

Impact of Entrepreneurship Development Programmes on Entrepreneurial Businesses and Innovativeness in Nigeria: Empirical Evidence from Katsina State

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ABSTRACT

This paper examined the impact of entrepreneurship development programmes on entrepreneurial businesses and innovativeness with a view to identifying whether the programmes offered by Katsina entrepreneurship development Centres (EDCs) have influence on entrepreneurial businesses and innovativeness. The study used a structured questionnaire to collect data. Specifically, data was collected from the participants of entrepreneurship development centres in Katsina Youth Craft Village, and other Business Apprenticeship Training Centres in the State. A multistage sampling technique via purposive, stratified and convenience sampling techniques was used for the selection of three hundred and seventy-one (371) respondents from Katsina youth craft village and business apprenticeship centres in Daura and Funtua Senatorial zones of the State. Out of this, only three hundred and thirty-nine (338) respondents representing (91.1%), questionnaires administered were completed and returned, while Two hundred and ninety-nine (299) were found worthy for further analysis. A One-Way Multivariate Analysis of Variance (MANOVA) was used. The findings of the study revealed that the programmes offered at the Entrepreneurship Development Centres (EDCs) significantly have a combined influence on both entrepreneurial businesses and innovativeness. Thus, we can conclude that entrepreneurship development programmes are the determining factor of entrepreneurial businesses and innovativeness in State. The study recommends that the programmes offered at the Entrepreneurship Development Centres (EDCs) be sustained and Government should increase its support and the establishment of EDCs across the State. Finally, assistance in form of business start-up packages is a major component to entrepreneurial business; it should therefore be extended to every graduate of the programmes.

Keywords: Entrepreneurship; Entrepreneurship Development Centres; Entrepreneurship Development Programmes; Entrepreneurial Businesses; Innovativeness.

1. INTRODUCTION

Entrepreneurship has emerged as a vital force for economic diversification, creating jobs and encouraging innovation, especially in emerging economies. It is not just about launching new businesses, but also about identifying opportunities, mobilizing resources, and creating value in a competitive environment (Rolando et al., 2024). One of the major components central to the success of entrepreneurship is innovativeness, which entails the introduction of new ideas, products, processes or services that enhance competitive entrepreneurial activities.

The development of entrepreneurship has become imperative now more than ever, considering its role in facilitating skills acquisition, promoting productive activities among individuals, and checkmating youth restiveness and other associated vices. In any country, youth are the most active of any population and most affected by the unemployment crisis in any economy (Gambarawa, 2023). They represent an important agent for economic development when properly provided with the skills, knowledge, and opportunities to realise their potential towards business creation and self-employment. On the other hand, if not properly engaged in entrepreneurial activities, the unemployed will only constitute a significant stock of unutilized resources, lowering output and potential for economic growth.

Globally, innovation has been recognized as a key driver of entrepreneurial activity, allowing businesses to respond to evolving customer needs and offer consumers a wider range of choices. This is critical for sustaining competitiveness and enhancing the quality of products and services (Adam & Alarafi, 2021). Innovation refers to a company's ability to introduce new services, products, processes, behaviours, or markets (Lee, 2011). It is essential for any business that aims to meet the ever-changing demands of the market, as innovative businesses tend to be more successful than those that are not (Gambarawa, 2024). Innovativeness lays the groundwork for developing new businesses' goods, services, markets, procedures, technologies, and marketing techniques. Innovation is the major instrument that enables businesses to conquer the market and survive in a dynamic environment.

In Nigerian context, empirical evidence indicated that entrepreneurial activities and innovativeness are important components of entrepreneurship and are critically essential in the developmental process of an economy (Gambarawa, 2023). The dynamic role played by entrepreneurship development centres has been established in both developed and developing

economies, where EDCs play a vital role in equipping entrepreneurs with innovative capabilities through imparting entrepreneurial skills that facilitate the establishment of innovative businesses. Innovation is crucial for organizations to grow and stay competitive. It helps to increase productivity, improve performance, develop better goods and services, and expand the market. Competition in business is inevitable, and to succeed, companies must implement innovative ideas that yield competitive advantages. In today's business world, it is essential to either innovate or the business gets perish (Gunday et al., 2011). It helps to increase productivity, improve performance, develop better goods and services, and expand the market. All businesses must innovate to thrive in today's world of competition and technological advancements (Cho & Park, 2022). Achieving a competitive advantage on a global scale means having products and services that are more appealing and profitable than those currently available while also meeting customer needs. Competition in business is inevitable, and to succeed, companies must implement creative ideas that lead to competitive benefits (Tobing et al., 2018). The higher the ability of a business to adopt and apply innovative ideas, the greater the competitive advantage maximize by that business. Timotius (2023) indicated that the ability of a business to innovate is essential for its continuous existence. Susanto and Wasito (2017) revealed that innovation drives business performance, so businesses need to develop a culture of strategic and structured innovation. Firms must innovate to survive and flourish; it also helps firms to expand, grow and increases their chances of success in the future.

