
Entrepreneurship Education in Universities as a Credible Remedy for Graduate Unemployment in Cameroon

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Abstract

This study sought to examine the effect of entrepreneurship education in Cameroon universities on the potential of university graduates to create jobs and enterprises. The research population were post graduate students of social and management sciences of the University of Buea, the Higher Institute of Management Sciences Buea and the Biaka University Institute Buea. A sample size of 300 respondents was used for the study. The research used a structured questionnaire as the instrument of research. The questionnaire was subject to face and content validity by experts at the Information Communication Technology University, Yaoundé. A reliability test of at least 0.6 of alpha Cronbach score was acceptable and showed internal consistency. A further analysis using the Structural Equation Modelling (SEM) was carried out. The study contributes to science by highlighting that appropriate and adequate entrepreneurial education is needed in Cameroon universities to boost graduate job creation abilities, curb youth unemployment and poverty.

Keywords: Entrepreneurship education, university graduates, Job creation, postgraduate students, unemployment, poverty.

Introduction

Rising unemployment rate is a phenomenon experienced globally but which sadly is particularly acute in developing countries that have seen their job markets quickly saturated since the job seekers seem to depend mostly on their fragile governments to provide public service jobs to their populations. According to Salihu, Muhammed, and Bayero (2016) cited in Rotimi, Enimola, and Ochidi (2021) there is growing global concern about the high unemployment rates that many countries are experiencing.

The situation is not only experienced among school dropouts but is also as severe with university graduates who are frustrated that after much time, energy, and resources spent in pursuing a diploma or degree, are faced with the demon of unemployment. Njeuma et al (1999) believe the increase in graduate unemployment is due to the mismatch between the university education

received by the graduates and the labour market capability requirements; Huu et al (2022) attribute this situation to the mismatch between graduate aspirations, job requirements, and available opportunities.

Graduate unemployment is a persistent issue in many countries, including Cameroon. With a growing number of graduates entering the job market each year, there is a need for innovative solutions to tackle this problem. One potential solution lies in entrepreneurship education. This article explores the role of entrepreneurship education at the University of Buea and its potential as a partial solution to address graduate unemployment.

In Cameroon, the higher education system was conceived to provide trained cadres for senior positions in the civil service (Njeuma et al. 1999). However, the university reforms of 1971 prompted mainly by the congestion at the lone University of Yaounde failed in that it created two types of education systems, the general education structures (faculties) and professional and technological schools, that were poorly developed. The professional and technical education resulting from the reforms was very selective thus admitting small numbers of students while the massive non-selective admission into the university faculties quickly created another monster by producing “huge numbers of less qualified graduates who were not readily employable” (Njeuma et al. 1999).

According to Njeuma et al. (1999) the massive efforts made by the government of Cameroon to develop professional education were not yielding enough graduates to fill even the government positions, talk less of the private sector job market. The authors also believe that it became evident that the course of tackling the problem of high demand for university education, challenges of increasing access to professional and technological education needed to be addressed. This situation is purported by the authors to have warranted the 1993 reforms which had professionalisation of the the teaching programmes as one of its key objective.

Statement of the problem and justification

Cameroon faces challenges in generating enough job opportunities to match the increasing number of graduates. This has led to high rates of graduate unemployment and underemployment. Traditional education systems often focus solely on academic knowledge, neglecting the practical skills needed for self-employment or entrepreneurship.

Every year universities in Cameroon produce thousands of graduates that flood the job market. However, the job market is not inelastic to absorb all the graduates each year and for the foreseeable future. This creates a problem in the society as thousands of these graduates are not gainfully unemployed and even those who are actually employed, some seem to be underemployed. Unemployment of the youth is both an economic and a social problem that any nation must seek to solve as the youth constitute the future and a vital work force of every nation.

The number of graduates from the universities is not matched with available jobs and despite the measures taken by government to facilitate the creation of jobs by youths in general, and

graduates in particular, graduate unemployment appears to be still very high. Most Cameroon youths and graduates have not had, and do not have access to entrepreneurship education and training. Cameroon schools and universities do not seem to have the requisite material and human resources to effectively dispense entrepreneurship education. Also graduate unemployment has increased due in part to the mismatch between the university education received by the graduates and the labour market capabilities required (Njeuma et al. 1999).

Yet the Global Entrepreneurship Monitor (GEM) (2014) reports that the government of Cameroon has consecrated entrepreneurship as an important vector for development and job creation. GEM (2014) also points out that since the government's consecration of entrepreneurship as vector for economic development and job creation, entrepreneurship education is gaining grounds in institutions of learning with the hope of inculcating the enterprising spirit in learners but also to help nascent entrepreneurs to manage their enterprises. In the same vein, and in order to fight youth unemployment, the Cameroon of government in its Poverty Reduction Strategy Paper (PRSP) and Growth and Employment Strategy Paper (GESP) places much emphasis on job creation and self-employment especially for youth entrepreneurs (IMF, 2010).

The consequences of this graduate unemployment are many including migration, increase crime, economic poverty, sex commercialization, and general insecurity as the graduates reject and resent the older people as those responsible for their economic and social woes. The situation thus warrants a remedy. A possible remedy could be entrepreneurship education in tertiary education that would transform future graduates into job creators instead of job seekers.

However, the question is can the teaching of entrepreneurship education in Cameroon universities enable the graduates create jobs and hence alleviate the ills caused by unemployed or underemployment?

Aim of study

The aim of this research is to investigate the role of entrepreneurship education in reducing graduate unemployment rates. The study also aims to assess the effectiveness of entrepreneurship education programmes in equipping graduates with the necessary skills, mindset, and resources to start their own businesses or contribute to entrepreneurial ecosystem within existing organisations.

