



Influence of Personality Attributes on the Entrepreneurial Intention of Polytechnic Undergraduates in Osun State, Nigeria

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ABSTRACT

The study examined the influence of personality attributes on the entrepreneurial intention of polytechnic undergraduates in Osun State, Nigeria. The study adopted descriptive survey design. A multi-stage sampling technique was used to select 280 undergraduates for the study. Three null hypotheses were postulated and tested at 0.05 level of significance. A questionnaire adapted from literature, designed in 4-Likert format was used for data collection. The instrument was subjected to a panel of experts' validation. The panel carried out a content analysis of each of the questionnaire items and eliminated those found to be irrelevant to the research problem. A reliability test for the internal consistency of the instrument yielded Cronbach alpha of 0.79. Data analysis was based on 260 valid responses with the aid of regression analysis, ANOVA and correlation coefficient using SPSS version 23. The study found that four of the big-five personality attributes (openness, conscientiousness, extraversion, and agreeableness) have a significant positive influence on the entrepreneurial intention of polytechnic undergraduates in Osun State, Nigeria with $p < 0.05$ and Adjusted $R^2 = .457$. The entrepreneurial intention of the undergraduates was found to significantly differ in favour of engineering and management studies. The study concluded that personality attributes have a significant influence on the entrepreneurial intention of polytechnic undergraduates and it was therefore recommended that, in order to boost the level of entrepreneurial intention of polytechnic undergraduates, both students and management should pay better attention to the development of personality attributes such as openness, conscientiousness, and extraversion, which have higher positive influence on the entrepreneurial intention of the students.

Keywords: Personality Attributes, Entrepreneurship Education, Entrepreneurial Intention, Polytechnic Undergraduates

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1. INTRODUCTION

Desires and willingness to engage in entrepreneurship at a future date is commonly referred to as entrepreneurial intention. This entrepreneurial intention is considered the primary force that drives involvement in business enterprises, a foremost solution to the rising rate of graduate unemployment (Otache, Umar, Audu, & Onalo, 2020). Unemployment is one of the greatest challenges of developing countries generally and Nigeria in particular.



As institutions of higher learning in Nigeria turn out graduates year in year out, the rate of unemployment soars. This has continued to be a serious source of concern in the last few decades as the menace is taking its turn on polytechnic graduates who are not supposed to be job seekers. Intense scrambling for paid employments that are scarcely available has been observed among graduates of polytechnic educational programmes in Nigeria, and Osun State in particular. According to Shamsudin, Al Mamun, Che Nawi, Md Nasir & Zakaria, (2017), engaging in small business and entrepreneurial ventures is a 'panacea to the unemployment problem. Becoming a successful business owner, however, begins with development of strong desires and willingness for entrepreneurship.

According to Amesi and Amachree (2021), entrepreneurial intention usually involves inner guts, ambition, willingness and feeling of conviction to stand on one's feet in self-reliance. It refers to individual's state of mind that aimed at creating new ventures and developing new business ideas (Ekeh, *et al.*, 2022). It is a major contributing factor to the formation, growth and development of entrepreneurship. Thus, investigating factors capable of influencing entrepreneurial drive and intentions in polytechnic undergraduates was considered a worthwhile effort.

In the recent time, efforts are being directed towards developing entrepreneurial intention and skills among polytechnic undergraduates in Nigeria, which include introduction of compulsory entrepreneurship education courses for all students of all disciplines/programmes (Salisu, *et al.*, 2022). Educational institutions, therefore expend efforts on learning experiences in entrepreneurship that will enable students acquire practical skills and knowledge for successful entrepreneurial ventures. Students exposed to this entrepreneurship education courses are expected to develop passion and strong inner drive for entrepreneurship after graduation.

Government and institutional efforts notwithstanding, unemployment rate among graduates of polytechnic programmes in Nigeria continue to soar indicating low graduates' interest in entrepreneurial venture (Trade economics, 2023). By implications, there might be other factors responsible for development of entrepreneurial intention in these undergraduates apart from exposure to entrepreneurship education as a compulsory course.