Therefore, governments at all levels are seriously concerned with developing policies and programmes that will impart skills and speed up entrepreneurial activities through the creation of mass entrepreneurs. This is because without the real agents of change—entrepreneurs—being acknowledged, encouraged, and supported, the development of adequate entrepreneurial activities will not be flourish (Gambarawa, 2023). Consequently, the establishment and development of entrepreneurship development centres remain the viable option for creating jobs, wealth, and poverty reduction and hastening the process of creating more entrepreneurial activities. However, despite these initiatives of promoting the entrepreneurial businesses, the sector still suffers a low level of success (SMEDAN-NBS, 2017; PwC MSMEs Survey, 2020; Olisaemeka & Nnamdi, 2021). Findings by SMEDAN-NBS (2017) and Bello (2022) indicated that lack of entrepreneurship programmes and vocational training is among the primary factors inhibiting the establishment of entrepreneurial businesses. Bessel (2015) emphasized that

inadequate entrepreneurial skills on the part of individuals are also a significant constraint to business establishment. The main motivation for this study was to develop entrepreneurial skills among individuals in order to accelerate the speed at which new innovative businesses are created which calls for concern in order to keep pace with the expanding population. That's why the Katsina state government is making it a priority to establish and strengthen entrepreneurship development which can help establish innovative businesses. The entrepreneurship centres were solely designed to train and impart entrepreneurial skills and competencies among the participants to speed up entrepreneurial activities, self-employment and reduce the overdependence on government-paid employment.

1.2 Statement of the Research Problem

One of the major challenges faced by both developed and developing countries is the provision of job opportunities for their citizens (Ado, 2016). It has been so critical that governments at all levels are working hard to develop policies and programmes to enable individuals engage in productive activities. A significant effort has been made by the Nigerian government towards the establishment of entrepreneurship Development Centres to support individuals in promoting the setting up of entrepreneurial businesses. A review of the existing empirical studies on the influence of entrepreneurship development programmes on entrepreneurial business revealed a significant influence on the willingness and ability of individuals to establish entrepreneurial business (Gambarawa, 2023; Bhatt, 2021; Acharya & Chandra, 2019; Chioma & Ukoha, 2018; Adelekan & Dansu, 2016; Gafar et al., 2013). On the other hand, other studies also found a significant influence of EDCs on innovativeness (Gambarawa, 2023; Gundry et al., 2014; Salem, 2014; Kardos, 2012). It can be observed from the above that previous studies have explored the individual impact of EDPs on entrepreneurial business and innovativeness, respectively. However, there is a notable gap in understanding the combined influence of EDPs on both entrepreneurial businesses and innovativeness. Therefore, to the best of the researchers' knowledge, there is a paucity of empirical evidence that explored how entrepreneurship development programmes have combined influence on both entrepreneurial businesses and innovativeness. This study aims to address this gap in knowledge by examining the combined influence of EDPs on entrepreneurial businesses and innovativeness.

1.3 Objective of the Study

The objective of the study is to determine the combined influence of the entrepreneurship development programmes on entrepreneurial businesses and innovativeness in Katsina State. Specifically, the study explored how the entrepreneurial programmes offered at the entrepreneurship development centres (EDCs) have a combined influence on entrepreneurial activities and innovativeness. By this, the study aims to provide insight into how institutional mechanisms can be leveraged to innovative and drive businesses, thereby contributing to the economic growth. It is against this backdrop that this following research question was raised;

To what extent do entrepreneurship development programmes have a combined influence on entrepreneurial businesses and innovativeness in Katsina State?

To achieve this, the following research hypothesis was formulated:

Ho: Entrepreneurship development programme does not significantly have a combined influence on entrepreneurial businesses and innovativeness in Katsina State.

2. LITERATURE REVIEW

2.1 Conceptual Review

This section contains a review of related literature as regards the subject matter. It reviews concepts such as entrepreneurial business, concept of innovativeness and entrepreneurial development centres and entrepreneurship development programme.

2.2 Entrepreneurial Businesses

In the contemporary and dynamic business environment, entrepreneurial businesses have become critical engines of innovation, employment generation, and overall economic advancement (Acs et al., 2018; Naude, 2017). These enterprises are characterized by their proactive orientation toward identifying opportunities, mobilizing resources, and taking calculated risks, often while operating under conditions of uncertainty. Entrepreneurial businesses are typically established and managed by individuals who strive to recognize market opportunities and transform them into innovative products, services, or processes (Shane, 2012). Successful entrepreneurs are opportunity-driven, innovation-oriented, and capable of overcoming structural and environmental barriers that hinder the creation of new value (Kuratko & Audretsch, 2022).

