



Influence of Institutional Entrepreneurship on the Propensity for Sustainable Entrepreneurship among Owners of Small Businesses in Nigeria

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Abstract

Institutional entrepreneurship and sustainable entrepreneurship have been proposed as panacea to environmental degradation and negative impact of climate change caused by unsustainable business practices of entrepreneurs. Thus, this study examined effects of institutional entrepreneurship on all three dimensions of sustainable entrepreneurship among owners of micro and small businesses in the south western Nigeria. Although 300 copies of questionnaire were administered to the respondents, the field work yielded 65% (188) response rate and the results showed institutional entrepreneurship significantly predicted sustainable entrepreneurship – environment and sustainable entrepreneurship – social. However, no significant relationship was found between institutional entrepreneurship and sustainable entrepreneurship – economic. It was recommended that policy makers across all levels of government put in place necessary interventions to encourage sustainable entrepreneurship that simultaneously focuses on people, planet and profit.

Key words: ecosystem, entrepreneurship, institution, social, sustainability.

Received 02 Apr., 2025; Revised 10 Apr., 2025; Accepted 12 Apr., 2025 © The author(s) 2025.

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I. Introduction

The informal sector of the Nigerian economy which is made of Micro and Small and Medium Enterprises (MSME) consists of wholesale and retail businesses, repair of vehicles, building and construction, transport, food vendor and restaurant, wood processing and furniture, textile, and metal and metal fabrication. The importance of Micro and Small and Medium Enterprises (MSME) for productivity, growth and development as well as competitiveness of developing economies, Nigeria inclusive is universally recognized. They do not only provide jobs and income for the rising population of Nigeria, as well as the primary source of new employment, they have been acknowledged as necessary breeding and nurturing grounds for building domestic entrepreneurial capacities, technological innovations, technical skills and managerial competencies required for private sector development.

However, owing to their conservative ways of their operations, Micro and Small and Medium Enterprises (MSME) are causing social and environmental challenges for the people and the planet at large. In Nigeria, activities of MSMEs have increasingly become inimical to environmental sustainability as waste and by products are disposed indiscriminately. Many businesses in Nigeria are being run on fossil fuel powered generators owing to inadequate power supply from partly government owned electricity companies thereby contributing to carbon emission which causes climate change. Particularly, the negative effects of climate change in Nigeria has become more noticeable since 2012 through 2024 when the country started experiencing perennial flooding that wiped off several thousands of home and hundreds of thousands of acre of farmland; while desert encroachment continues to account for huge crop failure in the northern parts of the country. O'Neil and Ucbasaran (2011) opine that since entrepreneurial activities are regarded as a cause of environmental degradation, entrepreneurs themselves must play critical roles in managing sustainable issues, hence the concept of Sustainable Entrepreneurship.

In other words, efforts to link entrepreneurship to sustainability management have helped to develop a new discipline called Sustainable Entrepreneurship. Consequently, developing sustainable entrepreneurship

among Small and Medium Enterprises is no longer an option but a necessity even though it is a great challenge and complex process. Sustainable entrepreneurship is focused on the preservation of nature, life support, and community in the pursuit of perceived opportunities to bring into existence future products, processes, and services for gain, where gain is broadly construed to include economic and non-economic gains to individuals, the economy, and society at large. Although sustainable entrepreneurship has been popularized for years, it still receives low acceptance from small- and medium-sized business practitioners in Nigeria and as suggested by scholars, governmental institutions would have to take the lead in the sustainability of the planet. Sustainable Entrepreneurship involves individuals' mental process, as Hisrich, Peters and Shepherd (2013) mentioned, individuals showed some level of sustainability entrepreneurial intention before they successfully become ones. Although Fishbein and Ajzen (1975) and Shapero and Sokol (1982) have found that intention could be triggered by attitudinal and normative factors and also individual's perceptions, however, importance of institutions to sustainable entrepreneurship is yet to be explored. In Nigeria, Small and Medium Enterprises Development Agency of Nigeria (SMEDAN) is the first major government agency established to tackle the problems of small businesses in a coordinated manner. Besides, not many extant entrepreneurial studies have focused on investigating institutional entrepreneurship as a key determinant of sustainable entrepreneurship among micro and small and medium scale enterprises, hence the need for this investigation.

