IOSR Journal of Business and Management (IOSR-JBM)
e-ISSN: 2278-487X, p-ISSN: 2319-7668. Volume 23, Issue 9. Ser. I (September 2021), PP 45-52
www.iosrjournals.org

Effect of Foreign Exchange Rate Variability on Manufacturing Industries: Evidence from Nigeria Textile Industries(1981-2019)

[1]Ojomolade, Dele Jacob PhD, FCIB, [2]Adejuwon, Joshua Adewale PhD, MNIM, FCA, [3] Ogwulali, Ifeanyi. Joseph. Phd,FCA.[4]Shekoni,Nurudeen Adebayo PhD Student

[1]*Department of Accounting and Finance, Caleb University, Imota.*
[2]*Department of Management and Accounting, Lead City University, Ibadan*
[3]*Department of Accounting and Finance, Caleb University, Imota.*
[4]*Lagos State University, Ajanikin, Lagos*

Abstract
The study examined the effect of foreign exchange rate variability on manufacturing industries in Nigeria, focusing textile industriesfor a period covering1981 to 2019. Secondary data collected from CBN and Export promotion Council were analyzed usingvector autoregressive (VAR) model, variance decomposition (VD) and impulse response (IR).The unit roots tested to confirm non-stationarity among variableswhile the Johansen co-integration was used to confirm long run relationship between the foreign exchange rate volatility and textile industries performance in Nigeria.The resultsrevealed that foreign exchange rate, bank lending rate, gross domestic product has negative influence on the average capacity of the textile industry, while in the second they all have positive but different significant on average textile capacity in Nigeria. On the other hand, forex volume and inflation in the first period has positive but different significance on average textile capacity while in the second period they both have negative influence on average textile capacity in Nigeria.The study recommended that government should espouse policies that will enhance the textile industries against the adverse effects of exchange rate volatility in the Nigeria

Keywords: *foreign exchange rate, Textile industries, volatility, purchasing power, manufacturing*

Date of Submission: 24-08-2021 Date of Acceptance: 09-09-2021

I. Introduction

Foreign exchange is the exchange of one country's currency for currency from another country. While, foreign exchange rate is the price at which one country's currency is changed to another country's currency. It is also the price of domestic currency in terms of another (Olaleye & Ojomolade, 2019). Exchange rate shows the degree of country competitiveness in the world market. It is also an important economic variable as its appreciation [increase] or depreciation [decrease] affects the performance of all the sectors in an economy and most especially the manufacturing sector (Odili 2019).

Foreign exchange market is "where one country's currency is being exchanged for another country's currency". (Mohammad & Zahra 2013). In Nigeria, the foreign exchange market is made up of three major segments; the official, the autonomous [made up of inter-bank and bureau de exchange] and the parallel market (Alabi, 2015).

The exchange rate policy in Nigeria has moved between the fixed exchange rate system and a floating exchange rate system. The fixed exchange rate system was introduced post-independence era in 1960 while the floating exchange rate system was introduced from 1986 during the structural adjustment programme [SAP] era [Ndubuaku, Onwuka, Onyedika, Chimezie, 2019].Prior to SAP of 1986 ,the fixed exchange rate regime has a pre-set path for the exchange rate, one dollar [$] exchanged for 77kobo.

The variability of naira value started since 1986, a situation caused by the SAP [Structural Adjustment Programme] and has been an issue of discourse in Nigeria.Fundamental objective of any country is to have stable exchange rate with her trading partnersin order to stimulate her export products;however, this was not realize after Nigeria haveembarked on exchange rate devaluation to promote exports and stabilize the exchange rate(Akinniran and Olatunji,2018). The failure of not realizing this goal; subjected the products of non-oil producing sector (manufacturing sector)to constant price fluctuationor volatility as the sector depend largely on imported raw materials and machinery for her production for export.

The SAP or deregulation of the foreign exchange markethardly been successful for lack of appropriate infrastructure; high dependence on imported raw materials, dearth of skilled labour and inappropriate regulatory frame works and high-risk environment. (Jerven,2013 cited in Ochie, Areghan and Tochukwu, 2016).

The monetary policies put in place by the monetary authority in ensuring stable exchange rates to savage the economy achieve only minimal success as the problem of exchange rates volatility persist as Nigerian economy is under industrialized and capacity utilization is also low as the textile industries sector dependent on imported non-labour inputs(Lawal, 2016), also supported by Akinlo (2018).

