

## ASSESSING THE ROLE OF FORMAL EDUCATION IN PROMOTING ENTREPRENEURSHIP

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### ABSTRACT

Entrepreneurship has been an economic tool for many governments, especially those facing unemployment challenges. Ghana is facing high unemployment among its youth. Various administrations have implemented policies, including the National Youth Employment Program and the YouStart Program, to solve the unemployment challenge. These initiatives, however, have yet to solve unemployment. This study examines the role of formal education in fostering entrepreneurship. Data were collected using a quantitative approach through a structured questionnaire survey administered to 140 entrepreneurs in Ghana's Sunyani Municipality. The data were analyzed using SPSS version 25. Correlational analysis was performed to examine the relationship between formal education and entrepreneurial performance. The study findings show that entrepreneurial-based education, not only formal education, helps graduates successfully establish and operate their own businesses. This contributes immensely to reducing unemployment. The results also reveal a weak positive correlation between formal education and entrepreneurial performance; however, the observed correlation was not statistically significant. Thus, formal education may influence entrepreneurial performance, but other variables may have a greater influence. The implications of these results highlight the importance of equipping students with entrepreneurial knowledge and skills to help them succeed as entrepreneurs. This can boost economic growth and lower unemployment. The study's implications go beyond Ghana, as many nations struggle with unemployment. Findings from this research would drive policy-making and educational restructuring efforts to promote entrepreneurship and reduce global unemployment. The authors recommended modifying the existing educational curriculum to include more emphasis on entrepreneurship education, spanning from primary to higher education levels.

**KEYWORDS :** entrepreneurship; formal education; entrepreneurial skills acquisition, correlation; Ghana

**JEL CLASSIFICATION :** L26, M10, I23

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### INTRODUCTION

From time immemorial, man's survival instinct has been noted to be the most significant trigger for the establishment of enterprises across the globe. Even before the supposed first use of the word "entrepreneur" and its associated concepts in 1755 by Richard Cantillon in his highly celebrated work entitled *Essay on the Nature of Commerce in General*, its further adoption and landmark appearance in Jean-Baptiste Say's *A Treatise on Political Economy* in 1821, and its popularization by John Stuart Mill in his essay on the *Principles of Political Economy* in 1848, entrepreneurship activities, which include buying and selling, production and consumption, risk bearing and profit maximization, as well as ownership of factors of production and its appropriation, characterized the

persisting form of human relations in the pre-social contract era. The entrepreneur, being a member of the human species, has historically existed since ancient times, contributing to the creation and provision of essential commodities and services for their sustenance, as well as actively participating in the exchange of said commodities eons ago (Mwatsika *et al.*, 2018).

Entrepreneurship is essential for economic expansion and development. It encourages innovation, generates new products and employment, enhances competitiveness, and contributes to the overall efficacy of the economy (Proença & Soukiazis, 2022). Small businesses, particularly, are recognized as the primary economic development agents due to their adaptability, innovation potential, and contribution to balanced regional development (Arifudin, 2022). Entrepreneurship is also crucial to attaining sustainable economic growth, particularly in developing nations such as Ghana.

The emergence of government as a mechanism for the appropriation of the wealth of the nation, provision of social welfare, and the protection of lives and properties of the citizenry, however, precipitated the creation of formal institutions and public enterprises. To run these institutions and enterprises, people with specialized skills are needed. Governments worldwide formulate need-based and result-oriented education policies that reflect the socioeconomic needs of their societies and provide specialized skills for addressing them, prepare people for access to decent jobs, and make them capable of discovering and utilizing their inert potentials (Durkheim, 1961). This is why (Ajuzie, 2005) conceptualized education as a fundamental aspect of the societal endeavour used to cultivate individuals to become proficient, acquire specific competencies, and behave in ways that are considered beneficial to the larger society.

Ghana's 1987 Education Reform Programme sought to enhance the pertinence of education in relation to the socioeconomic conditions prevailing in the nation so that the citizens could live a productive and meaningful life (UNESCO-International Bureau of Education, 2006). As far back as 2005, the number one priority of the government of Ghana was quoted by the then president, J. A. Kufour to be the development of Ghana's human resources. According to him, the government needed to pay more attention to human resource development because the public service needed the manpower that could be relied on to manage the nation's business with efficiency and dispatch (UNDP, 2007). It is, however, unfortunate that academic qualifications can no longer guarantee employment upon graduation, as the public service has become saturated.

Nowadays, the significance of entrepreneurial skills is progressively being acknowledged as a fundamental factor of economic expansion and an element of economic dynamism worldwide. According to (Ali & Ali, 2013), entrepreneurship development immensely contributes to the goal of attaining zero poverty because it results in the creation of employment through the startup of new enterprises or the expansion of existing ones, and they increase community, national, and global wealth by creating new markets, industries, technologies, net increase in real productivity, and ultimately, they culminate in better standard of living and overall wellbeing of a people. Logically, the higher the number of entrepreneurs in a society, the lower the level of poverty in such a society. As evidenced by a study conducted by (Řeřicha *et al.*, 2010), business organizations have the potential to sustain an economy when nations are incapable of providing sufficient employment opportunities or alternative means of generating wages or salaries, thus contributing positively to the social value system.

Unemployment is a global menace. Just as other nations of the world, Ghana is currently facing an employment problem. In the third quarter of the year 2022, 1.7 million Ghanaians were unemployed, while an additional 3.5 million people were moving in and out of jobs, depicting employment insecurities and vulnerabilities (Ghana Statistical Service, 2022). The foregoing is significantly informed by the saturation of Ghana's labor market which results from the

government's inability to provide formal jobs for the teeming youths that are churned out from the various mono-technic, polytechnics, and universities in the country and the failure of higher institutions' curriculum to take cognizance of the future of work and economic sustainability by inculcating students with the requisite skills to navigate the socioeconomic challenges of the 21<sup>st</sup> century.

As the world experience changes, advancements, and new problems, governments and regimes steadily review their education policies and make reforms incrementally, and the government of Ghana is not an exception. Under the Education Strategic Plan of 2018-2030, the education system of Ghana is expected to be relevant to changing national development priorities and renewed goals and aspirations. It also ensures that the education system adjusts to context and time, as well as advancements in technologies, industry, creativity and knowledge economy. The foregoing has informed an expansion in the educational curriculum of higher institutions in Ghana and across the globe. Notably, entrepreneurial skills building is in the front-burner of this expansion.

Entrepreneurial education, as an integral component of the comprehensive educational system, encompasses the acquisition of skills, concepts, and managerial proficiencies indispensable for the generation of employment opportunities. In Nigeria, for example, Entrepreneurship Education (EEd) was introduced in 2006 as a mandatory course for all undergraduate students and it has proven to be effective towards preparing graduates for the labor market, as 97.9% of fresh graduates undergoing the mandatory national service in Delta State of Nigeria strongly believe that entrepreneurship education has given them the confidence to face the labor market (Justina & Emmanuel, 2020). Entrepreneurship is the most viable medium through which Ghana's ever-growing population can deal with the menace of poverty and unemployment, it is therefore, very important that formal education institutions in Ghana are able to instil into students, especially graduating students, the needed skills to be creators and not seekers of employment. In recognition of the usefulness and efficacy of entrepreneurship towards reducing poverty and unemployment level, successive governments have made efforts which were consistently directed at stimulating, supporting, and sustaining activities relating to entrepreneurship development amongst youths, especially graduates from various higher institutions.