Therefore, using the theory of circular economy as proposed by Kirchherr, Reike and Hekkert, this study aimed at determining the extent to which owners of Micro and Small and Medium Enterprises have embraced sustainable entrepreneurship in their day to day activities. Also, given the fact that SMEDAN is the regulatory institution of MSMEs in Nigeria, this study further explored relationship between sustainable entrepreneurship and institutional entrepreneurship. Consequently, the research provided answers to the questions: to what extent have owners of MSMEs incorporated sustainable entrepreneurship in their business models and how SMEDAN as a regulatory institution in Nigeria has impacted on the sustainable entrepreneurial mindset of owners of small businesses in Nigeria. In order to accomplish the aim of this research, the rest of this paper is organized as follows: immediately following this introductory section are literature review, methodology, findings, summary, conclusions and recommendations.

II Literature Review

Meaning of Circular Economy and Micro and Small and Medium Enterprises

Circular Economy (CE) as a concept became popular after it was introduced by policy makers in Europe and China as a remedial measure that would enable consumers, firms and countries reduce further damage to the environment by closing the loop of the product life cycle. According to Haas, Krausmann and Heinz (2015) that circular economy is a strategy aimed at reducing both input of virgin materials and output of waste by closing economic and environment loops of resource flows. This runs contrary to entrenched and intensive linear economy practices that have depleted world's resources. Linear economic model which started during the 17th century industrial revolution was characterized by exploitative scientific and technological innovations which ignored the limits of the ecosystem and long term catastrophe to the entire humanity. Scheel (2016) describes circular economy as economic system that facilitates new but improved business practices which help to replace end – of- life paradigm with newer concept of reducing, reusing, recycling and recovery of materials in the production, distribution and consumption process thereby incorporating consumers and products at micro level, industries at meso level and countries/cities at macro level with the major objective of ensuring sustainable development.

Theory of Circular Economy (CE)

Generally, the circular economy is depicted as a cycle of resources extraction and transformation of the same and distribution of goods/services as well as recovery of materials (Stahel, 2016). The circle commences when firms sourced raw materials from the environment which are transformed into products and services. Afterwards products and services are distributed to consumers at wholesale or retail point or to other firms as industrial products. The circular economy proposes at this point that the loop be closed through recovery of waste materials and therefore Stahel (2016) stresses the imperative of innovations to recover and enrich waste materials from the environment instead of dumping them indiscriminately. Furthermore, effective implementation of CE may be done collaboratively among agents at micro level through meso and macro levels. At individual/micro or firm level, businesses would have to focus on improving their internal and outside processes as well as their innovative capacity. Additionally, Ormazabal et.al (2016) established strong relationship between a firm's environmental management maturity level and its intention to implement CE as a result of high impact it has on its acceptance among firm's consumers and reduction in price or cost of products. Also, the meso level comprises of firms and players that share the same industrial symbiosis in the same industry so as to enjoy benefits of natural environment and regional economy (Geng et al, 2012). According to Andersen (2007) the concept of industrial symbiosis ensures triple benefits: first, economic benefits come

through firms' agglomeration which brings together pool of common factors such as capital, labour and energy that could help decrease factor prices and ultimately increase productivity. Second, environmental benefits may be obtained not only through minimization of quantity of discharged waste but minimization of the use of virgin materials for economic activities. And socially it helps create employment for people, thereby reducing inequality among the citizenry. At macro level, the focus is usually on the development of eco local government, eco state, eco cities and eco nation through appropriate environmental policies and institutional set up.

Fundamentally, the society has travelled through three economic stages, namely, linear economy, green economy and now circular economy. The first stage started with the advent of industrial revolution in the 17th century and largely characterized by over exploitation of world resources. However, this stage was punctuated in 1960s by the activities and various publications by ecologists and economists. Specifically, (2017) Carson, an ecologist and Boulding, an economist argued that the earth could work as a cyclical ecological system in which limited resources were recirculate and converted to unlimited ones. The second stage green economy started in the 1960s through 70s and 80s, characterized by the works of Ayres and Kneese (1969) and Ayres (1989) in which they argued that industrial activities could work like metabolism where different players were integrated through their resources and wastes which continuously circulate in the resource inventory of the system. United Nations Environment Programme (2011) defines green economy as one that results in improved human well-being and social equity while significantly reducing environmental risks and ecological scarcities. Although green economy prompted governments across the globe to set up green economy institutions, full transition into circular economy was not achieved because the concept of green economy was largely associated with weak sustainability. Besides, inherent in the concept of green economy is the assumption that economic benefits would substitute for human capital and natural capital, hence the arguments for third stage called circular economy. The work of Pearce and Turner (1990) kick started arguments in favour of circular economy in the 1990s and explanations were advanced for taking into consideration environmental awareness in economic flows by closing industrial loops.

