Green Entrepreneurship: Why now and what next? 
Sub Theme: Entrepreneurship and sustainability

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Abstract: The increased quest to utilize resources efficiently, in a manner that will have minimal impact on the environment and thereby improve sustainability, has led to the sustained relevance of green entrepreneurship in both developed and developing countries the world over, including Nigeria. The issue of global warming and the destruction of aquatic live and natural inhabitants, water pollution, as well as increased loss of diversity, have imposed much pressure on policy-makers globally, thus propelling them to advocate for a more sustainable production and consumption pattern and innovative technologies by entrepreneurs. Questions pertaining to environmental degradation, economic improvement and growth, carbon footprint reduction, along with pollution control and waste management, remain mostly unanswered or addressed, in the case of Nigeria. Closer examination of development, economic growth, non-compliance to policy or poor policy, and corrupt practices by environmental and other government official has become critical. Inadequate infrastructure should also be queried, along with an unconducive business environment, unreliable institutions and regulations, and unfriendly consumption of natural resources, in addition to a lack of access to finance, and many others. There is an urgent need to address these challenges faced by society, due to unethical and non-compliance with environmental sustainability by business operators, specifically entrepreneurs, in order to foster green initiatives that can assist in stemming the tide of this environmental degradation. This paper examines the concept of green entrepreneurship and provides guidelines for environmental sustainability through improved decision-
making by government and other relevant stakeholders, while encouraging entrepreneurs to incorporate green initiatives into their overall strategy and entrepreneurial practices.

**Keywords:** Green Entrepreneurship, Sustainability, Policy, Nigeria

1.0 Introduction

Environmental issues have been on the increase globally, as a result of production and consumption patterns, leading to great concern by all stakeholders (Yatish & Zillur 2015). There is thus an urgent need to reduce the impact, without which adverse environmental degradation will result, to a point where the available but finite resources may not be adequate to meet the needs of society; and subsequently, having a substantial impact on the ability of meeting the needs of future generations (Yatish & Zillur 2015).

The issue of climatic change and environmental degradation cannot be solved by one country; it requires a joint and concerted effort by all stakeholders globally. To address this, initiatives and cooperation are being put forward globally, for example the ‘Paris agreement’ at the ‘COP21’, championed by the United Nations (UN) in Paris on 12 December 2015. The agreement mandates all countries to work towards a drive to ensure global temperature does not exceed 2 degrees Celsius annually and to focus on the achievement of sustainable development goals (SDGs), as well as helping in developing a process on how to reduce emissions and increase climatic sustainability (UN COP21, 2015).

Part of the causes of environmental pollution - degradation and emission - have been attributed to the activities of entrepreneurs, due to their unsustainable production practices and non-incorporation of environmental sustainability initiatives into their corporate strategy (Sharma and Kushwaha, 2015). To reduce the rate of pollution and its effect on the environment, stakeholders are now developing and adopting policies that will encourage entrepreneurs to adopt green initiatives in their production and business practices; part of this move is the UN’s SDGs, Promotion of green growth and introduction of green curricula in higher institutions of learning (Mader and Rammell, 2014).

The importance of going green in all facets of production and manufacturing activities by the entrepreneurs has gained considerable attention by many international organisations including, but not limited to, the World Bank, UN, United Nations Educational, Scientific and Cultural Organization (UNESCO), United Nations Conference on Trade and Development (UNCTAD), United Nations Industrial Development Organization (UNIDO), World Trade Organization (WTO), Food and Agricultural Organisation (FAO) and other stakeholders in the various Non-Governmental organisations (NGOs), in both developing and developed countries (Farinelli, Bottini, Akkonyulu and Aerni, 2011)

Environmental degradation and natural resource depletion is a global issue, to which Nigeria is no exception, and should these problems not be properly addressed promptly, it could lead to severe natural disasters (Chen and Chai, 2010). The subsequent impact on citizens will be severe, as will the depletion of scarce resources, (Riti, Dankumo, and Gubak, 2015).
paper examines the concept of green entrepreneurship and provides guidelines that will improve decision-making by the government and other relevant stakeholders, which will encourage entrepreneurs to incorporate green initiatives in their overall strategy and entrepreneurial practices, in order to achieve environmental sustainability.

