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Formal Education And Entrepreneurial Innovativeness Of Small And Medium Enterprises In Egbemo-Angalabiri, Bayelsa State, Nigeria

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Abstract: *This study investigated the relationship between Formal Education and Entrepreneurial innovativeness of Small and Medium Enterprises (SMEs) in Egbemo-Angalabiri, Bayelsa State. The study employed a quantitative research method, using a cross-sectional survey research design and Pearson Product Moment Correlation, the study specifically examines the relationship between organizational learning, practical knowledge development and innovativeness among SMEs. The findings reveal a strong positive correlation between organizational learning and innovativeness and a very strong positive correlation between practical knowledge development and innovativeness. The results suggest that formal education, through organized learning and practical knowledge development, plays a crucial role in enhancing innovativeness among SMEs, leading to improved entrepreneurial innovativeness. The study concludes that formal education improves entrepreneur innovativeness. The study recommends that SMEs managers should be involved in formal entrepreneur education through learning and practical knowledge development. This will bring about entrepreneurs innovativeness.*

Keywords: Formal education, entrepreneurial innovativeness, small and medium enterprises, Egbemo-Aganlabiri, Bayelsa State, Nigeria

1. Introduction

Formal education plays a crucial role in shaping individuals' skills, knowledge, and mindset, which are essential for entrepreneurial innovativeness. Entrepreneurship is the process of creating, developing, and managing a business venture in order to make a profit. On the other hand, formal education refers to the structured educational programs provided by institutions such as schools, colleges, and universities (Carsrud, 2023). The relationship between formal education and entrepreneurial innovativeness has been a subject of interest for researchers and policymakers due to its significant impact on economic growth and innovation. Emmanuel, (2020)Historical Perspective The study of formal education and entrepreneurial innovativeness dates back to the early 20th century when scholars began exploring the link between education and economic prosperity. Notable economists such as Joseph Schumpeter emphasized the role of entrepreneurship in driving innovation and economic progress. Schumpeter's theory of creative destruction highlighted the importance of entrepreneurs in introducing new products, services, and technologies that disrupt existing markets.
Entrepreneurship is essential for economic expansion and innovativeness. 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 innovativeness agents due to their adaptability, innovation potential, and contribution to balanced regional innovativeness (Arifudin, 2022). Entrepreneurship is also crucial to attaining sustainable economic growth, particularly in developing nations such as Nigeria. Entrepreneurship education is aform of education which makes humans to be responsive to their personal, Families and national needs and aspiration, Entrepreneurship competencies carry with it, the concept of skills and mental awareness which are needed to understand the functioning of an already existing business. Entrepreneurship education is about developing attitudes, behavior and capacities at the individual levels, it is also about the application of those skills and attitudes that can take many forms during an individual's career, creating a range of long-term benefit to society and the economy. The concept of entrepreneurship education according to Anho (2021) is associated with various activities stated but not limited to the following.
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 N evergrowing 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 innovativeness amongst youths, especially graduates from various higher institutions.

Research by Krueger and Carsrud (2023) found that formal education positively influences entrepreneurial intentions. Individuals with higher levels of education are more likely to consider entrepreneurship as a viable career option. This suggests that formal education plays a significant role in shaping individuals' attitudes towards entrepreneurship. In a study by Fayolle and Gailly (2008), it was highlighted that formal education not only impacts entrepreneurial intentions but also contributes to the innovativeness of entrepreneurial skills. The authors argue that educational programs focusing on entrepreneurship can enhance individuals' abilities to identify opportunities, take risks, and manage business ventures effectively.

Despite the positive impact of formal education on entrepreneurship, research by Davidsson and Honig (2013) suggests that entrepreneurs with limited formal education may face certain barriers. These barriers could include a lack of access to resources, networks, and knowledge necessary for entrepreneurial success. This highlights the importance of addressing educational disparities in fostering an inclusive entrepreneurial ecosystem. Higher education institutions play a crucial role in promoting entrepreneurial innovativeness through academic programs, incubators, and support services. According to Guerrero et al. (2016), universities can serve as hubs for entrepreneurial activities by providing students with the necessary knowledge, skills, and networks to pursue entrepreneurial ventures successfully.

1.2 Statement of the Problem/ Research Gaps

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 innovativeness and reduce youths' unemployment. Regrettably, the implementation of these national policies has not made any significant contribution to national innovativeness (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 Nigeria 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 Nigeria.

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 Egbemo-Agalabiri, Bayelsa State Nigeria.

