International Journal of Economics and Development Policy (IJEDP)
Vol. 7 No.2, December, 2024
Print - ISSN: 2651-5644
Online - ISSN: 2811-2288

Impact of the Blue Economy on Nigeria's Economic Growth: An ARDL Approach

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Abstract

The impacts of blue economy on the economic growth of Nigeria are being examined in this study. The study uses secondary data from the World Development Indicator (WDI), Food and Agriculture Organization Statistics (FAOSTAT), and World Bank statistics for the period 1970–2022. The intrinsic instability of the global oil market, on which the Nigerian economy is highly dependent, has been repeatedly questioned in recent years. Diversification into other industries is becoming increasingly popular, with the blue economy emerging as a potential driver of economic growth, sparking heated discussion in both wealthy and developing countries. The data for this study is analyzed using Auto-Regressive Distributed Lags (ARDL).The study's findings using results obtained from ARDL, that blue economic activity (total fisheries production), agriculture value added, labour, capital, and trade openness, have a positive and significant effect on the economic growth of Nigeria across both short and long run, with the exception of fish production, which is not significant in the long run.. It also shows that there are long-term relationships and co-integrations among the variables. It is advocated that each coastal state and the Nigerian nation build marine education and skills training centers/schools, as well as develop policies beyond the oil sector.

Keywords: Total fisheries production, Agriculture, forestry, fishing Economic growth Autoregressive distributed lag model

JEL Classification:

1.0 Introduction

The blue economy is a relatively new area of study that encompasses industries that depend on water for their operations in the tourism, energy, fishing, and maritime transportation sectors. Blue growth supports the long-term growth of the maritime and marine industries since the oceans and seas are vital to the world economy and offer enormous opportunity for advancement and innovation Smith-Godfrey, (2016). The words "blue economy" and "economic growth" are used in this research to examine scholarly output in this topic.

Assessing if Nigeria's economic growth is connected to the blue economy is the most important contribution. The term "blue economy" refers to "any economic activity associated with oceans, seas, and coasts," according to the Smith-Godfrey, (2016).

The motivation for this study aims at raising awareness of the ocean-based economy's potential to boost government revenue and extend business opportunities beyond land. The blue economy aims to improve people's quality of life by utilizing water sources such as streams, rivers, seas, and oceans.

The ocean and marine ecology are threatened by human activity, growing trade, population growth, and the search for alternate energy sources (Visbeck et al., 2014). The economic prospects of a nation are further impacted by these measures. Climate change, overfishing, pollution, and declining biodiversity are all contributing factors to the stress on the ocean, which hinders the ocean's potential and benefits and restricts the development of a blue economy (Visbeck et al., 2014). Therefore, a fundamental change in sustainable approaches to ecosystem health is needed to fully fulfill the promise of the ocean. In addition, attaining sustainable growth requires strong institutional frameworks and well-developed coordinated ocean policies. Nigeria's position is different, though, as there are other factors at play in the struggle for ocean management.

The competition has led to ineffective management of the marine and coastal environments as well as unsuccessful development plans (Economist Intelligence Unit, 2015). Although the need for environmentally friendly economic activities is acknowledged, opinions on the elements that go into achieving this objective are divided (Park & Kidow, 2014).

Furthermore, it observes that Nigeria will have difficulty realizing the potential of the blue economy because there isn't a clear plan or workable timeline that would encourage people and organizations to take the right kind of actions toward the accomplishment of various initiatives. Therefore, by fully embracing the blue economy, the nation may thrive without oil while concentrating on non-oil industries. Therefore, in order to fully benefit from the Nigerian blue economy, it is imperative to recognize how important it is to manage it well.

