



Importance of Effective Management of Nigerian Blue Economy

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ABSTRACT

Nigeria being a country that possesses an abundance of littoral component states and water ways of great length, has not been left out in this quest, hence making the development of a Nigerian blue economy a requirement for the country's benefit. Since its independent, Nigeria is still classified as developing country because it fails to utilize the wealth that nature endowed it with. This study seeks to explore the importance of effective management of Nigerian blue economy. The study was carried out among 110 stakeholders selected using snowballing sampling technique from different areas of expertise but who has an understanding of the topic under investigation such as maritime experts, journalists and researchers. A self-made closed-ended questionnaire was adopted in data collection and data analysis was carried out descriptively using frequencies and percentages. The result of the study indicated that Nigeria has great potentials in actualizing blue economy given if it utilizes good maritime data management system, adequate investment, enlightenment and sensitization, as well as developing an integrated Policy Framework and effective maritime security will pave a healthy ground for the actualization of blue economy. The result of the study further identified several challenges impeding the utilization of blue economy in Nigeria to include: "Illegal, Unreported and Unregulated (IUU) fishing" as a primary challenge of managing the blue economy in Nigeria. Other challenges are: Armed robbery and piracy; Climate change; Pollution from land-based sources and marine operations, among others. Based on this result, conclusions were drawn and the study recommended among other things, ecological integrity, maritime security as well as partnerships.

Keywords: Blue economy, effective management, importance

Introduction

A larger part of the earth's surface comprises of oceans, seas and coastal areas. To this end, the ocean can be described as the earth's largest ecosystem, and is contributory to the eradication of poverty through the creation of sustainable means of livelihood for people. The ocean plays a role in securing jobs as well as the planet and strengthening resilience to environmental disruptions. According to AllAfrica(2020), the number of people dependent on the marine resources for their livelihood, as well as food security is pegged at over three billion. Thus, the utilization of the sea and its resources in the development of the economy is referred to as the blue economy, a concept which is parallel to the green economy. The concept behind the blue economy is the significant reduction of environmental risks and ecological scarcities while improving general well being as millions of ocean species are sourced of medicines. The major aspects of the blue economy include shipping, marine biotechnology, oil and gas exploration, fisheries and aquaculture, seabed mining and renewable energy (Hammed, 2018).

The exploitation of maritime resources for its numerous benefits cannot be overemphasized on, as it provides an avenue through which a country's economy can be developed and poverty level reduced. This view was shared by the African Development Bank (AfDB) (2018) report in which it was suggested that in order to significantly reduce the poverty rate in Africa, the gross domestic product (GDP) of the continent would have to be grown at an overall average of seven per cent, which is achievable with the continuance of international trade through the effective utilization of its seas and oceans (Adetona, 2020).

Achieving a blue economy in Nigeria as well as exploiting maritime resources is dependent on the health of the ocean and the proper sustenance of the ecosystem. This can be achieved through the protection of the environment from destructive elements or factors. Protection of the environment can be achieved through the formulation and implementation of protective laws that is aimed at the protection of marine resources from pollution, unacceptable extraction of marine resources, climate change, and destruction of marine habitat.

The Nigerian economy is fully dependent on revenue from oil and gas, which makes it liable to volatile global oil prices and underdevelopment of various sectors. Given the foregoing, the country has been unable to effectively eradicate insecurity poverty and illiteracy challenges despite the abundance of resources in the country. To this end, Blue Economy opined to be a good pathway for sustainable future and its actualization presents the opportunities of solving developmental challenges, as well as utilizing available resources and exploring potential growth areas.