Entrepreneurial activity has been widely acknowledged as a significant contributor to national economies. The development of entrepreneurial businesses is critical in transforming any economy, as they provide individual owners with self-employment opportunities and sources of income generation. The development of every business results in an individual deciding to change his status from wage employment to self-employment, which is expected to yield relatively high incomes compared to the income generated from wage employment. The simple reason is that becoming self-employed allows individuals to actively engage in entrepreneurial activity and creates employment for other people. This paves the way to what is known as an entrepreneurial economy, where the smaller creative class is able to deliver knowledge-driven goods and services in a flexible manner.

In the contemporary business environment, numerous innovative enterprises are emerging as entrepreneurship promotion accelerates the creation of new ventures while simultaneously transforming and displacing existing ones—a process Schumpeter (1934) famously described as *creative destruction*. Through the introduction of new products, services, and business models, these entrepreneurial firms challenge traditional practices and redefine industry structures. They often operate with greater efficiency, adopt customer-centric approaches, and expand into underserved or neglected markets, thereby reshaping the competitive landscape (Acs et al., 2017).

The development of these entrepreneurial business always creates excitement for every government, individual and consumer alike because it facilitates the expansion of the industrial base (Anyebe, 2017; Adeosun & Shittu, 2020) and it creates chances for wealth creation, offers people an alternative source of income, mobilizes idle resources, fosters competition by offering a variety of items, and creates job opportunities (Porter & Kramer, 2019).

Entrepreneurial businesses encourage skilled and unskilled individuals to be usefully engaged in productive self-employment rather than work for others to accelerate economic growth. This is not only profitable but also offers people a challenge and the chance to optimize their influence, power, and autonomy (Heilman & Chen, 2003). The reason for the disparity in economic performance between countries is largely attributed to the level of entrepreneurial activities within those nations. That is why it is considered vital in the development of any economy.

2.3 Innovativeness

Innovativeness is an important element of entrepreneurship that involves fostering innovation during the process of establishing an entrepreneurial business. This is critical for sustaining competitiveness and enhancing the quality of products and services (Adam & Alarafi, 2021). Innovation refers to a company's ability to introduce new services, products, processes, behaviours, or markets (Lee, 2011). Organisation for Economic Community Development (OECD, 2015) defined innovation as the implementation of a new or improved product or service, an innovative marketing strategy, or a fresh organisational structure within the workplace, external relations, or company processes as the adoption of a new or significantly enhanced product or service, a new marketing strategy, or a new organisational style in the workplace, external relations, or company processes. It is essential for any entrepreneurial business that aims to meet the ever-changing demands of the market, as innovative businesses tend to be more successful than those that are not (Adam & Alarafi, 2021).

Business innovativeness lays the groundwork for developing new entrepreneurial businesses, goods, services, markets, procedures, technologies, and marketing techniques. Innovation is the major instrument that enables businesses to conquer the market and survive in a dynamic environment. Innovativeness creates efficiency and provides an opportunity for choice among customers. It is important for organizations to grow and stay competitive, which will help to increase productivity, improve performance, develop better goods and services, and expand the market. Competition in business is inevitable, and to succeed, entrepreneurs must implement innovative ideas that yield competitive advantages.

In today's business world, it is essential to either innovate or the business gets perish (Gunday et al., 2011). It helps to increase productivity, improve performance, develop better goods and services, and expand the market. All businesses must innovate to thrive in today's world of competition and technological advancements (Cho & Park, 2022). Achieving a competitive advantage on a global scale means having products and services that are more appealing and profitable than those currently available while also meeting customer needs. Competition in business is inevitable, and to succeed, companies must implement creative ideas that lead to competitive benefits (Tobing et al., 2018). The higher the ability of a business to adopt and apply innovative ideas, the greater the competitive advantage maximize by that business. Timotius (2023) indicated that the ability of a business to innovate is essential for its continuous existence.

Susanto and Wasito (2017) revealed that innovation drives business performance, so businesses need to develop a culture of strategic and structured innovation. Firms must innovate to survive and flourish; it also helps firms to expand, grow and increases their chances of success in the future.

2.4 Entrepreneurship Development Centres (EDCs)

Entrepreneurship Development Centres (EDCs) function as institutional platforms established to strengthen entrepreneurial competencies, encourage creativity, and enhance the development of small and medium-scale enterprises. They operate as key resource points where both emerging and established entrepreneurs receive capacity-building support such as practical training, business mentorship, and financial literacy guidance that facilitate enterprise creation and long-term sustainability. The central objective of these centres is to transform entrepreneurial intentions into viable business ventures by equipping individuals with essential knowledge, skills, and networks required for success in dynamic markets (Hisrich, Peters, & Shepherd, 2017).