Nigeria is not making the most of its fishing resources, despite having a continental shelf area of 43,514 km2 (Sea Around Us, 2016) and a continental coastline length of 853 km (Nwilo & Badejo, 2007). Fishing products are regarded as being mostly imported into Nigeria. With the exception of fish fillets and other fish meat, the country imported frozen fish for about $876,081,485.00 million in 2020, but only made $106,964.00 thousand in exports Au-Ibar (2018)

The lopsided growth of the blue economy majorly resulting from insecurity in the marine domain, unregulated marine resource extraction, degradation of coastal habitats, ocean pollution and global warming are all challenges limiting the potential of the blue economy in Nigeria These difficulties have an impact on the environment as well as economic and social ramifications, including the loss of biodiversity, livelihoods, and cultural heritage (Barragán, et al, 2015).The fishing industry's share of the national GDP decreased to 0.9 percent in Q3 2022 from 1.09 percent in 2020 (NBS, 2022). Fishing products are regarded as net imports in Nigeria. The Nigerian Ministry of Agriculture and Rural Development estimates that the country's fish demand in 2021 would be 3.6 million metric tons, of which the country could only produce roughly 31.19percent imports would be required to meet the remaining 68.80percent of the need (Vanguard, 2021).

Fisheries remain a significant economic industry that employs over 8.6 million people directly and an additional 19.6 million indirectly, with women making up 70 percent of the workforce (World Fish Nigeria, 2021). At the moment, Nigeria produces just over 1 million metric tons of fish, leaving an annual import imbalance of over 800,000 metric tons (World Fish Nigeria, 2021).

With the population trend, it is anticipated that population expansion would outpace increases in aquaculture, and fisheries' productivity. As a result, in terms of food production, the country is anticipated to be less self-sufficient in 2025 than it is in the present and in comparison, to other parts of the world (Ogunbadejo & Kanwanye, 2023).

The study aims to explore how blue economy affects economic growth in Nigeria. Gross domestic product (GDP) is the primary measure of an economy's growth (Henderson et al., 2011; Wong et al., 2005). GDP per capita gives information on how much is spent on each individual in a certain country and is used to assess the success of that country's economy (Organization for Economic Cooperation and Development (OECD), 2016). According to the World Bank (2023), Nigeria's GDP per capita for 2022 was $2,163, a 4.69% rise over 2021. Nigeria's GDP per capita for 2021 was $2,066, a 0.43% decrease from 2020. Nigeria's GDP per capita for 2020 was $2,075, an 11.11% decrease from 2019. Nigeria's GDP per capita in 2019 was $2,334, a 9.79% rise from 2018.

In order to meet the demands of planners, researchers, and administrators in the future, the purpose of this article is to examine the impact of Blue economy on economic growth in Nigeria both in short run and long run. To the best of the authors' knowledge, this study is the first to use auto-regressive distributed lag methods to estimate the short-run and long run impact of Blue economy on economic growth in Nigeria. Second, few studies have looked at the interaction between several parts of the blue economy, such as fishery and aquaculture production, trade openness, and agricultural value added, and how they all contribute to economic growth. The remainder of the paper is set out as follows. The literature review is explained in the next section including the theoretical framework and empirical review on impact of Blue economy on economic growth in Nigeria. Section 3 presents the data and methodology of the study. Section 4 provides a results and discussions. Section 5 concludes with a few final thoughts and policy implications.

2.0 Literature

2.1 Theoretical Background

The Natural Resource-Based View (NRBV) and Dynamic Capability (DC) theories combine to create a powerful model to the impact of blue economy on economic growth. According to Hart (1995) and Golicic and Smith (2013), NRBV prioritizes the environment and social context to improve business competitiveness, drawing on traditional resource theory. This led to the creation of three interdependent resource concepts: pollution reduction, product stewardship and sustainability. Green entrepreneurship aims to eliminate pollution and promote sustainability, while blue enterprises orientation is an active capability (Zhao & Sebaka, 2022).

The research study is supported by theories of economic growth and business expansion. Examples include the Harod-Domar, Solow-Swam, and Endogenous growth theories. The endogenous growth theory differs from the neo-classical growth theory by focusing on endogenous factors to explain an economy's long-term growth rate. Endogenous growth models focus on technical development driven by investment, capital stock, and human capital (Jhingan, 2012).