This probably could be personality make-up and individuals characteristics that are often considered to be largely responsible for decisions and behaviours. There is a long-term belief and tradition that there are distinctive traits that make a successful entrepreneur (Sahin, *et al.*, 2019). Developing interest and having desires for entrepreneurship might be influenced by personal characteristics and attributes.

For example, an individual who is reserved and not very open to new experiences may find it difficult developing intention for entrepreneurship. Exposure to entrepreneurship education, however, may likely have correlation with development of favourable personality traits for entrepreneurial intention. Biswas and Verma (2022) found that entrepreneurship education partially mediates the effect of personal characteristics such as need for achievement, locus of control and innovativeness on entrepreneurial intention.



Also, Holienka, Holienkova and Gal (2015) reported significant contributions of entrepreneurship education in developing entrepreneurial characteristics of students in two Slovaks universities. The personal entrepreneurial characteristics covered in the study include need for achievement, need for autonomy, and internal locus of control. The relationship between entrepreneurship education and big-five personality traits of students, especially polytechnic students, seems largely neglected, hence, the study sought to determine the relationship between entrepreneurship education and big-five personality attributes of the polytechnic undergraduates.

Programmes offered in the polytechnics in Nigeria may be broadly categorized into agriculture and related technology; art, design and related technology; business management; engineering; environmental design studies; finance and related studies; health technology; hospitality; science technology; and information studies (National Board for Technical Education, 2023). All these programmes were designed with the objectives of providing high quality manpower that will readily apply their technical skills for socio-economic development (Dung-Gwom, 2014). Entrepreneurial intention of polytechnic undergraduates may, however vary based on discipline as Swarupa and Goyal (2020) reported higher attitude towards entrepreneurship in engineering students than in management students.

Similarly, Sumarwati, *et al* (2022) reported significant differences in the levels of entrepreneurial intention of engineering and non-engineering polytechnic students in Malaysia. Hence, this study investigated significant difference in entrepreneurial intention of polytechnic undergraduates in Osun State, Nigeria, based on discipline. The study was limited to disciplines in management, engineering, environmental studies, finance, and sciences which are considered common to all the polytechnics in Osun State, Nigeria.

1.1 Problem of the Study

Developing entrepreneurial intention in polytechnic undergraduates is necessary as it is the first step towards becoming self-reliant after graduation. Despite Government's and institutional efforts that have been consistently directed towards equipping polytechnic students with skills and ideas to boost their intention for entrepreneurship and to transform them into individuals who are self-reliant through entrepreneurial activities, it has been observed that choice to participate in entrepreneurial activities after graduation seems very low, and the rate of graduate unemployment still on the rise.

Although, entrepreneurship education has been introduced as compulsory course in all programmes of the Nigerian higher institutions, both private and public, to develop students' interest and intention for entrepreneurial activities after graduation to combat the soaring graduate unemployment rate, it seems the problem is yet unsolved. Also, choice to participate in entrepreneurial activities still seems to be on the low side amidst polytechnic graduates of all disciplines. The perceived lack of or low intention for entrepreneurship resulting into high rate of graduate unemployment probably could be linked with the personality make-up of the contemporary polytechnic undergraduates.

The study therefore sought to investigate the personality attributes that may likely influence entrepreneurial intention of tertiary education students, and specifically, the polytechnic undergraduates.



Thus, the following hypotheses were tested:

- H₀₁: Big-five personality attributes do not significantly influence entrepreneurial intention of polytechnic undergraduates in Osun State, Nigeria.
- H₀₂: There will be no significant difference in the levels of entrepreneurial intention of polytechnic undergraduates based on discipline.
- H₀₃: Entrepreneurship education does not have any significant relationship with the personality attributes of polytechnic undergraduates in Osun State, Nigeria.

