



**NURTURING THE ENTREPRENEURIAL MINDSET OF FINAL YEAR FEMALE
STUDENTS THROUGH ENTREPRENEURSHIP EDUCATION PROGRAMME**

Kalu, Kelechi Anya

National Institute for Policy and Strategic Studies (NIPSS), Kuru, Nigeria
kelechimscproject@gmail.com

Dakung, Reuel Johnmark

University of Jos, Nigeria
reueldakung@yahoo.com

ABSTRACT

The failure of the majority of female graduates to tailor their minds toward venturing into business has been seen to contribute to the rising unemployment of female graduates of 35.2% as of the fourth quarter of 2020. Also, 61% of males are seen to be engaging in business activities in Nigeria while that of females only stood at 39%. This situation has created concern for researchers, and this study is purported to investigate the issues by employing the concepts of the entrepreneurship education programme of learning, business practicum, and incubation resources to assess entrepreneurial mindset among female students. The study stated four objectives to be achieved and a sample of 437 female final-year students from the Faculty of Management Sciences, University of Jos were surveyed. The study adopted a cross-sectional design, and the quantitative multiple regressions model for data analysis with the aid of SEM-AMOS software. The results of the analysis revealed that entrepreneurial education programmes of learning and business practicum were positively and significantly related to the entrepreneurial mindset of female students, while incubation resources were negative and insignificant. Recommendations were made that Entrepreneurship education development should possess innovative feminine areas, be more practical than theory, and be woven into the university curriculum beginning from the 100 level instead of final-year. The implications of the study offer a learning and practicum model for nurturing the entrepreneurial mindset of female students of universities.

keywords: Entrepreneurial Education Programme, Entrepreneurial Mindset, Entrepreneurial Activities

Introduction

Entrepreneurial activities have been confirmed as fundamental drivers of economic development around the world through engendering economic revival, poverty reduction and employment generation. These entrepreneurial activities are attributed to individuals' participation in utilising the economic opportunities of countries. For instance, comparing the level of entrepreneurial activities needs of some countries (USA-6.2%, Uk-15.3% & France-11.6% vs. Ghana-74.4%, Togo-78.7% & Nigeria-81.3%), suggests developing countries like Nigeria are in dire need of many business start-ups to be entrepreneurially profitable (World Bank, 2022). This start-up need is very crucial for the female gender especially as The Fate Institute (2022) ranked Nigeria 53rd with a score

of 43.8% out of 65 countries in the Mastercard Index of Women Entrepreneurs 2021 global ranking. In this regard, Nigeria's female entrepreneurial activities experienced a year-on-year decline, as the percentage score for 2020 was 44.3%. These may contribute to why the current unemployment rate in the U.S.A. is as low as 3.7% (U.S. Bureau of Labour Statistics, 2022), and as high as 33% in Nigeria (NBS, 2021). Of this rate, about 25 million of the unemployed are graduates, 9.5 million men and 12.2 million women (Aririah, 2022; NBS, 2022). This implies that graduate unemployment in Nigeria is dominated by a high female proportion.

The female graduate unemployment rate in Nigeria has been on the rise, from 31.6% in the second quarter to 35.2% in the fourth quarter of 2020 (NBS, 2021). Although scholars attribute such unemployment to laziness, luxury hope for white-collar or government work, and cultural factors, in recent times the focus has been on the negative entrepreneurial mindset. For instance, the study by Katura & Dakung (2014) attributed this to the inability of female students to tailor their mindsets toward starting a business after graduation. Similarly, Anselem & Nweke (2020) suggested that not nurturing female youths' entrepreneurial mindset could be a key indicator of unemployment in Nigeria. Entrepreneurial mindset (EM) is a significant attribute that distinguishes entrepreneurs; based on a combination of interests, intentions, thought processes, and skills (Kariuki et al., 2022). EM is associated with the meta-motivational state of reasoning or the cognitive processes activated in response to a given goal (Morris & Tucker, 2021). In this study, EM is regarded as watchfulness to opportunity, risk propensity, ambiguity tolerance, and dispositional optimism dimensions (Bernardus et al., 2023; Cui et al., 2021). Activating these EM dimensions ought to result in entrepreneurship practices and development to reduce female graduate unemployment. Arising from this, it becomes necessary to assess the effectiveness of the entrepreneurship education programme in predicting entrepreneurial mindset.

Entrepreneurship Education Programme (EEP) is viewed by scholars to mean different activities packaged to equip students with skills and knowledge for starting a new business or sustaining an existing one. Based on that, this study encapsulates EEP as learning, business practicum, and incubation resources which are derived from pedagogy, course content, and inclusion (Dakung et al., 2022); learning, inspiration, and incubation resources (Iyortsuun et al., 2020); lecture, practice and building of small enterprise or business model (Kim et al., 2020). It is noted that more studies have established consistency in findings between EEP and EM (e.g., Cui & Bell, 2022; Jiatong et al., 2021; Saadat et al., 2021). This justifies the need to sustain the existing relationship using an intervening mechanism. Given this, the academic programme of entrepreneurship education is crucial for students' positive mentalities.