Research questions

- What is the relationship between entrepreneurship education and graduate job creation?
- Is there a significant relationship between entrepreneurship education and graduates' self-employment potential?

Literature Review

The concept of Entrepreneurship Education.

Entrepreneurship education seems to derive its roots from the reasoning of Drucker (1985) who stated that ‘most of what you hear about entrepreneurship is all-wrong. It is not magic; it is not mysterious; and has nothing to do with genes. It is a discipline and like any discipline, it can be learned.’

Rotimi, Enimola and Ochidi (2021) assert that entrepreneurship education can be considered as the guidance given to groups or individuals to facilitate the improvement of their natural entrepreneurial abilities, gain the expertise, abilities, behaviours and values needed to start successful ventures in their vicinities and make a decent living. In the view of Ebele (2008) entrepreneurship education is the teaching of knowledge and skill that enable future graduates to plan, start, and run their own enterprise.

Swartl and (2008) opines that entrepreneurship education seeks to stimulate creativity in students, enabling them to identify opportunities for innovation and drive same to transform the ideas into practical and targeted activities in the social, cultural or economic context. Hansemark (1998) postulates that entrepreneurship education is a model for transforming attitudes and motives. Raposo and Paço (2011) state that EE desires to make people, especially young people, to be more enterprising individuals as entrepreneurs or entrepreneurial thinkers that contribute to economic development and sustainable communities.

The Consortium for Entrepreneurship Education (2008) argues that entrepreneurship education is not all about teaching someone to run a business but it is also about encouraging creative thinking and fostering a strong sense of self-worth and empowerment. In this light, Holmgren et al. (2004) state that beside knowledge and skills in business, entrepreneurship education is primordially about the development of beliefs, values, and attitudes which aim to drive the students to consider entrepreneurship as an attractive and valid alternative to paid employment or unemployment.

The concept of Graduate unemployment/underemployment

According to Gbosi (2016), unemployment is a situation in which people who are willing and available to work are unable to find jobs. This includes all people who are 15 years old and above, who are without work, although they are available and actually actively searching for work (Barker, 2017). The ILO (2003) defines unemployment as a situation where persons within the age limits specified for measuring the economically active population are without work (are not in paid employment or self-employment as specified by the international definition of employment); currently available for work (are available for paid employment or self-employment during the reference period); and seeking work (had taken specific steps in a specified recent period to seek paid employment or self-employment).

According to the ILO (2012) “unemployment occurs in a situation in which there is an excess of job seekers (labour demand) in relation to the actual number of available job offers (labour supply). The ILO (2012) asserts that in developing countries, unemployment is a concept that mainly refers to the formal labour market, which is often smaller than the informal one, sometimes significantly so”.

Meanwhile, graduate unemployment refers to a circumstance in which people with higher education qualifications are physically and mentally prepared (Rotomi, Enimola & Ochidi, 2021) to work at any given wages and conditions of service but are unable to find work. The graduate unemployment problem, according to Salihu, Muhammed, and Bayero (2016) cited in Rotomi, Enimola, and Ochidi (2021), is a global phenomenon by which those capable to work are unable to find work. Graduate unemployment is both a serious economic and social problem. The consequences of unemployment are social unrest, increased crime, illegal migration, sex commercialization, and a general unstable socioeconomic environment. Ajufo (2013) opines that desperation could drive many people into committing crimes as a means of survival or as a means of expressing their dissatisfaction to what they believe to be a neglect of their existence. There are four types of unemployment, frictional unemployment, cyclical unemployment, and structural unemployment.

Frictional unemployment is also called transitory unemployment, search unemployment or wait unemployment. The ILO (2012) refers to this kind of unemployment as indication of those unemployed who are transitioning between jobs. Frictional unemployment is caused largely by an information asymmetry that operates in the market and is the result of a mismatch between labour supply and demand.

Cyclical unemployment also known as Keynesian unemployment refers to a situation where the number of job seekers are more than the number of jobs available at the prevailing wage rates. Keynesian unemployment is caused by a lack of effective demand for goods and services (ILO, 2012).

Structural unemployment, according to ILO (2012), refers to a situation where there is a mismatch between jobs offered and jobs needed, that is caused by a disparity between skill levels, geographical location, sectoral shifts in the production pattern of a country and other similar structural factors. For the ILO (2012) the most common prescription for structural unemployment are policies and interventions that address the relevant structural constraint, such as skills development, labour mobility, and proper dissemination of information in the labour market.

Theoretical literature review

This research is guided by the need of achievement theory, and the innovation theory of entrepreneurship.

The Need for Achievement Motivation theory of Entrepreneurship

The need for achievement theory was propounded by McClelland, a proponent of the psychological theory of entrepreneurship, in 1961. McClelland sought to explain why some societies are more economically successful than others. The theory purports that individuals in society have a need to succeed, accomplish, excel, or achieve. According to McClelland, entrepreneurs are usually driven by this need to achieve and excel. This theory states that people desire to achieve something for their inner feeling of accomplishment or self-esteem. McClelland (1961) asserted that entrepreneurs do things in a new and better way and make decisions under uncertainty. He also opines that entrepreneurs are characterized by a need for achievement or an achievement orientation, which is a drive to excel, advance, and grow. McClelland argued that the need for achievement is partially culturally determined with some societies producing fewer individuals with achievement orientations. Societies lacking in achievement-oriented individuals are expected to have lower average incomes.

McClelland was of the opinion that entrepreneurship can be learned and that the teaching of entrepreneurship should be encouraged. It is this inner drive to achieve that is to be inculcated into students to inspire in them the motivation to innovate, and pursue self-employment.