2. Literature Review

2.1 Theoretical Framework

2.1.1 Social Learning Theory

Social learning theory is the view that people learn by observing others. Associated with Bandura's work in the 1960s, social learning theory explains how people learn new behaviours, values and attitudes. According to Bandura (1963), social learning theory posits that learning is a cognitive process that takes place in a social context and can occur purely through observation or direct instructions, even in the absence of motor reproduction or direct reinforcement. In addition to the observation of behaviour, learning also occurs through the observation of rewards and punishments, a process known as vicarious reinforcement. This theory is highly relevant to financial education of small and medium enterprises.

2.1.2 Theory of Entrepreneurship and Economic Development

In the twentieth century, the concept of entrepreneurship and its relationship to economic innovativeness was extensively championed by Joseph Schumpeter, an Austrian economist. Schumpeter, also known as the father of modern entrepreneurial thought, has been credited for his more formal contribution. Conceptually, Schumpeter defined an entrepreneur as an innovator – one who develops a "vision of what will be successful and relying upon their intuition, when launching their new product that significant market demand will eventually develop for their proposition" (Chaston, 2017, p. 6). Schumpeter believed that the entrepreneur also pursues rewarding and profitable opportunities that will improve her products. In his work, *The Theory of Economic Innovativeness*, Schumpeter (1934) recognized five main types of opportunities and/or innovation for the entrepreneur: the production of new products or totally new qualities of an existing product; the introduction of new production methods; the creation of new forms of industrial organization; the opening up of new markets; and the opening up of new sources of supply.

UNICE (2009), Fostering Entrepreneurship in Europe; the UNICE Benchmarking Report 2009, Brussels,).Entrepreneurs are critical to the innovation process, and the entrepreneurial capacity is a key element in the transfer of knowledge and its commercialization process (Stefan et al., 2012). (Wennekers&Thurik, 1999**;** Audretsch&Thurik, 2011)has identified entrepreneurship as a micro driver of innovation and economic growth. Total entrepreneurial activity is at the core of competitiveness, productivity, innovation and economic growth (Grilo&Thurik, 2015). Small &Medium Enterprises and entrepreneurship are key sources of dynamism, innovation and flexibility in developed economies, as well as in emerging and developing economies(Ortega-Argilés, Potters, & Voigt, 2009)**.**

Waasdorp P. (2002) (Dahlstrand& Stevenson, 2010) differentiates innovative entrepreneurship from ordinary entrepreneurship. According to them, these two types of entrepreneurship may result in different economic outcomes. Ordinary entrepreneurship mainly contributes to job creation while innovative entrepreneurship leads to higher value-added jobs, wealth creation and firms with higher growth rates which are likely to be more effective, and their founders perhaps more compelled towards growth, by the opportunity of the venture and its innovativeness (Stevenson, 2002). This study therefore, is anchored on the theory of entrepreneurship and economic innovativeness. This theory is relevant to the concept of entrepreneurial innovativeness of small and medium enterprises.

2.2 The Concept of Formal Education

In general, when we hear the word formal education, we will automatically remember and say that it is a school. Because of that statement, we know that formal education has a level of education and is carried out within a certain time. According to Rulam (2019), "formal education is education that has very strict official rules in all its aspects, much stricter than informal and non-formal education which includes schools and colleges." Furthermore, according to Kompri (2018), "formal education is one of the education systems to create educated people regardless of the cultural background and social and economic level of the students involved in it." Formal education is a structured form of learning that takes place in an organized setting, typically in schools or institutions. It is designed to provide individuals with knowledge, skills, and competencies that are essential for personal innovativeness and success in various aspects of life. According to Saleh (2022) states "Formal education is a learning process that occurs in a hierarchical, structured, and tiered manner including general academic studies, various full-time educational institution programs, technical and professional training.

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 innovativeness 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, 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).

Formal education plays a crucial role in shaping individuals' intellectual, social, and emotional innovativeness. It equips them with the necessary tools to navigate the complexities of the modern world and contribute meaningfully to society (Saleh 2022). Research has shown that individuals with higher levels of formal education tend to have better job prospects, higher incomes, and improved overall well-being. The impact of formal education extends beyond individual benefits to societal outcomes. A well-educated population is essential for economic growth, innovation, and social progress. Countries that prioritize education often experience lower rates of poverty, improved healthcare outcomes, and greater political stability(Evtyugina, 2019).