Concerning the foregoing discussions, a consistent relationship has been established between entrepreneurship education programme and entrepreneurial mindset. Considering the findings, however, attention has not been paid to a unison mechanism of EEP. In this study, therefore, the learning, business practicum, and incubation resource in one model is to be tested on the EM of final year female students of the Faculty of Management Sciences, University of Jos, in Plateau state of Nigeria. This is also in response to the call by scholars (e.g., Cui & Bell, 2022; Jiatong et al., 2021) to extend EEP and EM research.

Concepts of Entrepreneurship Education Programme, and Entrepreneurial Mindset

Entrepreneurship Education Programme (EEP) has increasing research interest due to the role it plays in economic development through innovation, new inventions, and job opportunities, a revival of an inactive economy and other aspects of the economy (Boahemaah et al., 2020). Fayolle et al., (2006) define EEP as any pedagogical plan or process of education for entrepreneurial attitudes and skills, which involves developing certain personal qualities. In most cases, the contents of EEP typically focus on understanding entrepreneurial thinking and developing an innovative and creative capacity to solve problems. The EEP has received usage with a few multi-dimensions such as pedagogy and course content (Dakung et al., 2017); learning, inspiration, incubation and passion (Souitaris et al., 2007; Iyortsuun et al., 2020). This study aptly considers learning, business practicum and incubation resources as EEP dimensions. The learning holds that students will exhibit desired positive behaviour as a result of the knowledge, skills and competencies experienced through the education programme (Martin et al., 2013). For Johannisson (1991), the learning derivable from an EEP includes knowledge, values and motivation, abilities and skills, experience and intuition and the ability to develop social networks.

Business practicum is sourced from the perspective of internship or on-the-job training to experience (Arthur & Koomso, 2023; Tolentini, 2023). Similar to this, business practicum deals with acquiring hands-on knowledge of several skills as a development process of such a particular occupation. Business practicum can take place in the forms of workshops, special training of empowerment, seminars, or work roles, to provide actual competencies of the real entrepreneurial situation. The incubation resource is an important framework that supports the development of entrepreneurship in a community by focussing on targeted resources and services (Iyortsuun, 2017). Incubation idea is replicated in universities as university-based entrepreneurship learning centres, which focus on developing targeted training modules and facilities that enable students to garner practical knowledge and experience in the venture creation process (Sudana et al., 2019). The provision of entrepreneurship support facilities can foster a positive mindset among students in very unique ways.

Entrepreneurial mindset being a product of positive reasoning, fosters the capacity to utilise opportunities positively. Likewise, Morris & Tucker (2021) observe that the entrepreneurial mindset is made up of cognitive, affective, and behavioural orientations which assist students to recognise emergent opportunities, overcoming uncertainty, and creatively address issues. In line with this, McGrath & MacMillan's (2000) definition describes entrepreneurial mindset as recognising of opportunities and pursuing the most attractive of them with passion and discipline while leveraging on available resources. More so, Neck & Corbett (2018) contribute to the discourse that an entrepreneurial mindset is at the core of entrepreneurship and it is an excellent means of assisting nascent entrepreneurs to successfully create their ventures. In this regard, it can be said that a positive entrepreneurial mindset provides some degree of certainty about the next line of action to be taken by the possessor. As a result, this study builds up EM conceptualisation based on the dimensions of watchfulness to opportunity, risk propensity, ambiguity tolerance, and dispositional optimism (Bernardus et al., 2023; Cui et al., 2021).

Watchfulness to opportunity involves the human information-processing approach to discover opportunities (Rezvani et al., 2019). This deals with strong insight ability that increases awareness, surveillance, attentiveness and vigilance of the mind. Risk propensity consists of two kinds: the stable and consistent risk propensity in different situations; and the unstable risk propensity which creates the tendency to take or avoid risk in different situations (Hung et al., 2012). In other words, any mindset devoid of risk propensity may only end up in wishful intentions. Ambiguity tolerance is the ability to accept a degree of uncertainty, yet remain motivated to press forward ideas despite future threats and uncertainty (Peschl et al., 2021). This suggests entrepreneurship is full of ambiguities and this calls for more tolerance. Dispositional optimism refers to the ability of students to view various life experiences and situations positively (Lewis et al., 2015). Dispositional optimism is built on an eventual outcome of positive expectations even while dealing with unpleasant current circumstances. Thus, students with high scores of dispositional optimism could demonstrate high optimism, and vice versa.

Entrepreneurship Education Programme and Entrepreneurial Mindset

The logic of this relationship is meant to investigate the extent to which the teaching of entrepreneurship courses will enable students to develop entrepreneurial mindset to be able to pursue entrepreneurship careers. Concerning this, studies (Jiatong et al., 2021; Karyaningsih et al., 2020; Pfeifer et al., 2016; Robinson & Gough, 2020; Saadat et al., 2021) found a strong positive linkage between EEP and EM; meaning that when students are exposed to engage in learning challenge in the EEP, it activates their entrepreneurial mindsets toward practical business activities. Particularly, Cui & Bell (2022) who surveyed students in China's tertiary institutions discovered a positive link

between entrepreneurial education activity and behavioural entrepreneurial mindset. For them, when lecturers employed entrepreneurial activities such as entrepreneurship clubs, entrepreneurship design competitions and face-to-face communication with an entrepreneur to engage university students, the students will quickly start their businesses or exhibit the entrepreneurial behaviour tendencies as fast as possible. This suggests that as the entrepreneurship course material taught contains the latest developments in business, and also exposes the students to be more conscious of entrepreneurial environment, it triggered the mindsets to always be optimistic about future entrepreneurial activities.