In recent times, schemes such as the National Youths Enterprise Programme (NYEP), the Youth Enterprise Support (YES), and other entrepreneurial related ones have been designed and implemented to help boost entrepreneurship development and reduce youths' unemployment. Regrettably, the implementation of these national policies has not made any significant contribution to national development (Denanyoh *et al.*, 2015). This is especially because, those who have benefitted from the aforementioned programmes had no prior knowledge of entrepreneurship and business management, hence, were unable to sustain their nascent enterprises. The need for formal education institutions in Ghana to inculcate that capability of starting up, managing, and sustaining enterprises into students cannot be overemphasized. But how has this effort fared over the years?

Therefore, this study examines some of the entrepreneurial skills gained through formal education in the country and the effect it has had on the performance of practicing entrepreneurs in Ghana. Sunyani municipality in the Bono region of Ghana was chosen as a case study for the research due to its recognition as one of the hottest hubs for business activities, as 52% of its population engage in commerce and the service rendering, and the presence of several higher institutions, including the Sunyani Technical University, the University of Energy and Natural Resources, the Catholic University College, and other nursing and teacher training colleges.

Several research has assessed various aspects of entrepreneurship education, and mostly in developed nations. However, there is a no known work in the open literature that has assessed how

formal education directly influence entrepreneurship and if there exist a significant relationship between the two, especially in developing countries. This study seeks to address this research gap by undertaking this study in Africa, that will provide policymakers, educators, and stakeholders worldwide with vital information to improve entrepreneurship education initiatives. The study's significance and value lie in its capacity to offer insightful guidance for policy and curriculum design of efficient educational programs to improve entrepreneurial competencies, and promote social and economic development. Its originality also stems from the emphasis on evaluating the distinct impact of formal education in fostering entrepreneurship.

The main objective of the paper is to examine the correlation between formal education and successful entrepreneurship, and how formal education influences the development of entrepreneurial skills. The study was centred on three main objectives; **(B1)**: *To examine the importance of formal education in promoting entrepreneurial skills*, **(B2)**: *To Identify the barriers to increasing entrepreneurial skills through formal education* and **(B3)**: *To evaluate the association between formal education and entrepreneurial performance*.

The paper is structured as follow; Section 1 provides background information on the research and section 2 combines a discussion of context with a survey of short literature on educational systems and reforms in Ghana and other developed nations. More information on the aims and objectives, data collection, methodological approach (which includes a survey review and correlation analysis), and hypothesis testing is provided. Section 3 summarizes our key findings. Section 4 discusses the findings, compares them to similar works, draws conclusions and recommendations, and provides the limitations, future research directions, and policy implications.

## 1 CLARIFICATION OF CORE CONCEPT

### 1.1 Formal Education

Formal education is defined as organized educational activities within a pre-existing system (Evyugina et al., 2019). It is distinguished by structured learning settings, such as schools, colleges, and universities, in which individuals gain knowledge and skills through a prescribed curriculum. These institutions must adhere to standards established by government organisations or agencies such as the education ministry. Formal education is important in the development of human resources in organizations because it provides employees with key skills in areas such as motivation, leadership, and communication (Mamoon, 2017). It also acts as a foundation for labor organization and systematic societal functioning (Slabko et al., 2019). The upsurge in formal education can be ascribed to macroeconomic conditions and a rising pace of learning, which results in a larger return on education and motivates learners to stay in school for longer periods of time (Pereira & Ortiz, 2022; Slabko et al., 2019). In the 1950s, formal education for females tried to educate them for both domestication and employment, mirroring society's gendered standards.

### *Entrepreneurship*

Entrepreneurship refers to the systematic undertaking of developing and delivering products or services that possess inherent value to a target audience, with the primary objective of generating financial gains (Putri, 2022). The academic discipline of entrepreneurship spans a wide range of topics, including the historical foundations of entrepreneurship, ethical considerations, managerial approaches, and the evolution of contemporary entrepreneurial practices. The significance of this phenomenon lies in its contribution to both economic growth and poverty reduction. The inclusion of entrepreneurship education is of utmost importance in the advancement of entrepreneurship, as

it proves advantageous to integrate the development of an entrepreneurial attitude with the learning of precise tools and skills (Di Paola et al., 2023). The interest in entrepreneurship among students has been observed to be influenced by factors such as entrepreneurship education, income expectations, and inventiveness (Chahine, 2022). There is a need to persist in the development of educational resources pertaining to entrepreneurship, offering practical guidance on entrepreneurial activities, fostering aspirations for lucrative earnings, and cultivating creativity in the generation of business concepts (Prasetya & Azizah, 2022).

### ***Entrepreneurship Education***

The inclusion of entrepreneurship education is of notable importance in the cultivation of an entrepreneurial attitude, the acquisition of specialised skills and competencies, and the encouragement of entrepreneurial activities (Di Paola et al., 2023). According to research, it has been determined that there is a favourable impact on students' inclination towards entrepreneurship, their expectations regarding money, and their creative abilities (Prasetya & Azizah, 2022). Moreover, research has demonstrated a clear correlation between entrepreneurship education and the enhancement of self-efficacy and the cultivation of entrepreneurial ambitions (Masnun et al., 2023). Research has indicated that formal education, which encompasses entrepreneurship education, has a positive impact on entrepreneurship outcomes, such as engaging in self-employment in industries with significant growth potential and establishing new businesses (Ahn & Winters, 2022). Emotions, namely passion, also hold significant importance in the realm of entrepreneurship education, particularly within the domain of artistic entrepreneurship. These emotions have a notable influence on several aspects such as motivation, collaboration, and resilience (Ávila et al., 2022). The significance of entrepreneurship education lies in its ability to cultivate entrepreneurial aptitude, stimulate entrepreneurial enthusiasm, and augment entrepreneurial achievements.

## **1.2 Review of Literatures**

### ***Ghana's 2007 Education Reform***

The endeavors and aspirations towards the reformation of the educational policies of Ghana since its independence in 1957 are attributed to the inclination of preceding and subsequent administrations to synchronize Ghana's educational framework with both national and global socio-economic dynamics. As observed by Mr. Anarfi, an individual affiliated with the Non-Formal Education Division (NFED) of the Ministry of Education (MoE), each substantial government from the era of Nkrumah until the present day has expressed the desire to modify the approach to education in order to adapt it to contemporary circumstances. In accordance with the aforementioned statement, Mr. Acquaye, a consultant to the GES, articulated the following viewpoint: Society is perpetually evolving, technology is advancing, and in order to maintain relevance in the global economy, it is necessary to amend both the curriculum and the educational system.

