IS GLOBALISATION A POTENT DRIVER OF ECONOMIC GROWTH?
INVESTIGATING THE NIGERIAN NON-OIL EXPORTS

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ABSTRACT
Many countries have gained from integrating into the global economy while some have not been as much fortunate. Some have come to see globalisation as a weapon for improved economic growth. With the progressive increase in the poverty level in Nigeria, there is the doubt as to whether globalisation has improved the fortune of Nigeria. More so as there have been contradictory studies on the impact of globalisation in Nigeria. This study interrogated globalisation as a potent driver of economic growth in Nigeria using the non-oil (Agricultural and Manufacturing) export as reference point. Unit root test (Augmented Dickey-Fuller test) was exploited to check the integration order of the variables. Using data from 1970 -2011 and employing Ordinary Least Square regression, the study found that globalisation had no significant impact on non-oil export within the period under study. The study concludes that globalisation has not been a potent driver of growth of non-oil export in Nigeria. The however, recommends that government should provide adequate and functional infrastructure; improve security and as well provide consistent policy and demonstrate political will to encourage domestic and foreign investment into the Nigerian non-oil sector.

Keywords: Globalisation, Economic Growth, Non-oil Export, Ordinary Least Square.

JEL Classification: F60, O40

1. INTRODUCTION
Globalisation is the increasing tendency towards integration of countries into the world economy as well as contacts among enterprises, institutions and peoples across national boundaries (Orubu and Awopegba (2003). All the countries in the world today are faced with the realities of increased integration of the world trades facilitated by the rapid growth of information technology
and the opening up of the hitherto closed societies and economies. We are now faced with one of the most challenging development in world history - globalisation. “The world is witnessing ever stronger links within the global market caused by a combination of powerful cost-reducing technological change, induced policy change and political development” (Kwanashie 1999). This same process according to Ogbonna et al. (2013) encourages rising inequality among and within nations. The liberalization of the world economy in their view has proceeded in such a way that growth prospects of developing countries are being undermined. Globalisation produces winners and losers, both between and within countries (World Bank, 2002). Hence, while economies of seven East Asian countries are among the fastest growing economies in this decade due largely to policies of liberalization and openness, most countries in Sub Saharan Africa (SSA) have not been so lucky as they have witnessed decline in their economic fortune after increased openness of their economies. Both the prosperous and retrogressive countries are products of economic globalisation.

2. RESEARCH PROBLEM

One critical issue of recurring concern to successive governments in Nigeria is the diversification of the economy. Informed by the monolithic economic posture since 1980s which has been persistently threatened by the instability in crude oil prices in the international market, government has recognised the growing need for economic diversification. This economic transformation has become necessary to address the challenges of rising poverty, inequality, unemployment and social crisis by expanding the horizon of employment-generating activities especially in the non-oil sector where the potentials remain great and largely unexploited. A competitive environment is the most important need for improving non-oil export, so being in international markets especially globalisation becomes necessity.

The Nigerian non-oil sector plays a major role in the growth of the Nigerian economy. According to Adulagba (2011), the country exported 1.186 million metric tonnes of non-oil products valued at $2.765bn in 2011. The non-oil export figure, according to Adulugba, represents an increase of 19.15 per cent over the $2.32bn (N359.6bn) recorded in 2010, and 61.97 per cent over that of 2009 (Onuba, 2012).

A number of studies have found that exports have been instrumental in Nigeria’s growth performance, suggesting that export-led growth hypothesis holds in Nigeria (Ogunkola and Oyejide, 2001; Ogunkola, 2003). The authors also recognize that greater integration into the world market has not made an impressionable impact on the Nigerian economy.

There are, however, other empirical studies on the impact of global integration on non-oil exports in Nigeria. Okoh (2004) adopting Brahmmbhatt and Dadush (1996), index of speed of integration, that is, the ratio of trade to GDP, and employing cointegration analysis, concluded that openness was not significant in explaining growth in non-oil exports. This is contrary to the current belief that openness or free trade leads to expansion in export trade (Thirlwall, 1999). In the light of the above counter views, there is thus a need to examine more closely the potency of globalisation as a growth driver in Nigeria. This gave rise to this study. This study sought to investigate the
potency of globalisation as a growth driver using the Nigerian non-oil export. Specifically, the study investigated the impact of globalisation on Nigeria’s agricultural export; the impact of globalisation on the Nigeria’s manufacturing exports.

