

# Assessment of Entrepreneurial Education as a Strategy for Developing Entrepreneurial Intention Amongst University Students in North-East Nigeria

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***Abstract- This study is designed to investigate the mediating effect of entrepreneurial mindset development on the relationship between entrepreneurship education and entrepreneurial intention amongst university students in North-East Nigeria. A cross-sectional research design was adopted to collect data from a sample of 546 final year students of the universities that have already offered the course. The data was collected using a survey questionnaire and analyzed using Multiple Regression on SPSS version 23 and Covariance Based Structural Equation Modeling (CB-SEM) on SPSS AMOS 26. The result entrepreneurial mindset development mediates the relationship between all four components entrepreneurship education and entrepreneurial intention. It therefore recommended that policy makers should redesign their entrepreneurship education to first of all target at developing entrepreneurial mindset in the participants before entrepreneurial intention.***

***Indexed Terms- Entrepreneurial Education, Entrepreneurial Network Entrepreneurial Mindset development and Entrepreneurial Intention***

## I. INTRODUCTION

The need for an entrepreneurial propelled economy in developing nations cannot be overemphasized, because it has been observed to be engine of economic growth. This spirit is highly needed to reside in youth who are supposed to be the economically active segment of population. Youth with high entrepreneurial intention to establish and manage business ventures thereby increased employment generation, poverty eradication and income redistribution (Le, 2023). As such high entrepreneurial intent by youth of a country is a promising gesture that

the country in question will witness economic growth and development.

To reap these benefits, different countries of the world embarked on the race of coming up with and implementing programs and strategies in the form of entrepreneurship education to develop entrepreneurial intention in their youth. This was mostly done through formal education which has been identified to be a catalyst in instilling entrepreneurship drives in youth (Hassan, 2020). Hence, education sector being the backbone of development (where human skill is upgraded and developed) must be given consideration it deserves. This consideration should be in terms of planning the curricula of all the educational levels (primary, secondary and thirciary in case of Nigeria) to tally with the entrepreneurial desire of the nation and provision of necessary materials.

The Nigerian education system rooted from the colonial masters' strategy of training clerical workers to provide support services for the administration of colonial government (Aladekomo, 2014). The colonialists bequeathed a workforce that evolved from an educational system that was designed to provide supporting services, not one that spurs initiatives and self-reliance. Post-independent manpower development was also tailored towards reliance on government for employment. But it later downed on the government that it cannot provide employment for its rapidly growing population, therefore recourse has to be self-reliant education, tailored towards self-employment. A dual task of breaking away from the past, and adopting a new strategy led to introduction of entrepreneurship education in curricular of tertiary education. The federal government in 2007 embedded entrepreneurship education in the educational curriculum as a compulsory course to be taken by all undergraduates of Nigerian universities. The National

Universities Commission (NUC) was mandated to ensure that entrepreneurial development was taught at undergraduate levels in all fields of studies in Nigerian universities beginning from 2010 academic session (NUC, 2014).

The envision is that when young graduate are provided with awareness that no matter their area of studies, they can establish business of their own and succeed if they appropriately understand people demand thereby self-employed. Teaching participants business management provide them with business planning skills; when participants are provided with the history of or connected with some successful entrepreneurs, they can easily take them as role model; when participants are connected with some successful entrepreneurs they establish entrepreneurial network; class discussion and result will amount to a motivating feedback. Thus, business planning skills, role model, entrepreneurial network and feedback that constitute the major components of entrepreneurship education may give rise to entrepreneurial mindset in a participant or student, hence entrepreneurial intension. Entrepreneurship education is being as general course in all Nigerian universities with the aim of injecting economic growth in all parts of the country through proliferation of new businesses established by those university graduates. North-east Nigeria is one of the geopolitical zones of Nigeria specially targeted with this program for comparative economic underdevelopment evidenced from its least number of businesses (5,449 NE, 9,502 SS, 9,731 SE, 11,731 NW, 13,378 NC, and 23,290 SW) despite huge population (SMEDAN & NBS, 2017). Moreover, the region has the highest rates of unemployment and underemployment (NBS, 2019). At the same time, unemployment has been identified as one of the major causes of security challenges in the zone which worsen the comparatively lower economic development indices of the zone (UNESCO, 2012; UNDP, 2016). Thus, this study will provide evidence on the relationship between entrepreneurship education and intention from north-east Nigeria.

### 1.1 Statement of the Problem

The Nigerian government introduced entrepreneurial education at tertiary institutions with the aim of checkmating the problem of lack of entrepreneurial zeal on the part of youth in the economy. Soon after

the inception of the program, arguments began to emerge on its relevance and otherwise to the government desired objective. These arguments by commentator attracted the attentions of researchers that evaluated the program at different educational stages (university, colleges of education and polytechnic), times and geographical areas of the country.