The sector contributes less than 1% of foreign exchange earnings and utilizing about 64% of foreign exchange earned. The textile industries have been greatly affected by exchange rate volatility leading to the death of many of the companies. The agricultural sector that produces the raw cotton for the textile industries and contributed up to 64% to the aggregated Gross domestic product (GDP) was abandoned(Olubukoye,Lawal and Iseolorunkanmi, 2018).

The Nigerian textile industry was the second leading employer of labour after the public sector.(Manyong,Ikpi,Olayemi,Yusuf,Omonona,Okaruwa and Idachaba ,2005). However, with the deregulation in the exchange rates and inadequate supply of energy lead to the closure of most of the textile industries in Nigeria, some of which include: Asuwani, AFRprint, Enpee, Daatex, 7-Stars, Aiyepe, western textile and others.The first modern textile industry in Nigeria, the Kaduna textile mill, commenced production in the year 1956 and by 80s the Nigerian textile industry had grown to become the third largest in Africa [United Nations, 2017]. As at 1987, there were 37 textile firms in Nigeria, operating 716000 spindles and 17541 looms,and between, 1985 and 1991, it recorded an annual growth of 67% and by 1991, it employed up to 25% of the workers in the manufacturing sector [United Nations, 2017]. The dearth of textile industries in particular cause serious public debate because of the crucial role it played in stemming the tide of unemployment between late 1950s and early 1990s as the rate of unemployment in Nigeria is enhancing daily.

1.2 Research Problem

In developed or developing countries, the indices in judging growth is mostly based on the production power of those country industries, Nigeria most flourishing textile industries wereallowed to go close to total extinction. If government is not oblivious to the benefits involved in this sector,she would not abandon such veritable sector.

The manufacturing industries [textile industries] faced the problem of exchange rate variability which negatively affected their total outputs as they dependlargely on importation of non-labour inputs,[Yarn and Cotton] and capital goods for their productions. The situation became compounded for textile industries when the agricultural sector was abandoned after the discovery of crude oil as shops were closed and employees' layoff. The government intervention in the sector came late anddidn'treduce the vulnerability of the sector.Therefore, to what extent has exchange rate volatility affectsthe textile industry?Can there be any relationship between exchange rate volatility and textile industry output in Nigeria?

The objective is to examine the effect of exchange rate volatility on textile industries in Nigeria

The study helps the government to ascertain the level to which foreign exchange rate volatility affect the quality and cost of inputs of textile industries,and toinitiate policies that will revivemoribund textile industries in Nigeria and survive.

It gives textile industries foresight and strategy of macro hedging of avoiding exchange rate variability.

The research covered the period 1981-2019 and concentrates on the surviving textile manufacturing industries operating in Nigeria.

II. Literature Review

. Conceptual Framework

i. Fixed Exchange Rates System

It can be explained as whereby the government intervene in the market and officially determined the exchange rate of acurrency vis-à-vis other currencies Immediately the exchange rate is determinedby the government concerned, all foreign exchange transactions are conducted at that rate ofexchange. In Oyinbo 2014 cited in Ojomolade 2019) such exchange rate will remain in force untileconomic conditions necessitate government's adjustment.

ii. Free/Floating/Flexible Exchange Rate Policy: This is an arrangement where the market forces of supply and demand allow determining theexchange rate to the domestic currency (Adediran, 2014 and Nwosu, 2016 cited in Ojomolade,Adejuwo and Akinjide 2021). The market rate of exchange under a floatingexchange rate system serve as the equilibrating price for ensuring that demanddoes not exceed supply of foreign exchange.Apparently, floating rate tends to be more volatile since it is determined by market forces of demand and supply, stimulate speculative movements or "hot money" out of the country.

iii. Spot Rates

Spot rates are rates at which commodities or currencies can be sold or bought immediately but delivery can take place at later date. (Olaleye,2020).

2.2.6 Nigeria's Exchange Rate Regimes

Nigeria has operated various forms of exchange systems ranging fromfixed rate in 1959 to 1967, the Nigerian pound was fixed at par with the British pounds sterling. 1971-74, dollar peg, import-weighted basket approach 1978, dollar as currency intervention1983 and in 1985, Nigeria agreed to dollar as sole currency intervention system ($/N), determinedby CBN (Olaleye 2019).

Structural adjustment programme (SAP) was introduced in 2986 to stem the tide of exchange rate variability late followed with various modifications; in 1986 Second-tier Foreign Exchange Market (SFEM), FEM and Dutch auction system emerged in July 1987, AFEMin 1988 to facilitate non-oil inflows into the Deposit Money Banks while inter-bank foreign exchange market (IFEM) in January 1989 and IFEM was modified in December 1990,(Nnamocha,2017, Ojomolade,2019)

2. Theoretical Framework

The study is underpinnedby the theories of PPP, Monetary theory and Balance of payments.