2,2,1 Dimensions of Formal Education

2.2.1.1 Organizational Learning

Organizational learning is a vital component of an organization's ability to adapt and thrive in a rapidly changing environment. According to Ortenblad (2018), organizational learning refers to the process by which organizations acquire, share, and utilize knowledge to improve their performance. This concept has been further developed by various researchers, including Wang and Ahmed (2020), who emphasize the importance of organizational learning in creating a learning organization.

Effective organizational learning involves the innovativeness of new knowledge, skills, and capabilities that enable organizations to innovate and stay competitive (Garcia-Morales et al., 2018). It requires a supportive culture, leadership, and infrastructure (Santos et al., 2020), as well as continuous learning, experimentation, and innovation (Fang et al., 2020). In the context of small and medium-sized enterprises (SMEs), organizational learning is particularly important for their growth and survival (Kraus et al., 2019).

The process of organizational learning involves various dimensions, including knowledge acquisition (Kim et al., 2019), knowledge sharing (Chen et al., 2020), and knowledge utilization (Wang et al., 2019). Garcia-Morales et al. (2018) highlight the importance of building a learning organization, where knowledge is continuously acquired, shared, and utilized to improve performance.

The relationship between organizational learning and entrepreneurial innovativeness has been a topic of interest in recent years. Research has shown that organizational learning is a critical factor in entrepreneurial innovativeness, as it enables organizations to acquire, share, and utilize knowledge to improve their performance and adapt to changing environments (Ortenblad, 2018).

Entrepreneurial innovativeness is closely linked to organizational learning, as entrepreneurs need to continuously learn and adapt to changing market conditions, customer needs, and technological advancements (Wang & Ahmed, 2020). Organizational learning enables entrepreneurs to develop new skills, knowledge, and capabilities, which are essential for innovation and growth (Garcia-Morales et al., 2018).

Several studies have highlighted the importance of organizational learning in entrepreneurial innovativeness. For example, Kraus et al. (2019) found that organizational learning is a key driver of SME growth, while Santos et al. (2020) showed that leadership plays a crucial role in promoting organizational learning and entrepreneurial innovativeness.

Furthermore, research has identified various dimensions of organizational learning that are critical for entrepreneurial innovativeness, including knowledge acquisition (Kim et al., 2019), knowledge sharing (Chen et al., 2020), and knowledge utilization (Wang et al., 2019).
Overall, the literature suggests that organizational learning is essential for entrepreneurial innovativeness, as it enables entrepreneurs to develop the skills, knowledge, and capabilities needed to innovate, adapt, and grow in a rapidly changing environment.

2.2.1.2 Practical Knowledge Development

Practical knowledge development refers to the process of acquiring, sharing, and utilizing knowledge that is relevant to the practical needs of an organization (Nonaka& Takeuchi, 1995). It involves the innovativeness of skills, expertise, and know-how that enable individuals and organizations to perform tasks effectively and efficiently (Ambrosini& Bowman, 2001).
Research has shown that practical knowledge development is critical for organizational success, as it enables organizations to innovate, adapt to changing environments, and improve performance (Garcia-Morales et al., 2018). It involves various dimensions, including knowledge acquisition, knowledge sharing, and knowledge utilization (Kim et al., 2019).
Practical knowledge development is closely linked to entrepreneurial innovativeness, as entrepreneurs need to develop practical knowledge and skills to start and grow their businesses (Wang & Ahmed, 2020). It involves learning from experience, experimentation, and continuous improvement (Santos et al., 2020).
Several studies have highlighted the importance of practical knowledge development in various contexts, including SMEs (Kraus et al., 2019), innovation (Fang et al., 2020), and leadership innovativeness (Santos et al., 2020).
Practical knowledge development is a critical component of entrepreneurial innovativeness, as it enables entrepreneurs to acquire, share, and utilize knowledge that is relevant to the practical needs of their businesses. Research has shown that practical knowledge development is essential for entrepreneurial success, as it enables entrepreneurs to develop the skills, expertise, and know-how needed to start and grow their businesses (Garcia-Morales et al., 2018). This involves learning from experience, experimentation, and continuous improvement, which are critical for entrepreneurial innovativeness (Santos et al., 2020).
The relationship between practical knowledge development and entrepreneurial innovativeness is complex and multifaceted. Practical knowledge development enables entrepreneurs to develop entrepreneurial skills and expertise (Kim et al., 2019), create new products and services (Fang et al., 2020), and grow and sustain their entrepreneurial ventures (Kraus et al., 2019). Furthermore, practical knowledge development plays a critical role in shaping entrepreneurial mindset and behavior (Santos et al., 2020).
Overall, the literature suggests that practical knowledge development is a critical factor in entrepreneurial innovativeness, as it enables entrepreneurs to acquire, share, and utilize knowledge that is relevant to the practical needs of their businesses. By developing practical knowledge, entrepreneurs can improve their chances of success, innovate, and stay competitive in a rapidly changing environment.