The researches focused mostly on investigating the challenges faced by the program and the impact of some demographic factors on the entrepreneurial intention of the target population. The only few that looked at the impact of the content of the program suffered methodological deficiencies in the areas of narrow and shallow perception of the content of the program and inadequate operationalization and measurement of variables. This calls for a study that will measure the impacts of the various components of the program against entrepreneurial intention.

Combining entrepreneurial education with other constructs that are either not part of the education system or products of the education system (Hassan, 2020; Mei, 2020; Jiatong, 2021, Yousaf, 2021; Le, 2023). Constructs such as entrepreneurial self-efficacy and attitude towards starting new business should not be combined with entrepreneurial education if the marginal effect of entrepreneurial education on intention is to be determined. When such wrong combination is made, the model will end up revealing the effect of all relevant variables on entrepreneurial intention. As such, the specific effect of the entrepreneurial education will not be known.

Other researchers combined entrepreneurship education with some constructs that are more or less a result of entrepreneurship education and study them as independent variables side by side with entrepreneurship education on entrepreneurial intention (Mei, 2020; Jiatong, 2021; Yousaf, 2021). Logically, construct like entrepreneurial mindset, entrepreneurial decision-making, entrepreneurship knowledge and opportunity recognition should be a result of entrepreneurship education as argued by some theorists. Moreover, some researchers have used some of them as mediators between entrepreneurship education and intention (Mei, 2020; Anwar, 2021).

Another problem with the studies of entrepreneurship education and intention is adoption of entrepreneurship education as uni-dimension (Liu, 2019; Soomro, 2021; Astiana 2022; Cui 2022; Rakicevic, 2023). Uni-dimension analysis of the entrepreneurship education does not allow a comprehensive analysis of the sub-dimensions of entrepreneurship education to identify those sub-dimensions with problem and those without as well as the most relevant and less relevant. Thus, a study of entrepreneurship education and intention should adopt entrepreneurship education as multi-dimensional construct (Tung, 2011; Seth, 202).

Although Tung (2011) and Seth (2020) conducted a multi-dimensional approach to the study of entrepreneurship education and intention, but Tung (2011) concentrated on the effectiveness of the teaching methods instead of effectiveness of the components of the program thought (sub-dimensions of entrepreneurship education). Seth (2020) on the other hand took the components of the program thought (business planning, role model, entrepreneurial network and feedback) but underemphasizes the relevance of entrepreneurial mindset development. The immediate goal of any entrepreneurship education program is to make the participant develop an entrepreneurial mindset. It is this mindset so developed as a result of the program that will make form an intention to establish a business (entrepreneurial intention).

It is against this background this study is designed to determine the effect of entrepreneurial development education on entrepreneurial intention with entrepreneurial mindset as mediator amongst university students in north-east Nigeria.

### 1.2 Research Question

Arising from the problem stated in the subsequent subsection, the following research questions were raised:

- i. Does entrepreneurial mindset development mediate the relationship between business planning and entrepreneurial intention amongst university students in north-east Nigeria?
- ii. Does entrepreneurial mindset development mediate the relationship between model and

entrepreneurial intention amongst university students in north-east Nigeria?

- iii. Does entrepreneurial mindset development mediate the relationship between entrepreneurial network and entrepreneurial intention amongst university students in north-east Nigeria?
- iv. Does entrepreneurial mindset development mediate the relationship between feedback and entrepreneurial intention amongst university students in north-east Nigeria?

### 1.3 Research Objectives

The general objective of this research is to investigate the mediating effect of entrepreneurial mindset development on the relationship between entrepreneurship education and entrepreneurial intention amongst University Students in North-East Nigeria while the specific objectives are as follows:

- i. To examine the mediating effect of entrepreneurial mindset development on business planning and entrepreneurial intention relationship amongst university students in north-east Nigeria
- ii. To assess the mediating effect of entrepreneurial mindset development on the relationship between role model and entrepreneurial intention amongst university students in north-east Nigeria
- iii. To examine the mediating effect of entrepreneurial mindset development on entrepreneurial network and entrepreneurial intention relationship amongst university students in north-east Nigeria
- iv. To assess the mediating effect of entrepreneurial mindset development on the relationship between feedback and entrepreneurial intention amongst university students in north-east Nigeria

### 1.4 Research Hypotheses

This research work categorizes the objectives of the study into general objective and specific objectives as they are outlined below:

H<sub>1</sub> Entrepreneurial mindset development mediate the business planning and entrepreneurial intention relationship amongst university students in north-east Nigeria

H<sub>2</sub> Entrepreneurial mindset development mediate the relationship between role model and entrepreneurial intention amongst university students in north-east Nigeria

H<sub>3</sub> Entrepreneurial mindset development mediates the entrepreneurial network and entrepreneurial intention

relationship amongst university students in north-east Nigeria

H<sub>4</sub> Entrepreneurial mindset development mediates on the relationship between feedback and entrepreneurial intention amongst university students in north-east Nigeria

## II. LITERATURE REVIEW

### 2.1 Shapero's Entrepreneurial Event Theory

Entrepreneurial Event Theory was developed by Shapero and Sokol, (1982). The theory explained how entrepreneurial intentions are formed from change by looking at how changes in life of individual affect his perceptions of desirability and feasibility related of establishing his own business venture. These events life changes (positive or negative) according to the theory are displacements that lead to entrepreneurial intention and subsequently behaviour. Example of negative lack of job, divorce, loss of a job while positive include financial support, good business partner (McStay, 2018). Therefore in this case, the teaching business idea, of successful entrepreneurs, advantages of self-employment, small business marketing and Course specialization constitute displacements that can if effectively carried out create intention to establish a business venture in the mind of a university student.