2.1 Purchasing Power Parity Theory

The theory was propounded by Wheatlay in 1802, while Gustav Cassel gave its systematic usage in the year 1918. Purchasing power parity theory determines equality between two countries currency when there is inflation. It examines the inflation rate differential between affected countries economy. The exchange rates differential reflects the variation arising from the purchasing powers of the relative currency to the basic exchange rates.

This theory is established on the principle that the various currencies have purchasing power in their respective countries, therefore, when the domestic or home currency is exchanged for the foreign currency, what is actually being exchanged is the domestic purchasing power for the foreign purchasing power. Therefore, the most important and relevant factor that determines the exchange rate is the relative purchasing power of the two currencies.

The criticisms of purchasing power parity theory is that is based on the purchasing power of the currency units of the two countries and the purchasing power of the currencies is being measured the by price index.

2.3.3 Balance of Payments or Modern Theory

This theory is the modern and most acceptable theory for the determination of exchange rate, and it is also known as the demand and supply theory of exchange rate. The exchange rate in the foreign exchange market is determined by the balance of payments due to demand and supply of foreign exchange in the market. Balance of paymentsare being used in the view of a market balances, therefore, if the demand for the currency of a country falls at a given rate of exchange, then there will be a balance of payments deficit. Also, if the demand for the currency of a country rises, at a given rate of exchange, then there will be a balance of payments surplus. A surplus therefore leads to an increase in the external value of the country's currency.

There is a close relationship between balance of payments and demand and supply of foreign exchange. Balance of payments is a systematic record of all the transactions and flows of money in and out of a country including payments of goods and services and capital flows. Any surplus or deficit in the balance of payments leads to changes in the demand for and supply of foreign exchange therefore leading to fluctuation in the rate of exchange.

Superiority of the Balance of Payments or Modern Theory

The superiority of the balance of payment theory over other theories mentioned initially is that, the balance of payments theory is more realistic as the price of foreign currency is a function of many significant variables and not merely purchasing power expressed in general price. Also, the theory shows the possibility of correcting balance of payments disequilibrium through exchange rate adjustment instead of domestic price deflation suggested by the purchasing power parity. In addition, the balance of payments theory approach to the determination exchange rate is that it explains the determination of foreign exchange rate through general demand and supply analysis, and lastly, through this theory we are able to understand that, not only imports and exports of goods but also other items in the balance of payments such as; long-term capital movements, invisible items also play an important part in determining demand and supply of foreign exchange and the equilibrium rate of exchange.

2.3 Empirical Review

Aidi Hakeem, Abbas, and Suleiman [2018] studied the effect of the exchange rate volatility on the performance of Nigerian industrial sector for 36 years,(1980 to 2016.)Quarterly time series data spanning from

1980q1 to 2016q4. OLS multiple regression technique used while exchange rate volatility was generated using Exponential Generalized Autoregressive Conditional Heteroskedasticity (EGARCH). The result showed that exchange rate volatility is inversely related to industrial sector performance (as they used industrial sector contribution to GDP as a substitution] in Nigeria. It was observed that trade openness had a negative sign, not insignificant while exchange rate and interest were positive, significant and drivers of industrial sector performance in Nigeria.

Akinmulegun and Olajide [2018] studied the effect of exchange rate fluctuation on industrial output growth in Nigeria for 29,that is year 1986 to 2015. The time series data was used while the Johansen's Co-integration model was used to determine the long-run relationship among the variables used. The Vector Error Correction model [VECM] was used to evaluate the short and long-run dynamic among the variables also the Granger Causality used to measure coexistent relationship among the endogenous variables.The dynamic correlation of the variables was captured using impulse response and variance decomposition. The results showed unidirectional causality from exchange rate to industrial output, and the response of industrial output to the impact from exchange rate was positive and significant while response to impact from other variables was not as significant as that of exchange rate.

Tams-Alasia , Olokoyo , Okoye and Ejemeyovwi [2018] studied the Impact of Exchange Rate Deregulation on Manufacturing Sector Performance in Nigeria for the period of 30years i.e. from 1986 to the year 2016. Normalized Co-integration Technique used to test for long-run relationship between exchange rate and manufacturing output while the granger causality test was used to ascertain the direction of causality between the two.TheError Correction Mechanism [ECM] was used to calculate the speed of adjustment of the model to short-run disequilibrium condition. The result of this study showed that exchange rate has non-significant positive long-run effect on manufacturing industry output. However, the unidirectional casual impact of exchange rate on manufacturing output was established using the Pairwise Granger Causality test.