The remaining part of the paper is structured in six sections, as follows: after this introductory section, the second section discusses the concept of green entrepreneurship, its emergence and how it can assist organisations to be more environmentally friendly in their production process. The third section iterates the effect of climatic change and its impact on the environment in the country and why green entrepreneurship needs to be encouraged. The fourth section offers suggestions on stakeholders’ responsibilities and policy interventions that could promote green entrepreneurship. The concluding part makes a case why Nigeria needs to implement policies that will create a conducive environment for business, in order to encourage investment in green initiatives.

2.0 The Concept of Green Entrepreneurship

The risk involved in economic transformation and green growth is high (Brahmbhatt, Haddaoui and Page, 2017). Green entrepreneurs are those individuals and organisations who take risk in developing new products and business models, making economic and green growth a reality. They are organisations who come up with new innovations, new market development and also, ensure efficient use of natural resources with due consideration to the environment (Brahmbhatt et al. 2017). The motive of green entrepreneurship is the inclusion of green initiatives into the organisation’s strategy (Blue, 1990). Green entrepreneurship is at the forefront of innovation in production and the business environment; it is assumed the green entrepreneurs are supposed to be the ones advocating for the importance of green initiatives. The effect of business activities on the environment, as well as the involvement of policy makers and economists to foster the introduction of green products to the market they serve globally, has to also be considered by green entrepreneurship (Farinelli, Bottini, Akkoyunlu, and Aerni. 2011). Entrepreneurship has been practised in Nigeria for a long time; farmers historically practised ‘trade by barter’ in their localities or nearby communities. At that time, wealth creation was not the motive, but the farmers derived confidence in their ability to produce more of a product, thereby making them specialise in such, rather than having to grow all types of crops, since what they could not produce could be obtained from others through exchange (Fems, Onu and Poaze, 2016).

After the civil war, entrepreneurial activities improved over the years in Nigeria, leading to a substantial number of the population being employed in Small and Medium sized enterprises (SMEs), acting as a catalyst to economic growth and development. In the process, the sector contributes tremendously to the country’s economy, through the activities of individuals involved and the economic programmes put in place by the government to foster entrepreneurship (Kabiamowei, Jimi-Oni, Essien and Ajibola, 2018). Although Nigerian entrepreneurial activities have not been encouraging when compared with global economics,
due to various challenges ranging from regulatory policy changes and lack of infrastructure, to poor finance and the mind-set of the entrepreneurs (Fems, et al., 2016).

Some of the government initiatives aimed at encouraging entrepreneurship, according to Kabiamaoei et al. (2018), include; the national directorate of employment (NDE), National Open Apprentice Scheme (NAOS), and the small and medium enterprise association of Nigeria (SMEDAN). Similarly, the government has mandated institutions to incorporate entrepreneurial courses in their curricula, in order to encourage the development of requisite skills needed to assist entrepreneurs to become more innovative, through the centre for entrepreneurial development (Kabiamaoei et al. 2018). However, most of the entrepreneurial activities in the country do not incorporate sustainability or ‘green entrepreneurship’ into their production and consumption processes. This is cause for concern, considering the impact of their activities on the environment, leading to environmental degradation (Riti et al. 2015).

In the quest by organisations to improve their process through green innovation and providing green products to the ultimate end-user, the customer, they continually develop sustainability initiations on a long-term basis, incorporating these into their business strategy, therefore taking how they use available natural resources in an effective manner for sustainability into consideration (Farinelli et al. 2011). Recently, the emergence of green entrepreneurs has been on the increase in emerging markets such as BRICS (Brazil, Russia, India, China, and South Africa) nations (Farinelli et al. 2011). However, many challenges abound that could limit the survival of green entrepreneurship, such as lack of adequate infrastructure, unreliable supply chain, unreliable institutions and regulations, as well as poor policy, and lack of access to finance. Despite all of these obstacles, many organisations still strive to ensure that their activities are environmentally friendly, through efficient consumption of natural resources, encouraging them to be more focused on green initiatives, as for corporations in developed countries, thereby making them to more competitive (Farinelli et al. 2011).