2. LITERATURE REVIEW

2.1 Concept of Entrepreneurship

Different people and set of people define entrepreneurship differently. For instance, National Open University of Nigeria (2017) opined that the sociologists, psychologists, anthropologists, economists and managers have divergent views of the concept of entrepreneurship. According to the authors, the sociologists believe entrepreneurship to be a concept governed by societal values and status hierarchy. Entrepreneurship, in sociologists' view, will flourish only in society where people depend on hard work to prosper. The psychologists opine that successful entrepreneurship is fundamentally based on individual personality traits like creativity, innovativeness and risk bearing. On the other hand, the economists see entrepreneur as the fourth factor of production who coordinates land, labour and capital to produce saleable goods or services for a profit.

Obasan and Soyebó (2011) define entrepreneurship as the process of creating something new with value by devoting the necessary time and effort, assuming the accompanying financial, psychic and social risks, and receiving the resulting rewards of monetary and personal satisfaction and independence. Entrepreneurship is summarily the process by which individual recognizes business opportunities, initiates business start-up, displays personal skills in combining the factors of production while assuming moderate risks, and controls or coordinates resources for a profit. It is an act of being an entrepreneur. Entrepreneurs therefore are individuals who identify business opportunities, create and organize businesses at a profit. Entrepreneurs are typically driven by certain forces such as the drive for achievement, the desire for freedom and autonomy, or the desire for wealth (National Open University of Nigeria, 2017).

2.2 Entrepreneurial Intention Defined

Barbara Bird was the first to use the term entrepreneurial intention in 1888. He illustrated intention as a state of mind directing a person's attention towards a specific object in order to achieve something. Koe and Majid (2014) viewed entrepreneurial intention as a great predictor of human behaviour. It is the mind-set that directs, guides, coordinates and controls the basic concept of new business development and implementation. Turker and Selcuk (2009) see intentionality as a state of mind directing a person's attention, experience and actions towards achieving specific goals. Similarly, Sanchez (2018) interpreted EI as a self-acknowledged conviction by a person that intends to set up a new business venture and consciously plan to do so at some point in the future. Entrepreneurial intention is one of the major contributing factors to the formation, growth and development of entrepreneurship. Entrepreneurial intention can be influenced by varieties of factors. Scholars differ in their opinions as to factors responsible for the development of EI in students.



Turker and Selcuk (2009) randomly selected 300 university students in Turkey for study. Their study revealed educational support, supportive university environment and structural support as factors predicting entrepreneurial intention in the university students.

2.3 Empirical Review

Some studies relating to entrepreneurial intention have been carried out. Awwad and Al-Aseer (2021) investigated impact of big-five personality on entrepreneurial intention, considering the mediation role of entrepreneurial alertness. The study was conducted amidst 323 Jordanian university students, collecting data through the use of questionnaire. Structural Equation Modelling with partial least square (PLS) was used for data analysis. The study found that conscientiousness and openness were associated with entrepreneurial intention, while agreeableness and neuroticism were unrelated to EI.

In a similar vein, Li, et al (2022) examined the influence of personality traits on entrepreneurial intention, and how creativity plays a mediating role on the influence. The study was carried out in China amidst 674 college students. The study found that neuroticism has negative influence on EI, while conscientiousness, openness and extraversion have a significant positive impact. Agreeableness was found to have no significant effect on entrepreneurial intention of college students in China.

Also, some other studies investigated influence of personality traits on entrepreneurial intention using dimensions other than big-five personality factors. Shamsudin et al (2017) explored the factors affecting entrepreneurial intention among Malaysian university students. It also explored the moderating effect of entrepreneurship education in enhancing entrepreneurial intentions of the students. 375 students from 8 Malaysian universities who are in their final year of Business studies were the respondents.

Findings of the study noted a positive significant effect on the relationship between innovativeness, risk-taking propensity, family background and a supportive environment. It was also reported that entrepreneurship education moderates the relationship between supportive environment and entrepreneurial intention. Zarnadze et al (2022) and Salisu, et al. (2022) investigated relationship between personality attributes and entrepreneurial intention.

