

## ENTREPRENEURSHIP SKILLS DEVELOPMENT AS PREDICTORS OF BUSINESS EDUCATION POSTGRADUATE STUDENTS JOB SECURITY IN THE ERA OF ARTIFICIAL INTELLIGENCE

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### Abstract

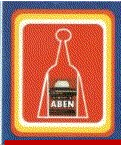
The study investigated Entrepreneurship skills development as predictors of Business education postgraduate students' job security in the Era of Artificial intelligence. Two research questions and two hypotheses guided the study. The study adopted a correlation research design. The population for the study consisted of 1108 Postgraduate Students in Public Universities in Enugu State. The sample size of 256 Postgraduate Students through multistage sampling technique was used for the study. The instrument for data collection was Postgraduate Students Entrepreneurship skills Questionnaire (PGSESQ) and Job security Questionnaire (JSQ). The instrument was subjected to face validation. The reliability index of 0.83 and 0.89 were obtained for the internal consistency of the instruments using the Cronbach Alpha method. Simple linear regression analysis to answer the research questions while regression ANOVA was used to test the null hypotheses at 0.05 level of significance. Findings showed that there was significant positive predictive power of Entrepreneurship skills on postgraduate students' job security. Further result showed that gender significantly moderate Entrepreneurship skills and job security. It was recommended that postgraduate students should adhere to technology trends and learn more skills.

**Keywords:** Artificial intelligence, Business education, job security, and Entrepreneurship skills.

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### Introduction

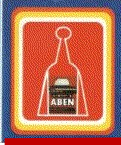
The dispensation of artificial intelligence has brought new interrogative approach to every face of human Endeavour. Artificial Intelligence (AI) is a branch of Science which deals with helping machines, find solutions to complex problems in a more human-like fashion. This generally involves borrowing characteristics from human intelligence, and applying them as algorithms in a computer friendly way. AI is a process that produces human intelligence through machines, especially computer systems. Specific applications of AI include expert systems, natural language processing, and speech recognition and machine vision. Our ability to combine knowledge from all these fields will ultimately benefit our progress in the quest of creating an intelligent artificial being. It is also concerned with the design of intelligence in an artificial device. According to Gao (2020) based on the development of computer technology, AI continues to expand and innovate. AI enables students to develop and enhance more mathematical skills and cognitive skills in learning. AI is generally associated with Computer Science, but it has many important links with other fields such as Mathematics, Statistics, biological science, and Business education among many others.



Business Education broadens and enlarges the scope of business activities through the production of expertise graduate who has the capacity of being good employees, good employers of labour or rather self-reliance so as to contribute meaningfully to the society general development. The goal of Business education programme is to create more job opportunities and job security through the education and training of it recipient on how best to use the three educational domain-cognitive, affective and psychomotor in solving real life problems. Job security is one of the greatest persuader that permits an individual to move on in life, it leads to sense of fulfillment and satisfaction when an individual understands that they are secured in whatever profession they involved themselves. When people are safe/secured then, they can seek to achieve other things so desired (Abolade, 2020). Once graduates of Business education are assured of job security especially in the area of job provision and further skill developments, they will be motivated to be the best of entrepreneurs. Security is the second fundamental needs of man as postulated by Maslow's hierarchy of needs. Langbert (2012) declared that security needs are indispensable needs, for desire, physical safety and to be free from fear of deprivation and physiological needs.

Job security to an employee means that his/her job is not threatened and that the individual will be on the job for as long as the individual wants with no feeling or reasons whether objective or subjective that he/she might lose the job. With the present situation where there are so many job layoffs, early retirement, contract staff and part-time employees, workers may not be certain that they will be in their employment for a longer period as many employers of labour now layoff their employees due to economic reasons and the inability of some workers to keep pace with the dynamic changes experienced in the universe. This situation often lead to challenges and threat to the affected workers in diverse employments who are not convinced of what might be their survival point when sacked or even when experience premature retirement, this in turn, could also affect performance of the organization. It is generally believed that once an employee on the job passes the probationary period, the need for job security quickly appears because of its importance (Abolade, 2018). The author further noted that when this is achieved, the individual becomes relaxed and complacent in a job situation. In the era of artificial intelligence where job security is not fully granted, it has become imperative for Postgraduate Business education students to consider a paradigm shift towards entrepreneurship skills development so as to be multi-operational in the economy.

