POLAC ECONOMICS REVIEW (PER)
DEPARTMENT OF ECONOMICS AND MANAGEMENT SCIENCE
NIGERIA POLICE ACADEMY, WUDIL-KANO

IMPACT OF TRADE LIBERALIZATION ON EMPLOYMENT GROWTH IN NIGERIA

Shettima, Fatima Abdullahi (Ph.D) Department of Business Education, Saadatu Rimi College of Education, Kumbotso, Kano

Daba, Sani Aminu Department of Business Education, Saadatu Rimi College of Education, Kumbotso, Kano

Abstract

The paper examines the impact of trade liberalization on employment growth in Nigeria with data drawn from the period 1990 and 2020. The Autoregressive distribution lags (ARDL) approach developed by Pesaran et al (2001) is adopted for the analysis in this paper. The paper found that trade liberalization has negative impact on employment growth both in the long run and short run in Nigeria between 1990 and 2020. The study recommends a diversification of the economy, outright ban and restrictive quotas on imports with domestic produced substitutes and halts the depreciation of Naira amidst poor non oil exports.

Keywords: Trade Liberalization, Employment growth, ARDL

Introduction

International trade is a determinative factor in reducing poverty and inequality, specifically through its role in stimulating job creation. Nevertheless, in several developing countries, international trade can lead to the destruction of jobs or the creation of less decent jobs, particularly for young people and women. The relationship between trade liberalisation and employment has been widely discussed. Since the theories of Hecksher-Ohlin-Stolper-Samuelson and Viner, there has been no consensus regarding the effect of trade liberalisation on job creation.

With trade liberalization, the value of Nigeria's merchandise trade stood at N6,242.4 billion in Q2, 2020. This indicates a sharp fall of 27.30% in Q2, 2020 compared to Q1, 2020 and 27.46% compared to Q2, 2019. The value of total trade year to date amounted to N14,829.4 billion, indicating a drop of 11.96% compared to half year 2019. The import component was valued at N4,022.9 billion representing a drop of 10.69% in Q2, 2020 against the level recorded in Q1,2020 but an increase of 0.39% year-on-year. The export component accounted for N2,219.5 billion of the total trade, indicating a decline of 45.64% against the value recorded in Q1, 2020 and 51.73% compared to Q2, 2019. Consequently, the trade balance recorded a deficit of N1,803.3 billion, marking the third consecutive quarter of negative trade balance. This compares with trade in goods deficit of N421.3 billion recorded in Q1, 2020 and N579.06billion recorded in Q4 2019.

Inspite of the Nigeria's large pool of surplus labour, rapidly growing labour force and increasing employment, the share of employed workers in total labour force has been declining since 1980, coupled with this, in the last two decade, the trend has been below 70% which is an indication of high unemployment as more than 30% of its active population are unemployed.

Literature Review

While several empirical studies (Dutt et al., 2009; Iapadre, 2011; Kiyota, 2011; Felbermayr et al., 2011a, 2011b; Gozgor, 2014; Awad & Youssof, 2017) have argued that trade liberalization would promote job creation, others have demonstrated that international trade contributes to increased unemployment

(Helpman & Itskhoki, 2007; Janiak, 2007). Some studies have shown that this increase in unemployment is found only among lower-skilled workers (Şener, 2001; Moore & Ranjan, 2005).

Onakoya et al. (2019) employed pooled Ordinary Least Square (OLS) to investigate the impact of trade liberalisation on poverty in 21 African countries. The study covered the period between 2005 and 2014 and revealed that trade reduced poverty level in these countries. Nyarkoh (2017) investigated the relationship between Ghana's trade and poverty level. Using the VECM model and the OLS method for the period 1960–2003, the study found that increasing trade led to poverty reduction in Ghana for both the short and long runs. Ali et al. (2018) assessed the link among trade openness, employment, economic growth and poverty reduction in Pakistan during the period 1971–2015. The study applied the Error Correction Method (ECM) and found a negative link between trade openness and income growth in the industrial sector, labour force and the inflation rate in the short term and a positive link with income growth in the agricultural sector. However, trade openness had positive effects on GDP in both sectors, labour force and inflation, while it had an opposite relationship with GDP in the long term.