Innovation theory of entrepreneurship

Schumpeter (1934) described an entrepreneur as a driver of market-based system, that is, an entrepreneur is an important function of an enterprise to create something new (innovate) which results in processes that served as impulses for the motion of the market economy. Schumpeter proposed the addition of the concept of innovation to the ability to take calculated risks and organising factors of production as a major factor of entrepreneurship. To him, entrepreneurship is an innovative or creative activity, as a result, anyone who innovates or brings new products or services into the economy could be given the status of an entrepreneur. Schumpeter also considered an entrepreneur as the “engine of growth who sees the opportunity for introducing new products, new markets, new sources of supply, new forms of industrial organization or for the development of newly discovered resources”. The concept of innovation as introduced by Schumpeter has five main functions which are: the introduction of a new product with which consumers are not yet familiar or the introduction of a new quality of an existing product, the introduction of a new method of production that is not yet tested by experience in the branch of manufacture concerned, which need by no means be founded upon a discovery scientifically new and can also exist in a new way of handling a commodity commercially, the opening of a new market that is a market on to which the particular branch of manufacturer of the country in question has not previously entered, whether or not this market has existed before, the conquest of a new source of supply of raw material and the carrying out of the new organisation of any industry.

In explaining the economic functions of an entrepreneur, which are to innovate and carry out new combinations, Schumpeter put the human agent in the middle of the process of economic development. He also distinguishes between an innovator and an inventor where an inventor is

considered as one who discovers new methods and new materials while the innovator on the other hand is one who uses or applies inventions and discoveries to be able to make new combinations. This distinction limits an inventor to the technical function of invention contrary to the entrepreneur who turns the technical work into economic performance. Thus the innovator does not just end at invention like the inventor but goes much further than the inventor by exploiting the invention commercially.

In his theory of innovation, Schumpeter describes individuals motivated by a will for power, as entrepreneurs. These are individuals whose special characteristic is having an inherent capacity to select correct answers, energy, will, and mind overcoming fixed talents of thoughts, and a capacity to withstand social opposition.

The spirit of innovation and creativity could be aroused in students to make them entrepreneurs than job seekers.

Hypothesis Development

Entrepreneurship Education and its effect on graduate unemployment reduction

Rotimi, Enimola and Ochidi (2021) opine that EE could enhance a reduction in graduate unemployment rate by stimulating critical thinking in students but they stressed that there was a challenge in the EE practical activities which very often instead of developing entrepreneurial skills and aptitudes in students tends towards vocational skills. This implies that EE should be well taught and mentored to prevent it from becoming a tool that stimulates vocational skills that the entrepreneurial skills it is meant to develop. Agwu (2019) states that entrepreneurship education can help reduce graduate unemployment by educating, motivating, developing and empowering of students as entrepreneurs.

UNESCO (2005) opines that graduates should be able to make successful transition from school to work based on the knowledge and skills acquired in University. This is not the situation in Cameroon as there seems to be a bitter or rocky transition from undergraduate to graduate unemployment. University graduates instead of getting descent and career oriented jobs are driven to frustration and desperation after many years of fruitless job searches mainly because their education and knowledge does not meet the demands of the job market (Agwu, 2019)).

In Cameroon, Entrepreneurship Education (EE) was first introduced in the department of Economics and Management of the University of Buea in 2007 even before there was the talk of professionalising higher education in Cameroon in 2009 (Forje, 2021). This has generated the need for entrepreneurship specialist lecturers who seem to be in short supply since universities seem to compete with the corporate world for these specialists. However, Bilola and Doh (2016) note that higher education is expected to address graduate employment but concluded that the way professionalization is implemented in Cameroon it cannot reduce graduate unemployment.

It would be interesting to assess graduate's self-employment or job creation abilities and drives after all these years of entrepreneurship education in Cameroon universities.

This study therefore hypothesizes that entrepreneurship education impact entrepreneurial skills in students to help reduce graduate unemployment in Cameroon.

Entrepreneurship Education and Graduate self-employment

According to Agwu (2019), entrepreneurship education (EE) empowered students through training to become self-employed and sharpened their abilities in identifying lucrative opportunities for entrepreneurship and self-reliance. On their part Premand, Brodmann, Almeida, Grun and Baroumi (2016) posit that entrepreneurship education stimulates the desires of students to choose self-employment after graduation. This desire Agwu (2019) asserts EE helps in graduate self-employment as most entrepreneurial intentions of students are transcribed into entrepreneurial actions. This he concluded after studying some 150 ex-students of some four universities in Nigeria who were running their own businesses.

The aim, according to Swartland (2008) is for entrepreneurship education to stimulate creativity in students, enabling them to identify opportunities for innovation and drive same to transform the ideas into practical and targeted activities in the social, cultural or economic context.

From the foregoing this study hypothesises that entrepreneurship education has a positive relationship with self-employment of graduates.

Conceptual Framework

The relationship between entrepreneurship education can be conceptualized as in figure 1 below where it is hypothesized that EE leads to the acquisition of knowledge, skills and attitudes that lead to employment and graduate self-employment which help to reduce unemployment of graduates.

