

Trade Liberalization and Employment Generation in Nigeria

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ABSTRACT: This study investigates the relationship between trade liberalization and employment generation in Nigeria using secondary data on the quoted variables for the period 2003-2007. Panel regression model (Pooled Least Squares) was employed to examine the nexus between trade liberalization and employment generation. The study found that employment generation as result of trade liberalization the key determinant is tariff structure as a percentage increase will generate 73.4% of employment while other variables (wages, openness and FDI) effect on employment is not much. Also, the cumulative significant of the study shows that trade tariffs, wage rate, openness, and foreign direct investment have simultaneous significant effect on employment rate in the Nigeria's manufacturing, transport, agriculture and mining and quarrying sectors. Consequently, it was recommended that government, through legislative actions and mutual collaboration between the newly created Ministry of Trade and Investment and other trade-related agencies should continue to design policy measures directed toward the increase in tariff for the importable goods to facilitate more employment generation. Also, government should create the enabling environment for Foreign Direct Investment (FDI) to thrive. Public-private partnerships toward the development of the considered real sectors should be encouraged in order to enhance employment generation.

KEYWORDS: Trade liberalization, tariff, wages, openness, employment and Nigeria.

1 BACKGROUND

Trade has been considered as the main engine of its development strategies by Nigeria's government, because of the implicit belief that trade can create jobs, expand markets, raise incomes, facilitate competition and disseminate knowledge (WTO 2005). The main drive of trade policy is therefore the enhancement of competitiveness of domestic industries, with a view to, inter alia, stimulating local value-added and promoting a diversified export base. Trade policy also seeks (through gradual liberalization of the trade regime) to create an environment that is conducive to increased capital inflows, and to transfers and adoption of appropriate technologies. The resultant domestic costs of adjustment must not outweigh the benefits the government is expecting in pursuing the liberalization of its trade regime in a very measured manner.

Nigeria's trade policy since the 1960s reflects a trend which has been known to characterize uncertain and unpredictable trade regimes the world over by assessment. Trade policy since the 1960s has witnessed extreme policy swings from high

protectionism in the first few decades after independence to its current more liberal stance [1]. Tariffs have at various times been used to raise fiscal revenue, limit imports to safeguard foreign exchange or even protect the domestic industries from competition. In addition, various forms of non-tariff barriers such as quotas, prohibitions and licensing schemes have on various occasions been extensively used to limit imports of particular items. The overall pattern portrays the long-held belief that trade policy can be used to influence the trade regime in directions that can promote economic growth. Attempts were made to use trade policy to promote manufactured exports and enhance the linkages in the domestic economy, to increase and stabilize export revenue, and scale down the country's reliance on the oil sector. Trade policies were accordingly directed at discouraging dumping; supporting import substitution; stemming adverse movements in the balance of payments; conserving foreign exchange; and generating government revenue.

1.1 TRADE POLICY TREND BETWEEN 1960 – 1970s

Nigeria pursued an import substitution industrialization strategy during the first decade of independence. This involved the use of trade policy to provide effective protection to local manufacturing industries, through such measures as quantitative restrictions and high import duties. Many items were accordingly placed on import prohibition. During this period, all imports from Japan were placed under import license. Machinery and spare parts imports were restricted and exchange controls on the repatriation of dividends and profits were enforced. Restrictions were also applied on capital goods, spare parts and non-essential imports. Although the import substitution industrialization strategy continued even after the Nigerian civil war in 1970, trade policy between 1970 and 1976 assumed a less restrictive stance, ostensibly because of demands necessitated by the post-war reconstruction. Thus, only items that were regarded as non-essential consumer goods were restricted, while tariff rates on raw materials were reduced and quantitative restrictions on spare parts, agricultural equipment and machinery were relaxed. Similarly, the reconstruction surcharge on imports was reduced from 7.5 percent to 5 percent and later completely eliminated, while exchange controls and profit repatriation were also relaxed. The 1960s and early 1970s also saw the application of export duties ranging from 5 to 60 percent on agricultural exports such as cocoa, rubber, cotton, palm oil, palm kernel and ground nuts. In 1973 however, these duties were eventually abolished, as a result of the oil boom and the need to promote agricultural exports as part of the export diversification strategy. However this spurt of liberalization ended in 1977, when a wide range of imported finished goods requiring licenses came to be placed on very high duties or were banned outright. This transformed restrictive trade policy culminated in the banning of 82 items in 1979, while a further 25 items were compulsorily placed on import authorization.