In many economies, Entrepreneurship Development Centres (EDCs) have evolved into vital mechanisms for promoting self-sufficiency, addressing unemployment challenges, and driving inclusive economic growth. These centres implement structured programmes that integrate theoretical instruction with experiential learning, enabling entrepreneurs to identify market opportunities, craft sustainable business models, and embrace innovative approaches. Consequently, EDCs serve as a cornerstone in strengthening entrepreneurial ecosystems by fostering collaboration among educational institutions, industry stakeholders, and policymakers to create a supportive environment for enterprise development (Acs et al., 2018).

In developing countries, including Nigeria, EDCs have assumed particular importance due to the high rate of youth unemployment and the need for the diversification of economic activities beyond traditional sectors. These centres often collaborate with universities, financial institutions and government agencies to provide incubation spaces, access to finance and advisory services. For instance, many EDCs in partnership with the Central Bank of Nigeria and other stakeholders, to build and promote enterprise development. This is in line with the perspective of the World Bank (2021), which emphasizes the role of entrepreneurial institutions in enabling entrepreneurial businesses to thrive. Vargas-Zeledon & Lee (2025) argued that entrepreneurship support institutions foster not only business creation but also social transformation, as they

encourage inclusive participation and empower vulnerable groups, such as women and rural entrepreneurs.

Therefore, the Entrepreneurship Development Centre represents critical infrastructure for nurturing entrepreneurial talent, stimulating innovation, and supporting enterprise growth. They act as a catalyst for job creation and socio-economic transformation, particularly in emerging economies where the entrepreneurial ecosystem faces multiple constraints.

2.5 Entrepreneurship Development Programmes

The effort to create a critical mass of entrepreneurs that would accelerate business formation and economic growth depends on the quality of entrepreneurial training provided. Entrepreneurial programmes have been proven to significantly impact a nation's economic growth rate. The notion that entrepreneurs are born with inherent skills and abilities does not hold any more. Instead, knowledge and training have become essential tools for entrepreneurial development. Therefore, entrepreneurship development provides the trainees with training programmes that enable the participants to become self-employed by establishing their businesses rather than obtaining skills to find wage employment. Entrepreneurship development programmes refer to the educational programmes devoted to helping future entrepreneurs to start their businesses (Adjimah & Perry, 2014). This means preparing structured programmes to train, inform and enlighten interested individuals towards business creation. Because of this, the entrepreneurship development programmes are now a crucial tool designed to prepare youth about the world of business and the available opportunities for the establishment of their own business and encourage youth to consider the option of starting a small business (Awogbenle & Iwuamadi, 2010).

Imafidon (2014) defines entrepreneurship development Programmes as a process that involves the development of entrepreneurial skills and knowledge through institutional construction and training Programmes. Its main aim is to increase the number of entrepreneurs, thereby accelerating the establishment of new firms. The Programmes focused on fostering growth potential and innovation. Kumari (2014) claimed that an entrepreneurship development programme could be described as a plan designed to help a person increase their entrepreneurial drive and acquire the skills and talents necessary to fulfill their entrepreneurial role. This involves providing the required knowledge, developing managerial, marketing, financial, and

technical skills and building an entrepreneurial attitude. Entrepreneurship development programmes are deliberate effort to train individuals' entrepreneurial abilities and traits to create novel business concepts and survive in the business environment (Dandago & Mohammad, 2014). It is, therefore, an effective way to develop entrepreneurs to face uncertainties and risks in business creation, exploitation of local resources and dealing with various challenges. Conversely, ineffective entrepreneurship policies are among the main causes of business failure. Therefore, entrepreneurship development plays a key role in building an entrepreneurial culture and facilitates the creation of required and necessary knowledge for a business's starting, growth and survival of business.

2.6 Review of Empirical Studies

This section presents a review of the literature on entrepreneurship development programmes on entrepreneurial businesses, and innovativeness, aiming to identify existing findings and research gaps.

2.6.1 Entrepreneurship Development Programmes and Entrepreneurial Business

Agbana & Agbana (2024) conducted a study on the role of entrepreneurship development in fostering sustainable economic growth, job creation, and poverty alleviation in Nigeria. The results show that the development of essential skills and managerial competencies is necessary for effective entrepreneurial business management, emphasizing the significance of mentorship, networking, and capacity-building initiatives in fostering long-term progress. This is in line with Anyaduba (2012), who indicated that entrepreneurship development centres (EDCs) enhance entrepreneurial skills and knowledge through structured training and institution-building programmes, which basically aim to enlarge the base of entrepreneurs to hasten the pace at which new businesses are created. Gambarawa et al., (2024) examined the effect of entrepreneurship development programmes of Katsina State entrepreneurship development centres (EDCs) on the establishment of business formation. The major findings of the study revealed that entrepreneurship development programmes as offered by Katsina State have the capacity to positively influence the ability and willingness of the respondents to start entrepreneurial businesses.