Principles of Circular Economy (CE)

In an attempt to operationalize circular economy, a significant number of publication and reports by organisations such as Ellen MacArthur Foundation (2013) used Sustainable Design Strategies (SDS) known as eco design as the official CE principles. According to Negney et al (2012) eco design is the systematic incorporation of environmental issues into the design of production process and final products. Thus, heavily polluting firms in the process and manufacturing industries such as tannery, electric and electronic as well as oil and gas could be encouraged to adopt more integrated, efficient and sustainable means for production through innovative design of products and production lines. The three most popular design strategies are eco design guided by the Life Cycle Assessment (LCA) of a product, Nature Inspired Design Strategies (NIDS) such as bio mimicry, where nature is the mentor (Benyus, 2002), and cradle to cradle (C2C) tenets which aim to inform humans about design. The three tenets are: waste equals food, use current solar income and celebrate diversity (De Pauw et al , 2014). However, Llorach-Massana et al (2015) argue that Nature Inspired Design Strategy can only be applied at extraction and transformation stages of CE because it does not meet all the parameters of the measures based on lifecycle assessment especially if the environmental impact is concentrated in the distribution and use of product stages.

But the most common and frequently mention group of principles can be represented by 3Rs. According to Wang et al (2014) a circular economy is based on the principles of reduce, reuse and recycle principles, consisting of basic characteristics of low consumption, low emissions and high efficiency. Reduction refers to minimization of inputs of primary raw materials and energy through more efficient and effective production techniques; while reuse means using wastes and by product from one business or industry as resources for companies in other industry and recycle encourages processing recyclable materials and waste into new products so as to reduce consumption of virgin materials. These principles have hierarchical importance and consumption of resources in the production process is the leading principles within a circular economy implementation.

Determinants of Circular Economy

Operationalisation of circular economy would require innovations on how industries produce, consumers use produced products and policy makers induce desirable behavior among economic players. Thus, eco – innovation, policy and legislation as well as demand and supply of eco-friendly goods and services have been identified in the extant literature as key determinants of circular economy.

The evolution of circular economy has been followed by the evolution of environmental innovation in a chronological order and this has been attributed to the increase in the complexity and dynamism of the economy and markets (Hofstra & Huisingh, 2014). Owing to a paradigm shift away from anthropocentric to eco – centric

vision of nature, the society also keeps evolving and developing four main environmental innovations, namely, exploitative, restorative, cyclical and regenerative approaches to the materials and the planet. According to Hofstra and Huisinigh (2014) exploitative and restoration innovations are associated with an anthropocentric sociological vision of the world in which necessities of human beings are prioritized and societal growth comes from the conventional linear economy. Although exploitative innovation conforms to legal requirements of the society, it pays little or no attention to environmental issues. But restorative eco innovation provides solutions to damage done to the environment by minimizing resource use and carbon emissions. Conversely, cyclical and regenerative eco innovations emanate from the recent eco centric sociological view of the planet in which environment is important consideration and therefore human beings are parts or managers of the nature and not owners of the universe (Hofstra & Huisinigh, 2014). Cyclical innovation connects human beings and nature to the ecosystem at a much higher degree which also improve the capacity of the system to close the loops. Regenerative innovation eco innovation is closely related to the ability of eco system to create added value for human beings and nature. Therefore, it has become imperative for mankind to consider the effects of their actions on the limited capacity of environment whenever their needs for production and consumptions of goods and services increase. On the bases of the above, Lozano (2008) concludes that implementation of circular economy requires cyclical and regenerative eco innovations to achieve a sustainable development that satisfies the expectations of environment, social and economic prosperity in the short, medium and long terms.