### 2.2 Review of Empirical Studies

Essia (2022) argued that the Nigerian formal education can be transformed through entrepreneurial culturing of undergraduate programmes of universities. But Aja-Okorie and Adali (2023) and Aondoaseer (2023) positioned that entrepreneurial culturing at tertiary level cannot be enough to address the country's need for ensuring self-relevance among youths but all levels of education has to incorporated. Studies of entrepreneurship education and entrepreneurial intention reported significant positive relationship between the two variables. For instance, Anwar (2021) in India found significant positive relationship between entrepreneurial education and entrepreneurial intention directly and with self-efficacy as mediator. Also in China, Liu (2019), Jiatong, (2021), wu (2022), Tseng (2022), and Le (2023) also found entrepreneurial education, having significant positive effect of entrepreneurial intention some with mediation of entrepreneurial self-efficacy.

The same finding was reported by Mei, (2020) with entrepreneurial self-efficacy of entrepreneurial decision-making as mediator. Also in Pakistan, Yousaf, (2021) and (Soomro, 2021) reported a significant direct relationship and with entrepreneurial self-efficacy and attitude towards starting a new business venture as serial mediators. However, Hassan (2020) established found education as moderator but failed to establish gender as positive moderator. Entrepreneurial education has a significant positive effect on entrepreneurial intention in Serbia and Bosnia (Rakicevic, 2023). Entrepreneurial motivation was also found to be a mediator between Entrepreneurial education and entrepreneurial intention (Paliwal, 2022; Astiana, 2022; Cui, 2022). The constructs being studied alongside entrepreneurship education include: entrepreneurial mindset, entrepreneurial self-efficacy, entrepreneurship knowledge acquisition, opportunity recognition and attitude towards starting new business (Mei, 2020; Hassan, 2020; Anwar, 2021; Jiatong, 2021; Rakicevic, 2023). Arguably, most of these constructs were either behavioral qualities that are not part of entrepreneurship education or a product of entrepreneurship education. Entrepreneurial self-efficacy and attitude towards starting new business is are more or less behavioral attitudes that must have been formed by hereditary and environmental bases. At the same time, entrepreneurial mindset, entrepreneurship knowledge acquisition and opportunity recognition are more of result of entrepreneurship education than its co-constructs. In spite of these wrong combinations of constructs in the studies of entrepreneurship education and entrepreneurial intention, little effort has been made by researchers to test some non-components of entrepreneurship education such as entrepreneurial mindset as mediators

Moreover, most research of entrepreneurship education and entrepreneurial intention used entrepreneurship education as uni-dimensional variable. An effort was made by Lindh (2017) to use entrepreneurship education as multi-dimensional variable but ended up testing the effectiveness of the teaching process instead of effectiveness of the components of the teaching curriculum. Another effort was also made by Lynch (2020) to identify a theoretical approach.

Akpan and Etor (2023) empirically looked at the lecturers' perception on the relevance of entrepreneurship education to graduate self-employment. With data from 480 lecturers on 4-point Likert scale questionnaire and analysed using descriptive statistics. The result showed that lecturers have positive perception on the program as an empowerment strategy for graduate self-employment. Adebayo (2023) found that entrepreneurial education is best received in the schools settings than outside school, and being gender has no bearing with perception of the importance of entrepreneurial education within and outside the school system. Pulka, Rikwentishe and Ibrahim (2014) examined the cognitive, affective, and behavioral components of students' attitude and to examine the overall attitude of students towards Entrepreneurship education five selected universities in north eastern Nigeria. The descriptive results indicated that the students cognitive component of attitude is rated at 84.31%, affective at 83.34%, while behavioral component at 78.72%. The overall attitude is at 82.12%. Structured questionnaire based on Likert scales ranging from strongly agree to strongly disagree on four points. Three hundred and seventy five were successfully retrieved and analysed. Ifedili and Ofoegbu (2021) investigated the management and delivery of entrepreneurship education in Nigerian universities in the areas of course management, course content, materials, students' attitude and infrastructural facilities. Data for the study was collected from 800 students on fifteen items questionnaire and analyzed using common percentage. The major finding was that students have positive attitude towards the course but the packaging and delivery of the knowledge was porous due to so many challenges faced by the lecturers. This study suffered the problem of inadequate data collection instrument as fifteen items questionnaire was use to address the above issues. Ezeani and Ugwu (2023) examined the challenges facing Nigerian graduates in entrepreneurship using data from 380 graduate through questionnaire method, the descriptive analysis showed that up to 60% of the respondents have not developed their interest, culture and mindset toward entrepreneurship, because of some major challenges such as inadequate education and training, poor access to markets, inadequate infrastructure and facilities, lack of finance and low support services. These studies investigated the challenges faced by the program

rather than evaluating the impact of the program on entrepreneurial intention.

