



The Contribution of the Nigerian Banks to the Promotion of Non-Oil Exports (1990-2013)

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Authors' contributions

This research work was carried out in collaboration between all authors. Author JSE conceptualized the study, wrote the first draft of the manuscript and critically reviewed it thereafter. Author EGK sourced the data, performed the analysis and interpreted the result of the analysis. Author AAC sourced and managed relevant literature. All authors read and approved the final manuscript.

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ABSTRACT

This study examines the contribution of the Nigerian banks to the promotion of non-oil exports. This study adopted econometric time series analysis to examine the contribution of Nigerian banks credit in relation to non-oil exports performance, assess the presence of causal relationship between Nigerian banks credit and non-oil exports performance as well as the direction of the causal relationship. The empirical analyses that were carried out to achieve the objectives include unit root, co-integration and granger causality test, in which changes in non-oil exports performance was regressed against commercial banks credit to non-oil exports, interest rate and inflation using annual series data for the period 1990-2013. The data were sourced from the Central Bank of Nigeria statistical bulletin. The result of the analysis showed that Nigerian banks have not adequately contributed toward the promotion of non-oil exports. The study also found that there is a long run relationship between Nigerian banks credit to non-oil exports and the performance of non-oil exports

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and no causality between Nigerian banks credit to non-oil exports and non-oil exports performance. Based on the findings, the Central Bank of Nigeria should reduce the current monetary policy rate of 14% to a range of 5%-8% so that when commercial banks add up processing, transaction and other administrative fees, credit would be extended to non-oil exporters at a rate lower than 15%. Furthermore, the Central Bank of Nigeria should as an operational guideline, impose commercial banks to set aside a certain amount of money from their yearly profit for financing of non-oil export as it is the case for small and medium scale enterprises equity scheme.

Keywords: Non-oil export; commercial banks and Johansen co-integration.

1. INTRODUCTION

The role of commercial banks in a modern economy cannot be over exaggerated, commercial banks in Nigeria as a financial institution help in financing the exporting sector of the economy, by lending out short and medium term loans to agriculture, manufacturing, trading and industries. Banks are important institutions that can provide finance to non-oil sector in Nigeria. Banks are internationally recognized financiers and guarantees payment to exporters [1]. As stated by [2], this critical role played by commercial banks in financing non-oil exports in Nigeria dates back to post independence.

Crude oil accounts for about 95% of Nigeria's export earnings and 70% of total revenue while non-oil export account for about 5% export earnings. As such, any drop in the price of oil would have a significant negative impact on the Nigerian economy resulting from revenue shortfall. [3] and [4] noted that crude oil constitutes 96% of total exports as against 4% for non-oil exports in Nigeria. The Nigerian Government, conscious of the over-dependence on oil which constitutes about 95% of generated revenue, has embarked on many measures to give the economy a new lease on life. To generate stronger and stable growth rate, the government promoted increased production in the non-oil sector of the economy by creating a level-playing field for private-sector led activity.

Non-availability of bank credits in Nigeria has brought about low growth rate of the economy and industrial diversification. The availability of bank credits to those in trade determines what is produced and how much of that product is produced. Consequently, commercial banks perform their important role of financial assistance by delivering relevant services (by granting loans and advances) to various sectors of the Nigerian economy. Commercial banks support the economy by serving the credit needs

of their customary and providing a safe place for the cash balance. The benefit of non-oil export to economic growth cannot be exaggerated as it goes beyond the national boundaries of traditionally moving goods from one country to another with the sole aim of foreign exchange earnings.

Nigeria, over the years has engaged herself in export trade. This is not only very relevant in foreign exchange earnings, but also in its significant contribution to economic growth and development. In some country (countries not endowed with crude oil as Nigeria), non-oil exports have been found to perform as the engine of growth especially through high productivity exports, a nation can take advantage of international division of labour and procure desired goods and services from abroad at considerable savings in term of inputs of productivity resources, thereby helping to increase the efficiency of export industry.

Empirical research on Sub-Saharan Africa shows that economic growth is stimulated by export trade. Such studies include, [5], [6], [7], [8] and [9]. The federal government of Nigeria over the years created some intervention funds and established agencies solely for the promotion of non-oil export. These include Export Development Fund (EDF), Export Expansion Grant Funds Scheme (EEGF), Duty Draw-Back/Suspension and Manufacture in Bond Scheme, Export Adjustment Fund Scheme and Nigeria Export- Import Bank (NEXIM). Other institutional bodies put to engage in financing export trade in Nigeria such as Nigeria Export Promotion Council (NEPC), Nigeria Export Processing Free Zone Scheme (NEPFZS) and Nigeria Export Processing Zone Authority (NEPZA).