As demonstrated, more studies have focused less on how EEP through learning, business practicum and incubation resources affect entrepreneurial mindset. For instance, in Ramalu et al., (2020); Zreen et al., (2019), internship and business incubation programme strongly influenced entrepreneurial intentions/self-employment of students. Also, Mele et al., (2022) demonstrated how University Business Idea Incubators foster intellectual capital to sustain the development of an entrepreneurial mindset and competencies, targeting the concretisation of new ideas and challenge-based learning approaches. Ali et al., (2022) found business incubators in terms of advice, network services, training resources and technological support were positively related to an entrepreneurial mindset. In this scenario, business practicum differs from internship in that the latter is training to gain practical knowledge on a particular course of study, while the former aligns with both apprenticeship and investment dimensions of a selected business.

Experiential Learning Theory (ELT)

Experiential Learning Theory (ELT) as founded by Kolb (1984), establishes the process of learning from experiment, practicum or learning-by-doing. As a result of calls for alternative methods to the conventional didactic process-driven approach, experiential learning approaches have become widely used in entrepreneurship education research (Bell & Bell, 2020). The theory makes the following assumptions about the four phases of learning: concrete experience (feeling), reflective observation (watching), abstract conceptualisation (thinking), and active experiment (doing). To improve awareness of entrepreneurship from a theoretical perspective of EEPs, concrete experience refers to experiencing the process of practical rehearsal or hands-on activities. This strategy goes beyond merely teaching entrepreneurship to include intervention teaching "for" entrepreneurship, which builds learners' entrepreneurial skills and competencies ready for entrepreneurship, or teaching "through" entrepreneurship, which encourages learning through actual entrepreneurship (Hannon, 2005). Concrete experience can put the female students in the realm of mental processes capable of fascinating their mindsets towards entrepreneurship. Reflective observation means to dwell on the experiences encountered during the concrete experience.

Further, recalling and rethinking previously practical activities give more observational power to actual practices than mere writing and reading. By addressing the requirement to build skills, traits, and capacity for mindset change, ‘reflective observation’ is a type of constructivist active learning, which is at the core of a social constructivist learning paradigm (Mueller et al., 2015). Thus, conclusions are drawn through reflective observation learning experiences in abstract conceptualisation. Through this method, female students can make decisions about which business opportunity is best at any given time. It helps to create social knowledge through learning and also enables the re-creation of personal knowledge by the students (Kolb & Kolb, 2005). Active experimentation means planning after acquiring the learning experience and trying out new ideas. This alerts strong validation to the mindset change on entrepreneurship. Through active experimentation, students collaborate in a group setting to gain deeper levels of comprehension as they learn. The development of entrepreneurial abilities and competencies may resonate strongly with students during the active experimentation stage, much as Bacigalupom et al. (2016) highlighted as critical for graduates within the European Union entrepreneurial competency framework. As such, a practical foundation and a logical justification for the fundamental role of accumulating personal experience in a learning environment or programme, makes experiential learning a positive mindset-stimulating process.

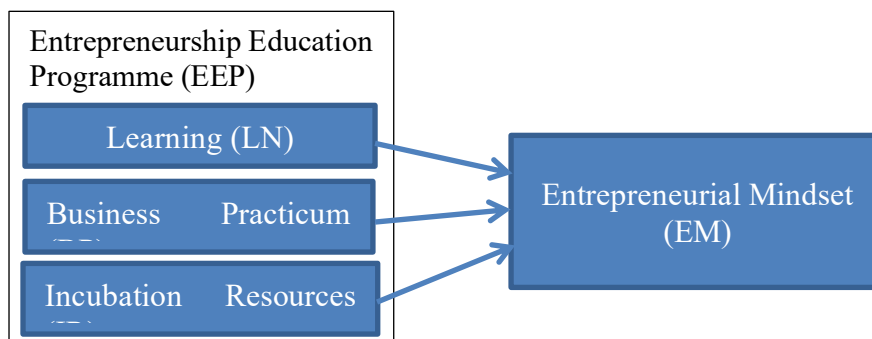


Figure 1. Conceptual Model

Methodology

This study was conducted with a philosophical approach. To discover an objective fact about the nature of interactions among entrepreneurship education programmes and the entrepreneurial mindset of female students, a positivist paradigm was used in line with the conceptual model of Figure 1. In this regard, the investigation was guided by the research design, population, sample size and sampling, data collection instrument, validity and reliability, and data collection method.