Izedonmi and Okafor (2020) examined the effect of entrepreneurial education on students' entrepreneurial intentions. Data were collected from 250 students in south-western Nigeria who offered entrepreneurship courses through questionnaire on their demographic, bio-data and their entrepreneurship education and analyzed with regression analysis. The result shows that the entrepreneurial education (acquisition of knowledge and skills required for running a business) has significant impact on entrepreneurial intentions. Although this study attempted to measure the effect of entrepreneurial education on students' entrepreneurial intentions as designed by this this current study, it could not tell us how it operationalised entrepreneurial education. We have seen the dimensions it said it measured entrepreneurial intentions (exposure seminar/training, skill for running business, ability to identify business opportunity, ability to work with less supervision, desire to own a business and prior business experience) but even here the first and the last dimentions relate to education not intention.

Ramoni (2015) evaluated the joint effects of entrepreneurship education, innovation and risk taking propensity on entrepreneurial intention among first degree graduates of Bayero University, Kano and how statistically these dimensions differ between gender groups. With data from 188 students the study reported 0.208 R square between the three independent variables and entrepreneurial intention and male were more interested in being entrepreneurs than their female counterparts. This study wanted to believe that innovation and risk taking propensity are neither part of entrepreneurship education nor intention nor mediating variables but they are independent variables standing side-by-side with entrepreneurship education. The fact is that an entrepreneurship education/training is designed to increase the innovativeness and risk taking propensity of student/trainee, therefore standing as mediating/moderating variable or part of the intention. Some studies conducted in other environments looked at the various dimensions of the dependent and the independent variables. Lorz (2021) studied the impact of entrepreneurship education on entrepreneurial intention among in Switzerland and Southern

Germany. He looked at three dimensions of entrepreneurship education: the stability, the trigger-events and the duration of the program. Also when looking at the entrepreneurship education and students' participation, McStay (2018) considered the impact of the program on three dimensions of entrepreneurial intention: desirability of self-employment, entrepreneurial self-efficacy and self-employment intentions. With data from 495 Australian universities undergraduate students it was found that participation in entrepreneurship education positively related with students' perceptions of desirability of self-employment, perceptions of entrepreneurial self-efficacy, and self-employment intentions. Some part of these studies are worthy of replication into Nigerian environment is the mediating effect of entrepreneurial self-efficacy.

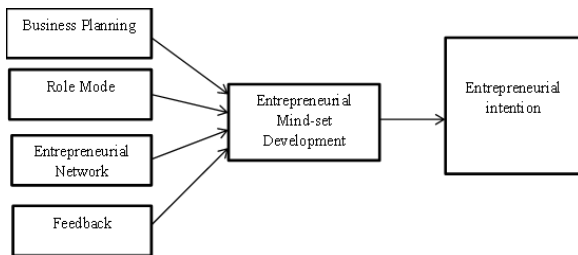


Figure 1: Conceptual Framework

### III. METHODOLOGY

#### 3.1 Research Design

The research design adopted for study is correlational research design using quantitative approach. Correlational research design is research design used to examine relationship between different variables. A quantitative approach uses numbers and statistics to validate or prove research hypothesis. Therefore, Correlational research design with quantitative approach is used to examine relationship between variables with objectivity (Creswell 2019). Questionnaire method was used to collect data from a sample drawn from the population of the study. Although the data was initially in ordinal form, Coding method was used to convert the data to ratio form and applied on inferential statistics. Finally, it is this inferential that enable predicting the relationship between the variables.

#### 3.3 Population and Study Area

The population of the study is made up of all final-year students of public universities in north-east Nigeria. This comprises of 62,916 students of universities in Modibo Adama University and Adamawa State University in Adamawa State; Abubakar Tafawa Balewa University and Bauchi State University, Gadau in Bauchi State; University of Maiduguri and Borno State University in Borno State; Gombe State University and Federal University Kashere in Gombe State; Federal University Ukari and Taraba State University in Tararba State and Yobe State University and Federal University Gashua in Yobe State.