Keho (2017) employed the ARDL techniques to examine the relationship between trade liberalization and economic growth in Cote d'Ivoire between 1965 and 2014. The findings revealed that trade increased economic growth both in short and long-run. The Granger causality test also showed a unidirectional relationship between trade and economic growth. Modeste (2019) investigated the relationship between trade liberalisation, supply of export and poverty in Guyana over the period 1980–2010. The study employed quarterly data and the ARDL technique model for the analysis. The findings of the study revealed that trade increased the supply of exports while reducing the country's poverty level. Moreover, economic growth, agricultural sector growth and the real exchange rate contributed to poverty reduction and expansion of the country's supply of exports.

Manwa et al. (2019) investigated the link between trade liberalisation and income growth in a sample of five Southern African Customs Union (SACU) countries, namely Botswana, Lesotho, Namibia, South Africa, and Swaziland. The study applied the panel fixed effects model, which revealed that trade insignificantly increased the growth of SACU countries over the period 1980–2011. The study of Santos-Paulino (2017) employed the system-GMM model to explore the relationship between trade globalisation and poverty level for developing countries. Using the period from 1980 to 2014, the results showed that economic growth and manufacturing trade significantly reduced poverty while trade specialisation had adverse effects on poverty.

Durongkaveroj and Ryu (2018) examined the effects of trade on poverty in Thailand. Using two-year data (1995 and 2005) from 76 provinces, the study showed that poverty reduced in provinces with more exposure to trade. Gnangnon (2018) employed the system of GMM to assess the impact of trade liberalisation on economic growth based on panel data of 150 countries for the period 1995–2015. The multilateral trade liberalisation index used in this study is similar to the "freedom to trade internationally" index. The results showed that multilateral trade liberalisation contributed to increased economic growth for that group of countries. Similarly, Gnangnon (2019) probed the effects of trade liberalisation in some developing countries for the 1996–2016 periods. The results of the two-step system GMM showed that trade significantly contributed to poverty reduction.

Furthermore, Sani and Yunusa (2019) employed the VAR and VECM models to estimate the impact of trade openness on economic growth in Nigeria for the 1981–2016 periods. The findings showed that trade and exchange rate increased economic growth in Nigeria. The Granger causality test did not reveal any relationship running from trade to economic growth.

However, some findings corroborates higher unemployment growth from trade, such as those of Odejimi and Odejimi (2015); Nwaka, Uma and Tuna (2015). Clearly, there exist conflicts in literature on the significance of trade liberalization and employment growth. The empirical studies have not yet conclusively shown the positive link between trade liberalization and employment growth. One of the reasons may be the lack of consistency in the use of different trade liberalisation and employment growth indicators. Consequently, the present study attempts to fill this gap by using the most widely recognised

indicators of the regressors. Moreover, most of the studies did not treat the issue of long run and short run relationships among trade liberalization and employment growth, as done in the present study. Country specific studies are therefore essential to ascertain the validity of such relationship. The paper is anchored on this premise, for Nigeria.

Methodology

The paper used secondary data specifically annual time series data for Gross Domestic Product per capita proxy for Economic growth is the dependent variable, while Explanatory variables for the paper include Banking sector credit and Domestic credit sector to private sector. Annual data for these variables was sourced from World Bank dataset.
The Autoregressive distribution lags (ARDL) approach developed by Pesaran et al (2001) is adopted for the analysis in this paper. This methodology estimates impact and applies the bound testing approach to ascertain whether long-run relationship between the variables exists or not. The advantage of the ARDL approach is more suitable and provides better results for small sample size and the short-run and long-run parameters are estimated simultaneously. Furthermore, it subverts the problem of over-parametization, as robust lag lengths are central to this approach.

The model specifies the relationship between, Non oil Export proxy for Export Diversification (NOE), Total debt service (TDS) and Exchange rate (EXR) Naira per Dollar (N/$). explanatory variables and Labour force participation proxy of Employment growth (EMP) dependent variable. The estimation is carried out for the period 1990 to 2020. The paper adopt the model of Kwanga and Muktar (2015) with slight modification to suit the current situation of capture relevant variables to analyse the relationship of Trade liberalization and employment growth in Nigeria.
Mathematically, the functional relationship between trade liberalization and employmentis presented in equation (1)

$EMP = f(NOE, TDS, EXR)$ …………………………………………….. (1)

While the econometric specification of the model is reflected in equation (2)

$EMP = \beta_0 + \beta_1 NOE + \beta_2\ TDS + \beta_3\ EXR + \mu$ …………………… (2)

Apriori expectation is: $\beta_1, \beta_2, \beta_3 > 0, while \beta_4 < 0$

Result and Discussion

Stationary property of the variables

To ascertain the level of stationarity of the series, the variables in the model are subjected to unit root test, The Augmented Dickey Fuller (ADF) and Phillip Perron (PP) test are used. For annual data on variables for the period 1990 to 2020, the results of the ADF test and PP test are presented in table 1.