Entrepreneurship skill development among postgraduate students has been advocated for by many researchers and scholars for economic development. Entrepreneurship skills development has become a cornerstone for success in the competitive landscape of the clothing and textile industry among other industries (Adeleke, 2016). Entrepreneurship skill development usually starts as a small business, but the long-term vision is much greater: to seek high profits and capture market share with an innovative new idea. Entrepreneurship in general is the ability and readiness to develop, organize, and run a business enterprise, along with any of its uncertainties, in order to make a profit. The ability to identify market trends, innovate in product design, manage resources effectively, and navigate the intricacies of a rapidly changing economy is essential for Postgraduates seeking to make a meaningful impact in their careers. Though this ability is often limited by the area at which the postgraduate found themselves. Like in the context of this study, the area under study is characterized by a blend of urban and rural economies, diverse consumer preferences, and a burgeoning market for locally produced commodities and goods. Understanding the distinctions of this regional context is crucial for tailoring entrepreneurship skill development to meet the specific demands of the various industries in the area and foster sustainable economic development. The question is could entrepreneurship skills development predict job security in AI era?



### **Statement of the problem**

Despite the evident importance of entrepreneurship skills development, there is a notable research gap in understanding how entrepreneurship skills development can serve as a predictors of job security among Postgraduate students of Business Education especially in this dispensation of AI. This is necessitated by lack of job security, constant change in job dynamics among others. This study seeks to address this gap by exploring the predictive potency of entrepreneurship skills development on job security among postgraduate students of Business education in the era of AI. The researcher is interested in seeing how Entrepreneurship skills development will predicate job security of postgraduate students notwithstanding the threat of Artificial intelligence towards job losses and job scarcity.

### **Objective of the Study**

The main Objective of the study is to determine how Entrepreneurship skills development will predicate Business education postgraduate students' job security in the era of Artificial intelligence: Specifically, the study sought to determine:

1. Predictive power of Entrepreneurship skills development on postgraduate students job security
2. Postgraduate students job security as attributed to Entrepreneurship skills development potential moderated by gender

### **Hypotheses**

1. Predictive power of Entrepreneurship skills development on postgraduate students' job security is not statistically significant
2. Postgraduate students' job security as attributed to Entrepreneurship skills development potential moderated by gender is not statistically significant

### **Methods**

Correlation research design was adopted for this study. Correlation research design according to Nworgu (2015) establishes the relationship that exists between two or more variables. This study was carried out in Enugu State. The population of the study was 1108 postgraduate students of University of Nigeria, Nsukka, Enugu State University of science and Technology and State University of Medical and Applied Sciences all from 2023/2024 academic section. The data were collected from Examination Offices of Postgraduate colleges/schools under study. The population comprises of Ph.D, M./PhD, M.Sc, and PGD with 243, 46, 546 and 275 respectively. The reason for using postgraduate students is because majority of them are working and may have being also exposed to one entrepreneurship skill development courses content in this era of AI. The sample size for the study was 331 Postgraduate Students. The sample size consist:112 Ph.D, 8 M./Ph.D, 164 M.SC/M.Ed, and 47 PGD students using Sample size Table by Cohen, Manion and Morrison, (2018). Stratified random sampling procedure was adopted for the study. The reason for using stratified random sampling technique is to avoid bias and ensure that the least among the programmes from three Public universities in Enugu State represented in the sample has an equal chance of being selected. The instrument used for data collection was Postgraduate Students entrepreneurship skills development (PSDES) and Job Security Questionnaires (JSQ) with 20 items. The instrument has section A and B. Section A elicits information on demographic variables. Section B with two cluster I and II sought information on entrepreneurship skills development questionnaires and Job Security respectively. The responses of the Postgraduate students are scored based on four (4) point rating scales with categories as follows: Strongly Agree 4 (SA),