According to Mahalia von Wallenberg Pachaly (2012: 8), “Green entrepreneurship concerns individuals and organisations engaged in entrepreneurial activities that create environmental benefits by offering green final products or services”. Similarly, Brahmbhatt et al. (2017) describe green entrepreneurship as efforts by entrepreneurs to develop and exploit markets for new processes, technologies, and products that make the economy more efficient in its use of the natural environment.

However, this paper adopted the definition by the GREENT and Erasmus+ (2017:1) as:

“...the activity of consciously addressing an environmental/social problem/ need, through realisation of entrepreneurial ideas with high level of risk, which has a net positive effect on the natural environment and at the same time financially sustainable...”

This is chosen because it entails a holistic approach in describing the various aspects of green entrepreneurship and sustainability, bearing in mind that green initiatives
cannot be sustainable without considering the socio-economic impact. Lenox and York (2011) mention the major cause of pollution and environmental degradation, as having been attributed to the issue of global warming and climatic change. Literature indicates that most of the previous sustainability research was mainly focused on large corporations (Schaper, 2002; Lenox and York, 2011). Nevertheless, this has changed recently, with research on green entrepreneurship now considering the effect of how smaller organisations conduct their business operations, and whether environmental sustainability is built into their organisational culture in a way that it is not only focused on how to improve economic growth, but also how to be more environmentally friendly (Hall, Daneke and Lenox, 2010, Lenox and York, 2011).

3.0 Green Entrepreneurship: Why Now?
The matters of climatic change and natural resource depletion are global issues, they thus also affect Nigeria (Ritti, Dankuma and Gubak, 2015). It is a phenomenon that cannot be overlooked by any nation due to its effect on the environment; climatic change is no longer a thing of the future, it is right here with us. The consequences are evident, with examples such as, incessant rain in several parts of the world, rising ocean tide, and drought in many parts of the country (Ritti, et al. 2015). Increased deforestation, melting of glacial ice resulting in increased ocean volume, and the high intensity of the sun leading to heat waves; these are just a few of the effects of this phenomenon - some of which are due to entrepreneurial activities and their impact on the environment (Chen and Chai, 2010).

The Rio+20 (2012) declaration is a move by world leaders towards environmental sustainability. Nigeria being an oil producing nation, has been faced with much environmental pollution due to its use of large volumes of fossil fuel, and this has adversely affected climatic conditions, contributing to a high degree of global warming, as a result of entrepreneurial activities (Ritti, et al. 2015). In a global survey by the United Nations Development Programme (UNDP) on the environmental performance index, it was confirmed that Nigeria has poor environmental indices (UNDP, 2012), with the result showing that, out of 132 countries sampled, Nigeria was ranked 119. Furthermore, the International Human Index (HDI), in terms of sustainability, is adjudged not encouraging (UNDP, 2012), with continued inconsiderate practices and operations potentially having an adverse effect on the environment, biodiversity, flooding and subsequently, on the economy.

It is important to note that no one country can tackle the green growth issues, because no one has all the expertise in terms of technology, scientific, financial and other resources required for implementation (OECD, 2011).

The need for green growth is on the increase as a result of the perceived risk that could affect development and subsequently affect natural resources, and if this menace is not urgently addressed, could lead to the depletion of natural resources, such as water, pollution; aquatic lives and climatic change (OECD, 2011), due to environmental pollution. It is becoming
increasingly difficult to provide good water in some communities globally because the natural water has been polluted, as such, more money is needed to provide basic infrastructure that will enable the supply of portable (drinking) water. Part of the UN’s SDGs, is to encourage responsible consumption and production patterns (SGD goal 12), facilitate and ensure protection of the environment, and combat climatic change and its impact (SDG goal 13); these are directly related to the activities of entrepreneurs (UN, 2015).

According to Khor (2012), in his study on how sustainability development relates to green economy, it was argued that both have the same motive and that sustainable development should not only include ecological practices that will enable meeting the needs of future generations, but also fair production and consumption patterns. This ought to ensure that present resources being wasted are saved and re-directed towards meeting the needs of everyone today and that of future generations.