#### 3.4 Sample Size

The minimum sample size of the study was determined as 382 students using Krejcie and Morgan's Table, but for the purpose of increased representation 50% (191) was added to the above minimum sample size. This will take care of other unavoidable errors such as incorrect filling and failure of some respondents to return the copies of the questionnaire given (Israel, 2023). Therefore, the sample used was 573 students

#### 3.5 Sampling Techniques

The sample of the students was drawn from the 12 universities in the zone, using multistage sampling technique (cluster and systematic random sampling). Firstly each of the 12 universities was considered as a cluster from which number of respondents to be drawn. It was based on the proportion of the universities own total number of students of the university to the total number of students of the universities in the zone. Secondly, the names of the students were arranged in the order they are listed according to matric number and then, the actual respondents were selected using systematic random sampling. Thereafter, a copy of the questionnaire was given to any student that appears on the final list for information about entrepreneurial education, mindset development and entrepreneurial intention. The students served as both unit of data collection and unit of analysis.

#### 3.6 Administration of Data Collection Instrument

Six research assistants were used in administering the questionnaire. One of the assistants took care of universities in Adamawa, one for universities in

Bauchi, one for universities in Borno, one for universities in Gombe state, one for universities in Taraba state and one for universities in Yobe states. The research assistants have knowledge of the geographical areas and location of the universities in the assigned states. The assistants were also given orientation about the research objectives as well as content of the instrument.

3.7 Methods of Data Analysis

The data was first analyzed using descriptive method (mean) on SPSS version 23 to determine the extent of the existence of each variable in the studied universities. Thereafter, Covariance-Based Structural Equation Modeling (CB-SEM) on SPSS AMPS 26 was used to test the mediating effect of entrepreneurial mindset development on the relationship between entrepreneurship education and entrepreneurial intention. CB-SEM is chosen because the research objective is to confirm the theoretical linkage between the variables in the model and the number of items per construct is above three items (Roni, 2014).

4.1 Summary of the Responses

Table 1: Summary of the Responses

Item	No. of Copies	Percentage
No. of Questionnaire Distributed	573	100
No. of Returned Questionnaires	552	96
No. of Correctly Filled Questionnaires	546	95

Source: Field Survey, 2024

The total of 573 copies of questionnaire was distributed to the respondents and 96% (552) were collected. After data screening, 546 (95%) were found to be correctly filled and fit for analysis. Thus, the analyses were made with the 546 correctly filled and returned copies of questionnaires. 546 is higher than the minimum sample size given by Krejcie and Morgan (1970) table that can represent the population, therefore conclusions about the population is considered valid.

4.2 Data Screening

4.2.1 Missing Data

During the sorting process, 6 copies were found to be substantially unfilled and 2 were found to be misconducts of yeh-answer and were therefore discarded. Three missing values were also found in RM04, EN05 and FB03 variables and imputation was done with the median. It was also established that no case of outlier exists.

4.2.2. Reliability (Cronbach’s Alpha)

The reliability of the instrument was first determined using Cronbach’s Alpha. The threshold adopted for Cronbach’s Alpha in this study is 0.70. The result is presented on Table 2 as follows:

Table 2: Cronbach’s Alpha

SN	Construct	Cronbach’s Alpha	Decision
1	Business Planning	0.894	Reliable
2	Role Model	0.931	Reliable
3	Entrepreneurial Network	0.879	Reliable
4	Feed Back	0.958	Reliable
5	Mind Set Development	0.958	Reliable
6	Entrepreneurial Intention	0.918	Reliable

Source: Field Survey, 2024

The results of the Cronbach’s Alpha test have met the threshold of 0.70 for all the 6 constructs. Thus, the instrument is reliable for all the 6 constructs

4.2.3 Normality

Normality was tested on skewness and kurtosis. Acceptable range of skewness is between - 3 and + 3, while that of kurtosis is between - 10 to + 10 when utilizing SEM (Brown, 2006). The skewness and kurtosis results for all the six constructs as shown on Table 3 fall within the threshold range, hence no correction was made. Thus, no item was flagged as potential future issues in the subsequent analysis.

4.2.4 Multi-collinearity

The multi-collinearity was tested on variance inflation factor (VIF) and tolerance coefficient. VIF value

should not be greater than 5 and tolerance statistics should be above 0.2 (Hair, *et al.*, 2014). The results of

the VIFs and tolerance coefficients are presented as follows:

Table 3: Tolerance and VIF

Model		Unstandardized Coefficients		Standardized Coefficients		Collinearity Statistics		
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	.032	.125		.257	.797		
	BP	.428	.039	.370	10.911	.000	.595	1.680
	RM	.060	.042	.054	1.416	.157	.474	2.108
	EN	.346	.037	.350	9.453	.000	.475	2.104
	FB	.182	.038	.188	4.807	.000	.448	2.235
	MS	.328	.037	.332	8.784	.000	.480	2.085

Source: Field Survey, 2024

The results on Table 3 shows that all the VIF values are less than 5 and the tolerance statistics are above 0.2, hence, there is no issue of multicollinearity within the exogeneous latent constructs of this study.