Also, government regulations and policies could influence and motivate consumers and suppliers' environmental practices thereby paving the way for circular economy implementation. Policy makers could put in place incentives to discourage demand for certain resources or products and instead encourage sharing economy and repair or renovation of existing goods rather than purchase new ones. Moreover, government may support innovations that provide solutions to pollution and waste collection as well as encouraging cleaner production process across industries. Although scholars have argued in favour of government raising awareness levels of the citizens on the advantages of circular economy, Ilic and Nikoic (2016) opine that successful economic incentives such as implementing tax rebate on consumption of green products as well as granting low - interest loans to various players in the economy would drive environmental and public health improvements especially when there is a clear understanding of the economic costs of environmental externalities associated with outdated linear economy. Another important determinant of proper implementation of circular economy is the capacity of firms and industries to manufacture and supply green products to the economy. This would mean adoption of necessary technology at both micro and meso levels in ways that help close industrial loops. According to Huang et al (2014) technological modernization and waste management can reduce production costs and mitigate unsustainable use of natural resources as well as extending product life cycle. At the heart of supply as key determinant of circular economy is firms' capacity for management of interconnection and agglomeration of firms or proximity to other firms across industries. Geographical proximity confers on firm greater collective benefits leading to decrease depletion of resources, lower carbon emissions and sharing of vital resources among firms and thus reduces transportation costs. Additionally, having managerial capacity for managing interconnection and forming symbiotic relationship could help firms to overcome technological challenges and share knowledge so as to optimize resources usage. The companies' capacity to change their business models into sustainable and competitive ones would enable them create and capture value in response to market demand profitably (Yang et al 2014). Such new business models as canvassed by Zhang et al (2011) may focus on recycling and remanufacturing, decreasing ownership and increasing rental services and implementation of dematerialization among others.

Implementing circular economy over a long term will depend on consumers' perception of added value to their lives by new products/services as well as their social perception of sustainable products. Increasingly, there is a growing social awareness among consumers on product components and their chemical origin which in turn has given rise to environmentally oriented consumer behavior (Matus et al, 2012). Besides, the emerging environmental education programmes in schools and universities have increased people's interest in the value of nature, its resources and the way societies manage all these could trigger significant changes in market trends and customer preferences (Matus et al, 2012).

It should be noted that the four circular economy determinants are interrelated and therefore decisions on one determinant might have far reaching nock on effects on the other. For example, the policy and regulation determinants could trigger some legal framework for action on both demand and supply sides. The supply side determinants are mainly issues controlled by and undertaken in firms or group of firms that formed industrial metabolism. The demand side determinants are concerned with consumer behaviour and how eco innovative products are accepted in the market. Progressively, new business models and eco innovations recycle back and triggers new changes in the policy and regulation determinants in an iterative process. In Nigeria, the policy and regulatory institutions responsible for ensuring growth and sustainable operations of micro, small and medium enterprises is Small and Medium Enterprises Development Agency of Nigeria (SMEDAN).

Definition and Meaning of Micro, Small and Medium Enterprises

Micro, Small and Medium Enterprises can be defined using different criteria as stipulated by legislation of each country. However, in order to achieve some consistency, World Bank (2019) suggests number of employees, assets value, sales value and size of loans as major criteria to assess and define small businesses. In Nigeria, both employee number employed and assets value are the main criteria being used to define small businesses and therefore micro business can be identified as those organizations whose assets values are less than three million naira and employment capacity between 1 – 9; small businesses with asset base of up to N25 million naira but less than N100 million and staff strength between 10 – 49, while medium enterprises have 50 – 199 workers and an asset base of N100 million naira but less than N1 billion (SMEDAN, 2021). According to Nigeria Bureau of Statistics (2021) MSMEs are about forty million business organisations owned by entrepreneurs to create economic, social and environmental values to the national economy and contribute 55% to the Gross Domestic Product of Nigeria in the last three years. Bello, Jibril and Ahmed (2018) opine that MSMEs are the ingredients required for industrial development of a developing country like Nigeria owing to their abilities to create economic activities and engagement for institutions such as finance, marketing and supply chains for large manufacturing firms. Just like big companies, MSMEs as entrepreneurs who are always on the look out to exploit opportunities in the environment so as to reap maximum economic and social benefits. However, these entrepreneurial activities have created market failure and environmental problems such as local air pollution, over utilization of scarce resources, high carbon emissions and global warming. In an effort to link entrepreneur with sustainable management, Dean and McMullen (2007) observe that concept of sustainable entrepreneurship which in effect means a process by which entrepreneur exploited opportunities in an innovative ways so as to reap economic gains, ensures overall societal well beings and maintains environmental quality and preservation of culture on equal footing. Similarly, Zamfir, Mocano and Grigorescu (2017) observe that circular economy practices of micro, small and medium enterprises fall under the framework of entrepreneurial sustainability based on the principle of material balance with reference to the idea that circulating matter and energy will reduce the need for new inputs. Consequently, Zamfir, Mocano and Grigorescu (2017) identified management values systems, ownership structure, legal context and regulatory institutions as factors that can play important roles in explaining business decisions of MSMEs in favour of triple bottom lines – known as profit, people and planet. Thus, this study examined effect of institution on sustainable entrepreneurship because in a developing economy like Nigeria the trigger for entrepreneurship must come from government and its institutions. In an attempt to enhance solid foundation for sustainable entrepreneurship as engine of economic growth and development, Nigerian government established Small and Medium Enterprises Development Agency of Nigeria (SMEDAN) in 2003, and therefore it is logical to empirically examine operational effectiveness of this important institutions several years after its creation.