Ritti, et al. (2015) highlight that the manner in which entrepreneurship activities are carried out in Nigeria often have a negative impact on the environment, people and natural resources. They go further in their findings to iterate that the impact of entrepreneurial activities in Nigeria and their sustainability, are clearly underscored in that, “in [the] year 2000, 2.10 square kilometres of forest land was depleted due to entrepreneurial activities”. Market failures and the economic impact of entrepreneurial activities in Nigeria could therefore act as a source of motivation in the promotion of green initiatives, leading to sustainable development (Ritti et al. 2015).

Therefore, to achieve these goals, compliance with agreements by all nations and stakeholders is vitally important (UN, 2015).

4.0 Green Entrepreneurship: What next?

There has to be a general shift away from ‘business as usual’ by entrepreneurs, through innovation and technology, increased awareness among stakeholders on the importance of going green and the benefits to organisations, as well as what people tend to gain through implementation and adoption of green initiatives. This should be promoted among stakeholders at various level in Nigeria.

Similarly, the move away from the focus on Gross Domestic Product (GDP) as an indicator of economic progress should be supported, as not doing so neglects to consider that natural assets to wealth, health and well-being also contribute towards economic progress; in the way it affects wealth and people’s welfare in a positive manner (Ritti, et al., 2015). It can, therefore, be assumed that the main motive of going green, is shifting the focus from being resource intensive, to resource efficient and to be more environmentally friendly.

Entrepreneurs are very important in the process of achieving sustainable and environmentally friendly production. They develop strategies within their various organisations that could lead to innovation and technology advancement (Brahmbhatt et al. 2017). As such, various governments globally are taking decisions that will help to shape the activities of the entrepreneurs to promote sustainability, through measures that will aid in mitigating the negative impact of their production practices, leading to climatic change.
through low carbon policies (Brahmbhatt et al. 2017).

While entrepreneurs form a smaller part of the Nigerian population, their activities contribute substantially to GHG emissions, resulting in global warming and climatic change, causing flooding, droughts, afforestation and melting of the glacial ice, which lead to lose of diversity and life (Ritti, et al., 2015). Promotion of a green economy and growth are therefore very crucial and compulsory for both the government and entrepreneurs, to reduce the effect of their production on the environment. A major question that comes to mind on sustainability is: To what extent have entrepreneurs, globally and in Nigeria specifically, engaged in the transition to a green agenda? This question is very important, considering that most of the activities of entrepreneurs takes place at various levels of government, national, state and the local (Fems, et al. 2016).

Arising from this, another important question on the issue of green economy is: What is different now in the global space that is prompting governments to advocate for green practices among entrepreneurs? Answers to this question will help to unearth the next line of action by the Nigerian government on how to engage stakeholders on the importance of green entrepreneurship. A probable answer to this question is that, production and consumption patterns, pollution and greenhouse gas emissions have changed globally, and the impact on the environment is enormous, leading to natural resource depletion, climatic change, and increased temperature and flooding (UNEP, 2015). These are a few of the reasons why all countries and stakeholders need to ensure production and consumption patterns have a minimal effect on the environment, thus ensuring environmental sustainability.

According to Adusei (2016), who conducted a study on 12 African countries on entrepreneurship, including Nigeria, confirms entrepreneurship has a positive impact on economic growth and that non-performance of entrepreneurs in developing countries, including Africa and Nigeria in particular, has been attributed to many constraints. Some of these have been identified as, inadequate or lack of infrastructure, lack of funding, inadequate management of human resources, and hostile government policies, along with poor quality standards and trade policies (Adusei 2016).

Green entrepreneurship can only be encouraged when there are suitable government policies that provide a conducive environment in which to conduct business in a manner that will be profitable (Brahmbhatt et al. 2017). In addition, policy should give due consideration to the relationship between green growth and poverty reduction. It is worth noting that, in developing countries, these policies can assist in the reduction of environmental risk and thus increase sustainability (Brahmbhatt et al. 2017). To achieve this, there is a need to develop and encourage the use of the policy recommendations that will empower and provide adequate support for green. It will also offer protection of intellectual property to encourage corporation’s investment in green initiatives (OECD, 2011)

Brahmbhatt et al. (2017), in their report on green industrialisation and entrepreneurship, argue that policies must be developed that will help to
support organisations’ capacity, performance and entrepreneurship; giving due consideration to different characteristics that exist within each organisation, in a prioritised manner to foster competition. This concerted effort is required at the various levels of government (national, state and local), for the development of a given market, green growth and entrepreneurship, as well as encouragement of strong partnerships between government ministries, for example; planning, environment, power, and environmental protection agency, as well as foreign direct investment (FDI) agency (Brahmbhatt et al. 2017). These institutions must be strengthened to promote a conducive business environment and implementation of economic policies (Sanusi, 2001).