The item loading indicates how much an item or indicator is explained by its construct. It is estimated Standardized Regression Weights. The threshold is that an item should a loading of at least 0.50. the item loadings of this study’s instrument are presented on table 4,

4.3 Confirmatory Factor Analysis

Table 4: Standardized Regression Weights

			Estimate
BP05	<---	BP	.796
BP04	<---	BP	.825
BP03	<---	BP	.853
BP02	<---	BP	.799
BP01	<---	BP	.772
RM07	<---	RM	.798
RM06	<---	RM	.846
RM05	<---	RM	.847
RM04	<---	RM	.822
RM03	<---	RM	.850
RM02	<---	RM	.935
RM01	<---	RM	.870
EN07	<---	EN	.615
EN06	<---	EN	.522
EN05	<---	EN	.854
EN04	<---	EN	.880
EN03	<---	EN	.901
EN02	<---	EN	.862
EN01	<---	EN	.843



			Estimate
MS08	<---	MS	.892
MS07	<---	MS	.988
MS06	<---	MS	.947
MS05	<---	MS	.988
MS04	<---	MS	.936
MS03	<---	MS	.991
MS02	<---	MS	.894
FB05	<---	FB	.958
FB04	<---	FB	.840
FB03	<---	FB	.821
FB02	<---	FB	.946
FB01	<---	FB	.815
INT05	<---	INT	.873
INT04	<---	INT	.735
INT03	<---	INT	.715
INT02	<---	INT	.690
INT01	<---	INT	.639

Source: Field Survey, 2024

All the items loading on table 4 are above 0.5 except MS01 which had a lower loading and therefore, was deleted after testing the RMR and arriving at bad fit. As such, all the items satisfy the threshold.

4.3.1 Validity and Reliability

Reliability was tested using composite reliability while the convergent validity was determined using Average Variance Extracted (AVE). The threshold for Composite Reliability is 0.70 and above and 0.5 and above for AVE (Hair, *et al.*, 2014).

Table 5: Composite Reliability and AVE

SN	Construct	CR	AVE
1	Business Planning	0.947	0.655
2	Role Model	0.971	0.728
3	Entrepreneurial Network	0.802	0.547
4	Feed Back	0.997	0.900

5	Mindset Development	0.980	0.771
6	Entrepreneurial Intention	0.880	0.539

Source: Field Survey, 2024

Table 5 shows the loading of the items and the reliability coefficients in the forms of Cronbach’s Alpha and Composite Reliability of above 0.70 for all the constructs. Therefore, all the coefficients have met the accepted threshold for research

4.3.2 Discriminant Validity (Fornell-Larcker Criterion)

The discriminant validity was tested using Fornell-Larcker Criterion. The threshold for Fornell-Larcker Criterion is that the correlations between two variables must not exceed their respective AVEs (Zikmund, Carr & Griffin, 2010). The Fornell-Larcker result is presented on table 6

Table 6: Fornell-Larcker result

	BP	RM	EN	MS	FB	INT
BP	0.809					
RM	0.569	0.854				
EN	0.682	0.575	0.739			
MS	0.350	0.759	0.355	0.949		
FB	0.431	0.665	0.432	0.673	0.878	
INT	0.588	0.530	0.583	0.522	0.644	0.735

Source: Field Survey, 2024

It can be observed on Table 6 that all the correlation coefficient under the AVEs for all the constructs are less than the AVEs. Therefore, discriminant validity exists based on Fornell-Larcker Criterion.

4.3.3 Common Method Bias

Data was collected using a single instrument; therefore, common method bias test was conducted to find out whether common method bias exists to the extent that it can affect the result of this study. The common method bias was tested using Latent Common Method Factor. The result indicated insignificant change in the chi-square and degree of freedom after the introduction of latent common factor. Therefore, it was concluded that no common method bias exists.

4.3.4 Model Fit Evaluation

The model fit was tested on cmin/df, RMSEA, SRMR, IFI, NFI, TLI and CFI. The results and threshold for all the fit metrics are as follows:

Table 7: Model Fit Metrics

Metric	Observed Value	Recommended value
cmin/df	2.2567	between 1 and 3
IFI	0.934	>0.90
NFI	0.987	>0.90
TLI	0.952	>0.90
CFI	0.9892	>0.90
RMSEA	0.0447	0.05
SRMR	0.0219	>0.05

Source: Field Survey, 2024

The model fit indices showed values which are above the threshold and was reported as such. Result on Table 7 shows that the goodness of fit for the measurement model is sufficient.