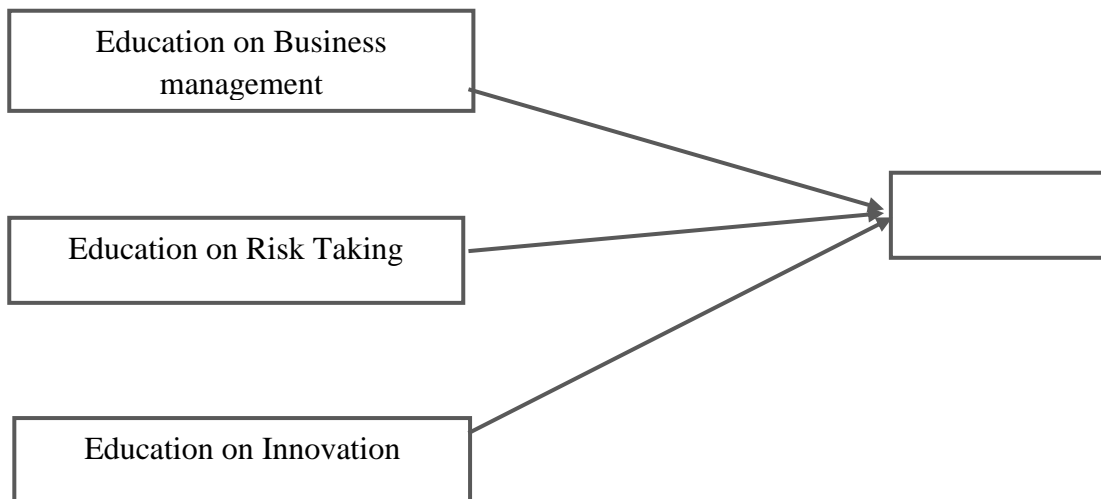


Figure 1: Conceptual model

Methodology

A conclusive study designed was adopted (Yin, 2009) to conduct a survey among recent graduates to gather data on educational background, employment status and perception of entrepreneurship education. This was supported by philosophical orientations of positivist epistemology objectivism ontology (Smith, 2013), and value-free axiology. Primary data was collected using structured questionnaires and use was made of a Likert scale to collect information on their employment status, satisfaction, confidence in starting a business, and perceived impact of entrepreneurship education on their job creation prospects. A questionnaire was administered and responses on a sample of 300 (n=300) recent graduates was collected using the 5 Likert Scale of Strongly Agree (SA), Agree (A), Neutral (N), Disagree (D), and Strongly Disagree (SD). In our analysis, SD=1, D = 2, N =3, A =4, SA = 5. The proceeded to calculate the Mean as a measurement of central tendency. All the responses were imputed on an SPSS worksheet, and AMOS 24 for further analysis.

A purposeful and stratified sampling technique was used to select recent graduates across different fields of study, and educational institutions. The data was analysed using descriptive statistics allowing for the examination of employment rates, business startup rates, and perceived impact of entrepreneurship on reducing graduate unemployment (employability).

The data was cleaned using Exploratory Factor Analysis (EFA) and Confirmatory factor Analysis (CFA). The reliability test of the research instrument was conducted using alpha Cronbach to ensure an alpha Cronbach > 0.6. Also constructs were tested for validity using the construct validity test ensuring that the Average Variance Expected (AVE) is > 0.5. Parametric assumptions test for model fitness were conducted. The test included test for outliers for linearity using the box plot method, test of Multicollinearity assumption to test the uniqueness of the independent variables from each other, correlation of the independent variables to make sure they are significantly small ensuring singularity, and Multivariate Normality; a Shapiro - Wilk P-value > 0.5 meant the researcher could proceed with further analysis. Structural equation Modeling was done based on the goodness of fit parameters.

Results

The findings are presented in three parts: descriptive that present the profiles of sampled participants, the measurement model and the structural model used to verify hypothesis. This subsection ended with the discussion of the findings in that order.

Table 1: Profile of Respondents

	Variable	Frequency	Percent
Gender	Male	104	34.4
	Female	196	65.3
	Total	300	100.0
Age Group	31-40 years	80	26.7
	21-30 years	196	65.3
	41 plus	25	8.0
	Total	300	100.0
Highest level of education	Bachelor’s degree	248	82.7
	Masters	40	13.3
	PhD	12	4.0
	Total	300	100.0
Duration of organization	0-5 years	220	73.3
	6-10 years	68	22.7
	11 plus	12	4.0
	Total	300	100.0
Stage of the business	Startup stage	180	60.0
	Maturity	120	40.0
	Total	300	100.0

As evident in Table 1, the respondents were predominantly females, with females making up 65.3% (n=196) of the respondents, while men accounted for 34.4% (n=104). The majority of the participants were between the ages of 21-30 years (65.3%, n=196). Those aged 31-40 years made up 26.7% (n=80) of the sample, while participants aged 41 and above constituted 8.0% (n=25). In terms of highest level of education, most of the participants held a Bachelor’s degree (82.7%, n=248). A smaller proportion had a Master’s degree (13.3%, n=40), and a minority held a PhD (4.0%, n=12). As to the duration of Organization, a significant majority of the organizations were in operation for 0-5 years (73.3%, n=220). Organizations with a duration of 6-10 years made up 22.7% (n=68) of the sample, and those in operation for 11 years or more constituted a small fraction (4.0%, n=12) and majority, 60.0% (n=180) of the businesses were in the startup stage, while 40.0% (n=120) were in the maturity stage.

Inferential Results

This paper assessed entrepreneurship education in universities as a partial panacea for graduate unemployment in Cameroon. The study specifically examined the effects of Education on Business Management (EMB), Education on Risk Taking (ERT) and Education on Innovation on job creation/employment (JCE). To achieve, the measurement model and structural model were used as required by the partial least square Structural Equation Modelling (PLS-SEM) and the findings are presented in the ensuing paragraphs.

Assessment of Measurement Model

The first model assessed was the measurement model which researchers using PLS-SEM use to assess the quality of the constructs before verifying the study hypothesis. The value of structural equation modelling is partly due to its ability to assess the data carefully before making generalization. Hair et al., (2017) stated that measurement model assessment ascertains that the constructs used are reliable and valid and therefore provide support for the suitability of their inclusion in the path model (Hair et al., 2017). In this study the measurement model was assessed by examining the indicator reliability, composite reliability, convergent validity (AVE) and discriminate validity (Fornell-Larcker and HTMT criterions).