Masud et al (2024) examined the effect of entrepreneurship education on small-scale businesses with a view to evaluating the extent to which entrepreneurship education impacts the entrepreneurial interest of creating small-scale businesses in Gulbin-Boka. The result of the

study shows that the percentage of contribution by entrepreneurship education to the establishment of small-scale enterprises is up to 75% with a calculated value of 25, which is more than 3.00 at I degree of freedom of 0.05 chi-square table.

Bhatt (2021) conducted a study on a meta-analysis on the effects of entrepreneurship training on individuals' intention to start a business. Data was gathered from 44 different studies, including online and journal articles. Regression analysis was used to analyse the data. The results indicate that entrepreneurship programmes have a positive correlation with entrepreneurship education and the intention to start a business. This is in line with the findings of Anderson et al., (2020) who investigated the impact of entrepreneurship training programmes (EETPs) on the development of entrepreneurial skills necessary for starting a business.

Furthermore, Ahmed et al., (2020) examined how entrepreneurship programmes influence the intention to create new ventures in a developing economy. The research collected data from 348 graduating students who participated in entrepreneurship programmes in eight universities located in three metropolitan cities in Pakistan. The study used Covariance-based structural equation modelling (SEM) and AMOS to test the hypotheses. The results showed that entrepreneurship education programmes have a positive impact on graduates' attitudes and intentions towards entrepreneurship. These programmes also help students acquire knowledge and develop skills that can enhance their ability to start a new business.

2.6.2 Entrepreneurship Development Programmes and Innovativeness

Gambarawa (2024) examined the effectiveness of entrepreneurship development programmes offered by Katsina State entrepreneurship development centres with a view to identifying whether these programmes have led to the establishment of innovative businesses. The study utilized a structured questionnaire to collect data from participants of entrepreneurship development programmes. A multistage sampling technique involving purposive, stratified, and convenience sampling was used to select 371 respondents, out of which 299 responses were found worthy of analysis. The study found that entrepreneurship development programmes offered by Katsina State have a positive effect on the participants' ability and willingness towards their innovative capabilities in business. Likewise, Shinkafi, Kallamu & Suliman (2022) investigated the role of Entrepreneurship and Innovation as a Necessary Tool for Attaining Sustainable Small and medium-scale enterprises in Nigeria. The findings indicated a high level

of awareness and that innovation characterized entrepreneurship and brought about technical progress through capital-saving, efficient production techniques and a higher level of output. This is in line with Labo, Ango & Jimoh (2024), who investigated the opportunity recognition and innovation in small and medium enterprises (SME). The study adopts a quantitative research design, using a questionnaire to collect data from 249 SME owners and managers. The study revealed that opportunity recognition and innovation have positive and significant impacts on the SME performance, especially those capable of innovating and implementing creative solutions, much higher than those lacking in these capabilities.

Amah (2017) conducted a study in Port Harcourt to investigate the relationship between innovativeness and the survival of small and medium-scale enterprises. The study used a cross-sectional survey method and surveyed a sample size of eighty from the population. Data was collected through a questionnaire, and SPSS was used for data analysis. The study found that there is a strong and positive correlation between innovativeness and the success of small and medium-scale enterprises. In other words, innovativeness is a significant predictor of organizational performance and survival. Gundry, Ofstein and Kickul (2014) conducted a study on the effect of entrepreneurship education on innovation in business. Specifically, to look at how creativity skills taught in an entrepreneurship course affected the ability of MBA students at Midwestern University to generate new ideas and opportunities. Out of 204 students surveyed, 137 responses were used for data analysis. To analyze the data, linear and logistic regression techniques were utilized. The study found that entrepreneurship programmes and creativity skills helped students discover new ideas and opportunities, leading to positive outcomes for their work and contributing to actual innovation in their firms.

2.7 Theoretical Issues

To arrive at the most ideal theory guiding this study, we advance that apart from the Human Capital Entrepreneurship theory (HCET), other theories, including Psychological Entrepreneurship Theory and Sociological Entrepreneurship Theory, are constrained by their focus on risks and returns associated with business and many other factors that determine the choice of a business or the decision to be entrepreneurial. For example, the Psychological and Personality Traits theories hold that entrepreneurs display some qualities, values and beliefs that are inborn, and that these values are pre-conditions for entrepreneurship. Furthermore, the

theories advance that entrepreneurs are not nurtured. Overall, these theories fail to capture other ambitious factors that push individuals to engage in entrepreneurship. Apparently, entrepreneurship practice cannot be explained by a single factor but rather a combination of many other factors required for an adequate understanding of the process. The Human Capital Entrepreneurship Theory provides that the development of an individual through education, training and experience is the central focus of the theory (Unger, Rauch, Frese & Rosenbusch, 2011).

