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Moderating role of entrepreneurship education on personality traits and entrepreneurial intention of undergraduate students

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Abstract
Studies in entrepreneurship indicates that quantum of research work was conducted to examined entrepreneurial characteristics at individual level in relation to intention, the relationship between the personality traits such as self-efficacy, risk-taking propensity, locus of control, innovation, need for achievement and entrepreneurial intention findings continuous to indicate inconsistent and contradictory results. This study aims at examining the moderating effect of entrepreneurship education on the relationship between personality traits and entrepreneurial intention. The study adopted survey research design using questionnaire. The questionnaire were administered to 383 respondents from a population of 3024 final year undergraduate students of Universities in the north-eastern Nigeria. The data were analysed using partial least square structural equation modelling (PLS-SEM). The findings of the study revealed that all the personality trait variables in the study (self-efficacy, risk-taking propensity, locus of control, innovation, and need for achievement) had a positive and significant direct relationship with entrepreneurial intention. Also, entrepreneurship education has a direct significant relationship with entrepreneurial intention. Furthermore, the findings revealed that entrepreneurship education moderates the relationship between innovation and need for achievement and entrepreneurial intention. However, EE fails to moderate between the three variables (self-efficacy, risk-taking propensity, and locus of control) and EI. The study concludes that entrepreneurship education is a crucial factor in developing innovation enthusiasm and strengthening the need for achievement among students at universities in north-eastern Nigeria. Finally, the researcher recommends that university management and policymakers should focus on strengthening entrepreneurship education as it is a major conduit in shaping students' enthusiasm for innovation and improving their need for achievement particularly if combined with a practical approach, also future research should consider environmental factors as independent variables with similar study.

Keywords: Entrepreneurship education, personality traits, entrepreneurial intention

1. Introduction

Entrepreneurship has been recognized globally as a tool in promoting economic growth and development (Bularafa & Abdullah, 2019; Miriti, 2020). This recognition has led to a rising interest among policymakers, stakeholders, researchers, and students, as its relevance to job creation, wealth creation, poverty alleviation, and improvement in standard of living among others is not in doubt (Al-Jubari, 2019). For example, in developing countries like Nigeria, the micro, small and medium enterprises (MSMEs) account for 97 percent of businesses and employ half of all the workforce (Ebitu, Glory, & Alfred, 2016).

Hundreds of thousands of Nigerian university graduates enter the labor force each year, hoping for well-paying jobs that are sometimes scarce. Every year, the number of unemployed graduates in the country rises (Aminu, 2019; Iwuoha, 2020). Furthermore, one of the issues plaguing growing and emerging countries, including Nigeria, is unemployment (Miriti, 2020).

As a result of this dilemma, the government regards entrepreneurship as the best choice for graduate employability, given that these graduates have the will and support to do so (Bularafa & Abdullah, 2019). At the moment, the focus is on promoting student entrepreneurs, notably in colleges, polytechnics, universities, and even vocational training institutions (Ojogbo, Idemobi, & Ngige, 2016). The government has developed a number of policies and programs in this area, including entrepreneurship education, entrepreneurship development centers, and the Small and Medium Enterprise Development Agency of Nigeria (SMEDAN) (Bularafa, 2018).

Despite the government's efforts to encourage entrepreneurship in Nigeria, entrepreneurial desire among university graduates remains low, according to a research by GUESS 2011(Bularafa & Abdullah, 2019). Furthermore, statistics show that university graduates account for 36.6 percent of the 64.6 percent of the unemployed population (National Bearau of Statistics, 2018). Today's university education does not guarantee a job right after graduation (Rahi, Zaheer, & Ali, 2021). As a result, there is an urgent need to develop and transform university graduates into sustainable entrepreneurs. According to Emmanuel (2012) higher institutions have been focusing on creating graduates with little or no market value for a long time, focusing on programs like entrepreneurship, which can help create jobs. Rather than producing job-seeking graduates, tertiary institutions must generate graduates who create jobs and are self-sufficient (Emmanuel, 2012). It is critical to give graduating students the opportunity to work for themselves. For example, they could establish their own business. On the labor market, university graduates now have few possibilities (Frazão, Santos, de Oliveira, Pereira, & de Morais, 2010). According to (Amidu & Umaru, 2016) teaching entrepreneurship in higher institutions without essential learning facilities, infrastructures, and employees is best described as cosmetic education.