3. LITERATURE REVIEW

3.1. Theoretical Perspective

There are three schools of thought, which clearly explain the concept of globalisation in terms of theory. As they view and explain the notion of globalisation differently with respect to the economic division of the world system, it depends on the reader, on an economist or an analyst as to which one he or she views as most correct.

Realists explain that globalisation has not altered or changed the territorial division of the world, that is nation-states, although the increased interconnectedness between economies and societies might make them more dependent on one another. In that case, globalisation may pose threats to our social, economic and cultural lives but it does not surpass the international political system.

Liberals view globalisation as a product or an end result of a long-running transformation of world politics. Liberals particularly focus upon the factor of revolution in technology and communications represented by globalisation. They are of the view that this interconnectedness between societies for economic and technological advancements, results in new pattern of world political relations.

Marxist Theorists view globalisation as nothing new but the latest version of international capitalism. To them it is a Western-led phenomenon which basically promotes the development of international capitalism.

It is not easy to answer the question as to which theory has the 'truest' or the most 'correct' view of globalisation. The nature and impact of globalisation is still the subject of profound debate within the International Political Economy (IPE) and in other areas of International Relations (Gul, 2003). Economic globalisation in his view, refers to at least three different sets of processes in the world economy. First, it is referred to as Internationalization, which describes the increase in economic transactions across borders that have been taking place since the turn of the century, but which, according to some, has undergone a quantitative leap in recent decades. Secondly, the technological revolution which describes the effects of new electronic communication. It permits firms and other actors to operate globally with much less regard for location, distance, and borders. Finally, liberalization describes the policies pursued by states that have made a new global economy possible. This includes both the rules and institutions created by powerful states to facilitate a new scale of transnational economic activity in certain sectors of the world economy. It also includes the policies of smaller and less powerful states in the system which by liberalizing trade, investment, and production has integrated into the world economy.
3.2. Empirical Literature

Mehrara et al. (2008) studied the effects of globalisation on non-oil export of Iran and found that globalisation indexes, namely the growth rate of world income and the growth rate of capital goods import are more effective on the growth rate of non-oil export than the precision factors (internal) on non-oil export in globalisation process.

Ogwumike and Olukayode (2012), examined the impacts of individual dimensions of globalisation as well as its aggregate impact on economic growth in Nigeria between 1970 and 2010 using multiple regression analysis. They found that both economic and political globalisation indices exert positive impacts on globalisation while social globalisation index exerts a negative impact dimension and indices of globalisation are based on the KOF 2009 globalisation index. This according to them made the aggregate impact of the indices (dimensions) exerts positive impacts on economic growth.

Ezike and Ogege (2012) studied the impact of Nigerian foreign trade policy on non oil exports for the period 1970-2010 using both correlation analysis and least square techniques and found a negative and insignificant relationship between openness (proxy for trade policy) and non oil export. They conclude that trade liberalization adopted in the country has not promoted the performance of non oil exports. More so, Ozughalu (2012) had similar finding that in the short run, the export-led growth hypothesis was valid with respect to oil exports but not non-oil exports.

Okoh (2004) using the vector error correction model, found that global integration is not significant both in the long run and short run in explaining growth of non-oil exports in Nigeria. The results also show that the Nigeria non-oil export is price and income inelastic in the short run. The study found that growth in importation of capital inputs was highly significant in explaining contemporaneous changes in the growth of non-oil export.

Deme (2002) using cointegration and causality approach found that there was no long-run link between trade openness and economic growth but a short run causal link between some measures of trade openness and economic growth. Ogujiuba et al. (2002) found that there is no significant relationship between openness and economic growth.