Small and Medium Enterprises Development Agency of Nigeria (SMEDAN)

Small and Medium Enterprises Development Agency of Nigeria (SMEDAN) was established through an act of parliament in 2004 to serve as Nigeria's apex institution with the statutory responsibility of facilitating the creation, resuscitation and stimulation of the growth and development of Micro, Small and Medium Enterprises sub sector of the economy. The agency is seen as a "one stop shop" for nursing and nurturing of small businesses and consequently it has been in the forefront of developing and promoting micro and small ventures as well as entrepreneurship in Nigeria. Additionally, the vision of the agency is to establish a sub sector of the economy comprising efficient and well-structured micro and small businesses capable of enhancing sustainable economic development of the country. In order to achieve this, the agency facilitates access to all resources required for sustainable development by the entrepreneurs and small business owners. In order to accomplish its statutory mandate, SMEDAN has established across thirty six states of the federation Industrial Development Centres, Business Support Centres and Business Information Centres as institutional channels through which services for the growth and sustainable development of micro, small and medium enterprises are delivered. However, SMEDAN as an institution that sets the rule of the game for micro, small and medium business in Nigeria would require institutional entrepreneurship to shape how market and sustainable entrepreneurs identify and leverage opportunities in a more socially and environmentally friendly manner. As argued by Adrich (2011) institutional entrepreneurship embodies exceptional actors with a carte blanche to shape new practices and unbridled ability to feely manipulates the entrepreneurial process thereby allowing particular entrepreneurial responses to some opportunities that are sustainable.

Conceptual Framework

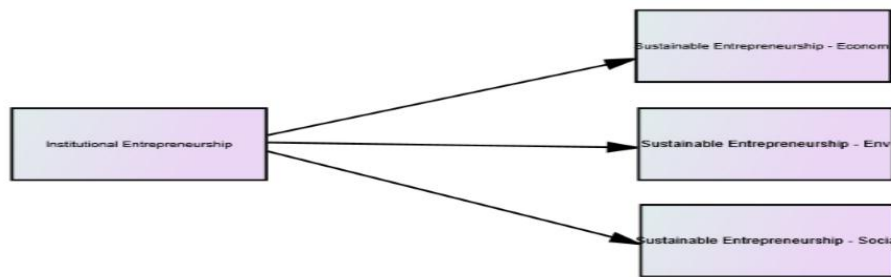


Figure 2.1: Conceptual Framework

The conceptual framework for this study was derived from three strands of literature on circular economy, institutional entrepreneurship and sustainable entrepreneurship. Although entrepreneurship is usually seen as a process of exploitation of opportunities for profit in a market regulated by formal institutions of state, the need for an overall approach by firms to consider ecological, social and economic gains simultaneously has heralded a paradigm shift to sustainable entrepreneurship as a new business model across the globe. Since entrepreneurship is facilitated by institutions which are humanly devised constraints that shape human interaction (North, 1990); Elkington (2020) opines that Triple – Bottom – Line associated with sustainable entrepreneurship has advanced a new perspective on the correlations between economic prosperity, social justice and environmental protection as well as institutional entrepreneurs which bring about rules of the game.