The dimensions of personality traits covered in the studies are independences internal locus of control, risk taking propensity, creativity, need for achievement, and self-confidence/self-efficacy. It could be noted that previous studies considered personality attributes in diverse dimension, this study considered it using big-five personality factors.

Also, a few studies considered the joint effect of personality attributes and environmental factors on entrepreneurial intention, but studies on entrepreneurial intention of polytechnic undergraduates in Nigeria are still scarce. Hence, this study will investigate influence of personality attributes, as big-five factors, on entrepreneurial intention of polytechnic undergraduates in Osun State, Nigeria.



3. METHODOLOGY

The study adopted descriptive survey design. The study was conducted among undergraduates of eight private and three public polytechnics in Osun State, Nigeria. Multi-stage sampling technique was used to select 280 undergraduates for the study. Firstly, two private polytechnics were randomly selected with the two public polytechnics. These are: The Polytechnic, Ile-Ife, Osun State; Igbajo Polytechnic, Igbajo; Osun State Polytechnic, Iree; and Federal Polytechnic, Ede.

Then, final year (HND II) students from all faculties (categorized into Management, Engineering, Finance, Sciences and Environmental) in the selected polytechnics in Osun State were purposively sampled. Justification for this selection is premised on the fact that the final year undergraduate students are getting ready to join the labour force and they must have offered all prescribed entrepreneurship education/training courses.

At the third stage, 240 undergraduates were sampled using proportionate stratified random sampling. Questionnaire adapted from Linan and Chem (2009) was used to measure entrepreneurial intention, and entrepreneurship education was measured with a scale adopted from Hieu et al., (2022). While the big-five personality attributes were measured with scale adapted from Ahmed, Khattak and Anwar (2020). The instrument was designed in 4-Likert format, with responses ranging from Strongly Agree (4) to Strongly Disagree (1).

The instruments were subjected to a panel of experts' validation. The panel carried out a content analysis of each of the questionnaires and eliminates items found to be irrelevant to the research problem. After necessary modifications, the instrument was subjected to reliability test that yielded *Cronbach alpha* of 0.79. Administration of instrument was through personal contact with the help of trained research assistants to give room for clarifications by the respondents. Data analysis was based on 260 valid responses with the aid of regression analysis, t-test for unrelated samples and correlations coefficient using SPSS version 23.



4. RESULTS

H₀₁: Big-five personality attributes do not significantly influence entrepreneurial intention of polytechnic undergraduates in Osun State, Nigeria.

Table 1: Regression analysis on influence of personality attributes on entrepreneurial intention of polytechnic undergraduates in Osun, State, Nigeria

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Constant	.867	.165		5.240	.000
Openness	.531	.075	.469	7.115	.000
Conscientiousness	.357	.094	.336	3.790	.002
Extraversion	.311	.088	.325	3.529	.000
Agreeableness	.279	.050	.332	5.613	.000
Neuroticism	-.024	.067	-.029	-.354	.724

R = .684; R² = .467; Adjusted R² = .457; P < 0.05 (Significant)
 Dependent Variable: Entrepreneurial intention

Table 1 revealed that big-five personality attributes have significant positive influence on entrepreneurial intention of polytechnic undergraduates in Osun State, Nigeria. Adjusted R² = .457 indicating that big-five personality attributes accounted for 45.7% of variation in entrepreneurial intention of polytechnic undergraduates in Osun State, while 54.3% will be determined by other factors other than big-five personality attributes. The table, however showed that neuroticism (p = .724, β = -.354) does not have a significant influence on EI, and is a negative predictor of entrepreneurial intention. Openness, conscientiousness, extraversion and agreeableness have positive and significant coefficients on entrepreneurial intention while neuroticism has negative influence.

H₀₂: There will be no significant difference in the levels of entrepreneurial intention of polytechnic undergraduates based on discipline.