Obaseki (2000) concludes that Nigeria has not benefitted enough from globalisation owing to the undue dependence on crude oil exports, low manufacturing exports and the under-development of the domestic, financial markets. World Bank (1992) examined 41 developing countries under four trade policy regimes: strongly outward oriented, moderately outward oriented, moderately inward oriented and strongly inward oriented. The study found that countries with outward oriented trade policy performed better than those with inward oriented trade policy. Outward oriented policies (liberalization policies) have been adopted in Nigeria since 1986. Jhingan (2001), Ndiyo and Ebong (2003), suggest that stable foreign exchange rate region will reduce capital flight and encourage capital inflows which consequently will enhance domestic production. There is also a direct link between economic growth and increase in domestic production for export as shown by Dotun (1999), Obaseki (1999) e.t.c. It has been shown that trade openness (globalisation) contribute greatly to growth.
3.3. Test Hypotheses

H₀₁: Globalisation has no significant impact on Non-oil export in Nigeria
H₀₂: Globalisation has no significant impact on agricultural export in Nigeria
H₀₃: Globalisation has no significant impact on Nigeria’s manufacturing export

4. METHODOLOGY

4.1. Data


4.2. Model Specification

Model I (integrated Model)

\[ \Delta \text{NOIExp}_t = g(\Delta \text{NOIFDI}_t, \Delta \text{OPN}_t, \Delta \text{EXRT}_t, \Delta \text{BOP}_t, \Delta \text{RES}_{vt}) + U_t \]

\[ \Delta \text{NOIExp}_t = \beta_0 + \beta_1 \Delta \text{NOIFDI}_t + \beta_2 \Delta \text{OPN}_t + \beta_3 \Delta \text{EXRT}_t + \beta_4 \Delta \text{BOP}_t + \beta_5 \Delta \text{RES}_{vt} + U_t \]

\( \beta_0 > 0; \beta_1 > 0; \beta_2 > 0; \beta_3 < 0; \beta_4 < 0; \beta_5 > 0; \)

\( \Delta \text{NOIExp}_t \) = Change in Non-oil Export

\( \Delta \text{NOIFDI}_t \) = Change in Non-Oil FDI

\( \Delta \text{OPN}_t \) = Change in Degree of Openness to Trade

\( \Delta \text{EXRT}_t \) = Change in Exchange Rate

\( \Delta \text{BOP}_t \) = Change in BOP

\( \Delta \text{RES}_{vt} \) = Change in Current Reserve

\( U_t \) = Current Error Term

Model II (Manufacturing Export Model)

\[ \Delta \text{MExp}_t = g(\Delta \text{MFDI}_t, \Delta \text{OPN}_t, \Delta \text{EXRT}_t, \Delta \text{BOP}_t, \Delta \text{RES}_{vt}) + U_t \]

\[ \Delta \text{MExp}_t = \beta_0 + \beta_1 \Delta \text{MFDI}_t + \beta_2 \Delta \text{OPN}_t + \beta_3 \Delta \text{EXRT}_t + \beta_4 \Delta \text{BOP}_t + \beta_5 \Delta \text{RES}_{vt} + U_t \]

\( \beta_0 > 0; \beta_1 > 0; \beta_2 > 0; \beta_3 < 0; \beta_4 < 0; \beta_5 > 0; \)

\( \Delta \text{MExp}_t \) = Change in Manufacturing sector export

\( \Delta \text{MFDI}_t \) = Change in Manufacturing Sector FDI

\( \Delta \text{OPN}_t \) = Change in Degree of Openness to Trade

\( \Delta \text{EXRT}_t \) = Change in Exchange Rate

\( \Delta \text{BOP}_t \) = Change in BOP

\( \Delta \text{RES}_{vt} \) = Change in Current Reserve

\( U_t \) = Error Term

Model III (Agricultural Export Model)

\[ \Delta \text{AExp}_t = g(\Delta \text{AFDI}, \Delta \text{OPN}_t, \Delta \text{EXRT}_t, \Delta \text{BOP}, \Delta \text{RES}_{vt}) + U_t \]

\[ \Delta \text{AExp}_t = \beta_0 + \beta_1 \Delta \text{AFDI} + \beta_2 \Delta \text{OPN}_t + \beta_3 \Delta \text{EXRT}_t + \beta_4 \Delta \text{BOP} + \beta_5 \Delta \text{RES}_{vt} + U_t \]