Although factor loadings over 0.7 is the desirable, Vinzi et al., (2010) revealed that in social sciences, researchers frequently attained weaker outer loadings. In this study, the first factor loadings results showed somewhere below the acceptable. Thus, items with outer loadings from 0.40 to 0.70 were considered for deleting to improve on the factor loadings but this was only done if other tests showed factors poor values and removing them will further improve the measurement model reliability and validity. Rather than automatically eliminating indicators, the effects of the removal of the item on composite reliability, content, and convergent validity shall be examined was examined. As recommended, Reliability (CR) or Average Variance Extracted (AVE) over the recommended value (Hair et al., 2016). In this study, removal of the items (JCE1 =0.614, JCE2 = 0.525, JCE3=0.284, JCE4 =0.024, JCE5 =0.459(job creation), ERK7=0.502, ERK2 =0.581, ERK6= 0.513(ER)). This was done given that EVA for EI = 0.448, ERK= 0.372 and JCE =0.333 which were all below the acceptable minimum 0.500 recommended threshold. The factor loadings were examined for all the construct according to Hair et al., (2010), the minimum acceptable values for factor loadings is 0.50 and other researchers like (Neves & Silva, 2023) also stated that the desirable values should be over 0.71.

Reliability was assessed using Cronbach's alpha, rho_a, and composite reliability; with recommended acceptable levels being values greater than 0.7 as suggested by (Sarstedt et al., 2020). From Table 1, the constructs of the study, namely EBM, EI, ERK, and JCE, demonstrated strong internal consistency as evidenced by Cronbach's Alpha values all exceeding the 0.7 threshold. This was further corroborated by the Composite Reliability measures (rho_a and rho_c), which also surpassed the 0.7 benchmark. Moreover, the Average Variance Extracted (AVE) for each construct was above 0.5, indicating satisfactory convergent validity. These results collectively affirm the reliability and validity of the constructs used in this research. The study obtained Cronbach's alpha, rho_a and composite reliability greater than 0.7 for all the constructs after dropping the indicators with poor loadings, hence indicating a good reliability (Henseler et al., 2016). To assess convergent validity, Average variance extracted (AVE) was used. Each construct in this study measured a high AVE (AVE > 0.50) all presented on Figure 2 and Table 2.