Previous empirical studies indicate a positive relationship between self-efficacy and entrepreneurial intention (Bularafa, 2018; Hassan, Saleem, Anwar, & Hussain, 2020), risk-taking and entrepreneurial intention (Ndofirepi, 2020), locus of control and entrepreneurial intention (Ndofirepi, 2020), innovation and entrepreneurial intention (Bularafa, 2018), need for achievement and entrepreneurial intention (Ndofirepi, 2020) and a positive relationship between entrepreneurship education and entrepreneurial intention (Bularafa & Abdullah, 2019). However, other studies indicate negative relationships between self-efficacy and entrepreneurial intention (Park, 2017) locus of control and entrepreneurial intention (Tirtayasa, Khair, & Yusri, 2021), innovation and entrepreneurial intention (Park, 2017), need for achievement and entrepreneurial intention (Anwar, Alalyani, Thoudam, Khan, & Saleem, 2021). Hence, the present study suggest for the moderating effect of entrepreneurship education relationship between self-efficacy, risk-taking, locus of control, innovation and need for achievement and entrepreneurial intention as suggested by Baron (1986), who opined that when there is a mixed or weak finding, a moderator variable is necessary to balance and strengthen the relationship. Therefore, for the purpose of this study entrepreneurship education is used to moderate the relationship between personality traits (self-efficacy, risk-taking propensity, locus of control, innovation, and need for achievement) and entrepreneurial intention among undergraduate students of universities in northeastern Nigeria.

2. Literature review

Entrepreneurship Intention

The first stage in behavioural act is the intention, which begins with cognitive knowledge of how to engage in a specific behaviour (Ridha & Wahyu, 2017). An individual's intention to conduct and participate in entrepreneurial activities or bahaviour, to be self-emplyed, or to establish a new firm in the future is described as entrepreneurial intention (Tun Hamiruzzaman, Ahmad, & Ayob, 2020). When students decide to create a new firm, they might embrace an entrepreneurial career path. This is due to the fact that opting to pursue a business profession is the first step (Jemal, 2017). Students with high entrepreneurial goals are more likely to start a business than those with low aspirations (Sher, Adil, Mushtaq, Ali, & Hussain, 2017; Tun Hamiruzzaman et al., 2020). Researchers can gain a better understanding of the entrepreneurial process by determining the antecedents of entrepreneurial intention. Therefore, the study chose intention to adopt entrepreneurial act among university graduates as the determinant variable of the study.

Self-efficacy and Entrepreneurial intention

The term "self-efficacy" refers to a person's belief in his or her ability to carry out an intended action and achieve his or her objectives (BarNir, Watson, & Hutchins, 2011). According to BarNir et al. (2011), self-efficacy and entrepreneurial intention have a relationship. Furthermore, empirical study has established the importance of the self-efficacy component in the formation of entrepreneurial intention (Goje, 2017). Self-efficacy has a positive relationship with students' entrepreneurial intention (Karimi, Biemans, Lans, Chizari, & Mulder, 2016).

Extant literature indicate that self-efficacy is linked to entrepreneurial intention and is anchored in a model of entrepreneurial potential and thus, associated with entrepreneurial intention. According to C. C. Chen, Greene, P.G. and Crick, A. (1998), self-efficacy has many theoretical and practical consequences for entrepreneurship success since starting a new business necessitates unique abilities and attitudes that may differ significantly from those required of managers in fully formed businesses. Other research (Ojewumi & Fagbenro, 2019) found a link between self-efficacy and entrepreneurial intent among university graduate students. Therefore, based on this, the following hypotheses were developed:

H_1: Self-efficacy has positive and a significant relationship with entrepreneurial intention of university students in north-eastern Nigeria.