Table 1: Results of Unit root test

VARIABLES	ADF TEST		PP TEST		ORDER OF INTEGRATION
	@LEVELS	@1ST DIFF	@LEVELS	@1ST DIFF	
EMP	0.685(0.989)	-3.235(0.028)	0.641(0.988)	-2.990(0.047)	I(1)
NOE	0.404(0.978)	-1.040(0.721)	-1.635(0.462)	-7.305(0.000)	I(1)
TDS	-2.222(0.202)	-4.756(0.000)	-2.264(0.189)	-8.341(0.000)	I(1)
EXR	1.349(0.998)	-3.788(0.007)	1.442(0.998)	-3.690(0.009)	I(1)

Source: Eviews 9 Output

Both the ADF test and the PP test for EMP, NOE, TDS and EXR indicate that the series is non stationary in levels. However, the first differences of the series are stationary as per both tests. Hence, the variables EMP, NOE, TDS and EXR are integrated of order one I(1).

Estimation Results for Econometric Model

Autoregressive distributed lags (ARDL) approach model specifies the Long-run and Short-run relationship between EMP (dependent variables) and NOE, TDS, EXR (explanatory variable).

Existence of long run relation between Trade Liberalization and Employment (EMP)

The existence of long-run cointegration relationship for Trade liberalization and Employment growth is investigated by computing F statistics. For the estimation the maximum lag order for various variable in the model is set at four (m=4) and the estimation is carried out for the period 1990 to 2020.

Table 2: Testing for existence of a level relationship among the variables in the model

F-statistic	95% Lower Bound	95% Upper Bound	90% Lower Bound	90% Upper Bound
6.4551	3.8173	5.1837	3.0698	4.2630

Source: Authour's computation from Microfit 5.0 Print out

The result of the bound test shows that the value of F statistic is 6.4551, since the value is higher than the upper bound I(1) at 5% level of significance which is 5.1837, the null hypothesis of no cointegration is rejected, this means that there is long run relationship between Employment growth and NOE, TDS, EXR (explanatory variable).

Long-run relationship between Trade Liberalization and Employment (EMP)

Table 3 represents the estimated long run coefficient for the model based on ARDL (2,3,0,0) specification selected by Schwarz Bayesian criterion.

Table 3: Estimated Long Run Coefficients using the ARDL Approach

Regressor	Coefficient	Standard Error	T-Ratio[Prob]
NOE	-0.8739	0.2068	-4.2264[0.001]
TDS	-0.18838	0.13647	-1.3804[0.186]
EXR	0.0060427	0.0073655	0.82041[0.424]
INPT	60.3370	0.82707	72.9525[0.000]

Source: Authour's computation from Microfit 5.0 Print out

The estimated coefficient of the long run relationship is significant for non oil export (NOE) and not significant for total debt service (TDS) and exchange rate (EXR). The estimated coefficient is positive for exchange rate and negative for non oil exports. This indicates non oil exports has a negative significant relationship with employment growth, total debt services has negative insignificant relationship with employment growth and exchange rate has a positive insignificant relationship with employment growth in Nigeria between 1990 and 2020. A unit increase in non oil export decrease employment by 0.8739 (87%). This suggests that non oil performance in the economy leaves much to be desired; as such improving its performance is required in Nigeria.

Short-run relationship between Trade Liberalization and Employment (EMP)

Error Correction representation for the selected model ARDL model, ARDL (2,3,0,0) model selected was based on Schwarz Bayesian criterion is presented in table 4.