Ndubuaku , Onwuka, Onyedika and Chinoye [2019] studied the impact of exchange rate fluctuation on selected economic sectors of the Nigerian economy, for 35years (1981-2016).The study covered the Agricultural sector [AGDP], Manufacturing sector [MGDP], Petroleum Sector [PGDP], and the Service Sector [SGDP] of the Nigerian economy. The petroleum sector was used as a proxy for the oil sector whiles the agricultural sector, manufacturing sector, and service sector was used as a representative of the non-oil sector. Autoregressive Distributed Lag [ARDL] was used to analyze data collected; result there was no significant impact of exchange rate on non-oil sectors. However, the exchange rate had a positive and significant impact on the petroleum sector i.e. the oil sector. The study therefore recommended that Nigeria's economy should be diversified to enable the non-oil sector become more significant foreign exchange earners.

III. Methodology

Population for the study is the twelve textile industries existing in the country;owned by both local and foreign investors in Nigeria. The justification for selecting twelve is based on their existing knowing full well that other are no longer in existence. Secondary data were collected from National Bureau of Statistics,Central Bank of Nigeria Statistical Bulletin and Annual Report of Nigeria Export Promotion Council from 1981to 2019. The data were analysed using (VAR) Vector Autoregressive model.The vector autoregressive (VAR) model is used because it looks at how the lags of the exchange rate affect the average textile capacityand the long run relationship between exchange rate volatility and textile industries in Nigeria. Unit roots employed to test for non-stationarity among variables while variance decomposition and impulse response function is applied to examine the effect of exchange rate volatility shock on the textile industry.

Model Specification The model specification is:

ATC=f(FX,BLR,FXVOL,GDP,INF) (3.1)

Where ATC is Average Textile Capacity, FX is foreign exchange rate, FXVO foreign exchange volume, BLR represents Bank lending rate, GDP is gross domestic product and INF is inflation rate. Equation (3.1) is rearranged in a linear equation form as:

$ATCt=\alpha_0 +\beta_1 FXt +\beta_2 BLT_t + \beta_3 FXVOL_t +\beta_4 GDPt +\beta_5 INFt +\beta_6 ATCt\text{-}1 +e1$ (3.2)

4.Data Analysis and Discussion of Findings

The results of data analysis given thus:

Table 1 Descriptive statistics

	Mean	Median	Std Dev	Minimum	Skewness	Kurtosis	Jarque-Bera	Prob	Obs
ATC	50.13744	51.99	12.4163	20.2	-0.219696	3.428815	0.612539	0.736188	39
BLR	18.60077	17.98	4.030	7.75	0.294239	4.645513	4.962785	0.083627	39

FX	95.31487	101.7	95.81	0.62	0.930668	3.239994	5.723528	0.057168	39
FXVO	18.42185	9.64	24.10	-5.77	1.814324	5.64972	32.80566	0.000000	39
GDP	26.9712	6.89	33.948	144.83	0.936354	2.231626	6.658326	0.035823	39
INF	19.17051	12.88	17.05	5.38	1.782996	4.998518	27.15435	0.000001	39

Source: Author`s computation (2021)

The average textile capacity value stood out at 50.1%, with minimum value of 20.2. In addition, the average mean of the bank lending rate, foreign exchange rate, forex volume, gross domestic product and inflation rate stood at 18.6%, 95.3%, 18.42%, 26.9% and 19.1% respectively, although, the average mean value for bank lending rate, forex volume, gross domestic product and inflation rate is greater than the median value, but median value of average textile capacity and foreign exchange is greater than their mean values. The standard deviation values for all variables are above 1.0 indicating that the model is good fit. The probability value of the Jarque-Bera statistic for all variables shows that their distribution levels are at mean zero but less than one. In the same vein, the result of the skewness and kurtosis indicate that all the variables have skewness and kurtosis obtainable from a normal curve, except for average textile capacity. According to Park (2008), a normal distribution should have skewness of zero very close to zero. Given the result above all the result obtained is zero which indicates a more positive and negative observation because it is far above the 0.0 normal level of skewness for distributions

Unit Roots Test for non-Stationrity

Table .2 ADF Stationarity Test

Variables	Level			
	ADF Static	1%	5%	Level of Integration
ATC	-2.9557**	-3.6210	-2.9434	I(0)
BLR	-4.5840***	-3.6155	-2.9411	I (0)
FX	-2.9616**	-3.6155	-2.9411	I(0)
FXVO	-4.1458**	-3.6267	-2.9458	I(0)
GDP	-3.4063**	-3.6616	-2.9604	I(0)
INF	-2.9554**	-3.6155	-2.9411	I(0)