1.1 Statement of Problem

Non-oil export enhancement will make magnificent contribution to economic growth and

development. Countries that are non-oil export dependent earn huge foreign exchange. However, in Nigeria the non-oil export performance has declined. This is attributed majorly to the exploration of crude oil, which now contributes 95% of Nigeria's export earnings and 70% of total revenue while non-oil export account for about 5% export earnings.

Non-oil export is greatly handicapped generally by inadequate finance and bank credit in particular. According to [1], the rate of interest for credit extended to non-oil export is usually high, ranging between 15-20%. As a result, access to finance becomes a problem to non-oil product exporters. This suppresses the growth of non-oil exports and its contribution to economic growth. [10] and [11] have identified high interest rates and little disbursement in terms of the volume of credits as problems responsible of dwindling growth in non-oil exports. [12] have established unfavourable exchange rates as a challenge to non-oil exports. [13] noted that banks are not willing to advance credit to the non-oil export sector as they consider the sector very risky for investment despite directives from Nigeria Export Promotion Council (NEPC) to do so.

[14] observed that inability of non-oil exporters to provide collateral to match the loan they are seeking, high interest of extending credits and non-availability of audited financial statement of non-export business entity deter the granting of loans and advances by commercial. Furthermore, most of the commercial banks lack the expertise to manage credit risk associated with non-oil export financing in Nigeria.

1.2 Objectives of the Study

The essence of commercial bank credit is to give loans and advances to help investors or customers finance their export and non-export projects. Commercial bank credits stand to bridge the lacuna produced by low domestic savings and income. The main objective of the study is to examine the contribution of Nigerian banks to the promotion of non-oil exports for the period 1990-2013 (24 years). Therefore, this study is aimed to achieve the following objectives.

- i. To examine the contributions of Nigerian banks credit in relation to non-oil exports performance.

- ii. To assess the presence causal relationship between Nigerian banks credit and non-oil export performance.
- iii. To determine the direction of causal relationship between Nigerian banks credits and non-oil exports performance.

1.3 Hypothesis of the Study

The hypothesis that will be tested by this study is:

- i. There is no significant direction of causal relationship between Nigerian banks credit and non-oil exports performance.

This study is broken down into sections with the introduction, statement of problems, objectives of the study and hypothesis as section one. Section two comprises of the conceptual framework, theoretical background and the empirical studies. Methodology takes care of section three, section four for data presentation and analysis while section five features conclusion and recommendations.

2. CONCEPTUAL FRAMEWORK

2.1 The Concept of Bank Credit

According to [15], credit is the money from the lender to the borrower. [16] noted that credit implies a promise by one party to pay another for money borrowed or goods and services received. Credit cannot be divorced from the banking sector as banks serve as a conduit for funds to be received in form of deposits from the surplus unit of the economy and passed on to the deficit units which need funds for productive purposes. The [17] succinctly conveyed a more comprehensive definition of credit, it defines credit facility as the aggregate of all loans, advances, overdrafts, commercial papers, banker's acceptances, bill discounted, leases, guarantees and other loss contingencies connected with a bank's credit risks. [18] described credit simply as the right of a lender to receive money in the future in return for his obligation to transfer the use of funds to another party in the interim. The facility is as old as man, though in the primitive society it was known as mutual aid, because it was based on ancient customer of ensuring substance of all members of the community. Credit therefore arises out of the need to bridge the gap between the surplus and deficit economic units such that the highest

level of satisfactory function is performed by the financial institutions notable among which are the money-deposit banks. Credit channels savings into productive investments thereby encouraging economic growth. Thus, the availability of credit allows the role of intermediation to be carried out, which is important for the growth of the economy. Table 2.3 shows the trend in Nigerian commercial banks credits/loans and advances to non-oil exports from 1990 to 2013.