4.4 Test of Hypotheses

The decision rule is that any hypothesis with t-value less than 1.65 and p-value greater than 0.05 will be rejected and if the has t-value of 1.65 or greater and p-value of 0.05 or lesser, the hypothesis would be accepted. The hypotheses are:

H<sub>1</sub> Entrepreneurial mindset development mediate the business planning and entrepreneurial intention relationship amongst university students in north-east Nigeria

H<sub>2</sub> Entrepreneurial mindset development mediate the relationship between role model and entrepreneurial intention amongst university students in north-east Nigeria

H<sub>3</sub> Entrepreneurial mindset development mediates the entrepreneurial network and entrepreneurial intention relationship amongst university students in north-east Nigeria

H<sub>4</sub> Entrepreneurial mindset development mediates on the relationship between feedback and entrepreneurial intention amongst university students in north-east Nigeria

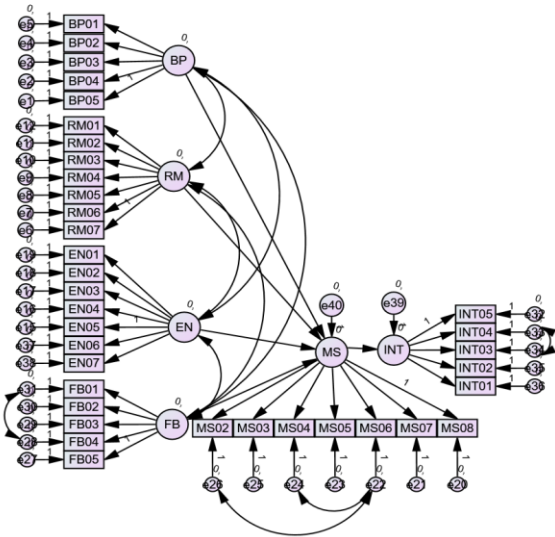


Figure 3: Structural Analysis Diagram

The coefficients of the indirect indirect effect are presented on Table 8:

Table 8: Coefficients of Indirect Effect

Hypotheses	Path	Indirect Effect	Decision
H <sub>1</sub>	INT<---MS<---BP	.037**	Accepted
H <sub>2</sub>	INT<---MS<---RM	.221***	Accepted
H <sub>3</sub>	INT<---MS<---EN	.061**	Accepted
H <sub>4</sub>	INT<---MS<---FB	.230***	Accepted

Source: Field Survey, 2024

Table 8 shows a significant positive result (.037\*\*) for entrepreneurial mindset development, business planning and entrepreneurial intention (INT<---MS<---BP). Therefore, the first hypothesis (H<sub>1</sub>) which stated that entrepreneurial mindset development mediates the business planning and entrepreneurial intention relationship amongst university students in north-east

Nigeria is accepted. The table also shows a significant positive result (.221\*\*\*) for entrepreneurial mindset development, role model and entrepreneurial intention (INT<---MS<---RM). Thus, the second hypothesis (H<sub>2</sub>) which stated that entrepreneurial mindset development mediates the relationship between role model and entrepreneurial intention amongst university students in north-east Nigeria is accepted. There is also a significant positive result (.061\*\*) for entrepreneurial mindset development, entrepreneurial network and entrepreneurial intention (INT<---MS<---EN). For this, the third hypothesis (H<sub>3</sub>) which stated that entrepreneurial mindset development mediates the entrepreneurial network and entrepreneurial intention relationship amongst university students in north-east Nigeria is also accepted. It can also be observed Entrepreneurial mindset development, feedback and entrepreneurial intention (INT<---MS<---EN) has a significant positive result (.230\*\*\*). Therefore, the fourth hypothesis (H<sub>4</sub>) which stated that Entrepreneurial mindset development mediates on the relationship between feedback and entrepreneurial intention amongst university students in north-east Nigeria is accepted.

#### 4.5 Discussion of Findings

The discussion was guided by the research objectives. The four objectives were set to be achieved through four hypotheses.

##### 4.5.1 Business Planning and Entrepreneurial Intention: Mediation of Entrepreneurial Mindset Development

The first objective of this study was to examine the mediating effect of entrepreneurial mindset development on business planning and entrepreneurial intention relationship amongst university students in north-east Nigeria. This objective was set to examine whether business planning leads to higher increase in entrepreneurial intention through entrepreneurial mindset development as proposed review of Shapero’s Entrepreneurial Event Theory. In this regard, hypothesis one (H<sub>1</sub>) was formulated and tested as: H<sub>1</sub>: *Entrepreneurial mindset development mediates the business planning and entrepreneurial intention relationship amongst university students in north-east Nigeria*

The result on table 8 indicated that entrepreneurial mindset development mediate the business planning

and entrepreneurial intention. This finding justified the findings of Anwar (2021) in India, Liu (2019), Jiatong, (2021), wu (2022), Tseng (2022), and Le (2023) in China; Yousaf (2021) and (Soomro, 2021) in Pakistan, Hassan (2020) and (Rakicevic, 2023) in Serbia and Bosnia and those of Paliwal (2022), Astiana (2022) and Cui (2022). Moreover, this finding justified the findings improved on the findings of these researchers. Also, it expands the argument of Shapero's Entrepreneurial Event Theory that not only the number and gravity of the entrepreneurial events but also the sequence of the events matters in development of entrepreneurial intention. The implication of this is that, while trying to boost entrepreneurial intention through between business planning, equal attention must be given to entrepreneurial mindset development as it mediates relationship, else, desired result may not be achieved.