Agree (A) 3, Disagree (D) 2, and Strongly Disagree (SD) 1 respectively. To determine the face validity for the instrument, three experts one from the Science Education (Measurement and Evaluation unit, Faculty of Education and two experts from Department of Business Education, Faculty of Vocation and Technical Education all from the, University of Nigeria, Nsukka validated the instrument. To estimate the reliability of the instruments, a trial test was conducted on 30 Postgraduate students for Nnamdi Azikwe University Awka outside the study area but with similar characteristics to the intended sample. The internal consistency reliability of the instrument was established using the Cronbach-alpha method. The reliability indexes of the two clusters were 0.83 and 0.89 for PSES and JSQ respectively. The data for this study was analyzed using regression analysis. This is because regression analysis is a statistical technique used for predicting the relationship between two or more variables Nworgu, (2015). Simple linear regression was used to answer research questions and hypotheses were tested at 0.05 level of significance using regression t- test. Statistical package for social science SPSS version 25 was used.

**Result**

1. What is the Predictive power of Entrepreneurship skills development on postgraduate students' job security

**Table 1: Regression analysis of Predictive power of Entrepreneurship skills Development on postgraduate students' job security**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
	.740 <sup>a</sup>	.547	.546	3.118

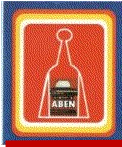
The result in Table 1 shows that the entrepreneurship skills development on postgraduate students' job security was .740. The result indicates that there exists a moderate positive relationship between Entrepreneurship skills development on postgraduate students job security. The result also revealed that the coefficient of determination ( $R^2$ ) associated with the correlation coefficient of 0.740 was .54.7. The coefficient of determination ( $R^2$ ) of .0740 implies entrepreneurship skills development accounts for 54.7% of students' job security. This shows the proportion of variance in postgraduate students' job security that can be attributed to linear relationship with entrepreneurship skills development. This is also an indication that 45.3% of the variation in postgraduate students' job security is attributed to other factors other than entrepreneurship skills development the era of artificial intelligence.

**Hypothesis one**

Predictive power of Entrepreneurship skills on postgraduate students' job security is not statistically significant

**Table 2: Regression analysis of predictive power of Entrepreneurship skills on postgraduate students' job security in the era of artificial intelligence**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3928.191	1	3928.191	404.016	.000 <sup>b</sup>
	Residual	3247.435	334	9.723		
	Total	7175.627	335			



The result in Table 2 shows that an F-ratio (404.016) with associated exact probability value of 0.000 was obtained. This probability value of 0.000 was compared with 0.05 set as level of significance for testing the hypothesis and it was found to be significant because 0.000 is less than 0.05. Hence, the null hypothesis of Predictive power of Entrepreneurship skills development on postgraduate students' job security is not statistically significant. The researcher therefore, concludes that there was significant predictive power of entrepreneurship skills development on postgraduate students' job security in the era of artificial intelligence.

- 2. What is the Predictive power of Postgraduate students' job security attributed of Entrepreneurship skills development as moderated by gender?