Table 2: ANOVA table on the mean differences in levels of entrepreneurial intention based on discipline

	Sum of Squares	df	Mean Square	F	Sig.	Decision
Between Groups	39.877	4	9.969	224.035	.000	Significant difference
Within Groups	11.347	255	.044			
Total	51.224	259				

P < 0.05

Table 2 shows p-value of .000 indicating a significant difference in the levels of entrepreneurial intention of polytechnic undergraduates based on discipline, hence the need for post-hoc analysis for multiple comparison.



Table 2b: Scheffe Multiple Comparisons

(I) Discipline	(J) Discipline	Mean		Sig.	95% Confidence Interval	
		Difference (I-J)	Std. Error		Lower Bound	Upper Bound
Management	Engineering	.081	.039	.374	-.04	.20
	Environmental	.741*	.039	.000	.62	.86
	Finance	.950*	.039	.000	.83	1.07
	Science	.322*	.050	.000	.17	.48
Engineering	Management	-.081	.039	.374	-.20	.04
	Environmental	.660*	.039	.000	.54	.78
	Finance	.869*	.039	.000	.75	.99
	Science	.241*	.050	.000	.09	.40
Environmental	Management	-.741*	.039	.000	-.86	-.62
	Engineering	-.660*	.039	.000	-.78	-.54
	Finance	.209*	.039	.000	.09	.33
	Science	-.419*	.050	.000	-.57	-.27
Finance	Management	-.950*	.039	.000	-1.07	-.83
	Engineering	-.869*	.039	.000	-.99	-.75
	Environmental	-.209*	.039	.000	-.33	-.09
	Science	-.628*	.050	.000	-.78	-.47
Science	Management	-.322*	.050	.000	-.48	-.17
	Engineering	-.241*	.050	.000	-.40	-.09
	Environmental	.419*	.050	.000	.27	.57
	Finance	.628*	.050	.000	.47	.78

*. The mean difference is significant at the 0.05 level.

Scheffe post-hoc test results in Table 2b however show that the difference in levels of entrepreneurial intention is significant between engineering, environmental, finance and science students, but not significant between engineering and management students. ($p=.374$). This indicated the likelihood that the levels of entrepreneurial intention of engineering and management students are similar, and that levels of entrepreneurial intention of polytechnic students in science, environmental studies, and finance are significantly lower than those of engineering and management students.



H₀₃: Entrepreneurship education does not have any significant relationship with the personality attributes of polytechnic undergraduates in Osun State, Nigeria.

Table 3: Relationship between entrepreneurship education and personality attributes of polytechnic undergraduates in Osun State, Nigeria

	N	Mean	SD	1	2	Sig.
Entrepreneurship education	260	2.79	.215	1	.209*	.001
Personality attributes		2.78	.316	.209*	1	.001

Correlation is significant at 0.01 level (2-tailed).

Results in Table 3 showed a positive significant correlation ($p < 0.01$) between entrepreneurship education and personality attributes of polytechnic undergraduates in Osun State, Nigeria. The correlation, though positive and significant, is however weak ($r = 0.209$).

4. DISCUSSION

The findings of this study supported that big-five personality attributes have significant influence on entrepreneurial intention. It was found that openness, conscientiousness, extraversion and agreeableness have positive and significant coefficients on entrepreneurial intention while neuroticism has negative influence. These findings corroborate Awwad and Al-Aseer (2021) and Li, et al (2022) who reported that neuroticism has negative influence on EI, while conscientiousness, openness and extraversion have a significant positive impact.

Contrary to Li, et al (2022), agreeableness was found to have significant effect on entrepreneurial intention of polytechnic undergraduates in Osun State, Nigeria. The implication of the findings is that for development of the much desired entrepreneurial intention in the polytechnic undergraduates, developing personality traits such as openness, conscientiousness, extraversion and agreeableness is necessary.