Table 4: Error Correction Representation for the Selected ARDL Model

Regressor	Coefficient	Standard Error	T-Ratio[Prob]
dEMP1	0.47077	0.15772	2.9847[0.008]
dEMP2	-0.58283	0.20831	-2.7979[0.012]
dNOE	0.5936	0.2734	2.1711[0.044]
dNOE1	0.4242	0.8201	5.1727[0.000]
dNOE2	0.1114	0.1050	1.0609[0.304]
dNOE3	0.3243	0.9335	3.4736[0.003]
dTDS	-0.087614	0.068808	-1.2733[0.220]
dEXR	0.0028104	0.0029985	0.93727[0.362]
ecm(-1)	-0.46509	0.14644	-3.1759[0.006]
R-Squared	0.81566	R-Bar-Squared	0 .70045
DW-statistic	2.3718		

Source: Author's computation from Microfit 5.0 Print out

Estimations show that the coefficients of all the regressors are statistically significant at 5% level, only the coefficients of dNOE2 and dEXR are not statistically significant. As expect the ecm term is negative and significant. The coefficient of Error Correction Model (ECM) is equal to -0.465 meaning that every year 46% of the divergence between the short run employment growth and long run path is eliminated.

The results in table 4 indicated that the overall model is well fitted as the independent variable explained over 81% (R-Squared) movement in the dependent variable. The R^2 value dropped to about 70.0% after adjusting for degree of freedom which is still significant. Durbin-Watson (DW) statistics of 2.37 ≈ 2.0 showed the absence of serial correlation meaning that there is independence of observation in the error term.

Trade Liberalization and Employment (EMP) Model stability test

The CUSUM test is based on the cumulative sum of equation errors in the regression. The software represents graphically cumulative sum of errors together with the critical lines at 5%. The equation parameters are considered unstable if the whole sums of recursive errors get outside the two critical lines. The CUSUM shows that the parameters of the analyses equation are stable given that the recursive errors lie within the two critical lines of the test.

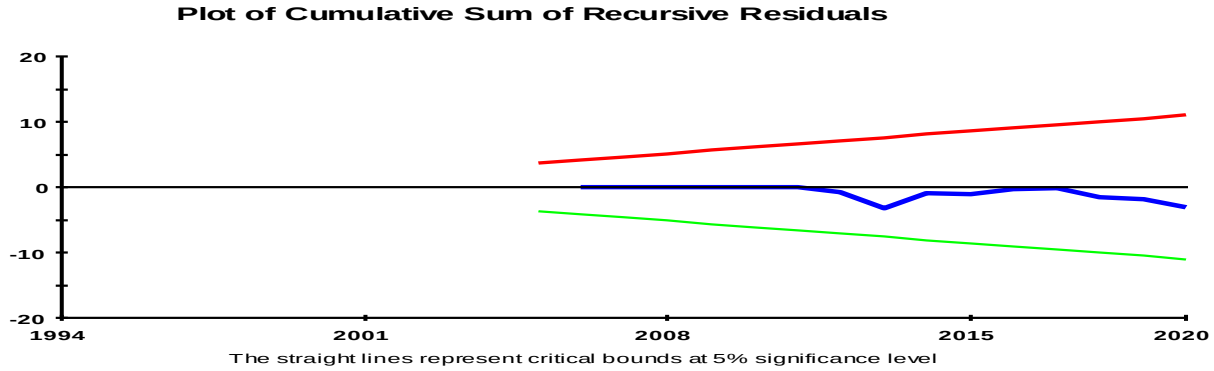

Fig 1: Cummulative sum of Recursive Residual Test

Conclusion and Recommendations

The paper concludes that trade liberalization and employment growth has negative relationship both in the long run and short run in Nigeria between 1990 and 2020. The findings conforms with those of Nwaka, Uma and Tuna (2015) and Odejimi and Odejimi (2015) for Nigeria. Clearly, Nigeria's non oil export potentials are still hopeful dreams. The long run relationship suggests that if there no change in the present situation, trade liberalization will continue to reduce employment growth in Nigeria.

The paper recommends that the non oil sector should be diversified, this should be done to stimulate the export sector as this will reduce the over dependence on imported goods. Also, protect domestic industries until they can favourably compete with imported goods, through the imposition of outright ban or embargoes and restrictive quotas on imports with domestic substitutes and revisit the issue of exchange rate depreciation in Nigeria which causes more harm than good on employment growth. Depreciation should be only be implemented when non oil industries are vibrant enough to compete with cheaper imports.