In 2007, the deficiencies in the prevailing educational structure and regulations were incapable, as a consequence, of generating the requisite labor force characterized by proficiency, technological advancement, discipline, contemporary knowledge, and appropriate ethical standards to cater to the burgeoning Ghanaian economy. The education sector has encountered various obstacles, such as the influence of Western ideologies and political objectives. However, it is currently experiencing a resurgence (Boadu, 2021). The foregoing birthed the 2007 education reform. The policy includes provisions for both free and compulsory education (Alhassan, 2020). In his remarks during the launch of the reform, the Minister of Education, Papa Owusu-Ankoma, acknowledged that a thorough examination of the nation's education system revealed significant shortcomings. If these

issues are not resolved, they will impede efforts to propel Ghana towards a prosperous future. Approximately 60 percent of junior secondary school (JSS) graduates depart from their educational journey ill-prepared and lacking in proficiency in craft and technical skills necessary to enter the workforce. The new education reform represents the most optimal solution that the nation can afford and will effectively address these systemic deficiencies. Furthermore, it will align with the demands of the industry, thereby maximizing the potential for success (Amo-Agyemang, 2019). Administrative challenges have hampered the implementation of education initiatives in Ghana, including political involvement and poor engagement among key stakeholders (Nmai & Theophilus, 2019). The reforms included revisions to curricula and teacher development practises, but there are contextual difficulties that must be addressed before the desired gains may be realised (Buabeng et al., 2020). The primary goal of Ghana's educational reform in 2007 was to establish individuals who possess a harmonious blend of intellectual, spiritual, emotional, and physical attributes, along with the necessary knowledge, skills, values, and aptitudes for self-fulfilment and the socio-economic and political advancement of the country (Anamuah-Mensah *et al.*, 2002).

### ***Compulsory subjects in secondary schools and universities in Ghana***

Secondary education in Ghana encompasses two distinct phases: a junior phase and a senior phase, with each phase spanning a duration of three years. The junior secondary phase is the compulsory school-age years for students, typically between 15 or 16 years. Within this phase, students are taught subjects including English, mathematics, social studies, and integrated science. Additionally, they are exposed to fundamental concepts in design and technology, religious and moral education, French, and ICT. During senior secondary education, pupils are taught English, mathematics, social studies, and integrated science (McCarthy et al., 2015). In addition to these fundamental areas, students can choose electives in the fields of science, business, technology, agriculture, and trade. STEM and STEAM subjects (Science, Technology, Engineering, Arts, and Mathematics) are also given particular attention (Afeti, 2017). Up until around 1990, individuals leaving the secondary education system in Ghana were eligible to apply for admission to the first level of higher education, and there was fierce rivalry for spots in the available programmes of study (Opoku, 2021). Universities, university colleges, theological colleges, and tutorial colleges all provide higher education in Ghana. Universities are entitled to confer their own degrees. University colleges are private institutions affiliated with recognized degree-awarding universities, which confer their degrees upon graduates of the university colleges. Some common courses for university students, irrespective of their program of study, include Academic writing (communication skills), Analytical skills, Information technology (Computer literacy), Entrepreneurship, French language, and Quantitative literacy (Mathematics). The list of required subjects in secondary schools has grown due to the inclusion of trade or entrepreneurial courses in the curriculum (Ita Margaretta Tarigan, Mangaratua M Simanjorang, 2022). In general, Ghana's secondary schools and colleges require students to take a variety of required subjects in order to drive technical growth, encourage self-reliance, and give pupils a broad knowledge foundation and marketable skills (Nmai, 2020).

### ***Entrepreneurship Development Efforts through Formal Education in Selected Countries (Germany and Sweden)***

Entrepreneurship education programmes in universities and educational institutions have been implemented in a number of countries to encourage the growth of entrepreneurship. Entrepreneurship education is largely undertaken in school settings in some nations, while it is integrated into the workplace in others (Fahinde et al., 2022). The institutional framework, including perceived government support, cultural norms, and social legitimacy of entrepreneurship, influences the success of entrepreneurship education. A favourable institutional environment enhances students' entrepreneurial intention (Rahimi, 2021), however other research, such as (Loor & Muñoz-

Fernández, 2022), have found that male students had stronger entrepreneurial intentions than female students. Entrepreneurship laboratories, which integrate entrepreneurship education programmes with stakeholder participation, play an important role in developing innovation and entrepreneurship. These labs provide as a platform for cultivating an entrepreneurial mentality as well as obtaining specialised skills and competencies (Putro et al., 2022). Through entrepreneurship education, social capital, such as networks, norms, and trust, is established and contributes to the growth of entrepreneurship.

Utilising measures like TEA (Total Early-Stage Entrepreneurial Activity) and EEA (Employee Entrepreneurial Activity) from the Global Entrepreneurship Monitoring, researchers can track how entrepreneurship is developing in various nations. The most entrepreneurial nations, like Sweden, Estonia, Latvia, and Germany, have sophisticated systems for teaching for entrepreneurship (Świątek, 2018). Universities and other educational institutions in these nations, like those in Germany and Sweden, have started implementing entrepreneurship education programmes (Rahimi, 2021). By supplying students with the essential information and abilities, these programmes hope to enhance and foster entrepreneurship.

Historical events and global tendencies have shaped entrepreneurship in Germany, resulting in state programs and acknowledgment of women's, organisational, and social entrepreneurship (Di Paola et al., 2023). Entrepreneurship education in Germany is a cross-curricular objective across different levels of education. Each state offers different schemes, competitions, and experimental learning experiences geared towards impacting entrepreneurship skills to students beginning from lower secondary school level (School Education Gateway, 2015). Under the programme, "Unternehmergeist macht Schule" (translated as Entrepreneurial Spirit in Schools), initiative such as Business at School, Play the Market, School/Banker Game, and Jugend Grundet, are schemes and games which bring entrepreneurial experience to secondary schools and engages students in learning about business, creation of business plans, development of managerial skills, ideation, strategic thinking, sell of idea in competitive market, team management, decision-making, and the understanding of finance and markets while also taking cognizance of environmental and social aspect of entrepreneurship.

In Sweden, which has one of the most enterprising populations, advanced entrepreneurship education systems have been developed, leading to the country's high level of entrepreneurship (Bondarenko, 2022). Entrepreneurship in Sweden is incorporated across all levels of education. In fact, entrepreneurship is a compulsory component in Sweden's education system. Upon completing secondary education, students are expected to know what entrepreneurship entails for individuals, organizations, businesses, and communities. There are myriad ongoing entrepreneurship initiatives that address entrepreneurship in Swedish schools. Some of these initiatives include UF Enterprise, Summer Challenge, Future Seeds, and Finn Up. These initiatives allow students to gain experience from the real business world, including learning about business and a company's life cycle, writing business plans and grant proposals, experiencing sales management, composing annual qualitative and financial reports, how to run their own companies, how to source for and obtain financial grants, and how to identify problems and propose business solutions through invention. They also learn about society and technology. Most importantly, each student is attached to a mentor who guides, directs, and oversees his or her work. (School Education Gateway, 2015).

In their entrepreneurship education programmes, Germany and Sweden place an equal emphasis on hands-on learning opportunities, experimental teaching methods, and teachings from entrepreneurs. These initiatives in formal education help to foster entrepreneurship (Licha & Brem, 2018).