Also, it was found from the study that there is a significant difference in the levels of entrepreneurial intention of polytechnic undergraduates in Osun State based on discipline. The study revealed that levels of entrepreneurial intention of undergraduates in engineering and management disciplines are relatively high, while undergraduates from other disciplines such as environmental, finance and science jointly differ in their levels of entrepreneurial intention from those of their engineering and management counterparts.

This finding confirms the opinion of Swarupa and Goyal (2020) that entrepreneurial intention of students may vary based on discipline, and Sumarwati, et al (2022), who reported significant differences in the levels of entrepreneurial intention of engineering and non-engineering polytechnic students in Malaysia.



The study revealed a positive significant correlation between entrepreneurship education and personality attributes of the polytechnic undergraduates in Osun State, the correlation was however weak. This corroborates Holienka, Holienkova and Gal (2015) and Biswas and Verma (2022) who found and reported that entrepreneurship education has significant contributions to development of personal characteristics, and partially mediates the effect of personal characteristics such as need for achievement, locus of control and innovativeness on entrepreneurial intention. This implies that intensifying efforts on entrepreneurship education would boost development of personality attributes favourable for development of entrepreneurial intention, including big-five personality traits.

5. CONCLUSION AND RECOMMENDATIONS

Overall, this study has provided empirical evidence on the influence of personality attributes on entrepreneurial intention of polytechnic undergraduates in Osun State, Nigeria. The study also examined the relationship between entrepreneurship education and development of big-five personality attributes. Based on the results, it can be concluded that the personality attributes have significant influence on entrepreneurial intention of polytechnic undergraduates in Osun State, Nigeria. Also, levels of entrepreneurial intention of the undergraduates significantly differ based on discipline. It can be concluded also that entrepreneurship education offered in Nigerian polytechnic require some improvements as it currently have positive but weak correlation with the entrepreneurial intention of the undergraduates.

The study therefore, recommends that in order to boost the level of entrepreneurial intention of polytechnic undergraduates, better attention should be paid to development of personality attributes such as openness, conscientiousness, and extraversion which have higher positive influence on entrepreneurial intention of the students; and Management of polytechnics should redirect effort toward improving entrepreneurship education with a view to boosting the level of entrepreneurial intention of the undergraduates.

6 LIMITATIONS OF THE STUDY

This study was conducted among polytechnic undergraduates in Osun State, Nigeria. Although the study covered both private and public polytechnics, but it did not investigate possible difference in the levels of entrepreneurial intention of undergraduates along public/private institutions.

7. DIRECTION FOR FUTURE RESEARCH

Future researchers may include other states in Southwest geopolitical zone of Nigeria for wider application. Further research could also be conducted to examine the differences in the levels of entrepreneurial intention of undergraduates in private and public polytechnics.