2.2 The Concept of Non-oil Export

Non-oil exports are products, which are produced within the country in the agricultural, mining, quarrying and industrial sector that are sent outside the country to generate revenue for the growth of the economy, excluding oil products. These non-oil exports include products like coal, cotton, timber, groundnut, cocoa, beans, palm kernel, palm oil, hides, skin, cattle, etc. According to [19], Non-oil export sector in Nigeria constitutes products of agriculture, industry and services that are exported by Nigeria. Agriculture is the primary non-oil product sector, which provides food, and fiber for the economy, while industry, as the modern sector, produces manufactured goods. The non-oil export sector of the Nigerian economy, which is dominated by agriculture, played significant roles in the economy before the advent of crude oil. It contributed largely to Nigeria's Gross Domestic Product (GDP) and it was also the primary source of foreign exchange. Table 2.1, and 2.2

showed the trend in non-oil export in Nigeria from 1990 to 2013.

2.3 Theoretical Background

The fact that trade is an engine of growth is evidenced by the tremendous world economic growth that followed the dismantling of trade barriers among the industrialized countries in the 1950s and 1960s. Growth was also evident among developing countries that adopted outward looking trade policy as a strategy for structural economic reform in the 1970s and 1980s. A country is said to have an absolute advantage over another country in the production of a good or service if it can produce that good or service (the output) using fewer real resources (like capital or labour, the inputs). Equivalently, using the same input, the country can produce more output. The concept of absolute advantage can also be applied to other economic entities, such as regions, cities, or firms. The fallacy of equating absolute advantages with cost advantages is a never-ending source of confusion. Deviations between the two are caused by the fact that real resources may receive different remunerations in different countries.

The theory of comparative advantage states that the country that is better at producing a particular good or service will become more successful by focusing on that industry. A country's comparative advantage is the

Table 2.1 Trends in non-oil exports from 1990 to 2004

Year	Exports and Re-exports(fob) ₦'million		Total exports ₦'Million	Oil as a percentage of total export (%)	Non-oil as a percentage of total export (%)	Growth in non-oil export (%)
	Oil	Non-oil				
1990	106,626.5	3,259.6	109,886.1	97.03	2.97	9.36
1991	116,858.1	4,677.3	121,535.4	96.15	3.85	30.31
1992	201,383.9	4,227.3	205,611.7	97.94	2.06	-10.65
1993	213,778.8	4,991.3	218,770.1	97.72	2.28	15.31
1994	200,710.2	5,349.0	206,059.2	97.40	2.60	6.69
1995	927,565.3	23,096.1	950,661.4	97.57	2.43	76.78
1996	1,286,215.9	23,327.5	1,309,543.4	98.22	1.78	0.99
1997	1,212,499.4	29,163.3	1,241,662.7	97.65	2.35	20.01
1998	717,786.5	34,670.2	751,856.7	95.47	4.53	15.88
1999	1,169,476.4	19,492.9	1,188,969.8	98.36	1.64	-77.86
2000	1,920,900.4	24,822.9	1,945,723.3	98.72	1.28	21.47
2001	1,839,945.3	28,008.6	1,867,953.9	98.50	1.50	11.37
2002	1,649,445.8	94,731.8	1,744,177.7	94.57	5.43	70.44
2003	2,993,110.0	94,776.4	3,087,886.4	96.93	3.07	0.05
2004	4,489,472.2	113,309.4	4,602,781.5	97.54	2.46	16.35

Source: Central Bank of Nigeria (CBN) Statistical Bulletin Volume 18, 2007

Table 2.2. Trends in non-oil exports from 2005 to 2013

Year	Agriculture ₦'Million	Semi- manufactured goods ₦'million	Manufactured goods ₦'million	Solid minerals ₦'million	Others (Charcoal, Crafts, petroleum-by products etc.) ₦'million	Total non-oil exports ₦'million	Growth in non-oil export (%)
2005	44,395.5	42,912.1	10,383.7	4,238.2	4,026.3	105,955.8	-6.94
2006	50,498.9	50,632.5	14,829.0	11,353.6	6,278.9	133,594.9	20.69
2007	67,241.8	66,865.6	17,480.1	10,691.7	7,467.2	169,709.7	21.28
2008	144,467.4	42,123.0	21,558.6	19,080.6	20,567.4	247,800.0	31.51
2009	134,274.7	83,599.6	26,053.3	19,182.1	23,190.3	286,300.0	13.45
2010	141,514.8	148,650.0	22,991.2	44,396.8	38,847.2	396,400.0	27.78
2011	262,493.2	148,471.2	53,857.2	2,911.2	17,467.2	485,200.0	18.30
2012	224,290.2	143,336.2	70,953.8	18,095.6	19,524.2	476,200.0	-1.89
2013	333,183	218,341.2	107,752.8	26,938.2	22,684.8	708,900.0	32.83