2.3 Concept of Entrepreneurial Innovativeness

The term innovation comes from the Latin – innovare – meaning to make something new; that is turning opportunity into new ideas and putting these new ideas into widely use practice. Firstly, it is important to understand what innovation entails from a conceptual perspective. Innovation relates to the doing of new or novel things or the doing of old things through new strategies so as to enhance sales, cost, and profit or market performance (Abdilahi et al., 2017). Innovation has also been suggested to be the use of institutional, technological or human resources in ways that achieve new products, markets and practices (Abdilahi et al., 2017). Innovations can manifest as a new service or product, a new technological process in production, a new organizational administration structure or system, a new program or plan. Product and process innovation types are the major focus of academic literature on innovation, although organizational innovation is also a newer type of innovation dimension being focused on by researchers (Braunerhjelm et al., 2016). The innovative capability of the firm has been tied to the process of research and innovativeness (R&D) within the SME. R&D leads to the generation of newer knowledge which informs new innovations (Zimmerman, 2017). As such, SMEs which regularly do R&D activities are more likely to have newer knowledge and thus will be able to come up with new services or products or newer processes of production.

In the third edition of the Oslo Manual, innovation is defined as the implementation of a new or significantly improved product (goods or services), a process, a new marketing techniques or a new organizational method in business practices, workplace organizations or external relation (OECD and Eurostat, 2005). Here, innovation was classified into four different types which are product innovation, process innovation, marketing innovation and organizational innovation. Here, the product and process innovation were grouped into technological innovation while marketing and organizational innovation were grouped as non technological innovation.

Innovation is described as “the introduction of new or improved processes, products or services based on new scientific or technology knowledge and/or organizational know-how” (OECD, 2015). An invention is the first occurrence of an idea for a new product or process whereas innovation is the act of putting it into practice. There are different types of innovation in business (Trott, 2008); however it can be related to new products or services, new production processes, new marketing techniques, and new

organisational or managerial structures (Rebound, 2008). Innovation may also involve technology, intellectual property, business, or physical activity (Sundbo, 2003).

Innovativeness is paramount to the survival and growth of small and medium scale enterprises. A study by Rosenbusch et al. (2011) identified that innovativeness has strong positive effect on financial growth measures such as return on sales, returns on assets and profitability. Moreover, Rosli and Sidek (2013) recorded a strong positive relationship between innovativeness and nonfinancial performance measures. Ngugi et al. (2013) examined the influence of innovativeness on the growth of small and medium-sized enterprises. They based their research on the RBV and operationalised innovativeness to include new goods and services, new processes and technological advancement, while enterprise growth was operationalised as sales growth, employment growth, profit, market share growth, customer satisfaction and owner's/manager's satisfaction. They found that both the individual and composite dimensions of innovativeness had significant positive relationships with growth of SMEs in Kenya. Similarly, Salavou and Avlonitis (2008) investigated the influence of product innovativeness on the performance of small and medium-sized manufacturing, food and beverages, and textile enterprises in Greece and concluded that product innovativeness influenced performance. In another related study, Alpay et al. (2012) examined the innovativeness-SME growth relationship. The results indicated that there was a strong linear relationship between innovativeness and performance of SMEs in Turkey.

Various types of innovative innovativeness are associated with different aspects of growth and performance. Previous studies mention a positive relationship between the innovation and performance (Centobelli et al., 2019; Chegeand Wang, 2020). The impacts of innovation on the performance of a firm can be demonstrated by both financial and non-financial indicators (Mashal, 2018). The positive impacts of innovation include the ability to compete with others (Anwar, 2018; Conto et al., 2016), financial accessibility (Abdu and Jibir, 2018), connection and communication (Radzi et al., 2017), marketing (Adam et al., 2017), and export performance.(Azar and Ciabuschi,2017; Love et al., 2016; Prange and Pinho, 2017). However, some critics have a different perspective. For example, Karabulut (2015) found that innovation has negative impacts on firm growth. It has also been suggested that a failure to consider the potential negative effects of innovation could eventually impact on the environment and lead to uncontrollable business growth ((Laforet, 2011). In spite of reservations like these about potential negative impacts, there is strong support in the literature for the positive effects of innovation on firm growth (Kijkasiwat & Phuensane, 2020).