Research Design

This study's design sets out a comprehensive plan to investigate the research problem to a logical conclusion, using the quantitative method (Creswell, 2014). In this case, a time horizon plan of a cross-sectional survey design was used to collect data from the participants at a specific point in time. More so, this survey design followed a standard format of inquiry which evaluated hypotheses. Lastly, the individual unit of analysis used was on the final year female students so that each participant could respond to the same type of instrument concerning their experiences on the entrepreneurship education programme, entrepreneurial alertness and entrepreneurial mindset.

Population, Sample Size and Sampling Technique

The population for this study comprised 437 female students from all 400 levels in the six Departments of the Faculty of Management Sciences, University of Jos, Nigeria. These departments include Accounting, Actuarial Science, Banking and Finance, Business Administration, Insurance, and Marketing. The sample size is therefore the 437 female final-year students of the Faculty of Management Sciences, University of Jos, who offered entrepreneurship as a course. The population and sample size are taken as the same because it is accessible, and also to avoid tendencies of systematic and sampling bias in the data as advised by Kathori (2014). In this regard, the census sampling technique was adopted to ensure every female student in all final years has an equal chance of participating in the survey. The census sampling is appropriate where every member of the accessible population can be reached during the survey.

Data Collection Instrument

The purpose of the study's instrument is to collect verifiable data that will aid in resolving particular research issues. By this, the primary data collection source is best suited for the task of obtaining first-hand information to achieve research objectives. This made use of a questionnaire to gather data. The questionnaire has a cover letter outlining the purpose of the study for respondents. More so, it was divided into the following sections: A, which contained background data on anonymous respondents; B, which contained a scale for entrepreneurship education programmes (learning, business practicum and incubation resources); and C, which contained a scale for entrepreneurship mindset.

Furthermore, the entrepreneurship education programme was operationalised as a learning intervention that enables university students to acquire business skills. While entrepreneurial alertness was operationalised as students' insight for opportunity identification, entrepreneurial mindset was operationalised as the ability and readiness of students to engage in entrepreneurship activities. Consequently, in measuring the variables of the questionnaire instrument, the entrepreneurship education programme scale was adapted from Iyortsuun et al., (2020) on how students can benefit

from EEP in terms of learning, inspiration and idea incubation. Similarly, the entrepreneurial mindset scale was adapted from the creativity mindset scale of Tierney et al., (1999), and the execution mindset scale of Davis et al., (2016) as used by Cui & Bell (2022). The preference for instrument adaptation was horned by the availability of previously validated scales accordingly.

After adapting the questionnaire instrument, it was subjected to review by experts from the field of management such as supervisors and dissertation defence members for necessary corrections as a means of controlling for Common Method Bias. Additionally, the questionnaire measures were adapted from more than one source as demonstrated in the Instrument, while clear instructions were used to separate the variables for respondents to perceive the differences in the variables. The response scales were equally adapted on a five-point Likert scale to provide a wide range of options for flexibility of answers. Also, the anonymity of respondents, and the use of simple wordings, were given utmost priority. For the validity of opinions, the participants in the survey were female students in their final year who offer or have offered entrepreneurship courses. Lastly, the statistical assessment of validity and reliability was performed on the instrument to arrive at the best model fits.

Method of Data Analysis

The major tool of analysis used in this study was the multiple regression model with the aid of Analysis of Moment Structure (AMOS) Software version 22. AMOS also known as Covariance-Based Structural Equation Modelling (CB-SEM) is an aspect of SEM that can be used to perform confirmatory factor analysis, path analysis, or latent growth modelling; and can also assess unobservable latent constructs (Hair et al., 2017). The AMOS analysis was performed in two folds; preliminary and main analyses. The preliminary analysis assessed the conditions of validity and reliability, while the main analysis was centred on the analytical procedure for the test of hypotheses; all of which to confirm the measurement and structural models. In line with this, the model specification is represented as $EM = \beta_0 + \beta_1EEL + \beta_2EEB + \beta_3EEI + \varepsilon$. Where: EM is an entrepreneurial mindset as the dependent variable; β_0 is constant; β_1 - β_3 are coefficients of the independent variables; EEL is the entrepreneurship education programme for learning, EEB is the entrepreneurship education programme for business practicum, and EEI is the entrepreneurship education programme for incubation resources, all as the independent variables.

Result

Response Rate, Missing Values, and Respondents' Demography

The results of questionnaire administration are presented to establish the response rate. This is necessary as achieving a 100% response rate is most often unrealistic (Sekaran & Bougie, 2019), but must also be within an acceptable range. In this regard, 437 (100%) copies of the questionnaires were distributed to respondents during the survey, and 316 (72.3%) were found valid for analysis. On

the other hand, a 27.7% of the questionnaires were not valid or not returned as the case may be. Based on this, a 27.7% non-response rate would not interfere with the representativeness of the sample as well as the generalisability of results. In other words, 72.3% response rate is adequate to prevent sample bias results, in which at least 70% and above was recommended by Klagge (2018). This is regarded as excellent for analysis. Furthermore, missing value analysis was assessed to ensure all values are intact in the dataset. Checking for missing values is one of the basic steps to accurate data analysis because they are usually linked to incorrect results in the circumstances where they exist. Thus, it is always important to prevent missing values of data or manage it appropriately. As a result, the statistical multiple imputation method in SPSS was used to perform missing analysis, and the outcome was satisfactory.