## 2 RESEARCH METHODOLOGY

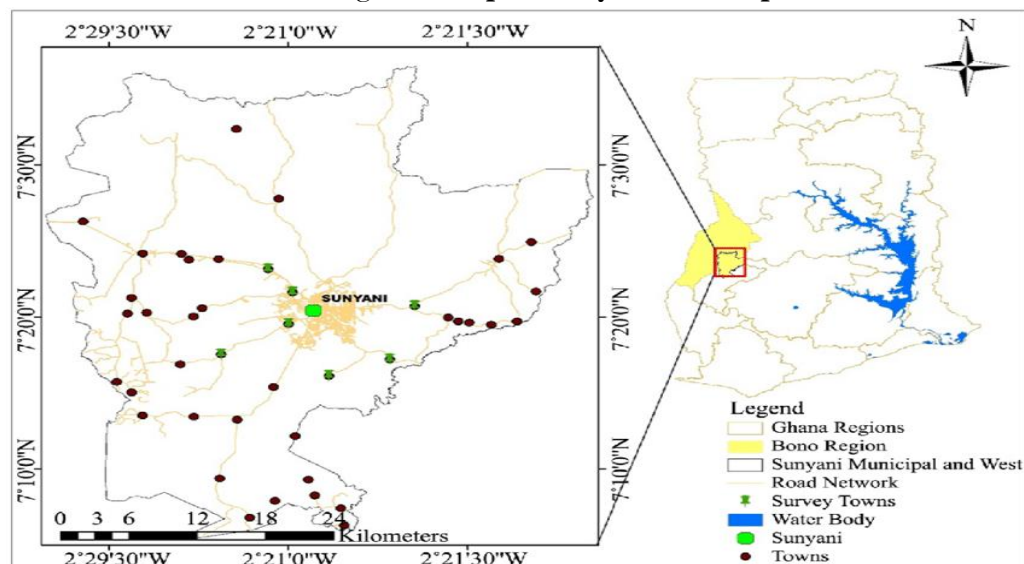
### 2.1 Aim of the research

The specific aim of this paper is to attempt to examine how formal education contribute to entrepreneurial skills acquisition and whether or if there exist any direct relationship between formal educational and entrepreneurs' success. The focus of the study revolved around three primary objectives, namely, (B1): to investigate the significance of formal education in fostering entrepreneurial abilities, (B2): to ascertain the obstacles hindering the enhancement of entrepreneurial skills through formal education and (B3): evaluate the association between formal education and entrepreneurial performance. Overall, the study aims to provide valuable insight for educators, policy makers, and entrepreneurs in devising adequate programs to foster entrepreneurship in Ghana and in another context.

### 2.2 Study Area

The study was applicable to entrepreneurs with registered enterprises in the Sunyani Municipality in the Bono Region of Ghana. The selection of Sunyani for the study was a strategic decision. Sunyani is acknowledged as a prominent business centre in Ghana, therefore rendering it a viable representative sample for the analysis. The authors also centred on one initial location due to time and resources constraints, However, entrepreneurs that took part in the study have other firms or branches in many other locations, including the country's capital, enabling a more extensive extrapolations at the national scale. This facilitated the acquisition of valuable insights into the experiences and opinions of entrepreneurs that extend beyond a singular geographical location.

Figure 1 Map of Sunyani Municipal



(Source: Höflinger et al., 2020)

### 2.3 Sample Size

According to the (Register General Ghana, 2022) there were 134 entrepreneurs who had firms that were registered within the municipality. Following that, a sample was selected from the target population. The research used a sample size of one hundred entrepreneurs (100) who owned registered businesses within the municipality. The sample size was obtained using the formula for determining sample size developed by Taro Yamane (Lobe et al., 2020) (eq. 1). The result of the



calculation, thus, 100.35, indicates that approximately 100 out of the 134 entrepreneurs were considered suitable for the study.

$$n = \frac{N}{1 + N(e)^2} \quad (1)$$

where N – means target population  
n – means estimated sample size  
e= 5% – means error parameter

$$n = \frac{134}{1 + 134 * (0.05)^2} = 100.35$$

## 2.4 Data Collection and Analysis

A quantitative research methodology was used for the research. Data was collected through the use of a survey-based questionnaire, employing a convenient sampling technique to select respondents for the study. To ensure a satisfactory number of complete and usable responses, a total of 140 questionnaires were distributed to the study population. Among the 140 questionnaires disseminated, 112 were considered valid and usable, leading to an approximate effective recovery rate of 80%.

The questionnaire was formulated using a five-point Likert scale, which included options such as agree, strongly agree, neither agree nor disagree, disagree, and strongly disagree. There were three distinct sections within the questionnaire with a total of 27 close-ended questions. The first section, which contained the question 1 to 6, assessed the respondents' demographic characteristics, including their gender, business ownership, level of education, years in business, monthly profit, and monthly revenue. The second section, containing question 7 to 16, evaluated the significance of formal education in fostering entrepreneurial skills. The third section, question 17 to 27, evaluated the related factors that hinder the promotion of entrepreneurial skills through formal education. This study's questionnaire was adapted from (Čopková et al., 2023; López-Núñez et al., 2022). The questions were then coded using numerical values and analysed with the Statistical Package for the Social Sciences (SPSS) version 25 software. All data were collected and analyzed in 2023.

### *Statistical hypotheses*

- $H_0$ : There is no significant association between formal education and entrepreneurial performance.
- $H_1$ : There is a significant association between formal education and entrepreneurial performance.

Objective three examined the association between formal education and entrepreneurial performance using Pearson correlational analysis. The statistical analysis approach given can determine the degree and direction of the linear relationship between two continuous variables. Pearson correlation coefficients evaluate the correlation between formal education, independent variable, and entrepreneurial performance, the dependent variable. This can determine the degree of the association, revealing how formal education affects entrepreneurial performance. The values of Pearson correlational coefficient, “r” ranges from -1 to 1 (eq.2) (Senthilnathan, 2019).

$$r = \frac{\sum(x_i - \bar{x})(y_i - \bar{y})}{\sqrt{\sum(x_i - \bar{x})^2 \sum(y_i - \bar{y})^2}} \quad (2)$$

where r – means Pearson correlation coefficient  
 $x_i$  – means x variable sample  
 $y_i$  – y variable sample

$\bar{x}$  – mean of values in x variable

$\bar{y}$  – mean of values of y variable

There is a strong positive linear correlation when "r" approaches 1, meaning that as one variable rises, the other rises too. Conversely, If the value of "r" is nearing -1, it signifies a strong negative linear association, suggesting that as one variable increases, the other variable decreases. A Zero correlation coefficient (r) indicates no linear relationship between variables; thus, the correlation suggests no trend in their relationship.

## 2.5 Demographic Information of Respondents

This part includes the respondents' descriptive information, the findings of each research question, and the hypothesis test. According to the survey, the majority (58% of respondents) were males, while 42 (42% were females), as shown in Table 1.

Table 1 **Background Information of study population**

	Description	Frequency	Percentage
<b>Gender</b>	Male	65	58%
	Female	47	42%
Total		112	100%
<b>Academic qualification</b>	None	7	7%
	BECE/BASIC	17	15%
	WASSCE	47	42%
	BSC/HND	32	28%
	Master's and above	9	8%

(Source: Own elaboration)

From the data gathered, the majority of the respondents, i.e., 93%, have had some form of formal education, from basic to postgraduate, whereas only 7% indicated not having any form of formal education. For how long they have been in business, 22% indicated they have been in business for less than a year; 71% of the respondents indicated that their business has been in operation for between 1 and 15 years; and 7% have been in operation for more than 15 years. With their monthly profit, 28% of the respondents showed that their monthly profit is less than GHS 1,000, and another 55% showed they make between GHS 1,000 and 5,000. Moreover, 11% of the respondents showed a monthly profit ranging from GHS 5,000–10,000. The remaining 6% indicated they were earning a monthly profit between GHS 10,000 and 20,000.