\( \beta_0 > 0; \beta_1 > 0; \beta_2 > 0; \beta_3 > 0; \beta_4 > 0; \beta_5 > 0; \)

\( \Delta \text{AExp}_t \) = Change in Agricultural Export
\[ \Delta \text{AExp}_t = \beta_0 + \beta_1 \Delta \text{AFDI}_t + \beta_2 \Delta \text{OPN}_t + \beta_3 \Delta \text{EXRT}_t + \beta_4 \Delta \text{BOP}_t + \beta_5 \Delta \text{RESvT}_t + U_t \]

- \( \beta_0 > 0; \quad \beta_1 > 0; \quad \beta_2 > 0; \quad \beta_3 < 0; \quad \beta_4 > 0; \quad \beta_5 > 0; \)

\( \Delta \text{AExp}_t \) = Change in Agric Sector Export
\( \Delta \text{AFDI}_t \) = Change in Agric Sector FDI
\( \Delta \text{OPN}_t \) = Change in Degree of Openness to Trade
\( \Delta \text{EXRT}_t \) = Change in Exchange Rate
\( \Delta \text{BOP}_t \) = Change in BOP
\( \Delta \text{RESvT}_t \) = Change in Current Reserve
\( U_t \) = Current Error Term

4.3. Test

Econometric criteria were used for testing the violation or validation of the assumption of the Ordinary Least Square Regression Technique (OLS) in the relevant functions. The Stationarity conditions of the relevant times series and the Autocorrelation condition of the error term were evaluated using The Unit Root (Augmented Dickey-Fuller) Criterion and Durbin-Watson Statistic respectively.

5. RESULT OF UNIT ROOT TEST

Unit Root (Augmented Dickey-Fuller) Test for Stationarity

\[ \Delta Y_t = \beta_1 + \beta_2 t + \delta Y_{t-1} + \sum \alpha_i \Delta Y_{t-i} + \epsilon_t \]

Statement of Hypothesis

- \( \text{Ho}: \delta = 0 \quad (P=1) \)
- \( \text{Ha}: \delta < 0 \quad (P<1) \)

- \( \alpha \) ……Level of significance that defines the critical region of the test.

\( \tau(\text{Tau}) = \delta / \text{S.E.} (\delta) \) ……..Calculated value of Tau

5.1. Decision Rule

If \( /\tau/ > \text{D.F} (\tau) \), reject \( \text{Ho} \) and conclude that series is stationary.

If \( /\tau/ < \text{D.F} (\tau) \), do not reject \( \text{Ho} \); series is non-stationary.

5.2. Durbin-Watson Test for Autocorrelation

Statement of Hypothesis

- \( \text{H}_0: \quad d=2 \)
- \( \text{H}_1: \quad d \neq 2 \)

- \( \alpha = 5\% \) level of significance, which defines the critical region of the test.

\( d^* = \frac{\sum (e_i - e_{i-1})^2}{\sum e_i^2} \)

\( N = \text{Number of sample} \)
K’ = Number of explanatory variable

d_L and d_U …..low and upper values of d-table.

5.3. Decision rule
- If d* < d_L : Reject Ho and accept that presence of positive autocorrelation.
- If d* > (4-d_L): Reject Ho and accept the presence of negative autocorrelation.
- If d_U < d* < (4-d_L): Accept Ho and conclude that autocorrelation does not exist
  in the function.

Table- 1. The Stationarity profiles of the research data based on ADF criterion are presented
below:

<table>
<thead>
<tr>
<th>Variable</th>
<th>Order integration of T (Tau)</th>
<th>MacKinnon Critical Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>D(NOIEXP,2)</td>
<td>2</td>
<td>-5.176649, -3.6228, -2.9446, -2.6105</td>
</tr>
<tr>
<td>D((OP, TRD/GDP))</td>
<td>1</td>
<td>-3.197340, -3.6171, -2.9422, -2.6092</td>
</tr>
<tr>
<td>D(EXRT)</td>
<td>1</td>
<td>-3.762309, -3.6171, -2.9422, -2.6092</td>
</tr>
<tr>
<td>BOP</td>
<td>0</td>
<td>-4.14361, -3.6852, -2.9705, -2.6242</td>
</tr>
<tr>
<td>D(RES)</td>
<td>1</td>
<td>-3.472437, -3.6171, -2.9422, -2.6092</td>
</tr>
<tr>
<td>D(NOIFDI)</td>
<td>1</td>
<td>-4.310171, -3.6171, -2.9422, -2.6092</td>
</tr>
<tr>
<td>MEXP</td>
<td>0</td>
<td>-4.612377, -3.6852, -2.9705, -2.6242</td>
</tr>
<tr>
<td>D(MFDI)</td>
<td>1</td>
<td>-4.055665, -3.6171, -2.9422, -2.6092</td>
</tr>
<tr>
<td>D(AEXP)</td>
<td>1</td>
<td>-7.51289, -3.6171, -2.9422, -2.6092</td>
</tr>
<tr>
<td>D(AFDI)</td>
<td>1</td>
<td>-3.550450, -3.6228, -2.9446, -2.6105</td>
</tr>
</tbody>
</table>

Most of the variables are integrated of Order One (1). Non-Oil Export is integrated of order Two,
while Manufacturing Sector Export and BOP are at levels form.
The result of Model I (integrated model of non-oil export) in Table 2 shows that none of the independent variables in the model significantly impacted on the Nigerian non-oil export at the aggregate level. This implies that globalisation (proxy by trade openness) has no significant impact on the aggregate Nigerian non-oil export within the period under review. However, the results show that aggregate non-oil FDI had positive relationship with aggregate non-oil export but it was not significant. Conversely, trade openness, balance of payment, exchange rate as well as the External Reserve had negative relationship with aggregate non-oil export. As in the case of the non-oil FDI, they did not have statistical significant impact at 0.05 level of significance. Multiple Coefficient of Determination, $R^2=0.5413$ suggests that about 54% variation in aggregate Non-Oil Export is explained by variations in Non-Oil FDI, Openness to Trade, Exchange Rate, BOP and External Reserve jointly. Durbin-Watson statistic shows that there is no serious presence of positive serial autocorrelation.

The result of analysis in Table 3 shows the impact of globalisation and some other control variables on manufacturing export. The result reveals that manufacturing sector export enjoys negative relationship with Manufacturing Sector FDI, Openness to Trade and Exchange Rate considering the negative signs of the coefficients of these explanatory variables. Although on a-priori, manufacturing sector FDI and Openness to Trade are expected to come up with positive signs apiece. On the other hand, the analysis shows that External Reserve and BOP are positively associated with Manufacturing sector Export, which is in consonance with expectation: A favourable BOP and increase in External Reserve lead to increase in Manufacturing Sector Export.
all other things being equal. The result shows that although globalisation has negative relationship with manufacturing export, it is nevertheless statistically insignificant. The probability values of the coefficient estimates show that all the independent variables are individually statistically insignificant and thus do not have significant impact on manufacturing export. $R^2=0.4712$, suggests that 47% change in Manufacturing Sector Export is explained by changes in FDI to Manufacturing sector, Openness to Trade, Exchange Rate, BOP and Reserve simultaneously: Durbin-Watson value (1.9875) suggests no serious problem of positive autocorrelation of the error term.

**Table 4. Model III- Dependent Variable: AEXP_1 (Agricultural Export)**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-0.082707</td>
<td>0.282077</td>
<td>-0.293208</td>
<td>0.7719</td>
</tr>
<tr>
<td>D(AFDI)</td>
<td>0.001087</td>
<td>0.001225</td>
<td>0.887395</td>
<td>0.3837</td>
</tr>
<tr>
<td>D(TRD/GDP)</td>
<td>-0.104014</td>
<td>0.154840</td>
<td>-0.671751</td>
<td>0.5082</td>
</tr>
<tr>
<td>D(EXRT)</td>
<td>0.000571</td>
<td>0.017409</td>
<td>0.032640</td>
<td>0.9742</td>
</tr>
<tr>
<td>BOP</td>
<td>-1.91E-07</td>
<td>4.95E-07</td>
<td>-0.386469</td>
<td>0.7026</td>
</tr>
<tr>
<td>D(RES)</td>
<td>-1.59E-05</td>
<td>5.64E-05</td>
<td>-0.282209</td>
<td>0.7802</td>
</tr>
</tbody>
</table>