Proceeding from the aforesaid, the demography of participants is presented and this reveals that female students within the age bracket of 18-24 years responded the most in the survey (59.8%), followed by 25-30 years as 37%. Also, marital status of the students were mostly (87.6%) singles. Likewise, more of the participants were students of Accounting (22.2%), followed by Business Management with 19.6%. overall, the characteristics of these participants show they are the focus of the study, whereby their opinions are a suitable means of information for the test of hypotheses.

Measurement Model

This study's measurement model describes the extent observed variables depend on latent or unobserved variables (Arbuckle, 2014). The model development started with 30 item indicators among the four variables learning (6), business practicum (6), incubation resources (6) and entrepreneurial mindset (12) being investigated. Eventually after Confirmatory Factor Analysis (CFA) process, a measurement with 14 items was derived as shown in figure 2.

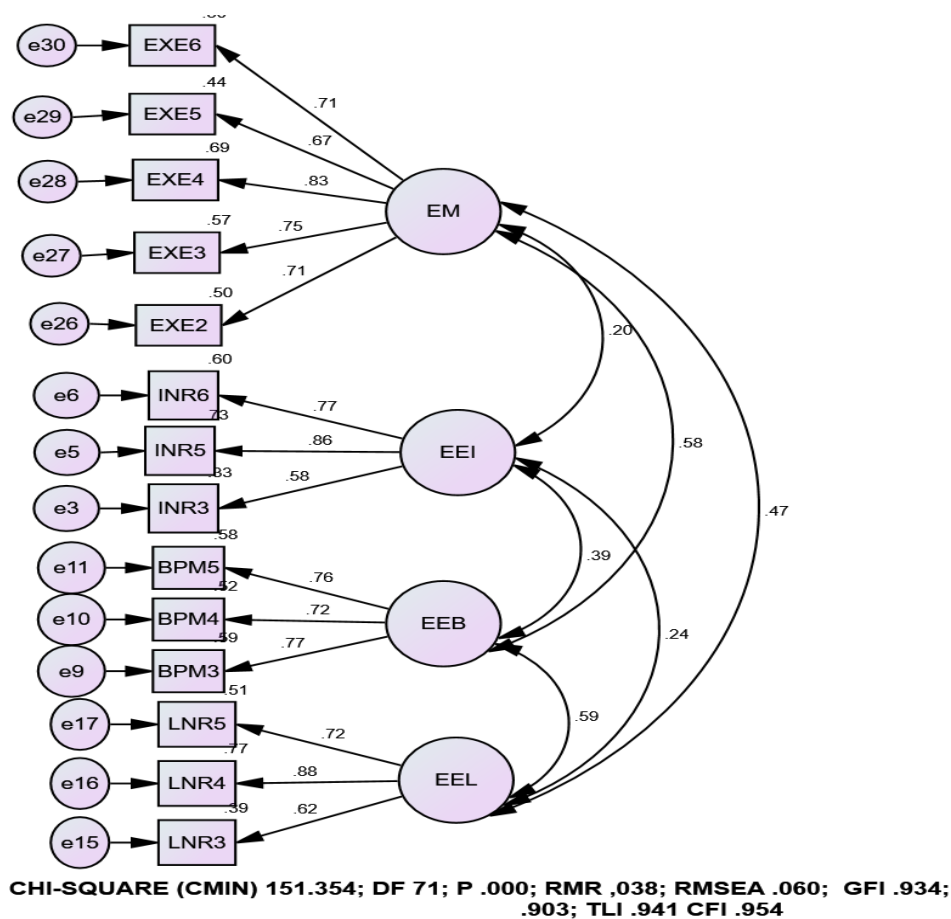


Figure 2: Measurement Model

The model in figure 2 was arrived at by deleting poor factor loading values (cross-loading issues) and weak indicators which improved the model fits significantly. Evaluating factor loading is important in AMOS analysis as the CFA process is necessary to achieve a good model fit for a reliable result. This process resulted in a measurement model with 14 item indicators left. That is, 3 items from EEL; 3 items from EEB; 3 items from EEI and 5 items from EM. As the measurement model achieved satisfactory fits; reliability and validity assessments are carried out to ascertain whether structural model will be acceptable.

Composite Reliability, Convergent Validity, Discriminant Validity and Correlation Assessments

As stated by Hair et al., (2010), convergent validity investigates the degree to which various questionnaire items or conceptions can converge to serve a single goal at a threshold of 0.5. Equally, discriminant validity assesses how significantly dissimilar the indicators of various constructs are from one another. Construct or congruent validity includes the discriminant and convergent validities, which aim to gauge how well a result from the measure matches a model. Likewise, Composite Reliability (CR) reveals a latent construct's dependability and internal consistency. For a construct to

be composite reliable, CR must be more than 0.6. Additionally, correlation tests the strength and direction of a relationship within a range ± 1 .