## 3 RESEARCH RESULTS

### 3.1 Importance of Formal Education in Promoting Entrepreneurial Skills (B1).

This objective sought to identify the importance of formal education in promoting entrepreneurship. In order to answer this research question, items 7–16 of the questionnaire were used to obtain information from respondents. Table 2 presents the responses from entrepreneurs with regards to the importance of formal education in promoting entrepreneurial skills.

Table 2 Importance of formal education in promoting entrepreneurial skills

Statement	Disagree	Agree
Formal education is breeding ground for entrepreneurial skills in Ghana	28%	72%
Formal education helps in increasing knowledge base, by identifying opportunities	19%	81%
Formal education equips the entrepreneur communication skills to build his/her business	10%	90%
Formal education equips the entrepreneur with skills in problem solving and decision making and the needed strategies to sustain his/her business	13%	87%
Formal education equips the entrepreneur with knowledge on the use of tools and technologies for the promotion of business	14%	86%
Formal education equips entrepreneurs with the necessary social skills to cultivate constructive relationships with their peers and the broader community	17%	83%
Formal education teaches the equips entrepreneurs with the necessary knowledge and skills to effectively utilize tools and technology, enabling them to enhance their learning capabilities and access information	20%	80%
Formal education equips entrepreneurs with communication skills to express and understand thoughts and opinions in a variety of settings, situations and with diverse population	7%	93%
Formal education provides entrepreneurs with the necessary skills for career growth, enabling them to effectively make, pursue, and sustain personal and work choices that align with the evolving career training and labor landscape in society	17%	83%
Formal education helps develop the important basic language skills and an abroad vocabulary like reading, writing and critical thinking to be able to communicate well with all categories of customers	8%	92%

(Source: Own elaboration)

From Table 2, the majority (83% of the respondents) agreed that entrepreneurial based formal education provides entrepreneurs with the necessary skills for career growth, enabling them to effectively make, pursue, and sustain personal and work choices that align with the evolving career training and labor landscape in society. Moreover, 86% of the respondents agreed that entrepreneurial based formal education equips entrepreneurs with the necessary knowledge and skills to effectively utilize tools and technology, enabling them to enhance their learning capabilities and access information. This enables entrepreneurs to stay updated with societal developments and effectively promote their organizations. Table 2 further shows that 87% of the respondents confirmed that entrepreneurial based formal education equips the entrepreneur with the decision-making and problem-solving skills needed for his or her business.

### 3.2 Identify the barriers to increasing entrepreneurial skills through formal education (B2)

The objective of this section was to ascertain the various factors that hinder the advancement of entrepreneurial skills within the context of formal education. In order to answer this research question, items 17–27 of the questionnaire were used to obtain information. Table 3 presents the responses from entrepreneurs.

Table 3 **Barriers to increasing entrepreneurial skills through formal education**

Statement	Disagreed	Agreed
Lack of proper school curriculum on entrepreneurship education in our school system	2%	98%
Unqualified teachers on entrepreneurship education	25%	72%
Lack funding from the government	14%	86%
High requirement for admission into formal schools	20%	80%
Lack of motivation from stakeholders	22%	78%
Lack of financial assistance to enrol into formal school	18%	82%
Lack of practical/field training	13%	87%
Inadequate supervision in school by instructors	16%	84%
Over dependent on written exams as means of assessment	16%	84%
Lack of career guidance from both parents and teachers	8%	92%

(Source: Own elaboration)

Table 3 exhibits the factors that militate against the promotion of entrepreneurial skills through formal education. The majority of respondents, thus 98%, indicated the *lack of a proper school curriculum on entrepreneurship education in our school system* as the major factor that mitigates against the promotion of entrepreneurial skills through formal education.

### 3.3 Association between Formal Education and Entrepreneurial Performance (B3)

The aim of this objective is to identify the association between formal education and entrepreneurial performance. Pearson correlational analysis was conducted to examine the association between the two. The analysis utilized two variables: the monthly profits and the academic qualifications or educational level of the entrepreneurs or respondents.

The following assumptions were taken into consideration in conducting the analysis:

- (1) All businesses were situated within the same geographic area, specifically Sunyani, Ghana.
- (2) All entrepreneurs/respondents possessed a uniform business size, small enterprises specifically consisting of 10 minimum employees. According to (OECD Library, 2023), most small businesses have a minimum of 10 employees and a maximum of 49 employees.
- (3) All entrepreneurs are engaged in similar or comparable business operations. According to (Bracker et al., 1988), it is suitable to compare the financial performance of business owners who are in the same business.
- (4) All entrepreneurs have uniformly conducted their business operations for a duration of 5 years. According to (Jason Ding, 2023), it takes about 70% of small businesses a minimum of two and a maximum of five years to break even and become profitable.

Table 4 **Correlational Analysis**

	Formal Education	Entrepreneur Performance
Formal Education	1	.123
Entrepreneur Performance	.123	1

$r = .123$      $p = .224$     (Sig. 2-tailed)    N = 112

(Source: Own elaboration)

The result of the analysis shows that, the correlational coefficient,  $r$  is equal to 0.123. i.e. ( $r = .123$ ). The observed value suggests a weak positive linear relationship between the variables among the respondents. The  $p$ -value of 0.224 indicates that the observed correlation lacks statistical significance at the acceptable threshold of 0.05 ( $p = 0.224 > 0.05$ ). Consequently, there is insufficient substantial evidence to support a connection between formal education and entrepreneurial performance within the confines of this particular investigation.

#### 4 DISCUSSIONS

This study attempts to examine some of the entrepreneurial skills gained through formal education in the country and the effect it has had on the performance of practicing entrepreneurs in Ghana. The research covered three areas; (B1): importance of formal education in promoting entrepreneurial skills, (B2): barriers to increasing entrepreneurial skills through formal education and (B3): the association between formal education and entrepreneurial performance.

For objective one (B1), an average majority of respondents (85%) agreed that formal entrepreneurial-based education: provides entrepreneurs with the necessary skills for career growth, enabling them to effectively make, pursue, and sustain personal and work choices that align with the evolving career training and labor landscape in society; equips entrepreneurs with the necessary social skills to cultivate constructive interactions with their peers and the wider community; equips entrepreneurs with the necessary knowledge and skills to effectively utilize tools and technology, enabling them to enhance their learning capabilities and access information. This enables entrepreneurs to stay updated with societal developments and effectively promote their organizations.; equips the entrepreneur with the decision-making and problem-solving skills needed for his or her business. These overwhelming findings support the views of (Gamede & Uleanya, 2017), they concluded that all entrepreneurs who have gone through the formal entrepreneurial-based education performs better and hence record higher revenue/profit. More so, a study by (Fossen & Büttner, 2013) indicated that educated business owners mostly performs better than those with little or no form of education. According to (Van der Zwan et al., 2016), entrepreneurial-based education significantly impacts the performance of business owners and entrepreneurs in Asia, whether they are driven by opportunity or necessity.