Drucker (1985) supports the idea that entrepreneurship can be taught, learned, trained, and developed. Therefore, the HCET emphasizes the need for investing in knowledge, experience, and skills to foster entrepreneurial activities (Amolo&Migro, 2014; Simpeli, 2011). The HCET promotes spending on training and development activities to acquire skills that are essential in establishing an entrepreneurial business and creating innovation. Thus, entrepreneurship education is critical in the development of human capital for business creation. According to Akhuemonkhan et al., (2013), entrepreneurship education is a form of training that instills the traits of risk-taking, innovation, and coordination of production factors to create new businesses. The Human capital entrepreneurship theory (HCET) is relevant to the study of entrepreneurship and is superior when compared to other theories of entrepreneurship because it emphasizes the role of entrepreneurship development centres (EDCs) as a specialized institutions established to promote entrepreneurial capacity, nurture innovation, and support the growth of small and medium enterprises. By developing their abilities, individuals with the right skills gain confidence and superior abilities which ultimately helps them to establish innovative businesses. Essentially, the HCET is particularly useful in understanding how entrepreneurship development centres serves as a strategic tool for fostering skills acquisition programmes, training, entrepreneurial competencies and supporting entrepreneurial businesses and stimulating innovativeness

The Synthesized Model of Entrepreneurship Development Programmes and its Influence on Entrepreneurial Businesses and Innovativeness is presented;

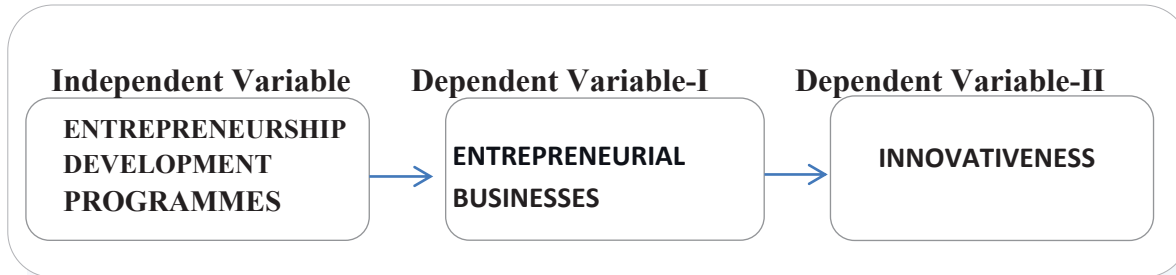


Figure 1.1: The Synthesized Model of Entrepreneurship Development Programmes and its Influence on Entrepreneurial Business and Innovativeness;

Source: Author's Conceptualization (2025)

Figure 1.1 depicts the hypothesized framework on the entrepreneurship development programmes and its influence on entrepreneurial business and innovativeness. The framework has three parts; the first part is the entrepreneurship development programme which is the independent variable (IV), displaying its components which involve; the process of acquiring and exploring opportunities, skills and ideas which enables the participants to become self-employed by establishing their own business. The second part depicts the dependent variable one (DV-I) which is entrepreneurial businesses representing the process of establishing a new business enterprise; and the third part displays the second dependent variable two (DV-II) which is innovativeness referring to the ability of individual/business to engage in creating new, process, product, services and markets.

From the model, it can be seen how the activities of entrepreneurship development programmes facilitate the process of imparting entrepreneurial skills and knowledge by exploring available resources among the teeming participants of entrepreneurship programmes which can be directly linked or measured in terms of creating new entrepreneurial business. Finally, it presents how entrepreneurship development programmes subsequently lead to combine influence on both entrepreneurial businesses and innovativeness.

3. METHODOLOGY

The study adopted a descriptive survey research design. According to Swain (2008), descriptive survey design is used when the study's objective is to systematically describe the population, situation or phenomenon. The researcher chose this method because it is highly relevant to the study and will provide a current measurement of how beneficiaries perceive the impact of

entrepreneurship development programmes on entrepreneurial businesses and innovativeness. Ayo, Adewoye, and Oni (2010), Ojokuku and Sajuyigbe (2012), and Abubakar (2014) also utilized this method. The population of the study comprises participants and graduates from the Katsina entrepreneurship development centres under the Katsina Youth Craft Village and Business Apprenticeship Centres of the State. The entrepreneurship development centres are located across the three (3) senatorial zones of the state, Daura, Funtua and Katsina. The population of the Katsina Youth Craft Village stands at 4821, Business Apprenticeship Centres in Daura senatorial zone stood at 1830, while in Funtua and Katsina the figures were 2,997 and 1,945 respectively. The total population stands at 11,053 during the period under review. The difficulty of studying this population makes sampling inevitable.