The Augment Dickey Fuller test indicated all variables stationary at level and zero

Johansen Co-integration Test for Long Run Relationship

Table 3Unrestricted Co-integration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.8016	150.6295	95.7536	0.0000
At most 1 *	0.6499	90.7747	69.8188	0.0005
At most 2 *	0.4893	51.9343	47.8561	0.0197
At most 3	0.3951	27.0681	29.7970	0.1000
At most 4	0.1386	8.4676	15.4947	0.4168
At most 5	0.0765	2.9472	3.8414	0.0860

The unrestricted co-integration rank test confirms existence of long-run equilibrium relationship among variables.

Table 4. Vector AutoregressionAnalysis

Dependent Variable: Average Textile Capacity

	ATC	**BLR**	**FX**	**FXVO**	**GDP**	**INF**
ATC (-1)	0.181618	-0.048084	-0.244545	-0.002637	21.71782	-0.126057
	(0.19634)	(0.06630)	(0.31778)	(0.32759)	(68.9368)	(0.24488)
	[0.92500]	[-0.72526]	[-0.76955]	[-0.00805]	[0.31504]	[-0.51476]
ATC (-2)	0.345635	-0.013401	-0.252349	-0.038636	36.96215	0.300594
	(0.18657)	(0.06300)	(0.30197)	(0.31129)	(65.5070)	(0.23270)
	[1.85253]	[-0.21272]	[-0.83569]	[-0.12411]	[0.56425]	[1.29176]
BLR (-1)	-0.463125	0.092353	-0.561117	-1.194036	-43.43762	0.468794
	(0.59657)	(0.20144)	(0.96554)	(0.99535)	(209.459)	(0.74406)
	[-0.77631]	[0.45846]	[-0.58115]	[-1.19961]	[-0.20738]	[0.63005]
BLR (-2)	0.472429	-0.091137	0.383526	3.799752	74.13475	-0.680381
	(0.52968)	(0.17886)	(0.85727)	(0.88375)	(185.973)	(0.66063)
	[0.89191]	[-0.50956]	[0.44738]	[4.29959]	[0.39863]	[-1.02989]
FX (-1)	-0.162152	-0.028504	0.708508	-0.457640	29.11833	-0.136433
	(0.14487)	(0.04892)	(0.23446)	(0.24170)	(50.8635)	(0.18068)
	[-1.11931]	[-0.58269]	[3.02183]	[-1.89339]	[0.57248]	[-0.75510]

FX (-2)	0.222644	0.015915	0.185716	0.205835	-5.183368	0.157913
	(0.15452)	(0.05218)	(0.25009)	(0.25782)	(54.2540)	(0.19273)
	[1.44084]	[0.30502]	[0.74259]	[0.79838]	[-0.09554]	[0.81936]
FXVO (-1)	0.104335	-0.004233	0.003862	-0.003158	-21.56970	0.118249
	(0.09330)	(0.03150)	(0.15100)	(0.15566)	(32.7564)	(0.11636)
	[1.11833]	[-0.13438]	[0.02558]	[-0.02029]	[-0.65849]	[1.01623]
FXVO (-2)	-0.020726	-0.003808	-0.030700	-0.116299	-11.64439	0.252484
	(0.08405)	(0.02838)	(0.13603)	(0.14023)	(29.5102)	(0.10483)
	[-0.24660]	[-0.13419]	[-0.22568]	[-0.82933]	[-0.39459]	[2.40853]
GDP (-1)	-0.000242	-0.000187	-0.002218	-0.002008	1.441903	-0.000370
	(0.00060)	(0.00020)	(0.00097)	(0.00100)	(0.21048)	(0.00075)
	[-0.40315]	[-0.92433]	[-2.28641]	[-2.00756]	[6.85045]	[-0.49449]
GDP (-2)	0.000257	0.000184	0.002887	0.002478	-0.509473	0.000340
	(0.00063)	(0.00021)	(0.00102)	(0.00105)	(0.22133)	(0.00079)
	[0.40738]	[0.86224]	[2.82943]	[2.35586]	[-2.30189]	[0.43193]
INF (-1)	0.060596	-0.005518	-0.092050	-0.123129	5.578728	0.721579
	(0.14015)	(0.04732)	(0.22682)	(0.23383)	(49.2057)	(0.17479)
	[0.43238]	[-0.11661]	[-0.40583]	[-0.52659]	[0.11338]	[4.12817]
INF (-2)	-0.013938	0.005806	-0.149335	-0.140668	-18.73065	-0.399286
	(0.13541)	(0.04572)	(0.21916)	(0.22592)	(47.5429)	(0.16889)
	[-0.10293]	[0.12697]	[-0.68141]	[-0.62263]	[-0.39397]	[-2.36422]
C	16.59724	24.06595	43.45658	-1.887069	-1889.289	2.324452
	(22.6356)	(7.64332)	(36.6350)	(37.7663)	(7947.44)	(28.2317)
	[0.73324]	[3.14863]	[1.18620]	[-0.04997]	[-0.23772]	[0.08233]
R-squared	0.624018	0.293004	0.979330	0.669722	0.992408	0.628904
Adj. R-squared	0.536027	0.060494	0.968994	0.504582	0.988611	0.443356