Table 3: PROCESS Macro summary model Predictive power of Postgraduate students' job security attributed of Entrepreneurship development skills as moderated by gender

MODEL	R	R-sq	MSE	F	df1	df2	P
SUMMARY	.7405	.5484	9.7605	134.3891	3.0000	332.0000	.0000

The result in Table 3 shows the PROCESS Macro v3.5 for moderating variable. The correlation coefficient variation of the predictive power of Postgraduate students' job security attributed to Entrepreneurship skills development as moderated by gender. The result also revealed that the correlation coefficient of between Entrepreneurship skills development and job security was .7405 and the coefficient of determination was .5484. This means that there was positive relationship between Entrepreneurship skills development and job security among postgraduate students as moderated by gender. The coefficient of determination (R<sup>2</sup>) of .5484 implies that entrepreneurship skills development accounts for 54.84 % of Postgraduate students' job security attributed to Entrepreneurship skills development as moderated by gender. This is an indication that 45.16 % of the variation in Postgraduate students' job security was attributed to other factors other than Entrepreneurship skills development as moderated by gender.

Hypothesis Two

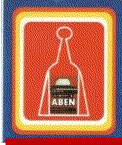
Postgraduate students' job security as attributed to Entrepreneurship skills development potential moderated by gender is not statistically significant

Table 4: Regression analysis of Postgraduate students' job security as attributed to Entrepreneurship skills development potential moderated by gender

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3828.191	1	134.3891	302.013	.0000 <sup>b</sup>
	Residual	3447.435	334	9.723		
	Total	7185.627	335			

Hypothesis two

The result on Table 4 shows that an F-ratio of 134.3891 with associated exact probability value of 0.0000 was obtained. This probability value of 0.00 was compared with 0.05 set as level of significance for testing the hypothesis and it was found to be significant because 0.00 is less than 0.05. Hence, the null hypothesis of no significant relationship was rejected. The researcher therefore, concludes that there is a significant relationship between Postgraduate students' job security and Entrepreneurship skills development as moderated by gender.



### **Discussion of the findings**

The findings of the study with respect to research question one and hypotheses one showed there exists a positive high predictive power of entrepreneurship skills development on postgraduate students' job security in era of artificial intelligence and that there was a significant predictive power of entrepreneurship skills development on postgraduate students' job security in the era of artificial intelligence. The findings was in agreement with Nkedishu (2020) who found that job security could influence workers' productivity by making workers productive on their task, give workers sense of belonging, make workers abide to school rules, reduce workers interest to leave the job and fulfill psychological need of the workers. The findings also support Al-Hyari (2023) who found that innovative leadership positively affects innovative work behaviour for private university employees and that job security mediates and positively enhances this effect.

The findings of the study with respect to research question two and hypotheses two showed there exists a positive high predictive power of entrepreneurship skills development on postgraduate students' job security in the era of artificial intelligence as moderated by gender and that there is a significant relationship between Postgraduate students' job security and Entrepreneurship skills development as moderated by gender. The findings support Sirec, et al (2012) who found that significant differences emerged among genders related to certain psychological motivation factors and social capital categories, but not human capital. Women remain an unexploited source of entrepreneurship; thus, Sirec, et ai should establish effective mechanisms to promote female entrepreneurship. Likewise the finding of Ward, et al (2019) showed that there exist mean differences between males and females' employees in entrepreneurship intentions, Subjective norm, which are higher in male, motivate them more for business and is higher than in female. Multivariate analysis shows that gender differences at the mediation level necessity-driven motives that influence males, and it thus hampers the significance of subjective norm.

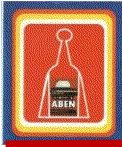
### **Conclusion**

Based on the finding of the study, the researcher concluded that entrepreneurship skills development positively predict job security even when moderated by gender among postgraduate students in the era of artificial intelligence and that there is a significant relationship between Postgraduate students' job security and Entrepreneurship skills development as moderated by gender in the era of artificial intelligence this implies that postgraduate employment comes as a result of entrepreneurship skill acquired not just the era itself. Once a person acquires the right and relevant skills he/she will invariably secure employment.

### **.Recommendations**

From the findings of the study, the following recommendations were made:

1. Postgraduate students should seize every opportunity to acquire entrepreneurships training.
2. Postgraduate students should adhere to technology trends and learn more skills.
3. Government should provide fund/ loan for postgraduate students for further professional development programmes in entrepreneurship and AI era.



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