, economics, business and accounting (PICEEBA-2 2019) (pp. 599-607). Atlantis Press.
6. Brownhilder, N. (2016). Examining the moderating effect of environmental hostility on the entrepreneurial orientation-performance relationship. *Journal of Economics and Behavioral Studies*, 8(6 (J)), 6-18.
7. Ezeani, C. N., Eke, H. N., & Ugwu, F. (2015). Professionalism in library and information science: An examination of current trends, needs, and opportunities in academic libraries in southeast Nigeria. *The Electronic Library*.
8. Gall, M. D., Borg, W. R., & Gall, J. P. (1996). *Educational research: An introduction*. Longman Publishing.
9. Ibidunni, A. S., Ogundana, O. M., & Okonkwo, A. (2021). Entrepreneurial competencies and the performance of informal SMEs: The contingent role of business environment. *Journal of African Business*, 22(4), 468-490.
10. Kimbu, A. N., de Jong, A., Adam, I., Ribeiro, M. A., Afenyo-Agbe, E., Adeola, O., & Figueroa-Domecq, C. (2021). Recontextualising gender in entrepreneurial leadership. *Annals of Tourism Research*, 88, 103176.
11. Mishi, S. & Shaw, G. K. (2014). Entrepreneurial awareness among high school learners: Case study of Buffalo city metropolitan municipality. *Mediterranean Journal of Social Sciences*, 5(8), 146-146.
12. Oguntimehin, Y. A. (2018). The relationship between entrepreneurship education and students' entrepreneurial intentions in Ogun state-owned universities, Nigeria. *KIU Journal of Humanities*, 3(2), 285-294.
13. Ohanu, I. B., & Ogbuanya, T. C. (2018). Determinant factors of entrepreneurship intentions of electronic technology education students in Nigerian universities. *Journal of Global Entrepreneurship Research*, 8(1), 1-17.
14. Okolie, U. C., Ehiobuche, C., Igwe, P. A., Agha-Okoro, M. A., & Onwe, C. C. (2021). Women entrepreneurship and poverty alleviation: Understanding the economic and socio-cultural context of the Igbo women's basket weaving enterprise in Nigeria. *Journal of African Business*, 22(4), 448-467.
15. Okolie, U. C., Igwe, P. A., Ayoola, A. A., Nwosu, H. E., Kanu, C., & Mong, I. K. (2021). Entrepreneurial competencies of undergraduate students: The case of universities in Nigeria. *The International Journal of Management Education*, 19(1), 100452.
16. Okpara, C. V., Anselm, U. A., Alphonsus, U., Chidi, U. J., & Gever, V. C. (2022). Modelling the effectiveness of a social media-based counseling intervention on interest,



- entrepreneurial skills, and behavioural intention towards painting among youth without paid jobs in Nigeria. *Vision*, 26(3), 361-368.
17. Olorundare, A. S., & Kayode, D. J. (2014). Entrepreneurship education in Nigerian universities: A tool for national transformation. *Asia Pacific Journal of Educators and Education*, 29(8), 155-175.
 18. Onyebuenyi Promise, N., & Oluka Sussan, N. (2022). Digital competencies needed by teachers for utilizing mobile learning applications for effective lesson delivery in Technical Colleges in Aba Education Zone of Abia State. *J Adv Educ Philos*, 6(8), 427-436.
 19. Purnamawati, N. K., Adiandari, A. M., Amrita, N. D. A., & Perdanawati, L. P. V. I. (2020). The Effect Of Entrepreneurship Education And Family Environment On Interests Entrepreneurship In Student Of The Faculty Of Economics, University Of Ngurah Rai In Denpasar. *ADI Journal on Recent Innovation (AJRI)*, 1(2), 158-166.
 20. Serpa, S., & Ferreira, C. M. (2019). Micro, meso and macro levels of social analysis. *Int'l J. Soc. Sci. Stud.*, 7, 120.
 21. Sesen, H. (2013). Personality or environment? A comprehensive study on the entrepreneurial intentions of university students. *Education+ training*, 55(7), 624-640.
 22. Ugwu, F. N. (2012). Evaluation of entrepreneurship awareness and skills among LIS students in universities in South East Nigeria. *Library philosophy and Practice*, 1.