2.2 Empirical Review

The purpose of the empirical review is to examine previous research in the fields of blue economy, economic growth, and development.

Appiah et al. (2023) used Structural Equation Modeling to analyze investment opportunities in Ghana's Blue Economy. The study found that organizational factors, technology, risk from green environmental control, and policy as a regulatory instrument all impact investment in the Blue Economy and marine ecosystem preservation.

Sufian et al. (2023) used autoregressive distributive lag and time series data from 1980 to 2019 to investigate the impact of blue economy variables on China's sustainable economic growth. The study discovered that total fish production, agriculture, forestry, and fisheries, labor force, and trade all had a favorable impact on economic growth in both the long and short term.

Jacob and Umoh (2022) used a descriptive research approach to explore the economic challenges and potential of Nigeria's blue economy. The study covered topics such as the origins and conceptualization of the blue economy, the geographical perspective of the Niger Delta, economic development, long-term principles of blue economy, potentials, and natural resources. The study concluded that the blue economy has the potential to lead to faster and greater GDP growth.

Elia and Indrajaya (2022) investigated how the blue economy impacts fishing output and sustainable development. The study used both quantitative and survey methods to conduct research. Samples were collected from 150 Fishermen Cooperative members in Indonesia. The findings showed that the blue economy helps to promote sustainable fisheries development and productivity.

Bhattacharya and Dash (2020) studied the factors influencing blue economy activities in fisheries and tourism across 21 Asia and Pacific Island countries from 1996 to 2016. A panel data technique was used, and it was discovered that gross fixed capital formation and availability to electricity positively influence the extent of the blue economy in Asian and Pacific Island countries. The findings indicate the importance and effectiveness of implementing sustainable ocean governance policies in the Asian and Pacific Island regions.

Ogunbadejo et al. (2021) investigated fish production and economic growth in Nigeria using co-integration and causality analyses, as well as time series data from 1970 to 2019. The data provide evidence that there is no long-term equilibrium relationship between fish production and GDP per capita.

Wang and Zhang (2019) conducted an empirical study on China's blue economy and economic growth. The blue economy boosts China's GDP in coastal areas with plenty of marine resources, according to the scientists. The study stressed the importance of marine sector policies and activities in promoting sustainable and equitable economic development in China.

In 2020, research (Zhou & Yu, 2020) examined how marine economic development influences Chinese economic growth. The maritime economy benefits China's economy as a whole, but its impact varies by region and industry. The study illustrated how the marine economy may increase economic growth and emphasized the importance of targeted policies and strategies to ensure sustainable and inclusive marine sector development.

Islam et al. (2018) in their study used secondary data to analyze the constraints and potential for sustainable blue economy development in Bangladesh. Bangladesh's economic growth can be accelerated by sustainable exploitation of maritime resources, but limited institutional capability and socio-cultural factors pose significant challenges.

Pauly and Zeller (2016) offered reconstructions demonstrating that global marine fisheries capture numbers are rising and dropping. The authors demonstrated that unreported and illegal fishing significantly underestimates global fish catches. The report stressed the crucial need for enhanced marine fishery monitoring and management to ensure the sustainable and equitable use of fisheries resources.

3.0 Methodology

3.1 Data sources

The analysis uses annual data from World Development Indicators (WDI) issued by the World Bank, Food and Agriculture Organization. The data obtained for the study is secondary from 1970 to 2022.

3.2 Model Specification and Estimation Techniques

Auto-regression distribution lag model was used to examine the correlation between economic growth and blue economy drivers (AFP, AP, and AFF), as well as additional control variables (trade). According to the Solow model of economic growth (Solow, 1956), saving and investing raise capital stock (K), whereas depreciation diminishes it. This study follows a simplified version of the Solow Growth Model (Cheung &Yip, 2011; Hanif &Gago-de Santos, 2017). The functional form of our model is as follows:

$$Growth = f(Capital, Labour) \quad (1)$$

The extended version of the model can be written as follows:

$$Growth = f(Capital, Labour,\ Blue\ economy, Z) \quad (2)$$

Here we further disaggregate the blue economy (TFP, AP and AFF) and Z (that denotes a control variables as trade). The econometric form of the proposed model can be given as follows:

$$IogPCI_t = \alpha + \o_1 IogL_t + \o_2 IogK_t + \o_3 IogFP_t + \o_4 IogAFF_t + \o_5 IogTRD_t + u_t \quad (3)$$