The sample for the study was drawn from the list of graduates from entrepreneurship development programmes in the three senatorial zones in Katsina State. The minimum sample size was determined using an appropriate statistical formula for estimating required sample size for descriptive studies (Cochran, 1963). The study employed a multistage sampling technique for the sample selection. In the first stage, purposive sampling was used to select three entrepreneurship development centres. One centre was selected from each senatorial zone of the state, i.e. Katsina, Daura and Funtua. In the second stage, a stratified sampling formula was used to determine the total number of respondents required from the entrepreneurship development centres. Finally, random sampling technique was used to select the number of respondents to be administered the questionnaires. The paper specifically used structured questionnaire to collect data from respondents.

A sample size of 46, 65, and 260 graduates were selected from Daura and Funtua Business Apprenticeship Training Centre, and Katsina Youth Craft village respectively, which represents a total sample size of 371 graduates of various entrepreneurship development programmes out of which three hundred and thirty-nine (338) respondents representing (91.1%) whose copies of questionnaires were filled and returned. Two hundred and ninety-nine (299) were found worthy of analysis. To test the hypothesis, One-Way Multivariate Analysis of Variance (MANOVA) was used. MANOVA is a statistical tool used to examine the effects of one or more independent variables on multiple dependent variables.

4. RESULTS AND DISCUSSION

To test the hypothesis, One-Way Multivariate Analysis of Variance (MANOVA) statistic was used. The data was analyzed using SPSS Version 23, and the result was presented in Tables 4.1, 4.2, and 4.3 below;

Hypothesis: Entrepreneurship development programme does not significantly have a combined influence on entrepreneurial businesses and innovativeness in Katsina State.

Table 4.1: Descriptive Statistics for the Combined Influence of Different Entrepreneurship Development Programmes on Entrepreneurial Business and Innovativeness

Variable	EDP Skills Acquired	Mean	Std. Deviation	N
Entrepreneurial Business	ICT / Computer / GSM	23.946	4.720	37
	Electrical	22.417	3.938	36
	Building	26.767	4.353	43
	Tailoring and Fashion	29.500	3.449	40
	Weaving / Beauty Saloon	30.258	3.706	31
	Leather Work and Shoe	31.086	3.518	35
	Welding and Fabrication	32.027	3.532	37
	Carpentry and Joinery	33.175	3.020	40
	Total	28.636	5.236	299
Innovativeness	ICT / Computer / GSM	21.973	2.398	37
	Electrical	23.556	0.504	36
	Building	25.023	0.344	43
	Tailoring and Fashion	26.450	1.600	40
	Weaving / Beauty Saloon	27.258	1.527	31
	Leather Work and Shoe	28.229	1.477	35
	Welding and Fabrication	29.568	1.119	37
	Carpentry and Joinery	29.400	3.477	40
	Total	26.415	3.147	299

Source: Author's Computation (2021) using IBM SPSS Statistics Version 23

From the descriptive statistics above, the overall mean values for entrepreneurial business and innovativeness were obtained as 28.636 and 26.415 respectively, with their corresponding standard deviation of 5.236 and 3.147. Also, in the case of business formation, the mean for the various EDP skills ranges from 22.417 (Electrical; *std.* = 3.938) to 33.175 (Carpentry and Joinery; *std.* = 3.020). Similarly, in the case of innovativeness, the mean for the various EDP skills ranges from 21.973 (ICT / Computer / GSM; *std.* = 2.398) to 29.568 (Welding and Fabrication; *std.* = 1.119). Also, the table provided the number of respondents in each of the various EDP skills, with the total number being 299.

Table 4.2 presents a Multivariate analysis of Variance of the combined influence of different entrepreneurship development programmes on entrepreneurial business and innovativeness in Katsina state. The result is presented below;

Table 4.2: Multivariate Analysis of Variance for the Combined Influence of Different Entrepreneurship Development Programmes on Entrepreneurial Business and Innovativeness

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial η^2
Intercept	Pillai's Trace	.995	31082.85 ^b	2.00	290.00	.000	.995
	Wilks' Lambda	.005	31082.85 ^b	2.00	290.00	.000	.995
	Hotelling's Trace	214.36	31082.85 ^b	2.00	290.00	.000	.995
	Roy's Largest Root	214.36	31082.85 ^b	2.00	290.00	.000	.995
EDP Skills	Pillai's Trace	.764	25.701	14.00	582.00	.000	.382
	Wilks' Lambda	.291	35.340 ^b	14.00	580.00	.000	.460
	Hotelling's Trace	2.244	46.319	14.00	578.00	.000	.529
	Roy's Largest Root	2.156	89.615 ^c	7.00	291.00	.000	.683

a. Design: Intercept + EDP Skills

b. Exact statistic

c. The statistic is an upper bound on F that yields a lower bound on the significance level.