Results for (B2) shows that, majority of respondents, thus 98%, indicated the *lack of a proper school curriculum on entrepreneurship education in our school system* as the major factor that hinders the promotion of

entrepreneurial skills through formal education which is contributing to the low number of students starting businesses after school. This finding aligns with multiple research studies. The research conducted by (Iqbal et al., 2022) highlights a significant challenge in the advancement of entrepreneurial skills within formal education, thus, the absence of a comprehensive entrepreneurship education curriculum within the formal school system. A study by (Cera et al., 2020) in a Balkan countries demonstrates that the inclusion of entrepreneurship education and practical teachings in formal education curricula increases entrepreneurial intention among students. This underscores the significance of addressing curriculum gaps in order to cultivate entrepreneurial skills and motivate a greater number of students to embark on entrepreneurial ventures post-graduation. Furthermore, a study by (Ilomo & Mwantimwa, 2023) discovered that entrepreneurial knowledge imparted by educational curriculum moderates the relationship between behavioural control and entrepreneurial intentions among undergraduates enrolled in Tanzanian higher education institutions. This emphasizes the importance of incorporating entrepreneurship education to boost students' ambitions and prepare them for entrepreneurial careers after graduation. These similar findings further prove the lack of a proper school curriculum on entrepreneurship education in our schools as one major factor that mitigate against the promotion of entrepreneurial skills development through formal education.

According to the conclusions derived from (B3), there exists a weak positive correlation between formal education and entrepreneurial achievement. Nevertheless, at the acceptable threshold of 0.05, the observed correlation lacks statistical significance ( $p = 0.224 > 0.05$ ). This implies that within the framework of this research, there is no compelling evidence to suggest a connection between the two variables. This result demonstrates that obtaining a formal degree alone or going through the formal education system may not be sufficient to achieve success as an entrepreneur. Other studies have found similar results. (Iqbal et al., 2022) found no significant effect of formal curriculum delivery on entrepreneurial skills development and performance improvement in Pakistan. Additionally, the meta-analysis of 183 research covering 50,045 enterprises reveals a surprisingly weak correlation between formal education and entrepreneurial performance (Struckell, 2019). These related findings suggest that the success of entrepreneurs may be more significantly influenced by other variables. Elements such as specialized entrepreneurial training integrated into all programs within the formal education system, availability of business networks, planning skills among others may demonstrate a significant correlation with performance outcomes like profit, scale, growth, and sales (Cho & Lee, 2018).

Some previous research such as (Ahn & Winters, 2022; Aldila Krisnaresanti et al., 2020; Nzama & Ezeuduji, 2020), has established a connection between education and both entrepreneurial intent and performance. However, the paradoxical decline in entrepreneurial activity rates, despite the presence of high education levels, raises questions (Nimeshi, 2017). This study, however, provides a unique perspective and new evidence that challenges the consensus and contributes to current knowledge and facilitates the exploration of new research opportunities and academic discussions.

The correlation between formal education and entrepreneurial performance is intricate and subject to multiple circumstances, underscoring the necessity for a more nuanced comprehension of the educational role in entrepreneurship (Mayer-Haug et al., 2013). To understand the complex relationship between education and entrepreneurial success, it is empirical to consider other factors or variable beyond traditional education that may play a more significant role in influencing entrepreneurial success.

### ***Summary of hypothesis testing***

Two hypotheses were tested.

- $H_0$ : There is no significant association between formal education and entrepreneurial performance. This hypothesis was accepted. There was a no strong relationship between the two variables after the analysis.

- *H<sub>1</sub>*: There is a substantial association between formal education and entrepreneurial performance. This hypothesis was not supported. There was no strong relationship between formal educational level of an entrepreneur and his performance or success.

## CONCLUSIONS

Based on the findings of the research, it can be deduced that formal education, encompassing experiential training in the acquisition of entrepreneurial skills, equips entrepreneurs with the necessary communication abilities to effectively articulate and comprehend their ideas across diverse settings, adapt to technological progressions, and adjust their enterprises to sustain competitiveness. This implies that entrepreneurs who have obtained entrepreneurial training through formal education can effectively apply their acquired skills in various aspects of business management, such as employee and customer management, designing communication patterns and technological requirements within the company, and engaging with other stakeholders who have a significant impact on daily business operations.

According to the results, the absence of a comprehensive educational curriculum for entrepreneurship is the primary obstacle to cultivating entrepreneurial abilities within the framework of formal education. These results indicate a change in teaching approaches, transitioning from an emphasis on practical teaching to a greater focus on theoretical teaching. The curriculum of all subjects within the formal educational system in its current state lacks comprehensive practical entrepreneurial training that provides students, regardless of their subject of study, with the necessary entrepreneurial skills to establish and successfully manage businesses after completing school. This has resulted in a low number of graduates establishing enterprises or becoming entrepreneurs in Ghana and other developing countries, particularly in Africa and Asia.

The findings of the correlation analysis demonstrate that the two variables exhibit a weak positive association, albeit lacking statistical significance. This indicates that there is insufficient evidence to substantiate the considerable influence of formal education on entrepreneurial performance within the framework of this study. Solely relying on the formal education system may not serve as a decisive determinant of entrepreneurial performance, as other factors or variables may exert an impact on entrepreneurial success. Consequently, it becomes apparent that attaining success as an entrepreneur necessitates more than a mere formal education. A more in-depth examination of supplementary variables, a larger sample size, and contextual factors may yield a more comprehensive understanding of the variables influencing entrepreneurial performance.

The potential audience of these findings encompasses researchers and scholars specializing in the domains of entrepreneurship, education, and business management, alongside policymakers and educators who are actively seeking to improve entrepreneurial education initiatives and policies. These insights may also be useful to entrepreneurs and people interested in achieving entrepreneurial success.

## Limitations and Directions for Future Research

Besides its contributions to the body of knowledge, the study has a number of limitations. Future research could explore the following areas:

- This study examined specifically how formal education boosts entrepreneurship. Future studies may concentrate on non-formal and technical education to investigate how they promote entrepreneurship. This will provide an in-depth overview of the many educational paths that can enhance entrepreneurial effectiveness.

- Respondents for the study were from the Sunyani Municipality of Ghana, majority of them though had branches or businesses in other parts of the country, including the nation's capital. Future research may expand upon the current study by examining additional regions or countries. This would allow for a deeper understanding of the differing effects of education on entrepreneurial performance at both the regional and national levels.
- The researchers chose a small sample size for the study due to time and resources constraint. It is recommended that future research employ larger sample sizes, thereby enhancing the statistical power and facilitating more resilient results. This approach would also yield a more precise representation of the populace, augmenting the generalizability of the conclusions.
- This study focused entirely on formal education (as the only variable) and its impact on entrepreneurial achievement, ignoring all other variables. Future research could concentrate on entrepreneurial education, the availability of or access to financial resources, and social networks among others. An enlarged examination that covers other variables would reveal more about the numerous aspects that influence entrepreneurial effectiveness. Increasing the number of components or variables for the study can provide additional knowledge and understanding of how education and other factors jointly impact entrepreneurial success.

### Recommendations

Based on the findings and conclusion drawn, the following recommendations are put forward to help improve entrepreneurial skills development through formal education;

- (1) Governments must incorporate entrepreneurship into the school curriculum. It is crucial that entrepreneurial education begin at the primary levels of education and continue all the way through university education. Before entering postsecondary institutions, children need to start developing an entrepreneurial mindset. This will encourage the culture of entrepreneurial in the country.
- (2) In order to effectively implement entrepreneurial educational reforms within the country, it is recommended by researchers that Teacher Training Colleges and other education-related Universities develop mandatory entrepreneurial courses and programs. These initiatives would aim to equip teachers with comprehensive knowledge and skills in teaching entrepreneurship, spanning from foundational levels to tertiary education.
- (3) Admission to the various institutions should not be based only on academic requirements but on other means like working experience, and assessment of the performance of students should not be based only on theoretical examinations but on more practical ones.
- (4) Multinational companies in various countries should, as a way of supporting the youth, enrol them in free trainings to help them develop the skills of establishing and maintaining businesses.