Statement of research problem

The ocean space and marine environment is threatened by anthropogenic activities as well as the increasing level of trade, surging population and search for alternative energy sources (Visbeck et al., 2014). These activities further affect a country's economic prospects. The level of stress facing the ocean as a result of climate change, overexploitation, pollution and declining biodiversity hinders the potentials and benefits offered by the ocean and prevents the achievement of a blue economy (Visbeck et al., 2014). Thus, in order to maximize the ocean's potentials, a significant shift is required in terms of sustainable approaches towards the ecosystems' wellbeing. Furthermore, critical to the realization of sustainable growth is the formulation of welldeveloped integrated ocean policies and strong institutional framework. The situation in Nigeria is however different as various situations spaces to carry out their various activities compete for the management of the oceans. The effect of this competition has resulted to failed developmental plans, as well as inefficiency in marine and coastal management (Economist Intelligence Unit, 2015). Despite an understanding on the need for alternatives in economic activities with the environment, there is no general agreement on the factors that are significant to achieving this objective (Park and Kidow, 2014).

Furthermore, achieving the potentials of the blue economy in Nigeria appears to be facing challenges given the lack of a coherent plan that and a feasible timeline that will galvanize the right kind of actions by individuals and organizations towards the achievement of various initiatives. Therefore a complete adoption of the blue economy would enable the country grow without oil and focus on non oil activities. To this end, it is important to understand the importance of effective management of Nigerian blue economy in order to fully maximize the benefits therein.

Research objectives

The study specifically aims to;

1. Examine the factors that can enable the actualization of a Blue Economy in Nigeria.
2. Identify the challenges of managing the Blue Economy in Nigeria.
3. Ascertain the potentials of actualizing a blue economy in Nigeria.

Research questions

1. What are the factors that can enable the actualization of a Blue Economy in Nigeria?
2. What are the challenges of managing the Blue Economy in Nigeria?
3. What are the potentials of actualizing a blue economy in Nigeria?

Literature review

Concept of blue Economy

Blue Economy encompasses all economic activities connected to seas, coasts and oceans such as fisheries, renewable energy, waste management, maritime transport, climate change and tourism (Ekemeabasi, 2020). It can be defined as the use of the sea and its resources for sustainable economic development and includes economic gains that may not be advertised, such as coastal protection, carbon storage, biodiversity and cultural values (Rousseau, 2020). Nigeria being a country that possesses an abundance of littoral component states and water ways of great length, has not been left out in this quest, hence making the development of a Nigerian blue economy a requirement for the country's benefit. The six major sectors of the blue economy include fisheries and aquaculture, marine biotechnology, seabed mining, oil and gas exploration, renewable energy, shipping (Hammed, 2020). The blue economy aims to promote improve life, economic growth and social inclusion without hammering out the oceans' environmental sustainability and coastal areas as the sea's resources are limited and their physical conditions have been impaired by human actions (EU, 2020). These resources produce numerous benefits to the world economy and present important opportunities.

The aims of the blue economy model are to improve life, incorporate social aspects like social equity, reduce ecological risks and fuel the economy through sustainable ways, for the sake of the present but also the upcoming generations (Zogopoulos, 2020). Blue economy is concentrated on coordinating and connecting marine ecosystems and ocean and coastal zone economies and goes way beyond seeing the oceans as leverage for economic growth.

Blue economy activities can be classified into ocean-based activities (those that are undertaken in the ocean such as fisheries, aquaculture, etc.) and ocean related activities (those that use the products from seafood processing, marine biotechnology, chemicals etc to manufacture products and services for the ocean and ocean-based activities) (UNDP, 2018). Attri (2016) explained that, the ocean economic activities are rapidly expanding driven by developments in the world population, economic growth, technology, climate change, and trade. It is forecasted that by 2030, various ocean-based industries have the prospective to out-perform the growth of the whole world economy.

Blue economy activities are far from being fully harnessed in Nigeria and they are classified into established (shipping, ports, fishing, and marine minerals mainly oil and gas) and emerging (aquaculture, mariculture, biotechnology, and marine renewable energy) activities (NIMASA, 2018). The blue economy in Nigeria can help prepare her for growth without oil (Ekemeabasi, 2020).

Challenges to the blue economy

Illegal, Unreported and Unregulated (IUU) fishing is one of the threats greatly affecting blue economy and results in a huge loss annually for Nigeria and other countries in the region due to overutilization of fish stocks and the operations of unlicensed foreign industrial vessels (Rustomjee, 2016).