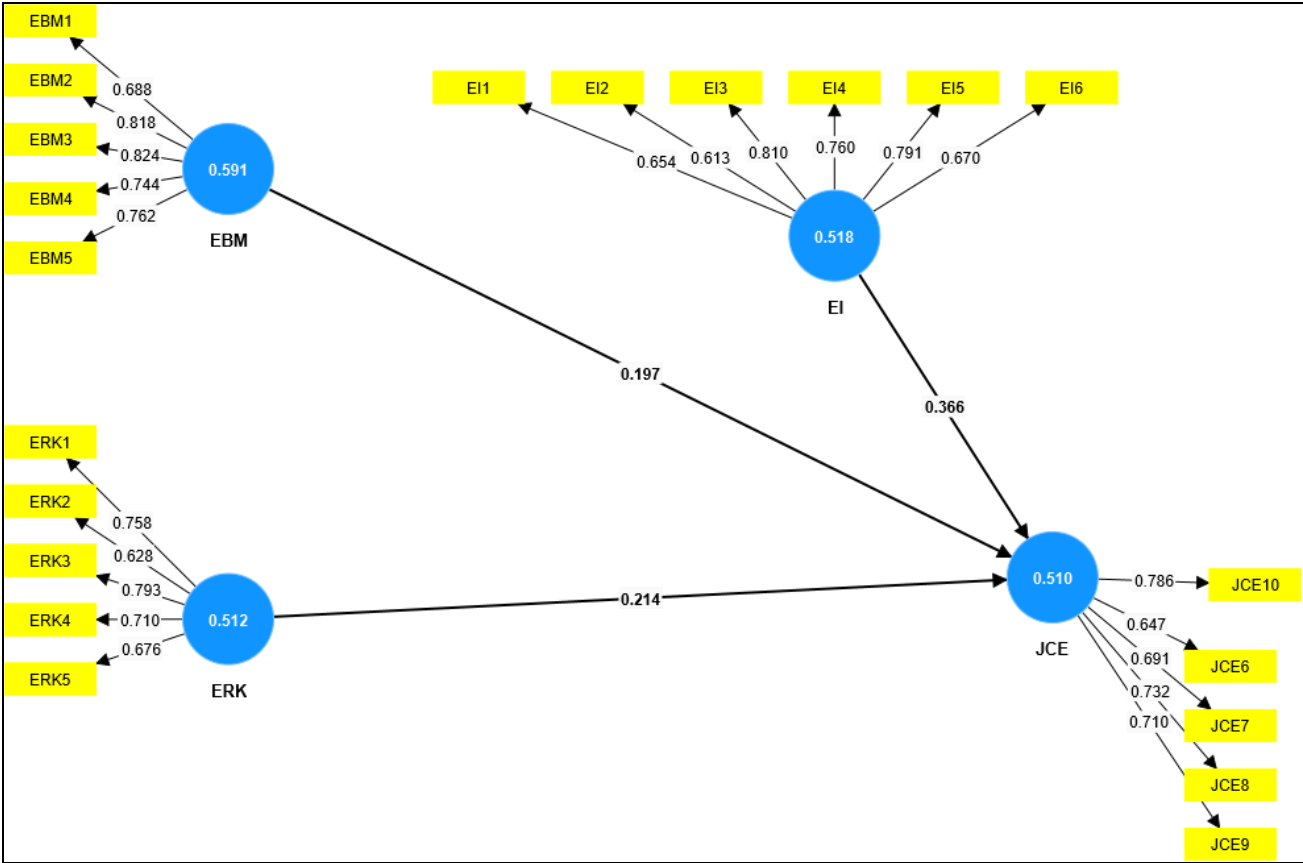


Figure 2: The Measurement Model with factor Loadings and AVEs

Table 2: Reliability and Validity Analysis

Construct	Indicators	Loadings	Alpha	Rho_A	CR	AVE
Education on Business Management (EBM)	EBM1	0.688	0.829	0.847	0.878	0.591
	EBM2	0.818				
	EBM3	0.824				
	EBM4	0.744				
	EBM5	0.762				
Education on Risk Taking (ERT)	ERK1	0.758	0.760	0.771	0.839	0.512
	ERK2	0.628				
	ERK3	0.793				
	ERK4	0.710				
	ERK5	0.676				
Education on Innovation (EI)	EI1	0.654	0.817	0.838	0.865	0.518
	EI2	0.613				
	EI3	0.810				
	EI4	0.760				
	EI5	0.791				
	EI6	0.670				
Job Creation	JCE10	0.786	0.759	0.761	0.839	0.510
	JCE6	0.647				
	JCE7	0.691				
	JCE8	0.732				
	JCE9	0.710				

Note: CR=composite validity, AVE = Average variance extracted

Discriminant Validity Assessment

This research paper evaluated discriminant validity using three methods: the Heterotrait-Monotrait ratio (HTMT) Matrix, the Fornell-Larcker criterion, and Cross loadings. The Fornell and Larcker criterion, as outlined by Farrell & Rudd (2009) was utilized. According to this criterion, discriminant validity is confirmed when the square roots of the Average Variance Extracted (AVE) are all larger than their corresponding correlation values (Latif et al., 2023). This condition was met in the study. In addition, all the Heterotrait-Monotrait ratio (HTMT) values were below the conservative threshold of 0.85 (Table 3), further supporting the discriminant validity. The cross loadings, as shown in Table 4, also aligned perfectly with their respective constructs, reinforcing the validity of the results.

Table 3. Heterotrait-Monotrait ratio (HTMT) – Matrix and Fornell-Larcker criterion

	EBM	EI	ERK	JCE
EBM	0.769	0.380	0.748	0.539
EI	0.342	0.720	0.284	0.575
ERK	0.579	0.231	0.715	0.540
JCE	0.446	0.483	0.412	0.714

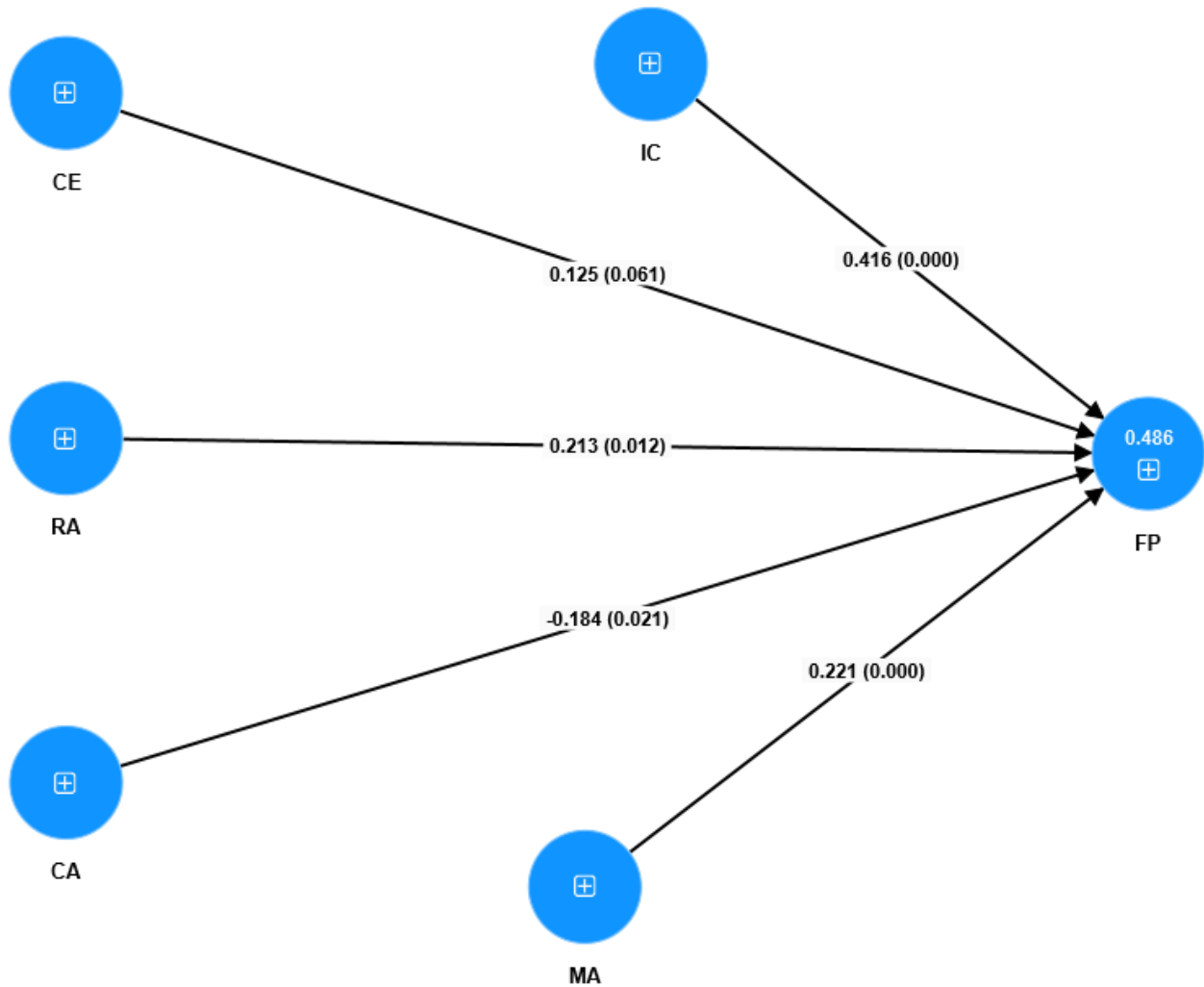
Note: Diagonal and bold are the square roots of AVE, above the diagonals and italicised are the HTMT values and below the diagonal are the correlations of the constructs