Risk-taking and Entrepreneurial intention

The ambition of an individual or organization to aggressively capture and pursue opportunities in an uncertain environment while embracing the risks involved is known as risk-taking (Park, 2017). Individuals with a risk-taking characteristics are more likely to have an entrepreneurial role in venture formation and have a higher level of EI (Kerr, Kerr, & Dalton, 2019). Miao (2015), conducted a study with Chinese students using structural equation modeling and found a positive and significant relationship between risk-taking propensity and the intention to start a new business. In addition, Ahmed (2018) conducted a study with 318 female undergraduate students in Malaysia, showing a positive and substantial link between taking risks and the desire to become an entrepreneur. Ameh and Udu (2016), investigated the association between social network size and risk inclination among Nigerian student entrepreneurs in Nigeria. The findings of the study revealed a positive and significant relationship between risk-taking propensity and entrepreneurial intention among students in Nigeria. Djaoued (2018), investigated the role of female university

students' intentions in Algeria. The study established an insignificant relationship between female students' risk-taking propensity and entrepreneurial intention. The following hypotheses were formulated:

H_2: Risk-taking has positive and a significant relationship with entrepreneurial intention of undergraduate students of universities in north-eastern Nigeria.

Locus of control and Entrepreneurial intention

The concept of locus of control refers to a personality trait associated with entrepreneurship (Isah & Garba, 2015). In this regard, it is accepted as a reality that individuals in society who recognize opportunities where others do not and decide to start a business are referred to as having an internal locus of control (Isah & Garba, 2015). Empirical research on the effects of the locus of control on entrepreneurship-related actions, particularly entrepreneurial intention, has produced inconsistent results. Rapp-Ricciardi, Garcia, and Archer (2018), for example, found a link between internal locus of control and entrepreneurial intention among university graduate students. Consignado (2017), on the other hand, discovered a negative relationship between internal locus of control and entrepreneurial intent among university graduate students. Thus, the following hypotheses were formulated:

H_3: Locus of control has positive and a significant relationship with entrepreneurial intention of university students in north-eastern Nigeria.

Innovation and Entrepreneurial intention

The importance of innovation to entrepreneurship is growing, as evidenced by the large number of studies investigating its significance and nature (Drucker, 1985). According to Drucker, (1985), innovation is defined as perceiving opportunities and then reacting to them in a new and different way so that end users benefit from the new product or service. The term "innovation" has been discovered to have a significant impact on students' interest and motivation to start their own business. Many previous studies' findings on the link between innovativeness and entrepreneurial intent are however, inconsistent. Innovation is the proclivity for experimenting and creativity in the production of new products, services, and technology through the research and development (R&D) of new methods (Rauch, Wiklund, Lumpkin, & Frese, 2009). It denotes the ability to experiment with new concepts and methods in order to bring new products and services to the market (Zahra & Garvis, 2000). Furthermore, many empirical studies have found innovation as having a significant positive relationship with entrepreneurial intention (Consignado, 2017; Suffian, Rosman, Norlaila, Norizan, & Hasnan, 2018) whereas Park (2017) found a negative relationship. On the basis of the foregoing, the following were formulated:

H_4: Innovation has positive and a significant relationship with entrepreneurial intention of university students in north-eastern Nigeria.

Need for achievement and Entrepreneurial intention

The need for achievement and entrepreneurship, according to McClelland (1965) are inextricably linked. McClelland (1965), went on to say that human beings are driven by a desire to succeed, and that this desire controls human behavior in the long run. In the research domain of personality characteristics, the need for achievement is one of the most notable theoretical arguments linked to entrepreneurship (Gürol & Atsan, 2006; McClelland, 1965). According to them, the concept of the need for achievement does not have a clear definition. The basic ideas that differentiate individuals and cultures, according to (Davidsson, 1989), are the economic values attached to achievement: this distinction affects entrepreneurs' efforts. Some cultural values are

particularly strong in terms of motivating people to attain their goals (McClelland, 1965). The literature on the relationship between the need for achievement and entrepreneurship is generally positive although there are some differences of opinion among scholars (Syamsul, 2017; Thamahane & Chetty, 2017). Thus, the following hypotheses were developed:

H_5: Need for achievement has positive and a significant relationship with entrepreneurial intention of university students in north-eastern Nigeria.