Incidents related to armed robbery and piracy is a source of great concern to the maritime industry as it seriously threatens blue economy activities in the region (NIMASA, 2018). These incidents destroy business and hinder growth (Rustomjee, 2018).

Climate change affects blue economy activities as it warms the ocean due to increase in atmospheric carbon emission which in turn impacts marine natural resources. Eutrophication also, which results from accumulated nutrients that are moved from agriculture, industries and sewage into the sea and form algae bloom, causing damage to marine natural resources (Visbeck et al., 2014).

Pollution from land-based sources and marine operations, destruction and modification of the marine and coastal are some of the threats to blue economy activities in Nigeria and Africa (Ibrahim, 2018).

Previous studies

Okemwa (2019) carried out a study to establish how Kenya can harness the potentials of Blue Economy for a sustainable development. Questionnaires were administered to 35 respondents randomly selected from the state's agencies and departments in charge of blue economy of which there was response from 32. The results after analysis revealed that for blue economy resources to be fully utilized and sustainably exploited to spur economic growth and development in Kenya, and also foster understanding within the various state agencies and departments responsible for the blue economy agenda, an Integrated National Maritime Policy should be implemented.

Elisha (2019) carried out a study that focused on the blue economy in Nigeria and the prospects for economic growth of the Niger Delta region. Findings showed terrorism, piracy, destruction of maritime ecosystems, Illegal arms trafficking, global climate change, are some challenges facing the blue economy. It recommended an improvement in model policy reform situations for a blue economy.

Vázquez et al. (2021) carried out a bibliometric analysis of blue economy, maritime, ocean and marine economies and Blue Growth to analyse the scientific production of this field of study. The key objective was to investigate if there is a connection between the blue economy and the circular economy and findings showed a developing and growing trend during the last decade.

Theoretical framework: The institutional theory

The institutional theory lays emphasis on the formal and legal government structure, as government agencies can make some organizations modify their strategy either directly or indirectly. The theory elucidates why some facets of practices can be selected without bringing an economic value (Kraft and Scott, 2017) while some can be adopted. This theory should guide the blue economy and for success to be achieved there must be certain institutional framework put in place to aid the permeation of its benefits including maritime policies and regulations (Okemwa, 2019).

The possibilities of the blue economy can be utilized by Nigeria when a policy framework is created and enacted to provide a sustainable exploitation of resources. Different laws and regulations control the activities of the blue economy and mandates are given to different government agencies and departments resulting in conflict of interest between the agencies and interfere in the achievement of a sustainable blue economy. An integrated policy to oversee issues and proffer solutions can aid in achieving a blue economy that is sustainable (Okemwa, 2019).

Methodology

The study on the importance of effective management of Nigerian blue economy is done using a descriptive research survey. The respondents comprise of 110 stakeholders from different areas of expertise but with an understanding of the topic under study. Thus the respondents comprises of maritime experts, journalists and researchers. An initial contact was made with potential respondents to intimate them of the undergoing research as well as confirm their consent. The primary source of data was the questionnaire which was sent out to them through their email addresses. The data gathered was descriptively analyzed using frequencies and percentages.

Data presentations, Analysis and Discussion

1. What are the factors that can enable the actualization of a Blue Economy in Nigeria?

Table 1: Showing the factors that can enable the actualization of a Blue Economy in Nigeria

What are the factors that can enable the actualization of a Blue Economy in Nigeria?	SA	A	D	SD	% Agreement	
Maritime data management	F	74	24	2	0	98.0
	%	74.0	24.0	2.0	0.0	
Investment	F	35	63	2	0	98.0
	%	35.0	63.0	2.0	0.0	
Enlightenment and Sensitization	F	70	30	0	0	100.0
	%	70.0	30.0	0.0	0.0	