Importantly, the relationship between sustainable entrepreneurship and institutions is not unidirectional but made up of choices among productive, unproductive and destructive activities within a given institutional framework (North, 1990). Interestingly, entrepreneurship may be directed towards the formal institutional arrangement in many ways to change the rules of the game. Henrekson and Sanandaji (2011) argue that entrepreneurial actions of changing institutions could take three dimensions. First, common entrepreneurship abides by the existing institutional order. Second, entrepreneurs evade institutions when they consider institutions to be unbeneficial to their interest; and they act as institutional entrepreneurs by altering the institutional activities when they perceive its influence as unjust and thus, it can be hypothesized:

- H1: There is significant positive relationship between institutional entrepreneurship and sustainable entrepreneurship - economic
- H2: There is significant positive relationship between institutional entrepreneurship and sustainable entrepreneurship – environment
- H3: There is significant positive relationship between institutional entrepreneurship and sustainable entrepreneurship – social

III Research Methodology

Cross sectional research design which involved collecting data on all variables of interest simultaneously was adopted for this study. The population of the study consisted of all owners Micro and Small and Medium Enterprises (MSMEs) operating in Nigeria. A total of 300 owners of Micro and small and medium businesses whose operational bases are in the six South - Western states of Nigeria namely, Lagos, Ogun, Oyo, Ondo, Osun and Ekiti states were selected through a convenience sampling technique. A self-administered questionnaire was the research instrument for the study and consisted of three parts that measured institutional entrepreneurship, sustainable entrepreneurship and bio data of the respondents. The multi-item constructs (institutional entrepreneurship and sustainable entrepreneurship) were measured on five point likert rating scale ranging from “not at all” measured as 1, to a little extent measured as 2, “not sure” coded as 3, “to a large extent” measured as 4 and “to a very large extent”

The questionnaire items on institutional entrepreneurship were sourced from the work of Smothers, Murphy, Novicevic and Humphreys (2014); while sustainable entrepreneurship items Soto – Acosta, Cismaru, Vatamanescu and Ciochina (2016). The content validity of the research instrument was further confirmed by two professors of management and entrepreneurship at the Department of business management and entrepreneurship, Bayero University Kano – Nigeria. Data collected through self – administered questionnaire are susceptible to common method bias and therefore subjected to Harman’s one factor test. All 32 items were subjected to Principal Component Analysis and it was found that Kaiser – Meyer – Olkin (KMO) value was 0.797 which exceeded 0.6 thresholds by Kaiser (1970) while Bartlett’s test of sphericity stands at statistical significance of $p < 0.000$. The analysis further revealed the presence of six components with eigenvalue exceeding 1, explaining 21.796%, 6.588%, 5.854%, 4.870%, 4.437% and 4.007% respectively. An inspection of the screen plot showed a clear break after the fourth component and therefore it was decided that 4 components

were retained for further investigation by performing varimax rotation on the data set. The rotated solution showed all items loaded adequately on the four components as they cumulatively explained 39.09% of variance in institutional and sustainable entrepreneurship. Since no single factor accounted for more than 50% of the variance, common method bias was not a problematic in this investigation.

Similarly, the extent of multicollinearity among the construct was assessed by computing Variance Inflation Factor (VIF). According to Diamantopoulos and Siguaw (2000) VIF values of less than 3.3 indicate absence of multicollinearity and as calculated VIF scores range from 1.1 to 1.60 which are clearly below established thresholds; multicollinearity should not be an issue in this study. Confirmatory Factor Analysis was performed on the data set so as to confirm reliability and validity of the research instrument. According to Hair et al (2021) a value of at least 0.7 should be appropriate as standardized factor loading which describes the magnitude of correlations between indicators that tap a construct and the construct itself; thus as indicated in the table above all items that satisfied this requirement were retained. Also, cronbach Alpha values of all the constructs exceeded 0.7 while composite reliability values range from 0.736 to 0.816 complying with the guidelines provided by Yi and Davis (200) thereby confirms the internal consistency and general reliability of the research instrument.