1.2 TRADE POLICY TRENDS BETWEEN 1980 - 90s

Policy shift towards exports promotion and a move to intensify the use of local raw materials in industrial production was more pronounced from 1980. However, the increase in the value of imports led to a worsening of the balance of payments (with, in addition, the backdrop of the collapse in world oil prices), which forced the government to promulgate the Economic Stabilization (Temporary Provisions) Act in April 1982. Under this Act, tariffs on 49 items were raised, while a prohibition was imposed on gaming machines and frozen poultry. Further, 29 commodities were removed from the general import license regime and placed under specific license, while the use of pre-shipment inspection became widespread. During 1983 - 1985, 152 items were brought under specific import license, and foreign exchange regulations became more stringent. The central objective of trade policy was to provide protection for domestic industries and reduce the perceived dependence on imports; a consequence to that objective was a desire to reduce the level of unemployment and generate more revenues from the non-oil sector. as a result, tariffs on raw materials and intermediate capital goods were reduced.

1.3 THE STRUCTURAL ADJUSTMENT PERIOD

There was a significant shift in trade policy direction towards greater liberalization as of 1986. This shift in policy is directly attributable to the adoption of the structural adjustment programmes. The Customs, Excise, Tariff etc (Consolidation) Decree, enacted in 1988, was based on a new Customs goods classification, the Harmonized System of Customs Goods Classification Code (HS). It provided for a seven-year (1988 -1994) tariff regime, with the objective of achieving transparency and predictability of tariff rates. Imports under the regime thus attracted ad-valorem rates applied on the Most Favoured Nation (MFN) basis. A new seven-year (1995 - 2001) tariff regime, established by Decree No. 4 of 1995 succeeded the previous (1988 – 1994) regime. The tariff structure over the period 1988 - 2001 increased import duties on raw materials, and on intermediate and capital goods, while tariffs on consumer goods were slightly reduced. This was aimed at reducing distortions in resource allocation and combating smuggling. Both the 1988 and 1995 tariff schedules had provisions for reviews and amendments. However, they maintained the familiar mixed trends in tariff regimes. Three types of changes

were subsequently common, namely, reduction in rates; increase in rates and/or removal from or addition to the import prohibition list.

1.4 TRADE POLICY UNDER THE NEEDS ERA (1999 - 2006)

As pointed out above, Nigeria's trade policy regime as currently contained in the NEEDS and trade policy documents, has been geared to enhancing competitiveness of domestic industries, with a view to, inter alia, encouraging local value-added and promoting as well as diversifying exports. The mechanism adopted to this end is gradual liberalization of the trade regime. Thus, the government intends to liberalize the trade regime in a manner, which will ensure that the resultant domestic costs of adjustment do not outweigh the benefits. This is the fundamental basis on which to gauge the direction and implementation of policy. The clarion call is "steady liberalization". This addresses the question as to what is the kind of trade strategy the government has adopted in furtherance of its development agenda. Current reform packages are therefore designed to allow a certain level of protection of domestic industries and enterprise. Concretely, this has translated into tariff escalation, with high effective rates in several sectors and lower import duties on raw materials and intermediate goods unavailable locally. Highly import duties on finished goods were the result of the policy perspective on finished goods which compete with local production.

The summary of the above trade policies that has been adopted by government is highlighted bellow.

- Partial abolition of import license scheme.
- Granting of special tax incentives and tax holidays to enable local industries build up enough funds for expansion purposes and to encourage firms invest in economically disadvantaged areas.
- Reduction of corporate income tax rate and introduction of tax-free dividends, for foreign persons and to encourage local research and development (R&D).
- The Export Incentives Decree was promulgated in which various incentives to enhance export promotion were stipulated.
- The Export Credit Guarantee and Insurance Scheme was established to assist Nigerian Companies compete effectively in the international market.
- Government granted up to 140% tax relief to firms in respect of research and development (R&D) expenses in the development of raw materials.
- The Export Stimulation Loan (ESL) Scheme was put in place to provide foreign exchange producers that require imported inputs essential to the production of export products.
- Firms were allowed to open and maintain domiciliary accounts to keep their export earnings in foreign currencies.
- Several institutional support were put in place by the government through the establishment of Industrial Development Coordinating Committee, (IDCC), Industrial Data Bank, Raw Materials Research and Development Council, (RMRDC), Project Development Agency (PRODA), Federal Institute of Industrial Research (FIIRO), Export Processing Zone (EPZ), Nigerian Investment Promotion Council.
- Simplification of industrial licensing.
- The exchange market was deregulated to enhance access of firms to foreign exchange. Devaluation and full convertibility of the Naira on trade account were embarked upon to bring it nearer to acceptable parity and make Nigerian products enhance greater profitability of Nigerian manufactured export.