Table 1: Convergent Validity

Construct	Factor Loading	AVE	CR
Entrepreneurship Mindset (EM)			
EM2	0.71	0.54	0.855
EM3	0.75		
EM4	0.83		
	0.67		
EM5	0.71		
EM6			
Learning (EEL)			
LRN3	0.62	0.56	0.788
LRN4	0.88		
LRN5	0.72		
Business Practicum (EEB)			
BPM3	0.77	0.56	0.794
BPM4	0.72		
BPM5	0.76		
Incubation Resources (EEI)			
INR3	0.58	0.57	0.786
INR5	0.86		
INR6	0.77		

Source: Field Survey Result (2023)

Table 1 reveals the statistics for examination of Construct, Factor Loading, Average Variance Extracted (AVE) and composite reliability (CR) for evaluation of convergent validity. Thus, the AVE values of the global variables (EM = 0.54, EEL = 0.56, EEB = 0.56, and EEI = 0.57) are greater than the threshold of 0.5 (Fornell & Larcker, 1981). This implies that the latent constructs derived after the CFA process truly converged to measure what the instrument intends to measure. Also, the composite reliability values of 0.855, 0.788, 0.794 and 0.786 greater than benchmark of 0.6 or 0.7, implying the instrument has internal consistency for the latent construct. These values are good enough for assessment of discriminant validity.

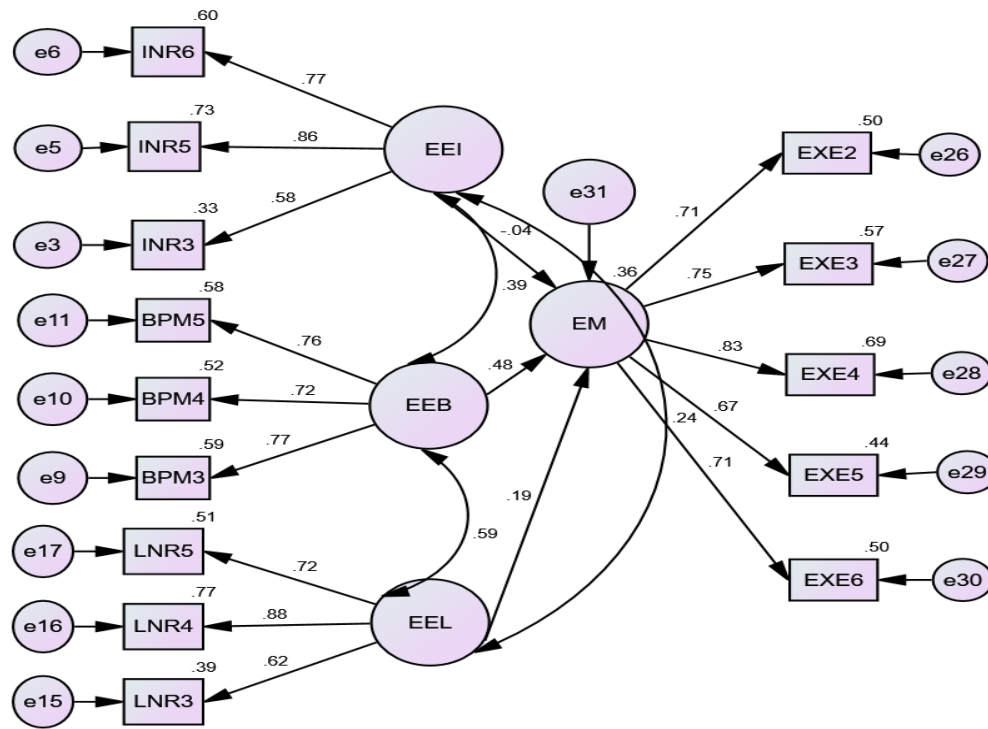
Table 2: Discriminant Validity

	EM	EEL	EEB	EEI
EM	0.735			
EEL	0.469	0.748		
EEB	0.583	0.593	0.748	
EEI	0.197	0.239	0.387	0.755

Table 2 depicts the AVE and correlation values of EM, EEL, EEB and EEI for comparison. The values in bold represent the square root of the AVE while non-boldded values are Pearson correlation coefficients. As can be seen, all the AVE values (in bold) are greater than the correlation coefficients, and equally exceeded the threshold of 0.5 as both the necessary and satisfactory conditions for meeting discriminant validity (Fornell & Larcker, 1981; Hair et al., 2010). In this regard, the composite reliability, the outcomes for convergent validity, and discriminant validity are sufficiently established which signifies a good model for the test of hypotheses (Farrel, 2010). Additionally, the model fit indices of GFI, AGFI, CFI, TLI, SRMR, RMSEA are satisfactory, with considerable Chi-square value and significant probability level (see table 3). Nevertheless, the correlation values indicate the model has a linear relationship among the variables.

Structural Model

A structural model evaluates how latent or unobserved variables are related to one another (Arbuckle, 2014). Testing the connections between the latent variables and associated disturbances or error terms is aided by a structural model. By deleting problematic items, checking the modification indices of residual errors, and lastly looking at the standardised residual estimates, the structural model obtained from the CFA in the measurement model is developed (see figure 3).