Table 4: Cross Loading

	EBM	EI	ERK	JCE
EBM1	0.688	0.190	0.425	0.231
EBM2	0.818	0.241	0.432	0.316
EBM3	0.824	0.275	0.466	0.382
EBM4	0.744	0.335	0.430	0.430
EBM5	0.762	0.228	0.480	0.289
EI1	0.185	0.654	0.097	0.264
EI2	0.152	0.613	0.055	0.149
EI3	0.298	0.810	0.096	0.425
EI4	0.301	0.760	0.192	0.384
EI5	0.311	0.791	0.290	0.408
EI6	0.162	0.670	0.201	0.335
ERK1	0.376	0.206	0.758	0.342
ERK2	0.557	0.236	0.628	0.250
ERK3	0.355	0.134	0.793	0.323
ERK4	0.416	0.123	0.710	0.278
ERK5	0.411	0.133	0.676	0.270
JCE10	0.372	0.348	0.334	0.786
JCE6	0.282	0.420	0.213	0.647
JCE7	0.228	0.329	0.400	0.691
JCE8	0.274	0.274	0.315	0.732
JCE9	0.422	0.349	0.211	0.710

Structural Model

The structural model was used to ascertain the effects of the three constructs on job creation.



Hypothesis Testing

The bootstrapping technique was explored to examine the path of the models and to verify the hypotheses of this paper using Smartpls 4.9.9 version. To ensure that the constructs were ideal, multicollinearity and the common method bias were assessed using Variance Inflation Factor (VIF). The VIF values for education on Business Management (EBM), Education on Risk Taking (ERT) and Education on Innovation on job creation and employment (JCE) are all below 5 indicating the absence of multicollinearity. Common method bias refers to the amount of spurious covariance shared among variables due to the measurement method used, rather than the constructs the measures represent. Lower VIF values (less than 5) indicate less redundancy among the predictor variables, suggesting that the measures are capturing distinct constructs and that common method bias is unlikely to be a significant issue.

Table 5: Common Method Assessment using VIF

	VIF
EBM -> JCE	1.592
EI -> JCE	1.341
ERK -> JCE	1.759

The model’s R-square value for this study was 0.353 and this showed that nearly half (35.3%) of the variability in job creation/employment is accounted for the predictors in the model (Education on Business Management, Education on Risk Taking, Education on Innovation) while 51.4% is accounted for by other factors not included in this model(see Table 6).

Table 6: Combined effect of Internal control on Fraud Prevention

	R-square	R-square adjusted
JCE	0.353	0.344

Verification of hypothesis

The study was guided by three hypotheses.

Table 7: The effect of Entrepreneurship Education on Graduate unemployment

Hypotheses	Coef(β)	T statistics	P values	Remark
Education on Business Management (EBM) -> JCE	0.196	2.225	0.026	significant
Education on Innovation (EI) -> JCE	0.368	7.569	0.000	significant
Education on Risk Taking (ERT) -> JCE	0.214	2.541	0.011	significant

The main objective of this study was to ascertain if entrepreneurship education in universities is a partial panacea for graduate unemployment in Cameroon. This was pivot on the high rate of unemployment in the country and universities have been urged to institute entrepreneurship courses to students especially at the master’s level. The study specifically examined the effects of Education on Business Management, education on Innovation, education on Risk Taking (ERT) on job creation/employment. The bootstrap analysis of 5000 samples, the current study found that education on Business Management has a positive and significant effect on and Job Creation/employment of graduates ($\beta = 0.196, t= 2.225, p= .026$), hence, H1 was supported. This implies that education on business management increases students’ ability to create job via entrepreneurship and also create jobs. Also, the study assessed the effect of Education on Innovation on Job Creation/employment of graduates revealed a positive and significant effect ($\beta = 0.368, t= 7.569, p < .001$). A strong positive correlation was found indicating a highly significant relationship.

Finally, the third objective examined the effect of education on risk taking (ERT) Job Creation/employment and the findings showed that education on risk taking was a significant predictor of Job Creation/employment ($\beta = 0.214$, $t = 2.541$, $p = .01$).

Discussion

This study assessed the role of education on Business Management as a dimension of entrepreneurship education in the universities and the results revealed that education on Business management has positive and significant effect on graduates' job creation/employment. This study specifically uncovered that when students are taught on how to manage business finances such as confident in their budgeting, forecasting, and cash flow management, the skills to be persistence in business and overcoming setbacks to ensure the business succeed, how to build and management relationships with customers, suppliers, and other stakeholders in their business, this tend to have a positive significant effect on their ability to create business as well new job opportunities to provide employment for others. The current findings align with Agwu (2019) who stated that entrepreneurship education can help reduce graduate unemployment by educating, motivating, developing and empowering of students as entrepreneurs. The findings postulated that education on business management offers the much-needed skills to start, manage and run business with skills such as (e.g., market analysis, financial management, business plan development) needed to launch and sustain ventures, directly contributing to job creation(Chen et al., 2019). The analytical frameworks and data-driven approaches taught in Business Management programs can empower graduates to identify and navigate business opportunities, leading to increased venture creation and job generation (Kuratko et al., 2015) and ability to network building and access to resources. The findings point to the need to review the content of what is taught in entrepreneurship courses and the dimension of business management is critical and relevant for students to be able to become entrepreneurs and also create jobs for themselves and others.