Source: Author's computation 2021

Table 5The Probability Value of Vector Autoregressive (VAR) Analysis

ependent Variable: ATC **Method: Least Squares (Gauss-Newton / Marquardt steps)**				
	Coefficient	Std. Error	t-Statistic	Prob.
C(1)	0.1816	0.1963	0.9249	0.0042
C(2)	0.3456	0.1865	1.8525	0.0363
C(3)	-0.4631	0.5965	-0.7763	0.0452
C(4)	0.4724	0.5296	0.8919	0.0113
C(5)	-0.1621	0.1448	-1.1193	0.0141
C(6)	0.2226	0.1545	1.4408	0.0226
C(7)	0.1043	0.0932	1.1183	0.0145
C(8)	-0.0207	0.0840	-0.2465	0.0073
C(9)	-0.0002	0.0005	-0.4031	0.6904
C(10)	0.0002	0.0006	0.4073	0.6873
C(11)	0.0605	0.1401	0.4323	0.6693
C(12)	-0.0139	0.1354	-0.1029	0.9189
C(13)	16.5972	22.635	0.7332	0.4705
R-squared	0.724018		Durbin-Watson stat	2.122178
Adjusted R-squared	0.636027			

Source: Author's Computation 2021

The vector error correction (VAR) model implies that foreign exchange (FX) and foreign exchange volume (FXVO) has a negative and significant impact on average textile capacity in the first period but in the second period foreign exchange (FX) has positive and significant influence on average textile capacity. Foreign exchange appreciation in the second period with average textile capacity of 22.2% while in the first period 16.2%.

The R-square is72.4% while the adjusted R-squared is 63.6% of the variation in the dependent variable, Durbin-Wats is 2.12 revealed no presence of autocorrelation in the model. Conclusively exchange rate and volume has positive and significant impact on average textile capacity in first and second period in Nigeria.

Table 6. Variance Decomposition of Average Textile Capacity

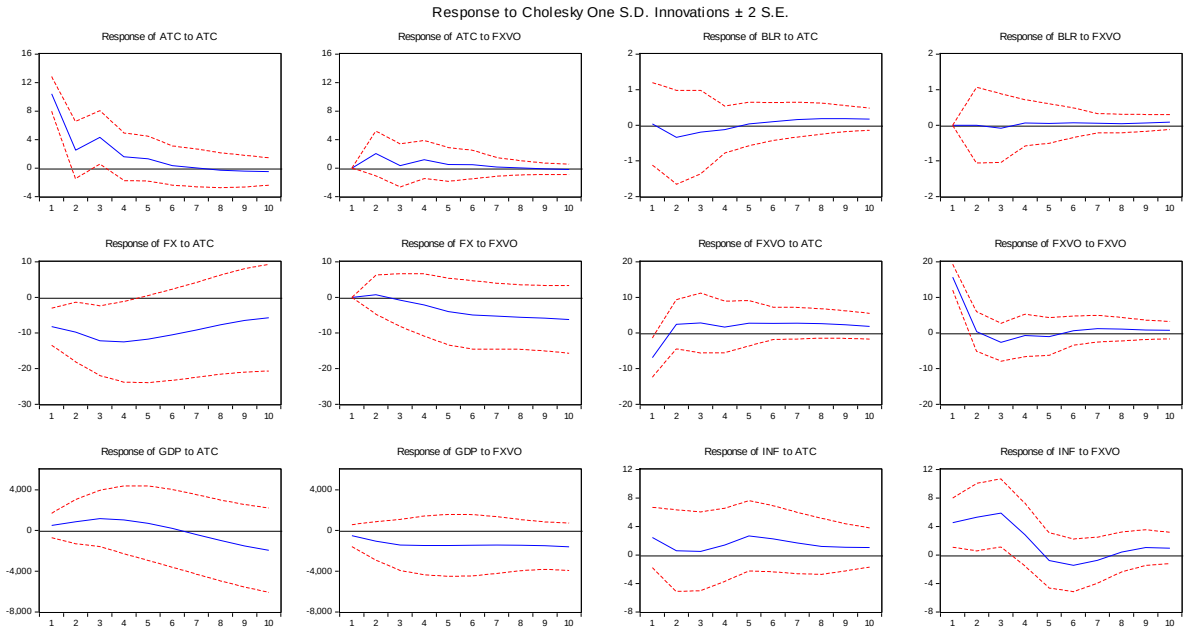
Period	S.E.	ATC	BLR	FX	FXVO	GDP	INF
1	10.41616	100.0000	0.000000	0.000000	0.000000	0.000000	0.000000
2	11.19714	91.59468	1.461967	2.761807	3.294312	0.597770	0.289461
3	12.04467	91.88873	1.819400	2.437719	2.927685	0.543937	0.382525