Most African governments in general and particularly Nigeria, are faced with challenges of policy development and implementation; this is the key message in a study conducted by (Brahmbhatt et al. 2017), on green industrialisation in Africa. They go further to mention that policies that will advance economic and green growth are highly recommended, with adequate management and carrying adjustments wherever necessary, (Brahmbhatt et al. 2017). These policies should be broad enough to include macroeconomic management, infrastructure, and private investment. It should, moreover, provide opportunity for incentives to promote green growth. This includes the removal of fossil fuel incentives and those that perpetrate high environmental degradation.

Green entrepreneurship is new and gradually developing in Africa (Brahmbhatt et al. 2017). Therefore, for this to increase and be sustained, Governments in Africa in general and in particular Nigeria, need to develop and implement policies at two major levels: First, policy that will encourage green initiatives and products, for example (Brahmbhatt et al. (2017) argue that this should look at energy consumption and water usage, as failure to do this could lead to less demand and subsequent market failures; Secondly, policy that will enhance organisational capacity, performance and entrepreneurship, with due consideration of various characteristics of the organisations within their environment.

Furthermore, lack of entrepreneurial activities to foster economic growth has been attributed to lack of basic infrastructure by government at the various levels (Economic Watch, 2010). Therefore, to promote green entrepreneurship in Nigeria, the provision of sustainable infrastructure, such as steady power supply, solar, and the reduction of radiation at power generating plants, becomes crucial.

Since part of the causes of environmental degradation and climatic change has been attributed to GHG emissions from homes (King, 2010), a move towards the reduction of these effects could mean that government at the various levels should begin to make changes to the building laws. This will encourage green building, most especially in the urban areas, to ensure the building of sustainable homes. Added to this, while eco-homes awards will encourage builders, policies are needed that will encourage entrepreneurs to engage in renewable energy projects at small scale (Gibbs and O’Neill, 2012).

To foster innovation and technology, the role of human resources through adequate skills acquisition and training is vital to green entrepreneurship. As
such, capacity building through formal and informal training is important, thus, government should develop policy that will mandate the incorporation of entrepreneurship courses at higher institutions of learning (Fems et al. 2016). Furthermore, partnerships between higher institutions and industry practitioners (business) should be encouraged to promote research and development in green entrepreneurship, through the introduction of case studies showcasing ‘true life’ scenarios, thus exposing students to actual business situations (Fems et al. 2016). Additionally, partnering with NGOs is vital to continue advocating for green initiatives through innovation and technology.

5.0 Conclusion
This paper offered insight into the increased environmental issues globally, as a result of production and consumption patterns leading to adverse environmental degradation and its impact. Furthermore, the risk involved in economic transformation and green growth was discussed, along with the involvement of green entrepreneurs in new product development and business models.

To address the question on ‘what has changed in the way business is being conducted globally by entrepreneurs and what needs to be done to improve on production and consumption patterns’, government in general, and in particular the Nigerian government, should promote a general shift from ‘business as usual’ by entrepreneurs, through innovation and technology. This move away from utilizing GDP as indicator of economic progress is necessary as it neglects the contribution that natural assets bring to wealth, health and well-being, affecting people’s welfare in a positive manner. Increased awareness is needed among stakeholders on the importance of going green and the potential benefits gained by organisations and people through implementation and adoption of green initiatives.

Most African governments, in general, and particularly Nigeria, are faced with challenges of policy development and implementation. The Nigerian government ought, therefore, to develop policies that will advance economic and green growth, with adequate management structure and framework, with adjustments made where and whenever necessary. These policies should be broad enough to include and accommodate macroeconomic management and infrastructure, while encouraging private investment in green entrepreneurship, in addition to making provision for opportunities to incentivise the promotion of green growth.

References