Entrepreneurship Education as a Moderator

Scholars have viewed entrepreneurial education (EE) from a variety of perspectives. According to Oduwaiye (2009), entrepreneurship education encompasses lectures, curricula, and programs aimed at equipping students with the necessary entrepreneurial competencies, aptitudes, technical know-how, and skills in preparation for a career in entrepreneurship. Abiodun (2017), investigated the relationship between entrepreneurship education and students' entrepreneurial intentions in Ogun State University Nigeria. The study found that entrepreneurship education has a significant impact on students' entrepreneurial intentions, based on a sample of 609 students. Aladejebi (2018), examined the influence of entrepreneurship education on entrepreneurial intentions of Nigerian tertiary institutions. Entrepreneurial education was found to have a beneficial impact on entrepreneurial intent. Popescu, Bostan, Robu, Maxim, and Diaconu (2016), on the other hand, investigated how various psycho-behavioural features of the individual influence entrepreneurial inclinations in Romania concluded that entrepreneurial education had a negative relationship with entrepreneurial intention. Thus, the following hypotheses were developed:

H_6: Entrepreneurial education moderates the relationship between self-efficacy and EI of university students in north-eastern Nigeria.

H_7: Entrepreneurial education moderates the relationship between risk-taking and EI of university undergraduate students in north-eastern Nigeria.

H_8: Entrepreneurial education moderates the relationship between locus of control and EI of university undergraduate students in north-eastern Nigeria.

H_9: Entrepreneurial education moderates the relationship between innovation and EI of university undergraduate students in north-eastern Nigeria.

H_{10}: Entrepreneurial education moderates the relationship between need for achievement and EI of university undergraduate students in north-eastern Nigeria.

Theory of Planned Behaviour (TPB)

The underpinning theory for this study was based on the Theory of Planned Behaviour (TPB) proposed by Ajzen (1991), which is widely regarded as one of the most useful models for explaining students' entrepreneurial intentions. This theory, which consists of three basic elements: attitude towards behaviour, subjective norms, and perceived behavioural control. Attitude toward behaviour indicates the degree to which a person has a favourable or unfavourable assessment of becoming an entrepreneur (Ajzen, 1991). The subjective norms are the perceived influences of external pressure on intention to perform or not to perform a particular behaviour. In other words it is the belief that some important individual will approve or disapprove the prospective entrepreneur's actions with regard to starting a new venture (Ajzen, 1991). Perceived behavioural control refers to one's perception of how easy or difficult it is to carry out entrepreneurial behaviour (Francisco Liñán & Yi–Wen Chen, 2009). It can be argued that when people see great opportunities for starting a business venture

in their surroundings, they tend to have more positive expectations about the possible outcome of such an attempt, implying that such people will also have a more positive attitude towards entrepreneurship as a result of their acquired entrepreneurial education. Similarly, when university graduates admit that their fear of failure will prevent them from pursuing entrepreneurship, this can be interpreted as a sign of a negative attitude towards starting a business. This will equally have an effect on their self-efficacy, risk perception, locus of control, innovation, and need for achievement.