Developing an integrated Policy Framework	F	82	18	0	0	100.0
	%	82.0	18.0	0.0	0.0	
Effective Maritime Security	F	66	24	9	1	90.0
	%	66.0	24.0	9.0	1.0	

Field Survey (2021)

Table 1 above presents the data retrieved from the respondents which express their opinions on the factors that can enable the actualization of a Blue Economy in Nigeria. With more than 90% agreement to all the items in the table, the study revealed the following as factors that could lead to the actualization of blue economy in Nigeria: Maritime data management (98%); Investment (98%); Enlightenment and Sensitization(100%); Developing an integrated Policy Framework (100%) and Effective Maritime Security (90%). The result of this study supports that of earlier studies which also identify similar factors as responsible in promoting blue economy to their respective study areas such as Ekemeabasi(2020); (*Rousseau, 2020*); Hammed(2020); EU (2020); Zogopoulos (2020); UNDP(2018) and Attri (2016) respectively. From this study, one can deduce that having good maritime data management system, adequate investment, enlightenment and sensitization, as well as developing an integrated Policy Framework and effective maritime security will pave a healthy ground for the actualization of blue economy.

2. What are the challenges of managing the Blue Economy in Nigeria?**Table 2: Showing the challenges of managing the Blue Economy in Nigeria**

What are the challenges of managing the Blue Economy in Nigeria?		SA	A	D	SD	%in agreement
Illegal, Unreported and Unregulated (IUU) fishing	F	10	88	0	2	100.0
	%	10.0	88.0	0.0	2.0	
Armed robbery and piracy	F	92	8	0	0	100.0
	%	92.0	8.0	0.0	0.0	
Climate change	F	22	67	7	4	89.0
	%	22.0	67.0	7.0	4.0	
Pollution from land-based sources and marine operations	F	35	63	2	0	98.0
	%	35.0	63.0	2.0	0.0	
Compliance issues- Illegal jetties and pollutions	F	74	24	2	0	98.0
	%	74.0	24.0	2.0	0.0	
Comprehensive and articulated policy framework on Blue Economy	F	66	34	0	0	100.0
	%	66.0	34.0	0.0	0.0	
Knowledge and competence	F	70	30	0	0	100.0
	%	70.0	30.0	0.0	0.0	
Local content participation	F	78	20	0	2	98.0
	%	78.0	20.0	0.0	2.0	

Field Survey (2021)

Table above presents the respondents opinions on what constitutes the challenges of managing the Blue Economy in Nigeria. As indicated in the table 100% of the respondents identified "Illegal, Unreported and Unregulated (IUU) fishing" as a primary challenge of managing the blue economy in Nigeria. Other challenges are: Armed robbery and piracy (100%); Climate change (89%); Pollution from land-based sources and marine operations (98%); Compliance issues- Illegal jetties and pollutions (98%); Comprehensive and articulated policy framework on Blue Economy (100%); Knowledge and competence (100%) and Local content participation (98%).

The result of this study agrees with Rustomjee (2016) who identified armed robbery and piracy as primary challenges that hinder growth in marine businesses. Similarly, the result confirms the study by Visbeck et al.(2014) who identified climate change as a major factor affecting blue economy activities given that too much heat for instance, warms the ocean making it not conducive to aquatic lives. The result of this study is also in agreement with Ibrahim (2018) who revealed that pollution from land-based sources and marine operations constitutes significant challenge in actualizing blue economy in Nigeria.

3. What are the potentials of actualizing a blue economy in Nigeria?**Table 3: Showing the potentials of actualizing a blue economy in Nigeria**

What are the potentials of actualizing a blue economy in Nigeria?		SA	A	D	SD	%in agreement
Marine Transport	F	50	39	9	2	89.0
	%	50.0	39.0	9.0	2.0	
Marine Tourism	F	66	24	9	1	90.0