### REFERENCES

- Afeti, G. (2017). Differentiation within the Postsecondary Education Sector in Ghana. In *Responding to Massification*. [https://doi.org/10.1007/978-94-6351-083-7\\_4](https://doi.org/10.1007/978-94-6351-083-7_4)
- Ahn, K., & Winters, J. V. (2022). Does education enhance entrepreneurship? *Small Business Economics*. <https://doi.org/10.1007/s11187-022-00701-x>
- Ajuzie, M. V. (2005). Introduction to sociology of education. *Lagos: DMMM Publishers*.
- Aldila Krisnaresanti, Karina Odia Julialevi, Lina Rifda Naufalin, & Aldila Dinanti. (2020). Analysis of Entrepreneurship Education in Creating New Entrepreneurs. *International Journal of Entrepreneurial Knowledge*, 8(2). <https://doi.org/10.37335/ijek.v8i2.112>
- Alhassan, A. J. (2020). Evaluation of Ghana's 2007 educational policy: Effects on education in the



Upper West region. *Universal Journal of Educational Research*, 8(9), 4242–4260.

- Ali, D. A. H., & Ali, A. Y. S. (2013). Entrepreneurship development and poverty reduction: Empirical survey from Somalia. *American International Journal of Social Science*, 2(3), 108–113.
- Amo-Agyemang, C. (2019). Valorising university education in Ghana. *International Journal of African Renaissance Studies-Multi-, Inter-and Transdisciplinarity*, 14(2), 55–80.
- Anamuah-Mensah, J., Effah, P., & Sarkodie, A. J. (2002). Meeting the challenges of education in the twenty first century: Report of the President's Committee on Review of Education Reforms in Ghana. *Accra: Ministry of Education*.
- Arifudin, S. (2022). The Importance of Entrepreneurship Learning And Business Motivation Seminars To Increase The Desire To Be An Entrepreneur. *AKADEMIK: Jurnal Mahasiswa Humanis*, 2(2). <https://doi.org/10.37481/jmh.v2i2.471>
- Ávila, A. L., Davel, E., & R. S. T. A. Elias, S. (2022). Emotion in Entrepreneurship Education: Passion in the Practice of Artistic Entrepreneurship. *Academy of Management Proceedings*, 2022(1). <https://doi.org/10.5465/ambpp.2022.15140abstract>
- Boadu, G. (2021). Developments in history education in Ghana. *Yesterday and Today*, 25. <https://doi.org/10.17159/2223-0386/2021/n25a5>
- Bondarenko, O. (2022). Entrepreneurship Development Strategy in Germany. *Social Economics*, 63. <https://doi.org/10.26565/2524-2547-2022-63-10>
- Bracker, J. S., Keats, B. W., & Pearson, J. N. (1988). Planning and financial performance among small firms in a growth industry. *Strategic Management Journal*, 9(6), 591–603.
- Buabeng, I., Ntow, F. D., & Otami, C. D. (2020). Teacher Education in Ghana: Policies and Practices. *Journal of Curriculum and Teaching*, 9(1), 86–95.
- Cera, G., Mlouk, A., Cera, E., & Shumeli, A. (2020). The impact of entrepreneurship education on entrepreneurial intention. A quasi-experimental research design. *Journal of Competitiveness*.
- Chahine, T. (2022). *Social Entrepreneurship: Building Impact Step by Step*. Taylor & Francis.
- Cho, Y. H., & Lee, J.-H. (2018). Entrepreneurial orientation, entrepreneurial education and performance. *Asia Pacific Journal of Innovation and Entrepreneurship*, 12(2). <https://doi.org/10.1108/apjie-05-2018-0028>
- Čopková, R., Gróf, M., Zausinová, J., & Siničáková, M. (2023). Adaptation of the entrepreneurship competences questionnaire: When entrepreneurship is more than just business. *Strategic Management*, 00. <https://doi.org/10.5937/straman2300046c>
- Denanyoh, R., Adjei, K., & Nyemekye, G. E. (2015). Factors that impact on entrepreneurial intention of tertiary students in Ghana. *International Journal of Business and Social Research*, 5(3), 19–29.
- Di Paola, N., Meglio, O., & Vona, R. (2023). Entrepreneurship education in entrepreneurship laboratories. *International Journal of Management Education*, 21(2). <https://doi.org/10.1016/j.ijme.2023.100793>
- Durkheim, E. (1961). Moral education (EK Wilson & H. Schnurer, Trans.). *Glencoe, IL: Free Press. (Original Work Published 1925)*.
- Evyugina, A. A., Kurmanova, B. Z., Islamgaliyeva, V. Z., & Sturikova, M. V. (2019). Professional-Verbal Formal Education and Formation Thereof in Pedagogical Higher School Bachelors. *Humanities & Social Sciences Reviews*, 7(4), 1163–1172.
- Fahinde, C., Abodohou, A., Mayuto, R., & Su, Z. (2022). How Does Institutional Context Influence Entrepreneurship Education Outcomes? Evidence from Two African Countries. *Entrepreneurship Research Journal*. <https://doi.org/10.1515/erj-2021-0458>
- Fossen, F. M., & Büttner, T. J. M. (2013). The returns to education for opportunity entrepreneurs, necessity entrepreneurs, and paid employees. *Economics of Education Review*, 37, 66–84.
- Gamede, B. T., & Uleanya, C. (2017). The role of entrepreneurship education in secondary schools at further education and training phase. *Academy of Entrepreneurship Journal*, 23(2), 1–12.
- Ghana Statistical Service. (2022). *Statistics of Unemployment in Ghana*. <https://statsghana.gov.gh/headlines.php?slidlocks=NTA0MDc2MTI5MS45MTE1/headlines/883p6410nn>