The Study Conceptual Model and Hypotheses Development

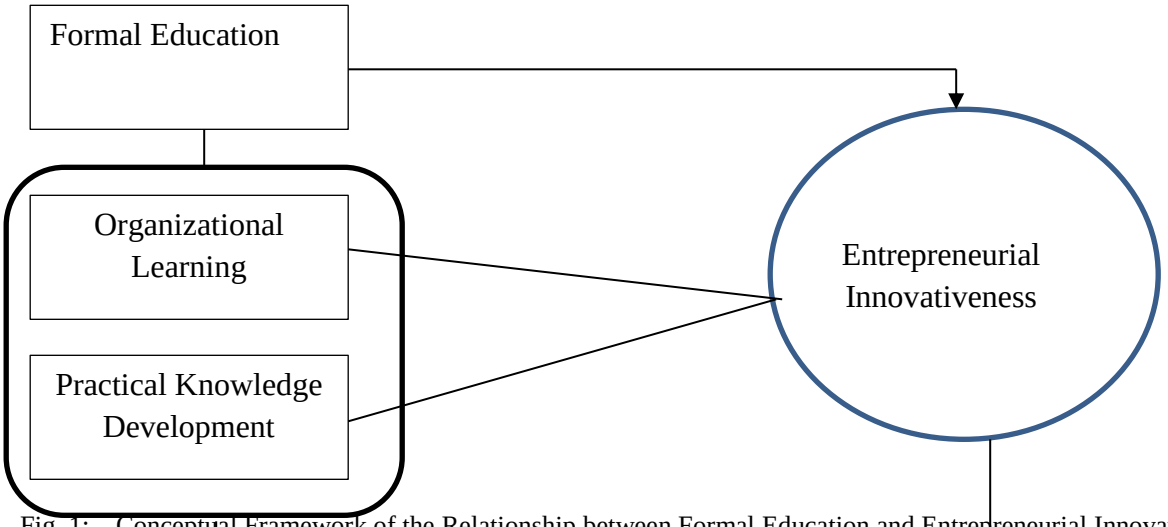

Fig. 1: Conceptual Framework of the Relationship between Formal Education and Entrepreneurial Innovativeness
Source: Researcher's Conceptualization from Review of Literature, 2024

2.4 Empirical Review

Formal education brings about entrepreneurial innovativeness among firms. Thus, Oladele, Akeke, and Oladunjoye (2011) carried out research on Entrepreneurship Innovativeness: A Panacea for Unemployment Reduction in Nigeria. The paper examines the need for promoting employment in Nigeria through the innovativeness of entrepreneurship. The paper relies on secondary data from the Central Bank of Nigeria's Statistical Bulletin and CIA Fact Sheet and other institutional publications to provide empirical basis for the study. A multiple regression statistical tool was used for analysis. The result did not support the theoretical formulation in the

study. The paper however, concludes that the government and its agencies should deliberately encourage entrepreneurial culture and skills in Nigeria in order to attack the level of unemployment situation in the country.

Matthias and Walter **(**2014**)** carried out research on the Stability of Preferences: Repercussions of Entrepreneurship on Risk Attitudes. In the paper, they showed that entry into entrepreneurship itself plays a decisive role in shaping risk preferences. They also found that becoming selfemployed is indeed associated with a relative increase in risk attitudes, an increase that is quantitatively large and significant even after controlling for individual characteristics, different employment status, and duration of entrepreneurship. The study concluded that risk attitudes do not remain stable over time, and individual preferences change endogenously.

Ogboand Nwachukwu (2012) carried out research on the Role of Entrepreneurship in Economic Innovativeness in the Nigerian Perspective. The paper analyzed the contributions of entrepreneurship in the economic innovativeness through small and medium enterprises innovativeness in Nigeria. A total of 100 SMEs were randomly selected from a cross section of a population of all small and medium enterprises spread around some states of Nigeria and covering virtually all forms of enterprise. Participants were selected through a simple random sampling. The responses to the questionnaires were complemented with personal interviews of some small and medium enterprises operators. The responses of the participants were analyzed using the statistical package. The major findings of the study small and medium enterprises played and continue to play significant roles in the growth, innovativeness and industrialization of many economies the world over. In the case of Nigeria, small and medium enterprises have performed below expectation due to a combination of problems which ranges from attitude and habits of small and medium enterprises themselves through environmental related factors, instability of governments and frequent government policy changes etc. The paper conclude that Promoters of SMEs should thus ensure the availability or possession of managerial capacity and acumen before pursuing financial resources for the innovativeness of the respective enterprise.