4	12.26837	90.22003	2.175804	2.349864	3.732791	1.063838	0.457675
5	12.40516	89.34890	2.273794	2.632530	3.816313	1.480741	0.447724
6	12.47447	88.42556	2.422547	2.910015	3.920220	1.873087	0.448569
7	12.51355	87.87443	2.491641	3.216060	3.909351	2.052315	0.456204
8	12.53686	87.61311	2.533743	3.421082	3.894887	2.076377	0.460801
9	12.55506	87.48525	2.529583	3.554504	3.891462	2.075503	0.463698
10	12.57772	87.32911	2.522413	3.626490	3.901473	2.153571	0.466944

Source: Author's computation 2021

From table 6above, the variance decomposition of Average Textile Capacity overs a 10 period ahead is reported and the 100% shocks of average textile capacity variance is explained. It was observed that as time passes by, from first period, its contributions are fairly reducing till it reaches 87.3% in the last quarter. However, it has the highest contribution over the forecasted period compared to the other variables. This brings attention to the conclusion that over the years, average textile capacity was greatly explained by its own shocks.

Following average textile capacity itself, the 2nd up to the 9th period demonstrate the relative importance of foreign exchange volatility in explaining the variation of average textile capacity. As captured for the second year, forex volume accounts for 3.2% in the variation of average textile capacity, while bank lending accounts for 1.4% shock as well as foreign exchange volatility accounts for 2.76% shock respectively. In lieu of the above, the conclusion drawn reveals that excluding average textile capacity itself, in 2 years forward, variations in average textile capacity is more influenced by forex volume, foreign exchange volatility, and bank lend rate, in the 10th year, average textile capacity is more influenced by forex volume, foreign exchange, bank lending rate and gross domestic product.



The impulse response function (IRF) traces out how the changes in one variable impact on current and future values of the endogenous variables in the model. For instance, if the system of equations is stable, any shock should decline to zero. This means that short-run values of the variable in question converge to the long-run equilibrium values. This means that foreign exchange volatility in the both the short-run and long-run has negative but significant impact on the textile industries in Nigeria, indicating that foreign exchange is not on point zero but has declined below the zero point which means that exchange rate depreciation has negative impact on the textile industries.

IV. Conclusion and Recommendation

The study examined the effect of foreign exchange rate volatility on manufacturing industries in Nigeria, by focusing on the textile industries from 1981 to 2019. Vector autoregressive (VAR) model was used to analyse the data collected and revealed long-run relationship among variables. Foreign exchange rate has negative and significant impact on average textile capacity and made textileproduct not to be competitive in the global market. Foreign exchange rate is a key driving force, determining the direction and performance of the textile industries in Nigeria.

Government should espouse policies that will enhance the textile industries against the adverse effects of exchange rate volatility in the countryand encourage patronization of local fabrics. The macroeconomic variables militating against the functioning of textile industry should be tackled by the governmentthrough fiscal and monetary policies.