From the Multivariate Analysis of Variance (MANOVA) table above, the combined influence of different entrepreneurship development programmes on entrepreneurial businesses and innovativeness in business in Katsina state was $F(14, 580) = 35.340$; $p = .000$; *Wilk's A* = .291; *Partial η^2* = .460. Now since the p-value (.000) is less than the alpha value (.05), the null hypothesis is hereby rejected and the alternate hypothesis adopted. This simply means that there was a statistically significant influence of EDCs on entrepreneurial business and innovativeness.

Therefore, since a combined significant influence was obtained, there is need to further conduct *tests of between-subjects' effects* to confirm this result. It was conducted and the result was as presented in the table below:

Table 4.3: Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial η^2
Corrected Model	Entrepreneurial Business	3927.52 ^a	7	561.08	38.49	.000	.481
	Innovativeness	1969.05 ^b	7	281.29	83.40	.000	.667
Intercept	Entrepreneurial Business	243248.75	1	243248.75	16687.81	.000	.983
	Innovativeness	207087.01	1	207087.01	61396.52	.000	.995
EDP Skills	Entrepreneurial Business	3927.52	7	561.08	38.49	.000	.481
	Innovativeness	1969.05	7	281.29	83.40	.000	.667
Error	Entrepreneurial Business	4241.74	291	14.58			
	Innovativeness	981.53	291	3.37			
Total	Entrepreneurial Business	253346.00	299				
	Innovativeness	211574.00	299				
Corrected Total	Entrepreneurial Business	8169.26	298				
	Innovativeness	2950.58	298				

a. R Squared = .481 (Adjusted R Squared = .468)

b. R Squared = .667 (Adjusted R Squared = .659)

From the table above, it was confirmed that the combined influence of different entrepreneurship development programmes on entrepreneurial businesses and innovativeness in Katsina state was statistically significant on both entrepreneurial businesses [$F(7, 291) = 38.49$; $p = .000$; *Partial η^2* = .481] and Innovativeness [$F(7, 291) = 83.40$; $p = .000$; *Partial η^2* = .667].

4.1 Discussion of Findings

The study's objective has been to determine the extent to which entrepreneurship development programmes offered at the entrepreneurship development centres (EDCs) of Katsina state have a combined influence entrepreneurial business and innovativeness. The hypothesis, which predicted that entrepreneurship development programmes do not significantly have a combined influence on business formation and Innovativeness among the participants of EDPs in Katsina State, is rejected, and the alternate hypothesis was adopted.

From the results in Table 4.2 of Multivariate Analysis of Variance (MANOVA) on the combined influence of EDPs on entrepreneurial business and Innovativeness was, $F(14, 580) = 35.340$; p

= .000; *Wilks's Λ* = .291; *Partial η^2* = .460. Therefore, the p-value (.000) is less than the alpha value (.05). This simply means that there was combined significant influence on entrepreneurial businesses and Innovativeness in business in Katsina state in almost all the specialisation (almost all p-values were below .05). This implies that that the EDPs equip the participants with the necessary skills to showcase some level of innovativeness in the development of various products and services from their choosing area of specialization or trade. Furthermore, the findings underscore the importance of sustaining EDPs to foster a culture of entrepreneurship and innovation among the participants.

5. CONCLUSIONS AND RECOMMENDATIONS

In conclusion, this study provides empirical evidence to show that the entrepreneurship development programmes offered by entrepreneurship development centres in Katsina State significantly have a combined influence on entrepreneurial businesses and innovativeness among the participants. Thus, we can conclude that EDCs have a combined significant influence on entrepreneurial businesses formation and innovativeness. Based on the conclusion drawn, the following recommendations were made:

The study recommends that stakeholders, including government agencies should ensure the continuity and expansion of EDPs to foster a culture of entrepreneurship and innovation among the teeming participants. This will lead to an increase in the establishment of entrepreneurial business, as more individual will acquire relevant skills and confidence to start their own businesses. Government should increase financial and infrastructural support to the EDCs to reach wider access across all the local government of the State to make interested participants acquire relevant skills for the establishment of their own businesses and reduce the over-dependence on government-paid employment and the high rate of crimes associated with unemployment. The study further recommends that further training should be prioritized by government to help participants understand the significance of establishing entrepreneurial businesses and fostering innovativeness. For business to succeed, these components should be acknowledged and pursued together in order to survive in a competitive and dynamic business environment. Finally, assistance in form of start-up packages is a major component to establishing business among the participant of the EDPs. Government should therefore extend this financial assistance to every graduate of the programmes.

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