Where log = Logarithm, PCI= Gross domestic product per capita income, L = Labour, K = Capital, FP = Total Fisheries production, Aquaculture, Artisanal and industrial. TRD = Trade, u = Error term, t = year.

Here, it is important to mention that in equation (3) we used normal logarithm (Log) because the log transformation also helps to unify the units of measurement (Asteriou &Hall, 2015).

Following Pesaran et al. (2001), the ARDL model specification (Equation 3) is expressed as an unrestricted error correction model (UECM) to test for cointegration between the variables under study:

$$InPCI_t = \sum_{i=1}^{p} \varphi_1 \Delta InPCI_{t-i} \sum_{i=0}^{p} + \varphi_2 \Delta InL_{t-i} + \sum_{i=0}^{p} \varphi_3 \Delta InK_{t-i} + \sum_{i=0}^{p} \varphi_4 \Delta InFP_{t-i} + \sum_{i=0}^{p} \varphi_5 InAFF_{t-i} + \sum_{i=0}^{p} \varphi_6 InTRD_{t-i} + \beta_1 InPCI_{t-1} + \beta_2 InL_{t-1} + \beta_3 InK_{t-1} + \beta_4 InFP_{t-1} + \beta_5 InAFF_{t-1} + \beta_6 InTRD_{t-1} + u_t \quad (4)$$

Once cointegration is established, the long-run relationship is estimated using the conditional ARDL model specified as:

$$InPCI_t = \varphi_0 + \beta_1 InPCI_{t-1} + \beta_2 InL_{t-1} + \beta_3 InK_{t-1} + \beta_4 InFP_{t-1} + \beta_5 InAFF_{t-1} + \beta_6 InTRD_{t-1} + u_t \quad (5)$$

On the a priori, we expect; $\beta 1 > 0$, $\beta 2 > 0$, $\beta 3 > 0$, $\beta 4 > 0$, $\beta 5 > 0$ $\beta 6 > 0$.

The short-run dynamic relationship is estimated using an error correction model specified as:

$$InPCI_t = \sum_{i=1}^{p} \varphi_1 \Delta InPCI_{t-i} \sum_{i=0}^{p} \varphi_2 \Delta InL_{t-i} + \sum_{i=0}^{p} \varphi_3 \Delta InK_{t-i} + \sum_{i=0}^{p} \varphi_4 InFP_{t-i} \sum_{i=0}^{p} \varphi_5 \Delta InAFF_{t-i} + \sum_{i=0}^{p} \varphi_6 InTRD_{t-i} + \delta ecm_{t-1} + u_t$$
(6)

Where, GDP at time t is the dependent variable, while the explanatory variables are gross fixed capital formation (K), trade openness (TRD), and labour employment in agriculture (L). Fish production denotes FP and FFP is agricultural value added.

Gross Domestic Product per capital (PCI) in United States dollars (USD):The gross domestic product (GDP) per capita is a reliable measure of per capita income. In this investigation, GDP per capita current was used.

Total Fishery Production (TFP) in metric tonnes refers to the amount of aquatic species harvested by a country for commercial, industrial, recreational, and subsistence uses. Harvests from mariculture, aquaculture, and other types of fish farming are covered.

Agriculture, forestry, and fishery (AFF) as a share of GDP: Agriculture is under ISIC divisions 1-5 and encompasses forestry, hunting, fishing, agriculture, and livestock production. Value added refers to a sector's net output after subtracting intermediate inputs. This calculation does not account for asset depreciation or natural resource degradation. ISIC determines the provenance of value added.