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REFERENCES

- Amesi, J. & Amachree, D. O. (2021). Assessment of Entrepreneurial Intention among Business Education Undergraduate Students in Rivers State Universities. *International Journal of Innovative Social & Science Education Research*, 9(3), 80-85.
- Ahmed, M. A., Khattak, M. S., & Anwar, M. (2020). Personality traits and entrepreneurial intention: The mediating role of risk aversion. *Journal of Public Affairs*, 1-15. www.wileyonlinelibrary.com/journal/pa
- Awwad, M. S., & Al-Aseer, R. M. N. (2021). Big-Five Personality Traits Impact on Entrepreneurial Intention: The Mediating Role of Entrepreneurial Alertness. *Asia Pacific Journal of Innovation and Entrepreneurship*, 15(1), 87-100. DOI 10.1108/APJIE-09-2020-0136
- Biswas, A. & Verma, R. K. (2022). Engine of entrepreneurial intention: Revisiting personality traits with entrepreneurial education. *Benchmarking: An International Journal*, 29(6), 2019-2044.
- Dung-Gwom, J. Y. (2014). Polytechnic education and Nigeria vision 20:2020. Convocation Lecture delivered at the Nasarawa State Polytechnic, Lafia on Friday 5th September.
- Ekeh, L. O., Tsetim, J. T., & Oguiche, M. K. (2022). Entrepreneurship Education and Entrepreneurial Intention of University Undergraduate Students in Benue State, Nigeria. *International Journal of Innovation in Engineering*, 2(1), 58-67.
- Holienka, M., Holienkova, J., & Gal, P. (2015). Entrepreneurial characteristics of students in different fields of study: A view from entrepreneurship education perspective. *Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis*, 63(6), 1879-1889.
- Koe, W. & Majid, I A. (2014). Socio-Cultural Factors and Intention towards Sustainable Entrepreneurship. *Eurasian Journal of Business and Economics*, 7(13), 145-156.
- Lamotte, O. & Colovic, A. (2015). Technological environment and technology entrepreneurship: A cross-country analysis. *Creativity and innovation management*, 24(4). www.researchgate.net
- Linan, F. & Chen, Y. W. (2009). Development and cross-cultural application of a specific instrument to measure entrepreneurial intentions. *Entrepreneurship Theory and Practice*, 33(3), 593-617. <https://doi.org/10.1111/j.1540-6520.2009.00318.x>
- National Board for Technical Education (2023). Programmes available in Nigerian Polytechnics and similar tertiary technical institutions as at January, 2019. net.nbte.gov.ng
- National Open University of Nigeria (2017). *ENT 414 – Venture creation and growth*. Lagos: Author
- Obasan, K. A. & Soyobo, Y. (2011). *Understanding key concepts in entrepreneurship*. Ago-Iwoye: Olabisi Onabanjo University Press.
- Otache, I., Umar, K., Audu, Y., & Onalo, U. (2020). The Effects of Entrepreneurship Education on Students' Entrepreneurial Intentions. *Education and Training*, DOI:10.1108/ET-01-2019-00050
- Sahin, F., Karadag, H., & Tuncer, B. (2019). Big five Personality Traits, Entrepreneurial Self-efficacy and Entrepreneurial Intention. *International Journal of Entrepreneurial Behavior & Research*, 25(6), 1188-1211. DOI 10.1108/IJEBR-07-2018-0466
- Salisu, B. G., Salisu, U., Abu-Abdissamad, A. M., & Muhammed, Z. (2022). Moderating Role of Entrepreneurship Education on the Relationship between Personality Attribute and Entrepreneurial Intention. *Creative Business Research Journal*, 2(2), 69-75.
- Sanchez, A. M. (2018). Environmental factors that affect the entrepreneurial intention. Bachelor thesis in the Business Administration and Management, Universitat Autonomia de Barcelona



- Shamsudin, S. F. F., Al Mamun, A., CheNawi, N., Md Nasir, N. S. & Zakaria, M. N. (2017). Factors affecting Entrepreneurial Intentions among Malaysian University students. *The Journal of Developing Areas*, 51(4). 422-431. www.researchgate.net
- Sumarwati, S., Setiyani, Amirudin, M. H. & Madar, A. R. (2022). The comparison level of entrepreneurial intention and creative thinking skills among polytechnics students in Malaysia. *Online Journal for TVET Practitioners*, 7(1), 75-84.
- Swarupa, S. G. & Goyal, R. K. (2020). Entrepreneurial intention of students: Review of academic literature. *International Journal of Scientific & Engineering Research*, 11(1), 1146-1168.
- Trade Economics (2023). Nigeria Unemployment Rate. <https://tradingeconomics.com/nigeria/unemployment-rate>.
- Turker D. & Selcuk, S. S. (2009). Which factors affect entrepreneurial intention of University students? *Journal of European Industrial Training*, 33(2). 142-158. <https://pdfs.semanticscholars.org>
- Zarnadze, G., Ines D., Gentja, C., & Humberto, N. R. R. (2022). Personality Traits and Business Environment for Entrepreneurial Motivation. *Administrative Sciences* 12, 176, 1-28. <https://doi.org/10.3390/admsci12040176>