$R^2=0.050684; \bar{R}^2=-0.147090; F\text{-stat} = 0.256273; \text{Prob.}=0.932419; DW=2.951760$

The outcome of analysis of the model above shows that Agricultural Sector Export has a positive association with Agric Sector FDI, and Exchange Rate, which conforms to expectation: Increase in Agric Sector FDI and an appreciation in Exchange Rate (fall in domestic currency) lead to increase in the export volume of the Sector all other things being equal. Again, as expected, Agric Sector Export enjoys a negative relationship with BOP : as BOP depresses, Agricultural Sector Export declines ceteris paribus. Contrary to a priori expectation, the coefficient of External Reserve came up negative. The probability values of all parameter estimates show that all coefficients are statistically insignificant and as such all the independent variables do not have significant impact on agricultural export. Coefficient of Determination 0.05068 shows that 5% of the variation in agricultural export were explained by the variations in the independent variables. the function is a poor fit: simultaneous changes in the explanatory factor do not lead to change in Agricultural Sector Export. Adjusted Coefficient of Determination (-0.1471 $\Xi$ -14.71%) suggests that in reality these external sector variables may have been responsible for the decline in Agricultural Sector Export in Nigeria. Durbin-Watson statistic shows that negative autocorrelation of error terms exists in the function $DW=2.9617$

**6. SUMMARY OF FINDINGS**

The following salient findings emerged from the analysis of the various relationships examined in the study.

- The Manufacturing Export and BOP data are stationary at level: The other variables, Openness to trade (Trade/GDP), Exchange Rate, External Reserve, Non-Oil FDI, Agric
Sector FDI and Manufacturing Sector FDI are integrated of order One respectively. Non-Oil Export is integrated of order Two.

Globalisation has not significantly impacted on aggregate Non-Oil Export in Nigeria.
Globalisation has not impacted on Manufacturing and Agricultural Sector Export in Nigeria respectively.
An inverse relationship exists between Openness to Trade (proxy for Globalisation) and Non-Oil Export, Manufacturing Sector Export and Agricultural Sector Export respectively.

7. CONCLUSION

Many studies have tried to investigate the impact of globalisation on economic growth. Ogwumike and Olukayode (2012) found that both economic and political globalisation indices exert positive impacts on globalisation while social globalisation index exerts a negative impact dimension and indices of globalisation are based on the KOF 2009 globalisation index. This according to them made the aggregate impact of the indices (dimensions) exerts positive impacts on economic growth. Ozughalu (2012) had similar finding that in the short run, the export-led growth hypothesis was valid with respect to oil exports but not non-oil exports. Okoh (2004); Ezike and Ogege (2012) concluded that there is an insignificant relationship between openness (proxy for trade policy) and non-oil exports in Nigeria. Obaseki (2000) concludes that Nigeria has not benefitted enough from globalisation owing to the undue dependence on crude oil exports, low manufacturing exports and the under-development of the domestic, financial markets. Mehrara et al. (2008) studied the effects of globalisation on non-oil export of Iran and found that globalisation indexes, namely the growth rate of world income and the growth rate of capital goods import are more effective on the growth rate of non-oil export than the precision factors (internal) on non-oil export in globalisation process. This study corroborated the results of some previous studies that showed globalisation has no positive significant impact on non-oil export in Nigeria and concludes that globalisation has not been a potent driver of growth of non-oil export in Nigeria. Globalisation is a veritable framework through which the developing economies like ours Nigeria can benefit from the advanced nations in terms of technology transfer, research and development, human capital development, economic growth etc. However, for globalisation to have positive impact especially in Nigeria the following recommendations are germane; there should be adequate and functional infrastructure to encourage domestic and foreign investment into the non-oil sector; improved security to reduce risk and uncertainty of foreign investment into the agriculture and manufacturing sector. More importantly, there should be policy consistency and demonstrated strong political will on the part of government to encourage would-be investors into the non-oil sector.

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