Source: Central Bank of Nigeria (CBN) Annual Report (Various Issues)

Table 2.3. Trends in Nigerian commercial banks Credits/Loans and advances to Non-Oil exports from 1990 to 2013

Year	Total commercial banks credit to the economy ₦'million	Commercial banks credit to non-oil exports ₦'million	Growth in commercial banks credit to non-oil exports (%)	Commercial banks credit to non-oil exports as a percentage of total credit (%)
1990	26,000.10	747.10	19.21	2.87
1991	31,306.20	942.70	20.75	3.30
1992	42,736.30	1,316.90	28.42	3.08
1993	65,665.30	1,608.30	18.13	2.45
1994	94,183.90	7,613.10	78.88	8.08
1995	144,569.60	19,442.90	60.84	13.49
1996	169,437.10	32,998.20	40.11	19.48
1997	385,550.50	16,368.70	-40.50	4.25
1998	272,895.50	29,770.20	45.02	10.91
1999	377,764.90	18,772.10	-58.59	4.97
2000	508,302.20	25,307.40	25.82	4.98
2001	796,164.80	34,532.50	26.71	4.34
2002	954,628.80	26,709.20	-29.29	2.80
2003	1,210,033.10	34,467.40	22.51	2.85
2004	1,519,242.70	31,347.00	-9.95	2.06
2005	1,976,711.20	26,427.30	-18.62	1.34
2006	2,524,297.90	52,686.30	48.84	2.09
2007	4,813,488.80	66,551.10	20.83	1.38
2008	7,799,400.10	75,200.00	11.50	0.96
2009	8,912,100.00	45,900.00	-63.83	0.52
2010	7,706,400.00	44,800.00	-2.46	0.58
2011	7,312,700.00	36,200.00	-23.76	0.50
2012	7,800,900.00	55,975.00	35.33	0.72
2013	9,112,200.00	18,950.00	-195.38	0.21

Source: Central Bank of Nigeria (CBN) Statistical Bulletin Volume 24, 2013

compilation of the inherent qualities that make it better will increase its competitiveness in the global marketplace. In other words, it is the competitive advantage of that country. This theory of comparative advantage became the rationale for free trade agreements. It explained why trade protectionism does not work in the

long run. This is important because political leaders are always under a lot of pressure from their local constituents to preserve jobs by raising tariffs. This will temporarily protect these local industries from overseas competition. However, it will hurt the nation in the long run by making it

less competitive and forcing consumers to pay higher prices to buy lower-quality goods.

The Export-led growth hypothesis postulates that export expansion is a key factor in promoting long-run economic growth. Several arguments can be theoretically put forward to justify the export-led growth hypothesis. From a demand-side perspective, it can be argued that sustained demand growth cannot be maintained in small domestic markets, since any economic impulse based on the expansion of domestic demand is bound to be exhausted quickly. Export markets, in contrast, are almost limitless and hence do not involve growth restrictions on the demand side. [20] noted that exports can be a catalyst for income growth as a component of aggregate demand.

2.4 Literature

The nexus between commercial banks credit and non-oil export in the context of Nigeria has been extensively dealt by some academic scholars. [21,1,22,23,24,25,26,27,2,28,29] and [30] found that commercial banks in Nigeria are participants in non-oil export which contributes marginally to the gross domestic product. However, it was observed that high interest rate charged by commercial banks in extending credits to non-oil exports reduces revenue from accruing to the government from such exports. With the fall in crude oil price in the international oil market, the revenue accruing to the government has drastically reduced, signalling the diversification of the economy from crude oil to non-oil exports.

3. METHODOLOGY

3.1 Model Specification

In this study, hypothesis was stated with the view of examining the contribution of Nigerian banks credit in relation to non-oil exports performance. Furthermore, to assess the presence causal relationship between Nigerian banks credit and non-oil export performance as well as determining the direction of causal relationship between Nigerian banks credits and non-oil exports performance. Secondary data were collected from the annual reports and publications of the Central Bank of Nigeria for the period 1990 to 2013.