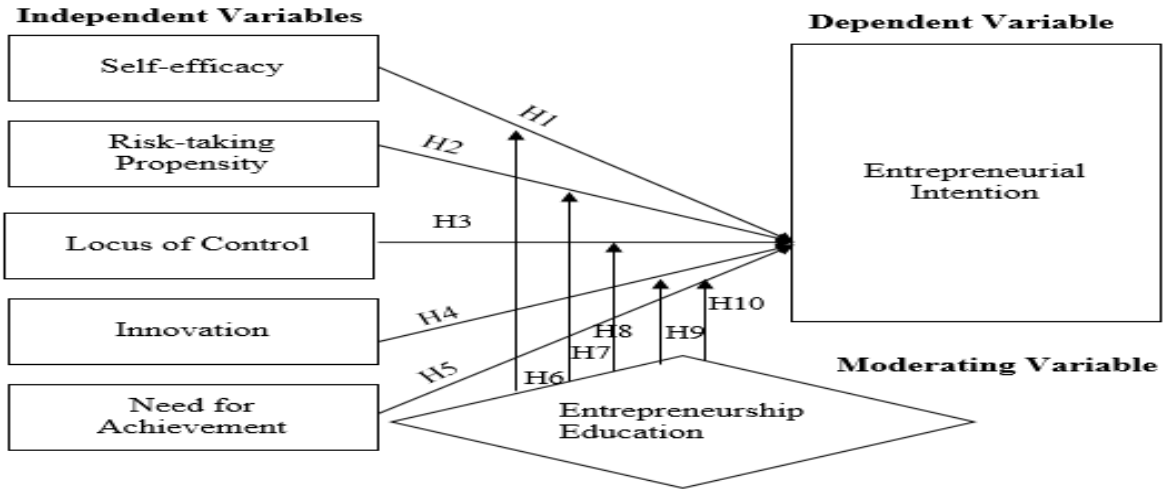

Figure 2.1 Research Framework

3. Methodology

The research design adopted for this study was survey using questionnaire. This research design allow the researchers to obtain rich data from large sample size making easy generalization of the findings (Creswell, 2014). The population for the study comprise 3,024 final year undergraduate students from Abubakar Tafawa Balewa University, Bauchi (ATBU), Modibbo Adama University, Yola (MAUTECH), and University of Maiduguri (UNIMAID) all in North-eastern Nigeria. The sample for the study was 383 final year undergraduate students and was determined by Cochran (2007). In selecting participants, the researcher used cluster sampling. This is a form of probability sampling which involves randomisation in the selection of elements within each cluster (Sekaran & Bougie, 2013; Zikmund, Babin, Carr, & Griffin, 2013). The population is divided into two or more distinct groups, and followed by random selection of elements from each cluster. It is a cheap and simple method (Saunders, Lewis, & Thornhill, 2009; Sekaran & Bougie, 2013). Therefore, population for the study was divided into three subgroup and followed with random sampling from each group.

The instrument used in data collection for the study was adopted from previous studies. The designed of instrument was in three sections. Section A on the Demography of the Respondents, Section B on the dependents variables which was divided into five parts, Part 1 on Self-efficacy, Part 2 on risk-taking, Part 3 on Locus of Control, Part 4 on Innovation(Hanna Levenson, 1973)(Hanna Levenson, 1973)(Hanna Levenson, 1973)(Hanna Levenson, 1973), and Part 5 on the Need for Achievement. Section C on the moderating variable which is Entrepreneurship Education. Finally, Section D on the dependent variable which is Entrepreneurial Intention.

Table 3.1 Instrument for the Study

Section	Construct	Item	Source
A – Part 1	Self-efficacy	6	C. C. Chen, Greene, and Crick (1998); De Noble (1999)
- Part 2	Risk-taking Propensity	6	C. C. Chen et al. (1998); De Noble (1999)
- Part 3	Locus of Control	6	Rotter Julian (1966)
- Part 4	Innovation	6	H Levenson (1973)
- Part 5	Need for Achievement	6	Chye Koh (1996)
B – Moderating Variable	Entrepreneurship Education	6	Saleh and Salhieh (2014)
C – Dependent Variable	Entrepreneurial Intention	6	Francisco Liñán and Yi-Wen Chen (2009); (Autio, H. Keeley, Klofsten, GC Parker, and Hay (2001)).

The instrument which was designed on the basis of the 5 point Likert scale started with 1 – Strongly Disagree – 5 Strongly Agree to measure the items in the questionnaire. Furthermore, the instrument was administered by the researcher and three research assistance during lecture session. The data gathered in this study were analysed using Structured Equation Modelling - Partial Least Squares (Smart PLS 3.9.9) technique.

4. Results and Analysis

Individual item Reliability

Individual item reliability can be achieved by examining the construct's outer loadings (Joseph F Hair Jr, Ringle, Sarstedt, & Gudergan, 2017). Based on the measurement model output, all of the outer loadings were above the recommended threshold value of 0.7 (Joseph F Hair Jr et al., 2017; Henseler, Ringle, & Sinkovics, 2009) See appendix 1.

Internal Consistency Reliability and Convergent Validity

In this study, the internal consistency reliability and convergent validity were also evaluated. Internal consistency and reliability were assessed using Cronbach's Alpha and Composite reliability. PLS – SEM weak in this sense since it ranks the indicators according to their individual dependability (Joseph F Hair Jr et al., 2017). The composite reliability is another way to test internal consistency reliability. This strategy focused on the indicators' different outer loadings. However, any outer loading with a value of an indication less than 0.7 is removed, according to the rule of thumb. As a result of the measurement model, all of the latent constructs evaluated had Cronbach's Alpha and Composite Reliability Values that are above the required level of 0.7.(Joseph F Hair Jr et al., 2017; Henseler et al., 2009) See appendix 1.