1.5 LITERATURE REVIEW

Empirical literature on trade liberalization and employment across-country studies have been undertaken, including [6], [10], [13], [14], [15] and [18],

According to [18] examines trade liberalization and employment generation in Turkey using OLS. His finding shows that trade liberalization led to real wage cut to stabilize the economy and to boost competitiveness of exporters because lower wages were thought to be essential to lower inflation rates (by reducing production costs and restraining domestic absorption), and to secure real depreciation. Also, his estimate of labour demand function for Turkish manufacturing industries shows that trade policy variables and macroeconomic variables are quite important for employment generation.

Reference [6] examined trade liberalization and employment effects in Ukraine using generalized method of moments (GMM) estimator to account for potential endogeneity problem. Trade openness does affect job flows in Ukrainian manufacturing disproportionately according to trade orientation. They find that while trade with CIS decreases job destruction, trade with the EU increases excess reallocation mainly through job creation.

Also, [13] investigated the effect of trade liberalization on employment performance of textile industry in Tanzania. The basic issue of concern is that the implementation of trade liberalization has differential impact on employment and wage in many African countries. In addressing this issue as well as achieving the objective, econometric models of employment and wage are estimated using co-integration method of analysis. The analysis shows that effective rate of protection and export intensity have an insignificant positive impact on demand for labour, but import penetration has a significant negative impact on employment. Also, only import penetration has a significant negative impact on wage. The impact of import penetration is larger than that of export orientation, as the increase in import competition leads to a decline in labour demand. According to [14], in a study that adopted the use of OLS regression technique to calculate the impact of. The outcome of the study established that the existence of a positive relationship between global competitiveness and employment level in the manufacturing sector and confirmed that employment in the sector usually based their current employment decision on the previous level of employment.

Reference [10] found that trade openness and social and political dimensions of globalization have not any impact on the employment generation in Pakistan. Nevertheless the proxy variables of globalization (foreign direct investment and workers' remittances) are statistically highly significant and more responsive to generate employment opportunities in Pakistan. Similarly, [15] investigated the effect of trade liberalization on employment during the post-reform period in India's organized manufacturing sector using Ordinary Least Square (OLS) regression model. The analysis shows that, trade seems to be having negative effect on employment, globalization and employment generation in Nigeria's manufacturing sector which is contrary to H-O theory.

2 MATERIALS AND METHODS

In order to achieve the basic objective of this paper, model used by [19] which was developed by Njikam was adopted to analyze the relationship between trade liberalization and employment in Nigeria. The Cobb-Douglas Production function in the following format is adopted.

$$Q = A^\lambda K_i^\alpha L_i^\beta \tag{1}$$

Where A^λ represent technological efficiency index, Q represent output, K represent Capital stock, L represent

Labour, α and β signify capital and labour factor inputs share coefficients while λ speed up the efficiency of production by allowing factors changing. As a point of departure from this model employment is assumed mobile within different sectors. Hence a profit maximizing firm employs capital up to the point where marginal revenue product of capital is equal to user costs ($MRPK = Z$), and marginal revenue product of labour is equal to wage ($MRPL = W$).

In order to eliminate capital in the specification of firm output, equation (1) is solved simultaneously hence the following expression:

$$q = A^\lambda (A^{\lambda t} / \beta X / W / Z)^\beta L_i \tag{2}$$

Where q is output, L, total employment, Z user costs, other variables are defined as above.