CHI-SQUARE (CMIN) 151.354; DF 71; P .000; RMR .038; RMSEA .060; GFI .934; .903; TLI .941 CFI .954

Figure 3: Structural Model

Figure 3 reveals a structural model with 14 items derived from the measurement model. The relationships between the latent variables (that is, entrepreneurship education programmes -EEL, EEB, EEI, and entrepreneurial mindset) demonstrate both positive and negative outcomes. Nevertheless, the model fit indices for the structural model have proven satisfactory with adopted standards (see table 3). In view of this, the statistics of table 3 is used to decide the credibility of the models (measurement and structural).

Table 3: Model Fit Summary

Indices	Standards Adopted $N > 250, 12 < m < 30$	Measurement Model.	Structural Model
Chi-Square	Significant P-value Expected	151.345	151.345
Degree of Freedom		71	71
Probability Level	Significant P-value Expected	0.000	0.000
GFI	> 0.80	0.934	0.934
AGFI	> 0.80	0.903	0.903
CFI	> 0.80	0.954	0.954
TLI	> 0.92	0.941	0.941
SRMR	$\leq 0.08, CFI > 0.92$	0.038	0.038
RMSEA	$\leq 0.07, CFI \geq 0.90$	0.060	0.060

Note: m is the number of observed variables; N is the number of observations or sample size.

Goodness of Fit Index (GFI); Adjusted Goodness of Fit Index (AGFI); Comparative Fit Index (CFI); Tucker-Lewis index (TLI); Standardised Root Mean Square Residual (SRMR); Root Mean Square Error of Approximation (RMSEA)

Sources: Field Survey Output (2023); Kline (1998); West et al., (2012)

Table 3 displays the model fit indices for the measurement, structural model, and the adopted fits standards for both models. The chi-square and probability values for the two models presented are positive and significant while their degrees of freedom (d.f) are over-identified. The fit indices are 0.903 and above for CFI, TLI, GFI, and AGFI. Similarly, less than 0.07 for SRMR (0.038) and RMSEA (0.060) of the CFA measurement model and the structural model were obtained. These indices exceeded the minimum standards adopted in this work. In this regard, the test of hypotheses can be assessed.

Table 4: Summary of Hypotheses Results

Relationship	Estimate	S.E	CR(T)	P-Value	Decision
Ho1: EM $\leftarrow$ EEL	0.191	0.079	2.331	0.020	Rejected
Ho2: EM $\leftarrow$ EEB	0.484	0.084	5.135	0.000	Rejected
Ho3: EM $\leftarrow$ EEI	-0.035	0.062	-0.554	0.586	Fail to Reject

Discussion

The result of the test of hypothesis one reveals that the entrepreneurship education programme of learning has a positive and significant influence ($\beta=0.079$, $t\text{-value}=2.331$, $p < .020$) on the entrepreneurial mindset of the female university students of the Faculty of Management Sciences, University of Jos. Also, the t -value supports the significance of the p -value of a value greater than 1.96 at a two-tailed as advanced by Hair, et al., (2020). Given this, we reject the null hypothesis, meaning there is a significant influence of learning on entrepreneurial mindset of female students in the Faculty of Management Science, University of Jos. This implies that when the female students attend entrepreneurship classes, their abilities are enhanced toward developing business networks which in turn make them seek concerted efforts to put business idea into practice. More so, the final year female students can develop a positive mentality to practice entrepreneurship as soon as possible or within a year's time. This generally suggests that when female students of universities receive learning, because they participate in entrepreneurship programme, these could increase their ability, readiness and willingness to come up with new ideas to engage in entrepreneurial activities. Kania (2022) supports this assertion by identifying that entrepreneurship education programme's utmost contribution enables students develop new attitudes, and beliefs associated with entrepreneurial mindset. Furthermore, when female students of universities participate in EEP of learning, they increase their understanding of the practical management skills and actions needed to start a business, as well as understand the attitudes to be self-employed; they improve their skills of translating strategy into tactical actions in an eagerly manner.

This finding is in agreement with that of Jiatong et al., (2021) who asserted that classroom teaching and other entrepreneurship programmes drive the university students' mindset to deal with opportunities and challenges linked with entrepreneurial activities. The effect of learning is consistent with the theoretical tenet of experiential learning of generating feelings for actual practice (Kolb, 1984). In this regard, it is equally noted that where EEP learning is more of theories taught in conventional classroom would poorly predict EM. Similarly, the learning components of entrepreneurship education programme may not alone be efficacious to the re-orientation and development of a strong positive mindset of students. As such, universities cannot leverage on it alone to drive the positive mindset of female students by making them able, ready and willing to take up entrepreneurship career in no distant time. On account of this, Cai & Shi (2020) insinuated that learning from EEP is capable of changing a person's behavioural mindset. When these entrepreneurship education programmes are appropriately designed, the mindset of the female students naturally drives toward watchfulness to opportunities, risk propensity, ambiguity tolerance

and dispositional optimism (Bernardus et al., 2023; Cui et al., 2021). Thus, learning programme of entrepreneurship education is a substantial model player among other factors.