The labor force (L), measured in millions, is used to assess the impact on Nigeria's GDP. Capital (K) in USD: The yearly rate of gross fixed capital formation in million US dollars is used to analyze the impact of capital growth on GDP in Nigeria.

Trade is measured as a percentage of GDP and includes both exports and imports of commodities and services.

4.0 Results and Discussion

Descriptive statistics.

The mean values of GDP, TFF, AFF, L, K, and TRD are comparable. The standard deviation represents the variability of the variables. The factors vary significantly. The minimum and maximum values of the variables indicate their current range. The research discovered that some variables had positive skewness values, suggesting that their frequency distributions are not bell-shaped or symmetric, while others have negative skewness. Positively skewed distributions are distinguished by overextension to the right or a longer right tail. The variables' kurtosis values are concentrated near the peak and in the fat section of the frequency distribution curve. Again, the kurtosis suggests that certain variables are leptokurtic and others are platykurtic. Taking the value of the Jarque-Bera test, we found that all variables are regularly distributed.

Table 1. Descriptive statistics.

	GDP	K	L	AFF	TFP	TRD
Mean	31.15017	24.48595	17.9627	29.4233	13.15548	3.349477
Median	30.99577	24.5	17.99956	29.46634	13.11137	3.508208
Maximum	31.95871	25.75	18.40944	30.5616	14.00817	3.975561
Minimum	30.41674	23.24	17.50126	23.33189	12.41045	2.21266
Std. Dev.	0.541781	0.691503	0.259103	1.199704	0.554054	0.486904
Skewness	0.226814	0.162581	-0.15076	-3.09579	0.122423	-0.94987
Kurtosis	1.466161	1.954451	1.999667	16.82337	1.518819	2.973733
Jarque-B	4.477272	2.09808	1.910255	401.4871	3.944234	6.317033
Probability	0.106604	0.350274	0.384763	0.23521	0.139162	0.042489

Source: Author’s compilation using E-views 10 (2024)

Table 2. Correlation matrix.

	GDP	AFF	K	L	TFP	TRD
GDP	1					
AFF	0.709574	1				
K	0.634431	0.159916	1			
L	0.848364	0.725213	0.299991	1		
TFP	0.879787	0.728057	0.601829	0.854725	1	
TO	0.293529	0.310668	-0.27077	0.547116	0.322756	1

Source: Author's compilation using E-views 10 (2024)

Table 2 displays the correlation between independent variables, and the results demonstrate that all coefficients are smaller than the 0.9 threshold (Iyoha, 2004), indicating that there is no concern with multicollinearity between variables. The relationship between Total Fish Production TFP, Agriculture Value Added, and Economic Growth was favorable.

Table3. Unit Root test results

	Augmented Dickey-Fuller (ADF)			**Phillip Perron (PP)**		
Variable	**Level**	**1stDiff.**	**Remarks**	**Level**	**1stDiff.**	**Remarks**
GDP	-0.478716	-3.340689	1(1)	-0.001373	-5.583111	1(1)
K	-0.940824	-3.600294	1(1)	-1.393125	-3.409829	1(1)
L	-1.613770	-7.137140	1(1)	-1.625930	-7.137138	1(1)
TFP	-1.068333	-10.35030	1(1)	-1.059172	-10.19231	1(1)
AFF	-1.935636	-6.906868	1(1)	-1.943401	-6.906868	1(1)
OPN	-3.681475	-8.039426	1(0)	-3.681475	-8.030110	1(0)

Source: Author's compilation using E-views 10 (2024)

Table 3 indicates that one variable is stationary at level while other variables happen to be integrated at order one. This condition warrants the application of ARDL methods which accommodates series that are either I(1) or I(0)process or the mixture of both. The stationarity tests are necessary to guard against spurious regression and to ensure no variable is integrated into order two. The tests were based on augmented Dickey-Fuller and Phillip Perron tests which were based on the Akaike information criterion (AIC) which was selected automatically. The data confirm the suitability for the co-integration of the ARDL-bound test.

Table 4: ARDL-bound result.