By applying the natural logarithm (2), becomes firm and industry demand for Labour which is a derived demand becomes:

$$\ln L_t = q_0 + q_1 \ln (W/Z) + q_2 \ln q_1 \tag{3}$$

Where $q_0 = -(\lambda \ln A + \alpha \ln \alpha - \alpha \ln \beta)$, $q_1 = -\alpha(\alpha + \beta)$, $q_2 = \frac{1}{\alpha + \beta}$

Theoretically, demand for Labour is negatively related to technology while positive related to output. Hence more improvement in technology reduces the demand for unskilled Labour.

Equation (3), assumes that the impact of technology in different sectors is the same and uniform, but empirical evidences show that technology is determined by trade patterns. Thus, as stated by Njikam (2009) "technology depends on import penetration, domestic industry protection and export orientation". Thus if technology is substituted in (3), the empirical equation is stated;

$$\ln L_{it} = \ln \beta_0 + \beta_1 \ln TRT_{it} + \beta_2 \ln WAG_{it} + \beta_3 \ln OPN_{it} + \beta_4 \ln FDI_{it} + \mu_{it} \tag{4}$$

β_0 denotes the intercept term, L_{it} and WAG_{it} represent total employment wages of the considered real sectors in the time period (t) respectively, TRT_{it} is the tariff rate across the sectors, OPN_{it} is the trade openness, FDI_{it} is the Foreign Direct Investment and μ_{it} is the stochastic error term. $\beta_1, \beta_2, \beta_3, \beta_4$ are unknown slope parameter to be estimated. With the exception of TRF all variables are transformed by taken natural logs because TRF is already measure as a rate.

3 RESULTS AND DISCUSSION

Descriptive statistics results: The analysis begins by looking at the minimum and maximum value employments (EMP) for the sample of real sectors considered.

Table 1 Descriptive Statistics Of The Basic Data

	EMP?	TRF?	WAG?	OPN?	FDI?
Mean	7668456.	17.37000	162917.5	22.08000	59766.07
Median	820628.0	18.69000	141267.1	16.06500	28248.80
Maximum	30682234	21.10000	326529.0	53.42000	219512.0
Minimum	66150.00	11.00000	32319.64	0.820000	1209.000
Std. Dev.	12755879	3.937900	106524.1	22.00623	70969.88
Skewness	1.158016	-0.876363	0.179509	0.180259	1.035467
Kurtosis	2.353091	2.138637	1.586582	1.239263	2.979718
Jarque-Bera	4.818748	3.178332	1.772204	2.691807	3.574314
Probability	0.089872	0.204096	0.412260	0.260304	0.167436
Sum	1.53E+08	347.4000	3258349.	441.6000	1195321.
Sum Sq. Dev.	3.09E+15	294.6340	2.16E+11	9201.212	9.57E+10
Observations	20	20	20	20	20
Cross sections	4	4	4	4	4

Source: computed from the data

Table 1 presents the descriptive statistics of the data employed in this study. The minimum and maximum value employments (EMP) for the sample of real sectors considered are 30682234 and 66150.00 with an average of 7668456. While tariff (TRF), vary from a minimum of 11 percent to a maximum of 21.1 percent with an average of 17.4 percent. The wage rate also ranges from a minimum of 32319.64 to a maximum of 326529.0 with an average of 162917.5. The estimated trade openness (OPN) also ranged from a minimum of 0.82 million to a maximum of 53.42 billion with an average of 22.08 million. Foreign Direct Investment (FDI), range from a minimum of 1209.00 million to a maximum of 219512.0 million with an average of 59766.07 million. Employment, wages, openness and Foreign Direct Investment (FDI) are positively skewed but tariff is negative. The probability significant levels for all the variables (Employment, Tariff, Wages, Openness and Foreign Direct Investment) are not statistically significant.

Panel regression (Pooled Least Squares) results:

Dependent Variable: LOG(EMP?)
 Method: Pooled Least Squares
 Date: 09/28/12 Time: 13:28
 Sample: 2003 2007
 Included observations: 5
 Cross-sections included: 4
 Total pool (balanced) observations: 20

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	25.43204	9.237942	2.752999	0.0148
TRF?	0.733823	0.154537	4.748539	0.0003
LOG(WAG?)	-1.731137	1.053003	-1.644001	0.1210
OPN?	-0.023539	0.021150	-1.112954	0.2832
LOG(FDI?)	-0.369177	0.079085	-4.668079	0.0003