Table 3.1: Summary of Confirmatory and Exploratory Factor Analyses

Construct	Items	Factor Loading	Composite Reliability	AVE	IVF	KMO
Institutional Entrepreneurship	Received from SMEDAN tax rebate	0.682	0.816	0.54	1.38	0.797
	Received from SMEDAN soft loan for cleaner energy	0.749			1.56	
	Received several SMEDAN interventions	0.717			1.39	
sustainable entrepreneurship – Economic	Concern about high cash flow from your business	0.760	0.756	0.51	1.11	
	Concern about high sales	0.678			1.19	
	Concern about high revenue from your business	0.792			1.19	
sustainable entrepreneurship- environment	Concern over hazardous waste disposal	0.741	0.736	0.55	1.28	
	Concern over air quality	0.785			1.41	
	Concern over waste Management	0.798			1.47	
sustainable entrepreneurship – social	Contributing to employment generation	0.739	0.780	0.51	1.35	
	Undertake training of locals as apprentice	0.714			1.60	
	Contributing to health needs of people	0.746			1.47	

The convergent validity of the instrument was assessed by calculating values of Average Variance Extracted (AVE) which was obtained after the sums of the squares of loading factors were divided by their corresponding error terms. Since calculated AVE exceeded the established criterion of 0.5; each of the latent construct explained on the average 50% of variation in each indicator that tapped the variable.

Table 3.2: Summary of Fornell - Larcker Discriminant Validity Analysis

Construct	Inst. Entrep	Sust.Entrep - Eco	Sust.Entrep- Env	Sust.Entrep - Soc
Inst. Entrep.	0.716			
Sust.Entrep – Eco	0.473	0.736		
Sust.Entrep- Env	0.402	0.508	0.737	
Sust.Entrep – Soc	0.487	0.511	0.478	0.719

The discriminant validity of the measurement model was scrutinized by comparing the square roots of the AVEs with other correlation scores in the correlation matrix. As shown on the table 3.2 none of the construct correlations exceeded Average Variance Extracted. Interestingly, all calculated values satisfied the criteria established by Fornell and Larcker indicating that measures of each construct correlated more highly with their own items than with items tapping other constructs. Therefore, discriminant validity of the instrument was confirmed.

IV Results

Characteristics of the Respondents

Although a total of 300 copies of questionnaire were administered to the respondents, only 220 copies were returned. However, 32 copies were found to be wrongly filled and badly mutilated and therefore only 188 copies were suitable for data analysis indicating 63% returned and usable rate. Descriptive statistics showed that 102 were male while 86 were female. Their marital status revealed that 62 respondents were single, 105 others were happily married and 10 were divorcees. 8 out of the remaining 11 were widows and 3 have separated from

their spouses. A further analysis showed that 75 respondents were within 25 – 35 years age bracket while 45 others who were much younger as they were within 18 – 24 years age bracket. Also, 41 respondents were older as they were within 36 – 45 years and the remaining 27 were above 45 years. As for their educational qualification, 30 were holders of primary school leaving certificate, 58 others have completed their secondary education while 68 have had first degree and the remaining 32 have post graduate certificate. Furthermore, 94 respondents claimed their form business is sole proprietorship while 61 of these businesses were cooperatives and 25 were partnership form of business and the remaining 8 were private companies. Using number of employee as proxy, it was found that 81 of these businesses were nano/ micro businesses as each of them had less than 10 employees on their payroll, 58 others with more than 10 employees were small businesses while 49 owners of business with over 50 workers were medium enterprises

Path Analysis and Hypothesis Testing

The first hypothesis which states that there is significant positive relationship between institutional entrepreneurship and sustainable entrepreneurship - economic was tested and the result showed $\beta = 0.047$, $p > 0.05$, and therefore the hypothesis was not supported. Also, hypothesis 2 which states that there is significant positive relationship between institutional entrepreneurship and sustainable entrepreneurship – environment was tested and result of data analysis supported the hypothesis as $\beta = 0.537$, $p < 0.001$. Similarly, hypothesis 3 which states that there is significant positive relationship between institutional entrepreneurship and sustainable entrepreneurship – social was tested and the result of data analysis revealed $\beta = 0.429$, $p < 0.001$, thereby supporting the hypothesis.