In capturing the study, these variables were used as proxies: non-oil exports performance is the dependent variable, commercial banks credit to non-oil exports is the independent variable (a

proxy for assessing Nigerian banks contribution in promoting non-oil exports), inflation and interest rate were included as control variables that may hamper the performance non-oil exports. Thus, our model is represented in a functional form as:

$$NEP = f(CBCNE + INTR + IFL) \quad (3.1)$$

The model was represented in a log-linear econometric format to obtain the coefficients of the elasticity of the variables, while reducing the possible impact that any outlier may have thus:

$$NEP_t = a_0 + a_1 \text{Log}CBCNE_t + a_2 \text{Log}INTR_t + a_3 \text{Log}IFL_t + U_t \quad (3.2)$$

Where:

NEP is the non-oil exports performance:

This variable captures the naira value of all non-oil products exported to other countries of the world from Nigeria over the years.

CBCNE is commercial bank credits to non-oil exports: This variable captures the total loans and advances made by commercial banks in Nigeria to customers for the purpose of exporting non-oil products.

INTR is the interest rate: This is a measure of macroeconomic stability. If the interest rate of commercial banks are high, non-oil exporters will be reluctant to approach the banks for finance. However, if the interest rate is low, they will have the desire to seek for bank credits.

IFL is inflation: This is also measure of macroeconomic stability. Macroeconomic stability is an important factor for the attainment of higher growth in non-oil exports. The lower the inflation rate, there is higher likelihood for more investors showing interest in growing non-oil exports, if the inflation rate is higher, the reverse will be the case.

a_0 is a constant term, u is a random error/disturbance term and t is the time trend; these are normally included in standard time-series specifications to account for the omitted variables as well as unexplained random effects within the model.

3.2 Techniques of Estimation

Augmented Dickey-Fuller (ADF) unit root tests were performed for individual series to offer

evidence as to whether the variables are stationary and integrated in the same order. In order to ensure that the errors are not correlated, the additional lagged terms are also included. The maximum lag length begins with two lags. The null and alternative hypotheses are written as:

$$H_0: \beta = 0 \text{ (} Y_t \text{ is unit root)}$$

$$H_1: \beta < 0 \text{ (} Y_t \text{ is stationary)}$$

The null hypothesis is that the variable Y_t is a non-stationary series $H_0: \beta = 0$ and is refused when β is significantly negative $H_1: \beta < 0$. The null hypothesis H_0 is accepted and the series is non-stationary or not integrated of order zero $1(0)$ if the resulting ADF statistic is higher than McKinnon's critical values.

The presence of relationship among variables was estimated using the modernized Johansen co-integration technique (Johansen, 1992). The ordinary least square technique was used to confirm the significance of the relationship and contributions of the individual explanatory variables included in the model. To determine the direction of causality between the variables, the pairwise granger causality test was performed on the variables. It tests whether the endogenous variables can be treated as exogenous variables. This was done by examining the statistical significance of the lagged variables by applying separate t-tests on the adjustment coefficients.

3.3 A priori Expectation

This refers to the supposed relationship between and/or among the dependent or independent variables of the model as determined by the postulation of economic theory. Commercial banks credit to non-oil exports should have a positive relationship with non-oil exports performance while inflation and interest should exhibit negative relationship with non-oil exports performance.

4. DATA PRESENTATION AND ANALYSIS

4.1 Data Presentation

In this section, the data used in estimating the models as developed and explained in section three are presented. The source of the data were

from the Central Bank of Nigeria Statistical Bulletin, Volume 24, 2013. Table 4.1 present that data for non-oil exports performance, commercial banks credit to non-oil exports, interest rate and inflation rate from 1990 to 2013.

4.2 Unit Root Test

4.2.1 Augmented Dickey-Fuller (ADF) test

Table 4.2a, Table 4.2b, Table 4.2c and Table 4.2d illustrates the Augmented Dickey-Fuller test and Phillips Perron test. The unit tests were performed on the seasonally adjusted and natural logarithm data series. The null hypothesis of a unit root (non-stationary) is tested against the alternative hypothesis no unit root (stationary). The unit root test models were estimated at level and first difference at trend and intercept.

The result of the unit root test in Table 4.2a depicts that the Augmented Dickey-Fuller test statistic performed at level, trend and intercept shows that all the variables are not stationary except IFL. This result is consistent with the standard theory, which assumes that most macroeconomic variables are not static at level, but becomes stationary at the first difference [31]. As can be seen from Table 4.2b, the result of the unit root test performed at first difference, trend and intercept reveals that all the variable are stationary at their first difference. The results of the ADF indicates that the variables are integrated of order one i.e. $1(1)$.

The Phillips Perron unit root test result in Table 4.2c revealed that all the variables are not stationary except INTR. The result was expected, as most time series are not stationary due to the nature of their data generation procedure. As can be seen from Table 4.2d, the Phillips Perron result indicates that all the variables are stationary at their first difference. The results of the PP indicates that the variables are integrated of order one i.e. $1(1)$.