Ebiringa (2012) examined entrepreneurship innovativeness and growth of enterprises in Nigeria he found out that several policy interventions in Nigeria that were aimed at stimulating entrepreneurship innovativeness via small and medium scale enterprises have failed. Instead of building in-country entrepreneurial capacity, entrepreneurs have become distribution agents of imported products. He recommends that government and the organized private sector should increase their support for entrepreneurial training programs as part of the tertiary education system.

Akanwa and Akpanabia (2012) examined the need for promoting employment in Nigeria through the innovativeness of entrepreneurship. The work relies mostly on secondary data from scholars/ authors in the field. They concluded that, government and it's agencies should deliberately encourage entrepreneurial culture and skill in Nigeria in order to attack and eventually reduce the high level of unemployment situation in the country so that the nation will boost its economic innovativeness.

Bandal (2010), carried out empirical study on leveraging the relationship between entrepreneurship and job creation. He found out that individual talent, attitude, skills and knowledge along with several contextual variables such as social capital, access to credit, role of government technology and infrastructure, access to information and access to markets work together to drive entrepreneurial activity.

Nwachukwu and Ogbo (2012) carried out empirical research on the role of entrepreneurship in economic innovativeness: The Nigerian perspective. The aim of the paper is to develop and analyse the contributions of entrepreneurship in the economic innovativeness through SME innovativeness in Nigeria. A total of 1000 SMES were randomly selected from a cross section of a population of all SMES spread around some states of Nigeria. The hypotheses of this research which were tested at 0.05 level of significance using chi-square statistics hinged on identifying the greatest problem which SMES face in Nigeria. The researcher found out that SMES have played and continue to play significant roles in the growth, innovativeness and industrialization of many economics the world over. They concluded that promoters of SMES should thus ensure the availability or possessions of managerial capacity and acumen before pursuing financial resources for the innovativeness of the respective enterprise.

Baba (2013) carried out research work on the challenges of Entrepreneurship innovativeness in Nigeria and way forward. He is of the view that in this era of shrinking economic activities, government should endeavour to provide the necessary infrastructures required for skills acquisition among its citizenry because without technological skills, entrepreneurial spirit which drives economic innovativeness through job creation will be lacking. He concluded that entrepreneurship is essential for rapid and sustained economic growth but there is urgent need to change the mind-set of the average Nigerian especially the youths towards embracing selfemployment and de-emphasize the search for white collar jobs that are non-existent.

Abiola (2014) carried out a study on Small and Medium Scale Enterprises in Nigeria: The problems and Prospects. The objective of the study was to examine the role of Small and Medium Scale Enterprises in Nigeria in relation to those challenges which affect SMEs from developing capacity to realizing its full potentials as well as the prospect for improvement and innovativeness for

employment generation, economic growth and national innovativeness. The study employed a descriptive research such that structured questionnaire was administered to the sample drawn from the population of the study. The data collected were analyzed with Chisquare (X^2). It was revealed that small and medium scale enterprises plays a pivotal role in the socio-economic well being of the citizenry if properly and carefully managed. From the findings, the study therefore concludes that invigorating Small Medium Scale Enterprises (SMEs) with strengthened commitment to economic reform would offer a turning point in facilitating the recovery of Nigeria economy and national innovativeness.

Ayozie, (2013) conducted a study on the implications of Small and Medium Scale Enterprises (SMEs) on socio-economic innovativeness in Nigeria. The objective was to determine the effect of Small and Medium Scale Enterprises (SMEs) on Nigerian economy. The study employed a survey research design of which structured questionnaire was administered to the sample drawn from the population of the study. The data collected were analyzed with chisquare (X^2) and it was found that Small and Medium Scale Enterprise (SMEs) assist in promoting the growth of the country's economy, hence all the levels of government at different times has policies which promote the growth and sustenance of SMEs, and therefore concludes that Small scale industry orientation is part of the Nigerian history. Evidence abound in the communities of what successes our great grand parents, made of their respective trading concerns, yam barns, cottage industries, and the likes.