Table 4.1: Summary of Hypothesis Testing and Predictive Relevance of the Model

Structural Relationship	Beta (β)	Std Error	t- Value	P Value	R Square	F Square	Decision
Inst. Entrep → .Sust. Entrep – Economic	0.047	0.128	0.365	0.715	0.077	0.020	Rejected
Inst. Entrep → Sust. Entrep- Environment	0.537	0.094	5.724	0.000	0.440	0.360	Accepted
Inst. Entrep → Sust. Entrep- Social	0.429	0.105	4.084	0.000	0.390	0.214	Accepted

The explained variance which is R – square was calculated for each of the hypothesized relationships in accordance with threshold established by Yamin and Kurniawan (2011) wherein values of R – square of 0.67, 0.33 and 0.19 are categorized as strong, moderate and weak respectively. The results of data analysis showed that institutional entrepreneurship explained 8%, 44% and 39% of variation found in sustainable entrepreneurship – economic, sustainable entrepreneurship – environment and sustainable entrepreneurship – social respectively. Also, Hair (2011) underscored the importance of f^2 which is the effect size and a clear indicator of substantive significance of tested hypotheses and hypothesized relationships. Usually, variations in the values of R – square might be used to establish the substantive effect of exogenous latent variable on the endogenous latent variable and Cohen (1988) posits that when calculated F square is 0.02, 0.15 or 0.35, it indicates low, moderate and high effect size of exogenous variable on the structural level. Thus, hypotheses 2 and 3 showed large effect sizes while hypothesis 1 showed small effect size; thereby confirming the fact that institutional entrepreneurship could predict two dimensions of sustainable entrepreneurship – environment and sustainable entrepreneurship – social among micro and small and medium enterprises in the south western parts of Nigeria.

Discussion of Findings

This investigation was about intersection between institutional entrepreneurship and sustainable entrepreneurship as it relates to micro and small and medium enterprises in the south west of Nigeria. Since sustainable entrepreneurship is a multi-dimensional concept; three hypotheses were formulated and tested. The first hypothesis was not supported because there was no significant statistical relationship between institutional entrepreneurship and sustainable entrepreneurship – economic. This is contrary to the findings from the work of Bagus, Altinay, Kryezlu, Kurutkan and Karaca (2023) who found significant influence of institutional environment on the entrepreneurship economic behavior among citizens in Turkey and Kosovo. Also, Obananya (2022) examined relationships between constitutionally established institutions and economic growth of entrepreneurs and concluded that government licensing, credit and tax policies have significant effects on the economic prospects of micro and small and medium firms in Onitsha North Local Government of Anambra State, Nigeria. However, Berezhnytska (2021) found five categorized Ukrainian institutions having no significant effect on economic prosperity of small businesses in sustainable manner.

The second hypothesis that states There is significant positive relationship between institutional entrepreneurship and sustainable entrepreneurship – environment, was tested and data analysis supported this proposition. This was further confirmed by the findings of OECD (2010) which examined how institutional

entrepreneurs in Israel helped to overcome water shortage through aggressive water recycling, water technology and water transportation and distribution. All this have had great impact on the demand and supply of water among Israelites as well as boosting environmentally conscious water corporations among citizenry. However, government programmes may not necessarily yield favourable results. Aluko, Bayai and Enwereji (2023) found that policy outcomes from developing countries like Nigeria (Edoho, 2016), South Africa, (Aluko & Kibuka, 2018) failed to help to generate more jobs from eco-friendly firms.

Also, hypothesis 3 “there is significant positive relationship between institutional entrepreneurship and sustainable entrepreneurship – social” was tested and data supported the proposition. This position was corroborated by the work of Aparicio, Klofsten, Noguera and Urbano (2024) in which a significant relationship was found between institutional entrepreneurship and social entrepreneurship. However, Hoogendoorn, Rietveld and Stel (2016) found informal institutions as having negative impact on social entrepreneurship.

V. Summary and Conclusions

The study explored relationships between institutional entrepreneurship and sustainable entrepreneurship among micro and small and medium sized enterprises. Since sustainable entrepreneurship is a multi-dimensional concept, three hypotheses were proposed and data analysis showed that institutional entrepreneurship significantly predicted two of the three dimensions of sustainable entrepreneurship, namely sustainable entrepreneurship – environment and sustainable entrepreneurship – social. However, there was no significant relationship between institutional entrepreneurship and sustainable entrepreneurship – economic and therefore it can be safely concluded that institutional entrepreneurship partly predicted the propensity to be sustainable entrepreneur among micro and small and medium enterprises in the south western Nigeria. It is hereby recommended that policy makers across geographical zone put in place frameworks that encourage businessmen to not only consider economic profit in their day to day activities but also the implications of business operations to the society and environment in general.

In order to further enhance literature on entrepreneurship, future studies may combine personal attributes of business owners with policy intervention of government as predictors of sustainable entrepreneurship.

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