References

[1]. Aahana S. (2020)Theories of Exchange Rate Determination, https://www.economicsdiscussion,net, Accessed May 15th 2020
[2]. Aidi, H.O., Saidu, I.A. & Suleiman, H. I. [2018]. Exchange Rate Fluctuation and the IndustrialSector Performance. Saudi journal of economics and finance [SJEF] volume 2, issue 5.
[3]. Akinlo O. (2010).Assessing the Impact of Nigeria's Naira Depreciation on Output and Inflation, Journal of Applied Economics, Vol,35.no 6.
[4]. Alabi, R. O .Foreign Exchange Market and the Nigerian Economy. Journal of Economics and Sustainable Development 2015 Vol.6, No.4.
[5]. Akinmulegun, S. O, &Olajide,F. E. [2018]. Exchange Rate Fluctuation and Industrial OutputGrowth in Nigeria. International journal of economics and financial Research, volume 4, issue 5,
[6]. Lawal, E.O. (2016)Effect of exchange rate fluctuations on manufacturing sector output in Nigeria, Quest Journals: Journal of Research in Business and Management, VOL, 4(10)
[7]. Lawrence, O. O., Udechukwu, Oj., James, U.M., & Ehiobuche,C [2017]. The Impact of ExchangeRate Depreciation on Small and Medium Scale Enterprises Performanceand Development in Nigeria, African journal of business and economic research [AJBER] volume 12, issue 1,
[8]. Ndubuaku, V.C., Onwuka, K., Onyedika, C. & Chimezie, I.C. [2019]. Impact of Exchange RateFluctuation on Selected Economic Sectors of the Nigerian Economy. International Journal ofsustainable development and world policy, volume 8, issue 1,
[9]. Nnamocha, P.N. Benneth, K. Obioma,.A. A. Igwemma &Isaiah A. N.(2 017) Foreign Exchange and Industrial Sector Growth in Nigeria (1981-2015). Journal of Economics and Sustainable Development. Vol.8, No.24
[10]. Manyong,V.M.A, Ikpi, A. Olayemi, J.K. Yusuf, S. A, Omonona, B .T, Okaruwa, V & Idachaba,F.S,(2005) Agriculture in Nigeria: Identifying Opportunities for Increased Commercialisation and Investment. IITA, Ibadan, Nigeria
[11]. Muhammad, E & Tansneem Z. (2014). The Impact of Exchange Rate Volatility on Demand for Pakistian'sLeather Goods Export to China. ACRN Journal of Finance and Risk Perspectives. Vol. 3, Iss.2
[12]. Ochie,A.I.Areghan,A.I &Tochukwu,C.O (2016) Deregulation of Foreign Exchange Market and Its Effect on Industrial Produce in Nigeria. Global Media Journal. Vol1:7
[13]. Odili, O.(2015) Effects of Exchange Rates Trends and Volatility on Imports in Nigeria: Implications for Macroeconomic Policy. International Journal of Economics, Commerce and Management United Kingdom. Vol, .3(7)
[14]. Odusola,A.F. & Akinlo,A.E. Output,(2014)Inflation and Exchange Rate in Developing Countries. An Application to Nigeria. The Development Economics. 2014 Xxxix
[15]. Ojeyinka, T.A. [2019]. Exchange Rate Fluctuation and the Performance of Manufacturing Sector in Nigeria. African journal of Economics Review, Volume 7, issue 2, 2019.
[16]. Olaleye,J & Ojomolade,D.J. (2020) Effect of Environmental Factors and the Manufacturing-Sector Shareholders' Wealth in Nigeria. International Journal of Trend in Scientific Research and Development, Vol 4 issue 2
[17]. Olubukoye, O.O,Lawal,U.I& Iseolorunkanmi,O.J. (2018) Does Exchange Rate Volatility Affect Agricultural Output? Evidence from Nigeria. Binus Business Review. 9:2
[18]. Ojomolade,D.J, Adejuwon J.A & Akinjide, A. 2021. Determinants of Foreign Exchange Rate Volatility and Non-oil Export in Nigeria. International Journal of Scientific Research Publications, Vol.11 Iss.3
[19]. Olaleye,J & Ojomolade,D.J (2019) Effect of Foreign Exchange Rate Volatility on Industrial Productivity in Nigeria. International Journal of Trend in Scientific Research and Development, Vol3 (3)
[20]. Tams-Alasia O., Olokoyo Felicia O., Okoye, L.U.& Ejemeyovwi, J. O. [2018]. Impact of Exchange Rate Deregulation on Manufacturing Sector Performance in Nigeria, International journal of environment, agriculture and biotechnology [IJEAB] volume 3, issue 3, .
[21]. United Nation 2017 Report on Textile Industries in Nigeria

1Ojomolade, Dele Jacob PhD, et. al. "Effect of Foreign Exchange Rate Variability on Manufacturing Industries: Evidence from Nigeria Textile Industries(1981-2019)." *IOSR Journal of Business and Management (IOSR-JBM)*, 23(09), 2021, pp. 45-52.