References

Ali, T. M., Kiani, A. K., & Hafeez, M. (2018). Impact of trade liberalization on employment, poverty reduction, and economic development. *Pakistan Economic Review*, *1*(2), 83–104. [Google Scholar]

Awad, A., & Yussof, I. (2017). International Trade and Unemployment: Evidence from Selected ASEANplus 3 Countries. *DLSU Business & Economics Review, 27(1)*, 1-12.

Dutt, P., Mitra, D., & Ranjan, P. (2009). International trade and unemployment: Theory and cross-

nationalevidence. *Journal of International Economics, 78(1),* 32-44.

Durongkaveroj, W., Ryu, T. (2018). Trade liberalisation and poverty: Evidence from Thailand. ARTNeT *Working Paper Series, No. 180,* June 2018, Bangkok, ESCAP.

Felbermayr, G., Prat, J., & Schmerer, H. J. (2011a). Globalization and labor market outcomes: Wagebargaining, search frictions, and firm heterogeneity. *Journal of Economic Theory, 146(1),* 39-73.

Felbermayr, G., Prat, J., & Schmerer, H. J. (2011b). Trade and unemployment: What do the data say?*European Economic Review, 55(6),* 741-758.

Gnangnon, S. K. (2018). Multilateral trade liberalization and economic growth. *Journal of Economic Integration*, *33*(2), 1261–1301.

Gozgor, G. (2014). The impact of trade openness on the unemployment rate in G7 countries. *The Journalof International Trade & Economic Development, 23(7),* 1018-1037.

Helpman, Elhanan, & Itskhoki, O. (2007). *Labor Market Rigidities, Trade and Unemployment* (WorkingPaper No. 13365; Working Paper Series). National Bureau of Economic Research.

Janiak, A. (2007). *Does Trade Liberalization Lead to Unemployment? Theory and Some Evidence* ∗ [Mimeo]

Keho, Y. (2017). The impact of trade openness on economic growth: The case of Cote d'Ivoire. *Cogent Economics & Finance*, *5*(1), 1332820

Kiyota, K. (2011). Trade and Employment in Japan. *In OECD Trade Policy Papers* (No. 127; OECD Trade Policy Papers). OECD Publishing.

Kwanga, C. N and Muktar, M (2015). Impact of Trade Liberalization on Employment in Nigeria. *Yobe Journal of Economics 2(1)*66-77.

Manwa, F., Wijeweera, A., & Kortt, M. A. (2019). Trade and growth in SACU countries: A panel data analysis. *Economic Analysis and Policy*, *63*, 107–118

Moore, M. P., & Ranjan, P. (2005). Globalisation vs Skill-Biased Technological Change: Implications for Unemployment and Wage Inequality. *The Economic Journal, 115(503),* 391-422.

Modeste, N. C. (2019). The impact of trade liberalization on export supply and poverty in Guyana: Evidence from cointegration analysis. *The Review of Black Political Economy*, *46*(3), 230249.

Nwaka, I. D., Uma, K. E and Tuna, G (2015). Trade Openness and Unemployment: Empirical evidence from Nigeria. *The Economic and Labour Relation Review(ELRR) 1-20.*

Nyarkoh, B. J. (2017). Modelling trade liberalization-poverty nexus for Ghana. MPRA Paper No. 76209.

Odejimi, D. O and Odejimi, M. O (2015). The impact of Trade Liberalisation on the Nigerian Labour Market. *International Journal of Economics, Commerce and Management, 3(4).*

Onakoya, A., Johnson, B., & Ogundajo, G. (2019). Poverty and trade liberalization: empirical evidence from 21 African countries. *Economic Research-Ekonomska Istraživanja*, *32*(1), 635–656.

Sani, I. A., & Yunusa, A. A. (2019). Impact of trade liberalisation of agricultural sector on economic growth in Nigeria: An empirical investigation. *EAS Journal of Psychology and Behavioural Sciences*, *1*(1), 8.

Santos-Paulino, A. U. (2017). Estimating the impact of trade specialization and trade policy on poverty in developing countries. *The Journal of International Trade & Economic Development*, *26*(6), 693–711.

Şener, F. (2001). Schumpeterian unemployment, trade and wages. *Journal of International Economics,54(1),* 119-148.