Furthermore, this study also found that the effect of Education on Innovation on Job Creation/employment of graduates is positive and significant effect with a strong positive correlation. From the indicators of the study, it was deduced that educating students on innovation equips them with the right knowledge on how to be innovating their businesses, offer them the skills and mindset to think critically, solve problems, and generate new ideas. The current findings are not ex nihilo as the results are consistent with the studies of Jaaffar et al., (2024) and also Mian et al., (2022) who observed that as individuals receive higher levels of education, they are more likely to engage in innovative activities and contribute to the development of new products, services, and processes. The findings are accorded with Jaaffar et al., (2024) who just recently concluded that innovative behavior was a direct result of an innovative mindset and that this produced high performance with competitive advantage. Innovation plays a crucial role in job creation by driving economic growth and creating new industries and markets. Innovative ideas and technologies often lead to the development of new businesses and the expansion of existing ones, resulting in the creation of new job opportunities. Moreover, innovative individuals are more likely to become entrepreneurs and start their own ventures, contributing to job creation in the economy. Education plays a vital role in nurturing

and developing this ability by encouraging critical thinking, creativity, and problem-solving skills (Bonvillian& Sarma, 2021).

The effect of education on risk taking (ERT) Job Creation/employment showed that education on risk taking was a significant predictor of Job Creation/employment. The findings corroborated of (Urbano et al., 2019) that risk enhanced entrepreneurial ventures. This case, they stated that education on risk taking fosters the identification and pursuit of opportunities, equipping graduates with the confidence and skills to launch their own businesses or ventures, directly contributing to job creation. This is accentuated by (Hernández-Sánchez et al., 2019) who posited that ERT cultivates analytical skills and a tolerance for ambiguity, enabling graduates to make calculated decisions in dynamic environments, leading to the exploration of innovative career paths or the creation of novel solutions within existing organizations. The students are offered the ability to create novel solution, embrace risks and navigate setbacks which are pivotal to the success of entrepreneurs(Cera et al., 2020).

Conclusion

This study examined the role of entrepreneurship education in universities as a partial panacea for graduate unemployment in Cameroon. The study used quantitative approach with data collected using questionnaire administered to graduates who have undertaken entrepreneurship education in the university. The study used the PLS-SEM and the bootstrapping technique to verify the hypotheses of the study. Based on the analysed and discussion so far, the role of entrepreneurship education is evident that education significantly influences job creation and employment rates among graduates contributing close to 34.4% variation in job creation/employment. The study showed that of business management education, innovation education, and risk-taking education as critical dimensions of entrepreneurship education and they predict job creation.

Specifically, the study concluded that business management education equips students with essential skills such as budgeting, forecasting, cash flow management, persistence, and relationship building. These skills not only enhance their ability to start and manage businesses but also contribute to job creation and economic growth and this affirmed the positive impact of business management education on entrepreneurship and job creation with previous studies. Also, Innovation education also plays a pivotal role in job creation. By fostering critical thinking, problem-solving, and idea generation, innovation education prepares students to engage in innovative activities and contribute to the development of new products, services, and processes. Lastly, education on risk-taking fosters the identification and pursuit of opportunities, thereby equipping graduates with the confidence and skills to launch their own businesses or ventures, directly contributing to job creation.

Thus, this study reaffirms the critical role of education in fostering entrepreneurship and job creation among graduates. It underscores the need for a holistic approach to entrepreneurship education, encompassing business management, innovation, and risk-taking. By doing so,

universities can better prepare students to become successful entrepreneurs, thereby contributing to job creation and economic growth.

Recommendations

Based on the conclusion of the study, the following are the key recommendations:

The findings of this paper offered 4 key recommendations.

The importance of entrepreneurship education in the universities cannot be overemphasized and so there is a need to adopt a holistic approach to entrepreneurship Education. This study recommended that universities should adopt a comprehensive approach to entrepreneurship education that encompasses critical dimensions such as business management, innovation, and risk-taking. This will ensure that students are equipped with a broad range of skills necessary for successful entrepreneurship.

Also, the study uncovered the need for continuous review and improvement to course content. For the entrepreneurship education to remain relevant, universities must ensure that the course content needs are reviewed on a continuous bases and improve to ascertain it remain relevant given the fast-paced changes in the business world fostered by technology and AI driven solutions. This could involve regular curriculum reviews, incorporation of emerging trends in entrepreneurship, and feedback from industry stakeholders.

The study further recommends the need for the promotion of innovation education for students of entrepreneurship. Given the significant effect of this on job creation, this study culminated that given the strong correlation between innovation education and job creation, there is a need to promote innovation education as this foster critical thinking, creativity, and problem-solving skills if included in the curriculum.

Lastly, prioritization of Entrepreneurship Education is needed. Education institutions, policymakers, and stakeholders should prioritize entrepreneurship education as a strategic tool for promoting job creation and economic development. While universities tend to give limited time to entrepreneurship courses, there is need to add the time, revise the curriculum and bring in practitioners to education, motivate and empower the students and at the same time increased funding for entrepreneurship programs, policy support, and partnerships with industry stakeholders. By implementing these recommendations, universities can better prepare students to become successful entrepreneurs, thereby contributing to job creation and economic growth.

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