Discriminant Validity

This study also checked for discriminant validity which shows the degree to which one construct differs from another (Joe F Hair Jr, Sarstedt, Hopkins, & Kuppelwieser, 2014). The researchers used the (Fornell & Larcker, 1981) criterion in this study. Therefore, based on result of the latent variable correlation, it was proved that the square of AVE values for all the constructs exceeded the other constructs' values (Joe F Hair Jr et al., 2014; Henseler et al., 2009). As shown in Table 4.1, discriminant validity has been attained.

Table 4.1: Latent Variable Correlation

	1	2	3	4	5	6	7
EINT(1)	**0.934**						
EEd(2)	0.520	**0.922**					
INV(3)	0.603	0.267	**0.913**				
LoC(4)	0.574	0.315	0.573	**0.908**			
NAch(5)	0.593	0.465	0.522	0.501	**0.915**		
RTP(6)	0.729	0.476	0.560	0.591	0.490	**0.930**	
SEf (7)	0.658	0.489	0.463	0.443	0.402	0.786	**0.868**

Note: Diagonal elements (figure in bold) are the square root of the variance average extracted (AVE) shared between the construct and their measures. Off diagonal elements are the correlations among constructs.

Hypotheses Testing

The Structural Equation Model was used to examine the hypotheses stated in this study: its output is shown in Table 4.2. The result indicates that hypothesis H1 revealed no significant relationship between self-efficacy and entrepreneurial intention (t = 1.947, p = 0.052). Similarly, hypothesis H2 revealed no significant relationship between risk-taking propensity and entrepreneurial intention (t = 1.028, p = 0.305). However, hypothesis H3 revealed a significant and positive relationship between locus of control and entrepreneurial intention (t = 2.227, p = 0.023). Similarly, hypothesis H4 indicates a significant and positive relationship between innovation and entrepreneurial intention (t = 4.027, p = 0.000). Hypothesis H5 also revealed a significant and positive relationship between need for achievement and entrepreneurial intention (t = 1.980, p = 0.048).

Table 4.2 Hypotheses testing (direct and moderating relationships)

Relationship	Beta Value	Standard Eror	T - Value	P - Value	Decision	Hypothesis
INV -> EINT	0.227	0.057	4.027	0.000	Supported	H4
INV*EEd-> EINT	0.086	0.040	2.261	0.024	Supported	H9
LoC -> EINT	0.123	0.052	2.277	0.023	Supported	H3
LoC*EEd-> EINT	0.023	0.036	0.576	0.565	Not supported	H8
NAch -> EINT	0.105	0.055	1.980	0.048	Supported	H5
NAch*EEd-> EINT	-0.093	0.039	2.353	0.019	Supported	H10
RTP -> EINT	-0.077	0.079	1.028	0.305	Not supported	H2
RTP*EEd-> EINT	0.313	0.081	3.771	0.000	Supported	H7
SEf -> EINT	0.129	0.069	1.947	0.052	Not supported	H1
SEf*EEd-> EINT	0.109	0.077	1.438	0.151	Not supported	H6

Furthermore, hypotheses H6 to H10 testing the moderation effect results also indicated in Table 4.2. Hypothesis H6 revealed that entrepreneurship education did not moderate the relationship between self-efficacy and entrepreneurial intention (t = 1.438, p = 0.151). However, hypothesis H7 findings revealed that entrepreneurship education moderates the relationship between risk-taking propensity and entrepreneurial intention (t = 3.771, p = 0.000). While hypothesis H8 findings revealed that entrepreneurship education did not moderate the relationship between locus of control and entrepreneurial intention (t = 0.576, p = 0.565) at 0.05 significant level. The findings further indicate hypothesis H9 entrepreneurship education moderate the relationship between innovation and entrepreneurial

intention (t = 2.261, p = 0.024) at 0.05 level of significance. Finally, hypothesis H10 testing the moderation effect of entrepreneurship education on the relationship between need for achievement and entrepreneurial intention, the finding revealed entrepreneurship education moderate the relationship between need for achievement and entrepreneurial intention (t = 2.353, p = 0.019).