Test of hypothesis two result indicates that entrepreneurship education programme of business practicum has a positive and significant influence ($\beta=0.484$, $t\text{-value}=5.135$, $p < .000$) on entrepreneurial mindset of female university students. The $t\text{-value}$ supports the significance of the $p\text{-value}$ of a value greater than 1.96 at a two-tailed (Hair, et al., 2020). On account of this, the null hypothesis is rejected, suggesting there is a significant relationship between business practicum and entrepreneurial mindset of female students in the Faculty of Management Science, University of Jos. The result demonstrates how business practicum EEP enables female students of universities to practice entrepreneurship skill perfect for their self-employment career. Though the students agreed to needing more time to perfect their skills, they feel encouraged whenever they come in contact with such, and this makes them eager to translate the skill acquired into practice within a year. Similarly, Ramalu et al., (2020) found how internship in form of practicum can influence entrepreneurial intentions of students. Aligning with theoretical lens of experiential learning, active experiment tenet offers strong back up to business practicum by hands-on engagement in a particular business skill, or learning through actual entrepreneurship (Hannon, 2005). This is thought evoking which can provide skill competence power for mindset change. Having the strongest effect in the research model suggests business practicum is more realistic means for effective female students' entrepreneurship. Hypothesis three result designates that entrepreneurship education programme of incubation resources has a negative and insignificant influence ($\beta= -0.035$, $t\text{-value}= -0.554$, $p < .586$) on entrepreneurial mindset of female university students. A $t\text{-value}$ of less than 1.96 at a two-tailed correspondence with the non-significance result (Hair, et al., 2020). In view of this, the null hypothesis failed to be rejected, meaning incubation resources do not influence the entrepreneurial mindset of female students in the Faculty of Management Science, University of Jos. In this case, even when female students receive advice from lecturers on starting a particular entrepreneurship career, they would not exert eagerness to translate any business skill into practice. Moreover, the female students of universities may equally utilise library resources and network opportunities provided by the institution, but would not philosophise in them the need to implement any new business motivations as soon as possible.

The result is not consistent with the findings of Mele et al., (2022) and Zreen et al., (2019) who found business incubation programmes to strongly influence the self-employment of students, and also foster intellectual capital to maintain the advancement of entrepreneurial mindsets and competencies. Additionally, opposite to Cui & Bell's (2022) findings, entrepreneurship incubation resources are less attractive because entrepreneurial resource activities such as entrepreneurship clubs,

competitions and face-to-face communication with an entrepreneur, ought to trigger the students to quickly exhibit positive entrepreneurial mindsets. The same inconsistency goes for the findings of Ali et al., (2022), who demonstrated how business incubators of business advice, training resources, network services, and technological support significantly influenced entrepreneurial mindset. Based on the divergence of findings, the female students of the faculty of Management Sciences in University of Jos are not attuned with utilising incubation resources, or there is the possibility of their non-existent in any useful form. In the same vein, there is equally a fallout of current research result with the experiential learning theory in that business incubators cannot concretise female students' entrepreneurship career.

Conclusion

The components of entrepreneurship education programme tested on entrepreneurial mindset have revealed vital findings on female students at the Faculty of Management Sciences in the University of Jos. It is summed up that universities' entrepreneurship education programme of learning activities and business practicum, unlike incubation resources are positive predictors of female students' entrepreneurial mindsets. More so, learning lowly influence mindset while business practicum moderately does the same. On the other hand, incubation resources do not affect the entrepreneurial mindset of female students. In this scenario, EEP of learning develops the female students' ability to identify opportunities, develop networks, and understand the attitude to be self-employed. More greatly, EEP of business practicum arouses female students to acquire specific entrepreneurship skills, gain perfection on them, and get motivated in ensuring the practical realisation of such skills. However, EEP of incubation resources identify advices from lecturers, library resources and networking opportunities; but not linked to mindset. With these, the study has a few limitations of using cross-sectional design, and a faculty's female students for investigation.

Recommendations

Arising from these findings, it is necessary to suggest potential actions for tracking positive entrepreneurial mindset of female students. To effectively support learning and business practicum, the development of entrepreneurship education should include innovative female domains, prioritise application over theory, and be enshrined into university curricula starting at the 100 level rather than the capstone. Also, the University of Jos entrepreneurship development centre should develop female entrepreneurship special curriculum that reinforces the external locus of control of female mindset. Based on the low predictive power of entrepreneurship education programme learning on entrepreneurial mindset of female students, the management of the University of Jos should improve on the current level of relationship by ensuring the implementation of active learning programmes ingrained business practicum. Lastly, instead of excluding the use of incubation resources by

universities for not being significant with entrepreneurial mindset of female students, its infrastructures should be overhauled to suit female entrepreneurship phenomenon of the 21st century digitalisation framework. As a result, the study model provides valuable implications for nurturing female mindset to pursue entrepreneurship career based EEP of learning and business practicum.

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