R-squared	0.949141	Mean dependent var	13.79202
Adjusted R-squared	0.935579	S.D. dependent var	2.236854
S.E. of regression	0.567742	Akaike info criterion	1.918020
Sum squared resid	4.834972	Schwarz criterion	2.166953
Log likelihood	-14.18020	Hannan-Quinn criter.	1.966614
F-statistic	69.98375	Durbin-Watson stat	1.802801
Prob(F-statistic)	0.000000		

Source: computed from the data

The estimated panel regression model (Pooled Least Squares) for the all the variables revealed the following outcomes. A percentage increase in trade tariff (TRF) enhances changes in employment rate by 73.4%. In other word increase in tariff by one percent will generate employment. The policy prescription is based on the belief that a liberalized trade regime is capable of increasing employment generation in the developing countries of the world. A percentage change increase in wage rate result to 1.73% decline in changes in employment rate across the considered real sectors. That is employment rate across the considered real sector will reduce as result of increase in wage rate. 2.35% decline in employment rate is a result of a unit change in trade openness in Nigeria's real sectors. It shows that opening of borders in Nigeria to facilitate trade openness lead to decrease in employment rate in the country. During the considered timeframe and cross-sections of four selected real sectors, recorded percentage change in flow of investments from abroad (FDI) deteriorated or worsened the employment rates by 0.37%. Also, the t-statistic for individual significance of the incorporated estimates indicated that among the considered set of series, it is only trade tariff and foreign direct investment that were found to be statistically significant at 5% critical level. This statistical evidence instigate policy insights for enhance employment level in the real sectors of the economy. However, the F-statistic as a robust test of joint significance of estimates indicated that estimated coefficients of trade tariffs, wage rate, openness, and foreign direct investment have simultaneous significant effect on employment rate in the Nigeria's manufacturing, transport, agriculture and mining and quarrying sectors. Thus, the earlier stated null hypothesis is rejected at 5% significance level based on the Prob.(F-Stat) value that is less than 0.05.

Similarly, the adjusted R-squared result reported that 93.6% of changes in employment rate is explained by changes in trade tariffs, wage rate, openness, and foreign direct investment in Nigeria's real sectors. Two sets of diagnostic tests were performed to examine the structural stability of estimated pooled regression model that capture the effect of trade liberalization on employment generation in Nigeria. The value of the standard error of regression (0.5677) is found to be less than a unit and relatively small compared with outcomes of other iterated regression models. This indicates that error of biasness is significantly minimized with the adopted estimation technique. Also, the adjusted R-squared (0.9356) is found to be less than the Durbin-Watson Stat (1.8028), thus signifies the non-spurious nature of the estimated regression model. The main policy implication of this outcome is that the reported results are reliable and consistent for drawing policy inference

and designing policy recommendations of enhancing employment generation arte via trade interactions in Nigeria's real sector.

4 CONCLUSION

This study has utilized the data on the quoted variables for the period 2003-2007 to address important issue in area of trade liberalization and employment generation in Nigeria. The study made use of both descriptive analytical tools to provide answers to the various research questions posed in the introductory chapter. The regression results present in chapter four have also shown that the results we obtain are robust under estimation technique adopted. The results in many cases are broadly consistent with the theoretical expectations and also with some empirical findings in the literature. In terms of employment generation as result of trade liberalization the key determinant is tariff structure as a percentage increase will generate 73.4% of employment while other variables (wages, openness and FDI) effect on employment is not much. The major contribution to the Nigeria literature on trade liberalization and employment is the explicit incorporation of the impact of tariff structure. This has been omitted in most previous studies. The findings of the study however show that this has a profound impact on both trade liberalization and employment. The cumulative significant of the study shows that trade tariffs, wage rate, openness, and foreign direct investment have simultaneous significant effect on employment rate in the Nigeria's manufacturing, transport, agriculture and mining and quarrying sectors. The government, through legislative actions and mutual collaboration between the newly created Ministry of Trade and Investment and other trade-related agencies should continue to design policy measures directed toward the increase in tariff for the importable goods because this will result into employment generation in Nigeria based on the finding of this study. On the final note, government should create the enabling environment for Foreign Direct Investment (FDI) to thrive. Public-private partnerships toward the development of the considered real sectors should be encouraged in order to enhance employment generation.

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