Determining the Overall Impact of the Independent Variables on the Dependent Variable

The Coefficients of Determination (R2) were used to determine the overall effect of the predictor variable on the dependent variable, which was derived from the Structural Model Output. The R-squared number shows how much variation in the endogenous variable(s) can be explained by one or more predictor variables. The acceptable level of R2 value is often determined by the research setting (Hair, Ringle, & Sarstedt, 2011). Therefore, the findings of this study showed that the R^2 is 0.661 which is equivalent to (66%). Hence, research model indicated that the independent variables (self-efficacy, risk-taking propensity, locus of control, innovation and need for achievement) explain 66% of the total variance in the dependent variable EI.

Discussion of Results

The study's main goal is to investigate the impact of entrepreneurship education on the link between personality factors and entrepreneurial intent among university undergraduate students in northeast Nigeria. Findings showed that self-efficacy has no significant relationship with EI at (p > 0.052). This finding is in agreement with the studies of (Apriliana & Djatmika, 2017; Rasul, Bekun, & Saint Akadiri, 2017), but disagreed with (Saraih et al., 2018), Similarly, the findings established no significant link between risk-taking propensity and EI at (p > 0.305) 0.05 level of significance. This finding is in line with the studies of (Park, 2017). Furthermore, the findings revealed that there is a positive and significant relationship between locus of control and EI at (p > 0.023) significant level. This finding supports the findings of (Rapp-Ricciardi et al., 2018). The results of the study also revealed a positive and significant effect of innovation on EI of university undergraduate students in north-eastern Nigeria at (p > 0.000). The findings corroborate with the previous studies by (Suffian et al., 2018). However, they are contrary to those revealed in (Park, 2017). Concerning the effect of the need for achievement and EI, similarly, the findings revealed a positive and significant relationship at (p > 0. 048) level of significance of university students of north-eastern Nigeria. This result is consistent with the previous studies of (Bularafa, 2018). This indicates that self-efficacy, risk-taking propensity, locus of control, innovation, and need for achievement are critical in predicting the entrepreneurial intention of university students which may ultimately lead to actual entrepreneurship adoption.

In addition, the findings of the study revealed that entrepreneurship education did not moderate the relationship between self-efficacy and EI, and locus of control and EI. These findings may be attributed to the fact that the teaching style and deliverance of entrepreneurship in the universities are more theoretical than practical. However, the result confirmed that entrepreneurship education moderates the relationship between risk-taking propensity, innovation, need for achievement and EI. This finding suggests that entrepreneurship education is very necessary in developing and strengthening the student's appetite for risk-taking propensity, innovativeness toward developing EI which is necessary for business formation. The finding further indicates that entrepreneurship education moderate the relationship between the need for achievement and EI. These findings suggest the students recognized the

importance of self-employment and thereby take the opportunities and capitalize on them until they bring about a desired change. Both the direct and indirect are significant, this signifies how the curriculum attached importance to self-employment as wage employment is scarce and being a graduate of a university does not serve an automatic ticket for wage employment.

6. Conclusion and Recommendations

In conclusion entrepreneurship education serves as a crucial factor in building innovation, enthusiasm and strengthening the ability to take risk and need for achievement of university students in north-eastern Nigeria, implying that when students are exposed to entrepreneurship education with the goal of providing them with entrepreneurial inventiveness and a desire to succeed, they are more likely to want to start their own business. These three factors play a significant role in developing entrepreneurial intention which is a strong predictor of entrepreneurial behavior. Therefore, it is recommended that university management and policymakers should focus on strengthening entrepreneurship education as it is a major conduit in shaping students' enthusiasm for innovation and improving their risk-taking ability and need for achievement particularly if combined with a practical approach. Although, self-efficacy and locus of control are not moderated by entrepreneurship education they are also significant and relevant in forming entrepreneurial intention. For this reason, lectures on entrepreneurship should involve theoretical and vocational training. This will help in stimulating students' capability and attitude towards developing entrepreneurial intention which has a direct effect on entrepreneurship behavior. Lastly, the study contributes significantly to entrepreneurship literature by attempting to shed more light on the moderating role of entrepreneurship education on the relationship between personality traits (self-efficacy, risk-taking propensity, locus of control, innovation, and need for achievement) and entrepreneurial intention which is scarce in the extant literature. This has practical implications for educators, who must modify their teaching technique and course content to match students' creativity and desire to succeed, the researcher recommend that future researcher should consider replacing the personality traits with environmental factors as the independent variable, future studies can also consider using entrepreneurship training, government support as moderating variables in similar study, or entrepreneurial activity as dependent variable.