4.3 Result and Discussion of Findings

To examine the contributions of Nigerian banks credit in relation to non-oil exports performance, the study employed the ordinary least square method of estimation. The result of the analysis is presented in Table 4.3.

Table 4.1. Non-oil exports growth rate, commercial banks credit to non-oil exports, inflation and interest rate, 1990-2013

Year	Non-oil exports performance ₦'million	Commercial banks credit non-oil exports ₦'million	Inflation (%)	Interest rate (%)
1990	3,259.6	747.10	7.5	18.50
1991	4,677.3	942.70	13.0	15.20
1992	4,227.3	1,316.90	44.5	17.5
1993	4,991.3	1,608.30	57.2	26.00
1994	5,349.0	7,613.10	57.0	13.50
1995	23,096.1	19,442.90	72.8	13.50
1996	23,327.5	32,998.20	29.3	13.50
1997	29,163.3	16,368.70	8.5	13.50
1998	34,670.2	29,770.20	10.0	13.50
1999	19,492.9	18,772.10	6.6	20.70
2000	24,822.9	25,307.40	6.9	14.00
2001	28,008.6	34,532.50	18.9	20.50
2002	94,731.8	26,709.20	12.9	16.50
2003	94,776.4	34,467.40	14.0	15.00
2004	113,309.4	31,347.00	10.1	15.00
2005	105,955.8	26,427.30	11.5	13.00
2006	133,594.9	52,686.30	8.6	10.00
2007	169,709.7	66,551.10	6.6	9.50
2008	247,800.0	75,200.00	15.1	9.80
2009	286,300.0	45,900.00	12.1	6.00
2010	396,400.0	44,800.00	11.8	6.30
2011	485,200.0	36,200.00	10.4	9.19
2012	476,200.0	55,975.00	12	12.0
2013	708,900.0	18,950.00	7.9	12.0

Source: Central Bank of Nigeria (CBN) Statistical Bulletin Volume 24, 2013

Table 4.2a. Augmented Dickey-Fuller test result at level: Trend and intercept

Variables	Augmented dickey-fuller test statistic	Test critical value at 1%	Test critical value at 5%	Connotation
NEP	3.250835 (1.00)	-4.571559	-3.690814	Not stationary
CBCNE	-2.308669 (0.41)	-4.416345	-3.622033	Not stationary
INTR	-2.623945 (0.27)	-4.532598	-3.673616	Not stationary
IFL	-5.053531 (0.00)*	-4.571559	-3.690814	Stationary

Source: Computer analysis using E-views 8.0

Note: The optimal lag for ADF test is selected based on the Akaike Info Criteria (AIC), p-values are in parentheses where (*) and (**) denotes significance at 1% and 5% respectively.

Table 4.2b. Augmented Dickey-Fuller test result at first difference: Trend and intercept

Variables	Augmented dickey-fuller test statistic	Test critical value at 1%	Test critical value at 5%	Connotation
NEP	-5.224384 (0.00)*	-4.440739	-3.632896	Stationary
CBCNE	-5.537975 (0.00)*	-4.440739	-3.632896	Stationary
INTR	-7.032328 (0.00)*	-4.440739	-3.632896	Stationary
IFL	-9.902675 (0.00)*	-4.440739	-3.632896	Stationary

Source: Computer analysis using E-views 8.0

Note: The optimal lag for ADF test is selected based on the Akaike Info Criteria (AIC), p-values are in parentheses where (*) and (**) denotes significance at 1% and 5% respectively.

Table 4.2c. Phillips Perron test result at level: Trend and intercept

Variables	PP test statistic	Test critical value at 1%	Test critical value at 5%	Connotation
NEP	10.05337 (1.00)	-4.416345	-3.622033	Not Stationary
CBCNE	-2.244178 (0.45)	-4.416345	-3.622033	Not Stationary
INTR	-3.641222 (0.04)**	-4.416345	-3.622033	Stationary
IFL	-2.649680 (0.26)	-4.416345	-3.622033	Not Stationary

Source: Computer analysis using E-views 8.0

Note: In determining the truncation lag for PP test, the spectral estimation method selected is Bartlett kernel and Newey-West method for Bandwidth, p-values are in parentheses where (*) and (**) denotes significance at 1% and 5% respectively.