Test Statistic	**Value**	**k**	
F-statistic	11.67893		5
Critical Value Bounds			
Significance		I(0) Bound	I(1) Bound
	10%	2.26	3.35
	5%	2.62	3.79
	2.50%	2.96	4.18
	1%	3.41	4.68

Source: Author's compilation using E-views 10 (2024)

Table 4 shows that long-run relationships exist among the variables of the study because the

F-Statistic (11.67893) is greater than the lower I (0) and upper I (1) bounds of the critical values

at 1% critical value. From Table 4, it shows that there was cointegration among variables. When variables are cointegrated, they move together throughout time. The variables GDP, L, TO, K, FPP, and TFP tend to change together over time.

Table 5: ARDL Cointegrating And Short Run Form Result

Dependent Variable: GDP

Selected Model: ARDL(1, 1, 0, 0, 0, 1)

Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
D(AFF)	0.027906	0.006628	4.210055	0.0002
D(K)	0.053259	0.016634	3.201884	0.0031
D(L)	0.108520	0.047622	2.278752	0.0297
D(TFP)	0.023237	0.008267	2.810920	0.0085
D(TO)	0.038646	0.017837	2.166657	0.0381
CointEq(-1)	-0.175910	0.042052	-4.183133	0.0002

Cointeq = GDP - (0.2168*AFF + 0.3028*K + 0.6169*L + 0.1665*TFP +0.1492*TO + 3.7672)
Source: Author's compilation using E-views 10 (2024)

Table 5 summarizes the short-term coefficients. The coefficient of ECT was negative and statistically significant. Additionally, it underlined the need for rapid adjustment towards long-term equilibrium. Short-term coefficients show a positive and substantial effect of TFP, L, K, AFF and TRD on GDP. Short-term changes in fisheries productivity, labor force, and physical capital will all have a similar impact on GDP. The positive and statistically significant coefficient of all the variables is in line with the finds of Sufian et al. (2023). TFP suggests a clear impact on GDP. The short-run coefficients for TFP were 0.0232 increasing

TFP by 1% increases GDP by around 2.23%. The result corroborates with the finding of (Zhou & Yu, 2020 and Wang and Zhang, 2019.).

Table 6: Long Run Coefficients Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
AFF	0.216842	0.064572	3.358161	0.0021
K	0.302761	0.091275	3.317037	0.0023
L	0.616904	0.303176	2.034807	0.0505
TFP	0.166472	0.204547	0.813857	0.4219
TO	0.149179	0.059373	2.512612	0.0405
C	3.767249	4.671517	0.806429	0.4261

Table 6 presents the long-term estimation results. The study found that all variables have a positive impact on GDP and are statistically significant, corroborated with Sufian et al. (2023). except for TFP. The positive and statistically insignificant coefficient of TFP suggests that TFP is a short run phenomenon. It is in line with Ogunbadejo et al. (2021) who find out that that there is no long-run equilibrium relationship between fish production and GDP per capita. The labour force positive and statistical significance was aligned with the findings of Bhattacharya and Dash (2020).

Table 7: Pairwise Granger Causality Tests

Null Hypothesis:	Obs	F-Statistic	Prob.
TFP does not Granger Cause GDP	51	3.75213	0.0309
GDP does not Granger Cause TFP	0.36884	0.6936	

Source: Author’s compilation using E-views 10 (2024)

From Table 7, the estimation result explains the unidirectional relationship between total fish production toward economic growth at a significant level of 1%. It means an increase in the total fish production leads to economic growth increases in the short-run. These results are well supported by the previous studies conducted by Aremu; and Ogunbadejo et al, (2022) but contrary to the view of agro-pessimist like Dercon (2009) who opined the possibilities of causation running from economic growth to total fish production.

Diagnostic tests of the ARDL bounds test of the short-run and long-run ARDL

Models

The CUSUM test results for the model are shown in Fig. 1. The plots in both models stay within critical boundaries at the level of 5% significance, according to CUSUM. Hence, we succeeded in ensuring the model’s structural stability.