- Höflinger, S., Antwi, M., Amprofi, A. A., & Kabo-Bah, A. T. (2020). Spatial identification of potential dump disposal sites for effective waste management in the Sunyani Municipality, Ghana. *Journal of Geoscience and Environment Protection*, 8(11), 93.
- Iloilo, M., & Mwantimwa, K. (2023). Entrepreneurial Intentions of Undergraduate Students: The Moderating Role of Entrepreneurial Knowledge. *International Journal of Entrepreneurial Knowledge*, 11(1). <https://doi.org/10.37335/ijek.v11i1.178>
- Iqbal, J., Yi, X., Ashraf, M. A., Chen, R., Ning, J., Perveen, S., & Imran, Z. (2022). How curriculum delivery translates into entrepreneurial skills: The mediating role of knowledge of information and communication technology. *PLoS ONE*, 17(5) (May). <https://doi.org/10.1371/journal.pone.0265880>
- Ita Margaretta Tarigan, Mangaratua M Simanjorang, P. S. (2022). Analysis of Mathematical Problem Solving Ability Students Judging by Gender Differences in 1 Kuta Buluh Junior High School. *Journal of Education and Practice*. <https://doi.org/10.7176/jep/13-17-02>
- Jason Ding, C. (2023). How Long Does It Take a Business to be Profitable? A Guide. *FreshBooks*. <https://www.freshbooks.com/hub/startup/how-long-does-it-take-business-to-be-profitable#:~:text=Creating a profitable business is,profitable in the first year.>
- Justina, O., & Emmanuel, A. (2020). Effect of creativity on human capital development of nigeria graduates entrepreneurs. *Academy of Entrepreneurship Journal*, 26(3), 1–9.
- Licha, J., & Brem, A. (2018). Entrepreneurship education in Europe-insights from Germany and Denmark. *International Journal of Entrepreneurship and Small Business*, 33(1), 1–25.
- Lobe, B., Morgan, D., & Hoffman, K. A. (2020). Qualitative data collection in an era of social distancing. *International Journal of Qualitative Methods*, 19, 1609406920937875.
- Loor, G. R., & Muñoz-Fernández, G. A. (2022). Entrepreneurship in University: A Logit Methodological Evaluation in an Emerging Economy. *Economics and Sociology*, 15(4). <https://doi.org/10.14254/2071-789X.2022/15-4/5>
- López-Núñez, M. I., Rubio-Valdehita, S., Armuña, C., & Pérez-Urria, E. (2022). EntreComp Questionnaire: A Self-Assessment Tool for Entrepreneurship Competencies. *Sustainability (Switzerland)*, 14(5). <https://doi.org/10.3390/su14052983>
- Mamoon, D. (2017). Society case study: Why formal education is the common goal of human progress. *Journal of Economic and Social Thought*, 4(4), 433–436.
- Masnun, A., Chintya Ones Charli, Budi Hartoyo, Rahmadani Hidayat, & Menhard Menhard. (2023). Subjective Normsand Entrepreneurship Education Towards Self-Efficacy and Entrepreneurship. *Journal of Accounting and Finance Management*, 3(6). <https://doi.org/10.38035/jafm.v3i6.170>
- Mayer-Haug, K., Read, S., Brinckmann, J., Dew, N., & Grichnik, D. (2013). Entrepreneurial talent and venture performance: A meta-analytic investigation of SMEs. *Research Policy*, 42(6–7). <https://doi.org/10.1016/j.respol.2013.03.001>
- McCarthy, P., Gyan, E., Kwame, B.-K., & McCarthy, P. (2015). Analysis of Results of Core Academic Subjects of Ghanaian Secondary Schools: Case Study of a Secondary School in Ghana. *Journal of Education and Practice*, 6(8), 9–16.
- Mwatsika, C., Kambewa, P., & Chiwaula, L. (2018). Untangling the concept of entrepreneurship towards a common perspective. *African Journal of Business Management*, 12(14), 451–470.
- Nimeshi, G. K. S. (2017). Entrepreneurship education and employment performance. *International Journal of Scientific and Research Publications*, 7(10), 86–91.
- Nmai, O. S. N. (2020). A critical analysis of students' performance within the 3-year and 4-year secondary education policies in Ghana. *Universal Journal of Educational Research*, 8(5). <https://doi.org/10.13189/ujer.2020.080525>
- Nmai, O. S. N., & Theophilus, M. N. (2019). An interrogation of administrative processes driving education reform policies in the secondary education sector in Ghana. *Universal Journal of Educational Research*, 7(12). <https://doi.org/10.13189/ujer.2019.071227>
- Nzama, N., & Ezeuduji, I. O. (2020). Nuanced Gender Perceptions on the Influences of Formal Education and Business Networks on Tourism-Related Business Operations: Kwazulu-Nata,

- South Africa. *EuroEconomia*, 2(39).
- OECD Library. (2023). *Enterprises by business size (indicator)*. <https://doi.org/https://doi.org/10.1787/15abedae-en>
- Opoku, M. P. (2021). Exploring the intentions of school leaders towards implementing inclusive education in secondary schools in Ghana. *International Journal of Leadership in Education*, 1–21.
- Pereira, A., & Ortiz, K. Z. (2022). Language skills differences between adults without formal education and low formal education. *Psicologia: Reflexão e Crítica*, 35.
- Prasetya, H., & Azizah, N. (2022). Entrepreneurship Interest: Entrepreneurship Education, Income Expectations and Creativity. *Jurnal Manajemen Dan Bisnis*, 11(2). <https://doi.org/10.34006/jmbi.v11i2.524>
- Proença, S., & Soukiazis, E. (2022). The Importance of Entrepreneurship on Economic Development. Evidence From the OECD Countries. *Proceedings of the European Conference on Innovation and Entrepreneurship, ECIE*, 17(1). <https://doi.org/10.34190/ecie.17.1.664>
- Putri, C. (2022). *Pemahaman Entrepreneurship dan Entrepreneurship Development*.
- Putro, H. P. N., Rusmaniah, R., Mutiani, M., Jumriani, J., & Subiyakto, B. (2022). The relevance of social capital in efforts to develop entrepreneurship education. *Journal of Education and Learning (EduLearn)*, 16(3). <https://doi.org/10.11591/edulearn.v16i3.20384>
- Rahimi, H. (2021). Entrepreneurship education in higher education of selected countries. *Iranian Journal of Comparative Education*, 4(3), 1247–1261.
- Register General Ghana. (2019). *Comprehensive Summary Report Of Business/ Company, Nature Of Business, Principal Activities, Regions And Districts From The Year 2015 To 2019 (1st Quarter) Business Registration (Issue January)*. <https://data.gov.gh/dataset/five-year-summary-report-business-company-registration-ghana-0>
- Řeřicha, V., Michelman, J. E., & Steagall, J. W. (2010). *The Accidental Entrepreneur*.
- School Education Gateway. (2015). *Entrepreneurship education in Germany (Issue August)*. [https://www.schooleducationgateway.eu/downloads/entrepreneurship/Germany\\_151022.pdf](https://www.schooleducationgateway.eu/downloads/entrepreneurship/Germany_151022.pdf)
- Senthilnathan, S. (2019). Usefulness of correlation analysis. *Available at SSRN 3416918*, 1–9. <https://dx.doi.org/10.2139/ssrn.3416918>
- Slabko, V., Marusynets, M., & Strelnik, O. (2019). “Formal” And “Non-Formal” Education In The Differentiation Of Intrinsic Properties. *Educational Discourse: Collection of Scientific Papers*, 15(7-8). [https://doi.org/10.33930/ed.2019.5007.15\(7-8\)-6](https://doi.org/10.33930/ed.2019.5007.15(7-8)-6)
- Struckell, E. M. (2019). Is the Education Entrepreneurship Link Uncoupling? *Journal of Higher Education Theory and Practice*, 19(3), 176–188.
- Świątek, A. (2018). Entrepreneurship in European Countries in Light of the TEA and EEA Indicators and Models of Entrepreneurship Education in Selected European Countries. *Przedsiębiorczość-Edukacja*, 14, 445–459.
- UNDP. (2007). *Ghana Human Development Report 2007: Towards a More Inclusive Society. United Nations Development Programme, Ghana Office*, 42.
- UNESCO-International Bureau of Education. (2006). *World Data on Education Ghana: Sixth edition (6th ed.)*. UNESCO-International Bureau of Education. <https://www.ibe.unesco.org/en/document/world-data-education-sixth-edition-2006-07>
- Van der Zwan, P., Thurik, R., Verheul, I., & Hessels, J. (2016). Factors influencing the entrepreneurial engagement of opportunity and necessity entrepreneurs. *Eurasian Business Review*, 6, 273–295.

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