Table 4.2d. Phillips Perron test result at first difference: Trend and intercept

Variables	PP test statistic	Test critical value at 1%	Test critical value at 5%	Connotation
NEP	-5.380764 (0.00)*	-4.440739	-3.632896	Stationary
CBCNE	-5.565927 (0.00)*	-4.440739	-3.632896	Stationary
INTR	-7.507789 (0.00)*	-4.440739	-3.632896	Stationary
IFL	-3.783460 (0.04)**	-4.440739	-3.632896	Stationary

Source: Computer analysis using E-views 8.0

Note: In determining the truncation lag for PP test, the spectral estimation method selected is Bartlett kernel and Newey-West method for Bandwidth, p-values are in parentheses where (*) and (**) denotes significance at 1% and 5% respectively.

Table 4.3. Ordinary least square result for examining the contributions of Nigerian banks in promoting non-oil exports

Variable	Coefficient	Std. error	t-Statistic	Prob.
C	430084.9	192958.5	2.228899	0.0375
CBCNE	0.679529	2.290148	0.296718	0.7697
INTR	-19516.26	9849.850	-1.981376	0.0615
IFL	-1635.327	2027.297	-0.806654	0.4294
R-squared	0.350626	Mean dependent var		146581.8
Adjusted R-squared	0.253220	S.D. dependent var		191475.6
S.E. of regression	165466.4	Akaike info criterion		27.02194
Sum squared resid	5.48E+11	Schwarz criterion		27.21828
Log likelihood	-320.2632	Hannan-Quinn criter.		27.07403
F-statistic	3.599626	Durbin-Watson stat		0.520772
Prob(F-statistic)	0.031515			

Source: Computer output data using E-views 8.0

The result in Table 4.3 unveiled that commercial banks credit to non-oil exports; interest rate and inflation are not statistically significant at 1% or 5% level of significance. The coefficient of the constant 430,084.90 implies that holding commercial banks credit to non-oil exports, interest rate and inflation constant, non-oil exports performance will increase by ₦430,084.90 million. The Commercial banks credit to non-oil exports coefficient of 0.679529 suggest that a percent increase commercial banks credit to non-oil exports resulted in ₦0.68 million in the value of non-oil exports. The coefficient of -19516.26 and -1635.327 for interest rate and inflation implied that a percent increase in interest rate and inflation resulted in ₦19,516.26 million and ₦1,635.327 million depreciations in the naira value of non-oil export

respectively. Commercial banks credit to non-oil exports has a positive relationship with non-oil exports performance while interest rate and inflation have negative relationship with non-oil exports performance.

The coefficient of the Adjusted R-squared revealed that 25.32% of systematic variations in non-oil exports performance over the period covered by the study was explained by the credit made available to non-oil exports by Nigerian banks. Thus 74.68% changes in non-oil exports performance was not explained by the credit made available to non-oil exports by Nigerian banks. This entails that Nigerian banks has not adequately contributed towards the promotion of non-oil exports in Nigeria via the advance of

loans and advances for the purpose non-oil exports.

The critical value of F-distribution at 5% level of significance and 20 degree of freedom, i.e. F (4, 20) is 2.87. F-statistic calculated as indicated in Table 4.3 is 3.599. This value is greater than tabulated F-statistic of 2.87, and by implication, the model is statistically significant and has a goodness of fit. Furthermore, the probability of the F-statistic is 0.031515, this is less than 0.05 (5% level of significance). Put differently, it is statistically significant at 5% level of significance.

The calculated Durbin Watson (d^*) statistic as shown in Table 4.3 is 0.520772. The tabulated Durbin Watson for lower limit (dL) and upper limit (du) are 0.894 and 1.828 respectively. The calculated Durbin Watson (d^*) of the regression result (0.520772) is less than the lower limit (dL) and upper limit (du) and thus, the null hypothesis of no positive autocorrelation in the residuals could not be rejected. Therefore, there exists element of positive autocorrelation or linear relationship between dependent and explanatory variables.

4.4 A Priori Expectation

All the independent variables (commercial banks credit to non-oil exports, interest rate and inflation rate) conformed to a priori expectation as they showed the expected signs.

Having established from the Augmented Dickey-Fuller tests that the variables were stationary at their first difference in order of one i.e. 1(1) for both with and without linear trend, the co-integration test was carried out using the Johansen co-integration methodology in order to assess the presence or absence of causal

relationship between Nigerian banks credit and non-oil export performance. Table 4.5a and 4.5b depict the result of the co-integration test.