Kriss (2012) conducted a study on the Impact of Small and Medium scale enterprises on the Economy. The study was aimed at determining the impact of small and medium scale enterprises on the economy. The study employed a survey research design of which questionnaire was administered to the sample drawn from the population of the study. The data collected were analyzed with Chi-square (X^2). It was found that the contributions of small scale enterprises to the economy cannot be over-emphasized because it provides job employment for the people and enhance their standard of living. Therefore concludes that the Government at all levels should provide succor to the small scale enterprises by way of advancing loan, sensitization programmes to encourage entrepreneurs.

3. Methodology

This study adopted a cross-sectional survey research design with explanatory research design. The correlational method of investigation was employed. The population of the study was the 79 small and medium enterprises operating in Egbemo-Angalabiri in Bayelsa State, Nigeria. This population was fully studied, hence a census study. The methods of data collection was the administration of structured questionnaire. 79 copies of the questionnaire of five point likert type scale was administered to the respondents. The methods of data analysis was the employment of both univariate and bivariate statistics with the aid of the statistical package for social sciences (SPSS) version 25.0

4. Estimation of Results

4.1 Field Report

Table 4.1 Questionnaire Administration and Retrieval

Variables	Frequency	Percentage (%)
Questionnaire distributed	79	100
Questionnaire retrieved	75	95
Questionnaire not retrieved	4	5

Source: Field Survey, 2024

Table 1 shows the administration of questionnaire**.** Seventy nine**(**79) copies of questionnaire were administered to selected entrepreneurs in Egbeme…. A total of seventy-five (75) copies were retrieved, this represents a 95% return rate and five (5) not retrieved which represent 5% not return rate. This confirms Cooper and Schindler's (2007) study which asserts that a study response rate of above 75% is sufficient to significantly explain the parameters in the study just as it is in a complete response rate. Therefore, getting a sample size greater than 75% is sufficient for a study of a social scientific nature to proceed.

4.2 Univariate Analysis

Table 2 Biodata Of The Respondents

	Category	Frequency	Percentage (%)
Gender	Male	30	40
	Female	45	60

	Total	**75**	**100**
Age	18-25 years	15	20
	26- 30 years	26	35
	31- 35 years	8	11
	36 – 40 years	8	11
	41 -45 years	12	16
	Above 45 years	6	8
	Total	**75**	**100**
Highest Qualification	SSCE	40	53
	Hnd/Bsc	30	40
	MSc	5	7
	PhD	-	-
	Total	**75**	**100**

Source Field survey 2024

From the results as shown in table 2, it was observed that the female gender dominates the organization with 60% and male 40%. The age bracket of 26-30years has the highest percent of 35% followed by 18-25year 20% 41-45years 16%, and 46years and above with the least 8%. On the educational background of the sample, it was shown that 53% of the response were SSCE holders, 40% are OND/NCE, 7% areB.Sc holders.

4.3 Bivariate Analysis

4.3.1 Test of Hypothesis 1

Ho_1: There is no significant relationship between organizational learning and entrepreneurial innovativeness of SMEs in gbemo-Agalabiri, Bayelsa State, Nigeria.

H_{A1}: There is significant relationship between organizaitonal learning and entrepreneurial innovativeness of SMEs in gbemo-Agalabiri, Bayelsa State, Nigeria

Table 3 There is no significant relationship between Organised Learning and Innovativeness

		Organised Learning	Innovativeness
Organised Learning	Pearson Correlation	1	.850**
	Sig. (2-tailed)		.01
	N	75	75
	Pearson Correlation	.850**	1
Innovativeness	Sig. (2-tailed)	.01	
	N	75	75

Source: *SPSS output, version 25.0 (2024)*

The Pearson correlation coefficient (r) of 0.850 indicates a strong positive linear relationship between organised learning and innovativeness of small medium enterprises in Egbema Agalabri Bayelsa state. This suggests that as organised learning increases, innovativeness also tends to increase. The coefficient of 0.85 indicates that about 72% (r^2 = 0.85^2) of the variation in innovativeness can be explained by the variation in organised learning. The significant value (p) of 0.01 indicates that this relationship is statistically significant at a 1% level, meaning that there is only a 1% chance of observing this relationship by chance. This provides strong evidence that organised learning has a significant impact on innovativeness.