	%	66.0	24.0	9.0	1.0	
Human capacity (Maritime Manpower)	F	79	21	0	0	100.0
	%	79.0	21.0	0.0	0.0	
Rich ocean resources (Fisheries and energy)	F	82	18	0	0	100.0
	%	82.0	18.0	0.0	0.0	
Opportunity to grow the economy	F	70	29	0	1	99.0
	%	70.0	29.0	0.0	1.0	

Field Survey (2021)

Table 3 above presents the respondents' opinion on the potentials of actualizing a blue economy in Nigeria. As indicated in the table, actualizing blue economy in Nigeria is possible given the potentials of the country. Among these potentials are the present of marine transport (89%); Marine Tourism (90%); Human capacity (Maritime Manpower) (100%); Rich ocean resources (Fisheries and energy) (100%) and Opportunity to grow the economy (99%). This implies that, utilizing these opportunities, Nigeria will be able to achieve blue economy. This study is in agreement with Elisha (2019) and Okemwa (2019) who also revealed that Nigeria has potentials such as large population, rich ocean resources, as well as marine transports, which when properly utilize will enhance blue economy in Nigeria.

Conclusions and Recommendation

Since its independent, Nigeria is still classified as developing country because it fails to utilize the wealth that nature endowed it with. For instance, Nigeria is endowed with great amount of littoral components as well as waterways which constitutes rich ocean base resource, which if properly utilized, has the capacity of creating unlimited numbers of job opportunities to Nigerians and in the process improves standard of living. The United Nations Sustainable Development Goal (UNSDG) 14 understands the importance of waters when it advocates the sustainable use of ocean resources. Furthermore, achieving the potentials of the blue economy in Nigeria appears to be facing challenges given the lack of a coherent plan that and a feasible timeline that will galvanize the right kind of actions by individuals and organizations towards the achievement of various initiatives. As a result, this study recommends ecological integrity which will help in restoring the poor conditions on Nigerian waters due to pollution, and other illegal practices. Again, the study recommends efficient maritime security systems given that the potentials of ocean resources base could only be utilize if the people/users are guaranteed of their security given the constant challenge of sea piracy in the Nigerian oceans. The study also recommends policy formulations and implementations meant to control illegal activities in the oceans. Finally, the study recommends collaboration and partnership between private individuals and government to collectively invest in shipping if the country must actualize sustainable blue economy. Nigerian government could also partner with international bodies such as the United Nations Sustainable Development Goal (UNSDG) 14 to tap from their vision and implement same in the Nigeria environment.

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APPENDIX

IMPORTANCE OF EFFECTIVE MANAGEMENT OF NIGERIAN BLUE ECONOMY

REQUEST FOR INFORMATION

Dear Respondent,

I am carrying out a study on “importance of effective management of Nigerian blue economy”, and you have been chosen to be part of the study. This questionnaire is only for academic purposes. Kindly select the response which applies to you and all information will be kept confidential

Instructions: Please tick (√) as appropriate where

SA = Strongly Agree (SA), A = Agree, D = Disagree (D), SD = Strongly Disagree (SD)

Key: Strongly agree (4), Agree (3), Disagree (2), and strongly disagree (1).

S/N	ITEMS	SA	A	D	SD
RQ1	What are the factors that can enable the actualization of a Blue Economy in Nigeria?				
1	Maritime data management				
2	Investment				
3	Enlightenment and Sensitization				
4	Developing an integrated Policy Framework				
5	Effective Maritime Security				
RQ2	What are the challenges of managing the Blue Economy in Nigeria?				
6	Illegal, Unreported and Unregulated (IUU) fishing				
7	Armed robbery and piracy				
8	Climate change				
9	Pollution from land-based sources and marine operations				
10	Compliance issues- Illegal jetties and pollutions				
11	Comprehensive and articulated policy framework on Blue Economy				
12	Knowledge and competence				
13	Local content participation				
RQ3	What are the potentials of actualizing a blue economy in Nigeria?				
14	Marine Transport				
15	Marine Tourism				
16	Human capacity (Maritime Manpower)				
17	Rich ocean resources (Fisheries and energy)				
18	Opportunity to grow the economy				