The result of the co-integration test indicates the presence of co-integration vectors. The trace statistic and maximum eigenvalue each indicate two (2) co-integrating vector equations in the model at the 5% level of significance. The results of the trace statistic and the maximum eigenvalue as depicted in Table 4.5a and 4.5b has provided enough evidence to reject the null hypothesis of no co-integration between the variables at 5% level of significance. This means that there is long-run relationship between Nigerian banks credit and non-oil export performance.

4.5 Test of Hypothesis

To determine the direction of causal relationship between Nigerian banks credits and non-oil exports performance in statistical term, the pairwise granger causality test was employed and the resulted is presented in Table 4.6.

The result of the granger causality test in Table 4.6 shows that commercial banks credit to non-oil exports does not Granger Cause non-oil exports performance. The coefficient of both that commercial banks credit to non-oil exports and non-oil exports performance are not statistically significant. Consequently, no granger causality is found between commercial banks credit to non-oil exports and non-oil exports performance. This suggests that there is no direction of causal relationship between Nigerian banks credit and non-oil exports performance. The null hypothesis of no significant direction of causal relationship between Nigerian banks credit and non-oil exports performance could not be rejected.

Table 4.4. A priori expectation

Independent variables	Expected signs	Observed signs	Remarks
Commercial banks credit to non-oil exports	+	+	Conformed
Interest rate	-	-	Conformed
Inflation rate	-	-	Conformed

Table 4.5a. Unrestricted co-integration rank test (Trace)

Hypothesized number of CE(s)	Eigen value	Trace statistic	0.05 critical value	Prob..
None *	0.722171	64.99509	47.85613	0.0006
At most 1*	0.675406	36.81864	29.79707	0.0066
At most 2	0.417512	12.06470	15.49471	0.1539
At most 3	0.007917	0.174878	3.841466	0.6758

*Trace test indicates 2 cointegrating eqn(s) at the 0.05 level, * denotes rejection of the hypothesis at the 0.05 level*

***MacKinnon-Haug-Michelis (1999) p-values*

Table 4.5b. Unrestricted co-integration rank test (Maximum Eigen Value)

Hypothesized number of CE(s)	Eigen value	Maximum eigen statistic	0.05 critical value	Prob..
None *	0.722171	28.17645	27.58434	0.0420
At most 1*	0.675406	24.75394	21.13162	0.0148
At most 2	0.417512	11.88982	14.26460	0.1149
At most 3	0.007917	0.174878	3.841466	0.6758

Trace test indicates 2 cointegrating eqn(s) at the 0.05 level

** denotes rejection of the hypothesis at the 0.05 level*

***MacKinnon-Haug-Michelis (1999) p-values*

Table 4.6. Granger causality test result

Null hypothesis:	Obs	F-statistic	Probability	Remarks
CBCNE does not Granger Cause NEP	22	1.82365	0.1916	No Causality
NEP does not Granger Cause CBCNE		0.59332	0.5635	No Causality

Source: Computer Analysis using E-views 8.0

5. CONCLUSION AND RECOMMENDATIONS

This study established that Nigerian banks have not adequately contributed towards the promotion of non-oil exports in Nigeria. Hence, commercial bank credit which stands to bridge the lacuna produced by low domestic savings and income remain one of the mainstream in every economy that has the power to influence or impact on economic growth through non-oil exports promotion. In the light of the above and the debate over the extent of contribution made by Nigerian banks towards non-oil exports enhancement, the result of this study should not be viewed as conclusive empirical evidence, but rather an additional motivation for further research in the area.

The magnitude of credit extended for non-oil export by commercial banks are inadequate compared to oil and gas sector thus, requiring government to execute certain policy towards promotion of non-oil export especially agriculture. The high lending rate (over 20%) of commercial banks and high inflationary trend in the country discourages non-oil exports. In the light of this, the Central Bank of Nigeria should reduce the current monetary policy rate of 14% to a range of 5%-8% so that when commercial banks add up processing, transaction and other administrative fees, credit would be extended to non-oil purpose at a rate lower than 15%. Furthermore, the Central Bank of Nigeria should as an operational guideline, impose commercial banks to set aside a certain amount of money from their yearly profit for financing of non-oil export as it is the case for small and medium scale enterprises equity

scheme. The government should increase intervention fund for non-oil export particularly agriculture as currently practiced through the agricultural credit guarantee scheme handled by Central Bank of Nigeria.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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