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Appendices

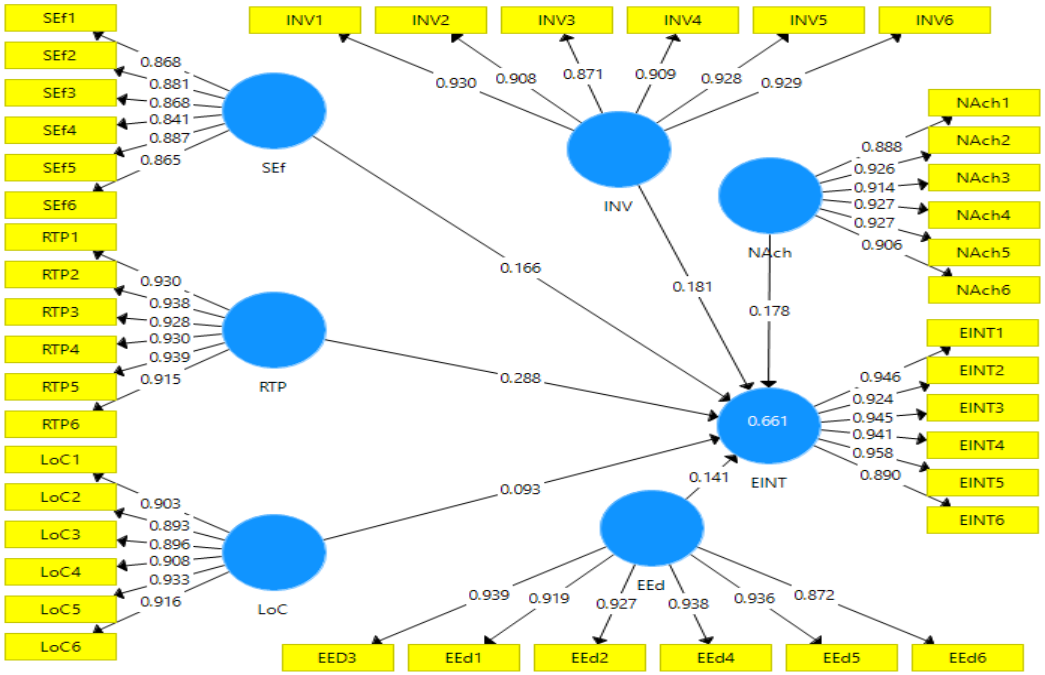
Appendix 1

Table 1 Items Loadings, Average Variance Extracted, Reliability

Item	Loading	AVE	Composite Reliability	Cronbach's Alpha
EEd1	0.919	0.850	0.971	0.965
EEd2	0.927			
EEd3	0.939			
EEd4	0.938			
EEd5	0.936			
EEd6	0.872			
EINT1	0.946	0.872	0.976	0.971
EINT2	0.924			
EINT3	0.945			
EINT4	0.941			
EINT5	0.958			
EINT6	0.890			
INV1	0.930	0.833	0.968	0.960
INV2	0.908			
INV3	0.971			
INV4	0.909			
INV5	0.928			
INV6	0.929			
LoC1	0.903	0.825	0.966	0.958
LoC2	0.893			
LoC3	0.896			
LoC4	0.908			
LoC5	0.933			
LoC6	0.916			
NAch1	0.888	0.837	0.968	0.961
NAch2	0.926			
NAch3	0.914			
NAch4	0.927			
NAch5	0.927			
NAch6	0.906			
RTP1	0.930	0.865	0.975	0.969
RTP2	0.938			
RTP 3	0.928			
RTP4	0.930			

RTP5	0.939			
RTP6	0.915			
SEf1	0.868	0.754	0.948	0.935
SEf2	0.881			
SEf3	0.868			
SEf4	0.841			
SEf5	0.887			
SEf6	0.865			

Appendix 2 Measurement Model Structural Output



Appendix 3 Structural Model