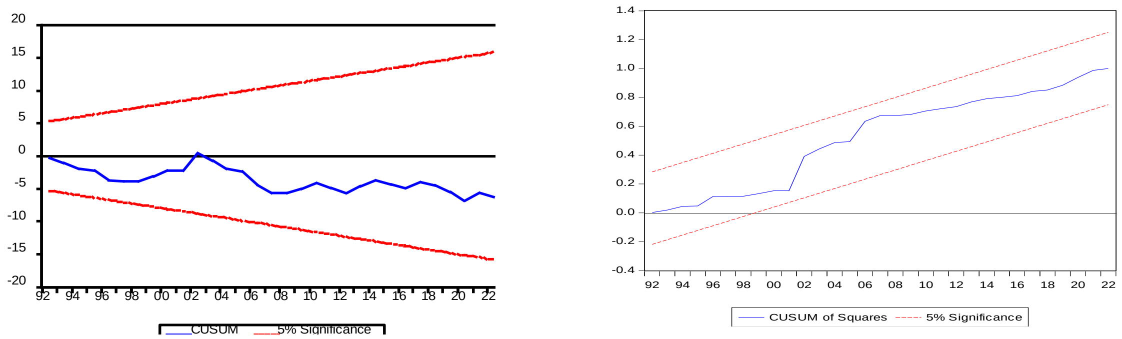

Figure 1: CUSUM and CUSUM of Squares

Figure 1 show the CUSUM and CUSUMQ graphs, which were used to assess coefficient stability.The CUSUM and CUSUMSQ data met the 5% significance threshold. The ARDL model yields stable long-term coefficients.

Table 8: Diagnostic tests of the model

Tests	Obs*R-squared	Prob. chi-squared (2)	Results
Heteroskedasticity test	11.40079	0.3272	No heteroskedasticity
Serial correlation test	1.006872	0.6045	No serial correlation
Normality test	Value of Jarque–Bera	Probability Results	
	7.287557	0.026153	Normally distributed

The model's heteroskedasticity is shown in Table 8. We conclude that there is no problem with heteroskedasticity in either model since the probability value of obs*R-squared is 11.40079 and the probability value in the model is 0.3272, both of which are larger than 5%. The results of the model's serial correlation test are shown in Table 8. An absence of association constitutes the null hypothesis for serial correlation. Given that the probability value of obs*R squared is 1.006872 and the probability value is 0.6045, both of which are larger than 5%, serial correlation is not a problem for the model. The results of the normality test are represented in Table 8.

The Jarque–Bera test value in this instance is 7.287557, while the probability value in the model is 0.026153. The probability value is greater than 5%, indicating that both models' data series are regularly distributed.

5.0 Conclusion and Policy Recommendation

Thus, we found from the ARDL model results that all aspects of the blue economy, including agriculture, forestry, fishing, and total fisheries production, have a positive and significant impact on Nigeria's economic growth. This suggests that Nigeria has the potential to establish a blue economy, leading to national economic expansion and faster progress if its resources are utilized effectively.

Martinez-Vazquez et al. (2021) examined the significance of various blue economy sectors and governments' motivations for growing them for the growth of their individual national economies. The blue economy, as described by Fabinyi et al. (2021), is a revolutionary concept in ocean governance that tries to ethically capitalize on the ocean's resources.

From the findings, it was found out that the blue economy is positively correlated with the amount of gross fixed capital creation, gross domestic capital and labour employed in Nigeria. The researcher recommends promoting more resilient and sustainable types of marine and coastal tourism and enabling market access for cutting-edge marine products. By improving vocational training and education in blue skills; these steps will be implemented to meet the needs of the labor force.

Also, government needs to promote smart and sustainable growth and employment prospects in Nigeria's marine economic activities in the short, medium, and long run. Lastly, it was recommended that the promotion of ocean-based benefits for global marine economy, society, and ecology is inevitable for economic growth.

Therefore, we conclude that there is a positive relationship between blue economy factors and economic growth in Nigeria.

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