4.3.2 Test of Hypothesis 2

Ho2: There is no significant relationship between practical knowledge innovativeness and entrepreneurial innovativeness of SMEs in Egbemo-Angalabiri, Bayelsa State

H_{A2}: There is significant relationship between practical knowledge innovativeness and entrepreneurial innovativeness of SMEs in Egbemo-Angalabiri, Bayelsa State

Table 4There is no significant relationship between practical knowledge innovativeness and Innovativeness

		Practical Knowledge Innovativeness	Innovativeness
Practical Knowledge Innovativeness	Pearson Correlation	1	.920**
	Sig. (2-tailed)		.01
	N	75	75
Innovativeness	Pearson Correlation	.920**	1
	Sig. (2-tailed)	.01	
	N	75	75

Source: *SPSS output, version 25.0 (2024)*

The Pearson correlation coefficient (r) of 0.92 indicates a very strong positive linear relationship between practical knowledge innovativeness and innovativeness of small medium enterprises in EgbemaAgalabri Bayelsa state. This suggests that as practical knowledge innovativeness increases, innovativeness also tends to increase. The coefficient of 0.92 indicates that about 85% (r^2 = 0.92^2) of the variation in innovativeness can be explained by the variation in practical knowledge innovativeness. The significant value (p) of 0.005 indicates that this relationship is statistically significant at a 0.5% level, meaning that there is only a 0.5% chance of observing this relationship by chance. This provides very strong evidence that practical knowledge innovativeness has a significant impact on innovativeness.

5. Discussion of Findings

This study investigated the relationship between formal education and entrepreneurial innovativeness of small medium enterprises in Egbemo Agalabri, Bayelsa State. The results provide insights with the role of organised learning and practical knowledge development in enhancing innovativeness among SMEs.

The findings reveal a significant positive relationship between organised learning and innovativeness of SMEs in Egbemo Agalabri, Bayelsa State. Specifically, the strong positive correlation between organised learning and innovativeness ($r = 0.85$, $p = 0.01$) suggests that SMEs with high levels of organised learning tend to exhibit exceptional innovativeness, demonstrating a strong ability to generate new ideas and solutions. This is consistent with the argument that formal education provides individuals with the necessary skills and knowledge to innovate and adapt to changing environments (Acs et al., 2017).

Furthermore, the very strong positive correlation between practical knowledge development and innovativeness ($r = 0.92$, $p = 0.005$) implies that SMEs that develop practical knowledge through experience and training tend to exhibit exceptional innovativeness, demonstrating a strong ability to apply knowledge in real-world scenarios. This finding is supported by the research of Lans et al. (2018), which highlights the importance of practical knowledge development in entrepreneurial success.

Overall, the findings suggest that both organised learning and practical knowledge development are critical factors in enhancing innovativeness among SMEs in Egbema-Agalabri, Bayelsa State. The results have implications for entrepreneurship education and training programs, emphasizing the need to combine formal education with practical knowledge development to foster innovativeness among SMEs.

6. Conclusion

The findings revealed a strong positive correlation between organised learning and innovativeness, indicating that SMEs with high levels of organised learning tend to exhibit exceptional innovativeness. Additionally, a very strong positive correlation was found

between practical knowledge development and innovativeness, suggesting that SMEs that develop practical knowledge through experience and training tend to exhibit exceptional innovativeness.

7. Recommendations

The following recommendations were made;

i. Entrepreneurship education programs should be designed to incorporate practical knowledge development, in addition to formal education, to enhance innovativeness among SMEs. This can be achieved by partnering with industry experts to provide hands-on training and mentorship programs for entrepreneurs.

ii. SMEs should prioritize organised learning and continuous professional training to enhance their innovativeness. This can be achieved by investing

8. Contribution to Knowledge

Several research works have assessed various aspects of entrepreneurship education and firm performance and mostly in developed and emerging markets contexts (Oladele, Akeke & Oladunjaye, 2011; Ogbo & Bandal, 2010; Baba, 2013). However, there is no known works in the open literature which have investigated how formal education directly influence entrepreneurial innovativeness in the context of SMEs in Egbemo-Angalabiri, Bayelsa State, Nigeria. This study was able to fill this gap in the literature by substantially contributing to the literature on formal education and entrepreneurial innovativeness.

9. Theoretical/Practical Implications

The theoretical or academic contributions of this study is that students, academics and researchers in the field of entrepreneurial education and innovativeness, innovation management will leverage the knowledge inherent in this study to advance their respective knowledge basis. The practical or managerial implications is that, small and medium scale enterprises in Egbemo-Angalabiri and other sectors of the Nigeria economy will employ the discourse here to operationalize their businesses.

10. Suggestions for Further Studies

This study is limited to SMEs in Egbemo-Angalabiri, future researchers should replicate this study in other local government areas in Bayelsa State. Again, further research efforts can continue this study in various states in Nigeria, other nations/regions. This is to check whether similar results or different research outcomes will be achieved.

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