#### 4.5.2 Role Model and Entrepreneurial Intention: Mediation of Entrepreneurial Mindset Development

The second research objective was to assess the mediating effect of entrepreneurial mindset development on the relationship between role model and entrepreneurial intention amongst university students in north-east Nigeria. This objective was designed to measure whether relationship between role model and entrepreneurial intention is strengthened by entrepreneurial mindset development as a proposed review of Shapero's Entrepreneurial Event Theory. To this effect, the second hypothesis was formulated and tested as: *H<sub>2</sub>: Entrepreneurial mindset development mediate the relationship between role model and entrepreneurial intention amongst university students in north-east Nigeria* The result on table 8 revealed that entrepreneurial mindset development mediate the relationship between role model and entrepreneurial intention. This finding justifies the findings of researchers in the area and also improved their framework by introducing entrepreneurial mindset development as mediator. The implication of this finding is that, while trying to boost entrepreneurial intention through between role modeling, equal attention must be given to entrepreneurial mindset development as it mediates relationship.

#### 4.5.3 Entrepreneurial Network and Entrepreneurial Intention: Mediation of Entrepreneurial Mindset Development

Again, as the third objective of the study was to examine the mediating effect of entrepreneurial mindset development on entrepreneurial network and entrepreneurial intention relationship amongst university students in north-east Nigeria. This was designed in line with the proposal that Shapero's Entrepreneurial Event Theory should be reviewed to include how events should be arranged. Thus, the third hypothesis was formulated and tested: *H<sub>3</sub>: Entrepreneurial mindset development mediates the entrepreneurial network and entrepreneurial intention relationship amongst university students in north-east Nigeria*. The result on table 8 indicates that entrepreneurial mindset development mediates the entrepreneurial network and entrepreneurial intention relationship. This finding also justifies the findings of researchers in the area and also improved their framework by introducing entrepreneurial mindset development as mediator. The implication of this finding is also, while trying to boost entrepreneurial intention through between entrepreneurial, equal attention must be given to entrepreneurial mindset development as it mediates relationship.

#### 4.5.4 Feedback and Entrepreneurial Intention: Mediation of Entrepreneurial Mindset Development

Lastly on the fourth research objective which was to assess the mediating effect of entrepreneurial mindset development on the relationship between feedback and entrepreneurial intention amongst university students in north-east Nigeria. This is to test the proposed review of Shapero's Entrepreneurial Event Theory that, entrepreneurial events should be in best arrangement to develop entrepreneurial intention. Thus, hypothesis four was formulated and tested: *H<sub>4</sub>: Entrepreneurial mindset development mediates on the relationship between feedback and entrepreneurial intention amongst university students in north-east Nigeria*. This hypothesis has also been tested and the result presented on table 8 indicates that entrepreneurial mindset development mediates on the relationship between feedback and entrepreneurial intention. This finding also justifies the findings of researchers in the area and also improved their framework by introducing entrepreneurial mindset development as mediator. The implication of this

finding is also, while trying to boost entrepreneurial intention through between feedbacks, equal attention must be given to entrepreneurial mindset development as it mediates relationship.

### 5.1 Conclusion

As all the specific objectives of this study are achieved it can equally be said that the general objective is achieved. The general objective was designed as to investigate the mediating effect of entrepreneurial mindset development on the relationship between entrepreneurship education and entrepreneurial intention. Therefore, based on the fact that entrepreneurial mindset development mediates the relationship between all the four independent variables that made up entrepreneurship education in this study and entrepreneurial intention, it is concluded that an entrepreneurship education program can only succeed in developing entrepreneurial intention in the participants when the program succeed in developing entrepreneurial mindset in the participants. It can also be concluded that the failure of entrepreneurship education programs in Nigeria and the likes is as a result of failure to properly monitor and ensure the development of entrepreneurial mindset in the participants.

### 5.2 Recommendations

Policy makers should redesign their entrepreneurship education to first of all target at developing entrepreneurial mindset in the participants before entrepreneurial intention. This should include designing proper monitoring strategy that will ensure proper monitoring and addressing of obstacles in the linkages between the components of entrepreneurship education and entrepreneurial mindset development and between entrepreneurial mindset development and entrepreneurial intention

The resource persons for delivering entrepreneurship education program should be encouraged to first of all target at getting the participant to develop entrepreneurial mindset and then use the entrepreneurial mindset so developed to entrepreneurial intention. Hence, the interim tests should all geared towards finding out whether entrepreneurial mindset is developed or not.

### 5.3 Suggestion for Future Studies

This study used final year university students as respondents as the focus of the study is entrepreneurial intention, future study should test serial mediation to test for entrepreneurial action using entrepreneurial mindset and intention as mediators with Graduands as respondents

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