Multinationality and Financial Performance: The Place of Multinational Manufacturing Companies in Nigeria

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Abstract Financial performance which results from the right combination of the sustainable conducive business environment, optimal utilisation of corporate human and capital resources and multinationality of operations by a competent management team, could be restricted due to challenges such as infrastructural deficits and inconsequential regulations. The business landscape in Nigeria is characterised by complexities related macroeconomic uncertainties and vulnerabilities predominant in the Nigerian economy. Multinational manufacturing companies are subjected to challenges which hinder financial performance such as unnecessary harsh conditions. Hence, the effect of multinationality on the financial performance of multinational manufacturing companies operating in Nigeria was examined in this study. An *expo-facto* research design was adopted as methodology for the study. A population of 22 Nigerian multinational manufacturing companies was selected. Eighteen companies, representing 80% of the population were purposively selected and observed for a period of 20 years. Secondary data were extracted from the audited financial statements of the selected manufacturing companies during the period under consideration. The data were analysed using descriptive statistics and inferential panel analysis. Findings revealed that multinationality exhibits a positive significant effect on the financial performance of multinational manufacturing companies in Nigeria. It is recommended that policymakers create enabling legal and regulatory framework that will ease

business operations. Also, infrastructural investment should be provided to reduce the cost of running a business in Nigeria.

Keywords Competent Management, Financial Performance, Multinationality, Optimal Resource Management

JEL: M12; L25; L29

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1. Introduction

The challenges militating against good financial performance of multinational manufacturing companies and the assessment of corporate strategies have witnessed fundamental changes in literature far beyond book values [1]. A consideration of comprehensive integration and inadequate overlap among financial performance drivers, and the declining comparative competitive advantage in the industry where the multinational manufacturing companies operate are significantly unsettling [2]. Undoubtedly, the determinants of financial performance among corporate organisations have fundamental defaults and complexities, as multidimensional stock price and the purchase price of the stock of multinational corporations can be influenced by endogenous and exogenous factors [3]. Some financial performance reports of the

multinational companies in Nigeria are usually exaggerated. Some of them are mere perceptions and management's white-coated branding that lacks significant basis. [4]. Bollazzi and Risalvato [5] observed that investors have been overly misled with the stock price brandished at some non-transparent capital markets, thinking that some of the announced and reported market prices are products of procedural competence. Apparently, the management of multinationals despite their expertise, have no control over exogenous factors that have undermined some genuine efforts, however, these have a significant impact on the financial performance of the multinational manufacturing companies in Nigeria; making financial performance more complicated and problematic. Stringent operating conditions also abound in a harsh business environment in the midst of regulatory lapses and inefficiencies [6].

Abiahu, Udeh and Ogbekhilu [7] reveal that financial performance in Nigeria is shrouded with lots of uncertainties as high stock prices tagged on some corporate organisations are far from the actualities of the underlying economic realities of these highly-rated manufacturing companies' financial performance. Adegboyegun et al., [8] observe that there are systemic issues and inconsequential economic policies, lack of adequate information disclosure and insider-dealings within the capital market suggesting deprived insufficient transparent activities and lack of openness thereby making market share prices questionable as regards the corporate organisations' authenticity in terms of financial performance. Over the years, a comparison of the financial performance of multinational manufacturing companies in Nigeria and that of their counterparts in the advanced economies reveal a wide disparity in terms of quality of products and services, product acceptance and legitimacy [9].

There is also a disconnection between the Nigerian capital market dynamism, stock prices and the economic realities of the companies that have benefited from fluctuating market share prices in the Nigerian emerging economy [10, 9]. The case of multinationality has not received adequate consideration in the developing economies; and specifically in Nigeria. It appears there is dearth of literature in the Nigerian domain where nationalism or the possible impact of exchange rate exposure on the financial performance of multinational manufacturing companies operating in Nigeria has specifically been studied. This study in a paradigm shift in this aspect of literature.

Evidently, the place of multinational manufacturing companies operating in Nigeria is a combination of belligerent competitiveness and unparalleled harsh business operating environment, insecure economic and political landscapes and unstable exchange creating uncertainties [8]. The multinational companies operating in Nigeria undoubtedly are critically exposed to high vulnerabilities acquired over years of systemic failures, unmitigated variability of exchange rates, perennial

double-digit inflation rate effects, kidnapping and insecurity menace, insurgencies, the multiplicity of taxes and dreadful infrastructural deficit, epileptic power supply, absence of water and deplorable accesses roads [11]. Abnormalities have become the norm in Nigeria: companies have to provide their own power generating system, create their own water and yet operate under a highly volatile environment where the poverty level is very high. Financial performance in this circumstance is measured from the perspective of the competitive advantage of the multinational manufacturing companies and the ability of these companies to command adequate dominance both in the domestic scene and among their peers outside the shores of Nigeria. Ability to exercise substantial control of market share in the industries from the market perspective is important.

It is, therefore, the reflection of market expectation about the future profitability contrary to returns on assets or gross margin, which is related to the current profitability of corporate organisations [12, 13]. In this regard, when there are inadequate financial structures and activities that affect productivity, the financial performance will be affected and this will in turn, affect the financial performance of organisations. According to Chakroun et al., [14] a lack of competitive market share in the given industry can affect corporate corporations and their financial performance. Studies have shown that financial performance among the domestic manufacturing companies is affected by market imperfection, tax competition among countries, political instability, market withdrawals and local lobbying for relevance and acceptance in the host communities where they operate.

The problem of financial performance can be alleviated if the manufacturing companies operating in Nigeria can consider competitive advantage beyond its domestic market, taking its products beyond its shores for greener opportunities. These challenges can be resolved when these domestic companies can migrate to multinationality and provide adequate and effective mitigation of exchange rate exposures that grant greater heights, expansion of operations and greater business opportunities. Consequently, the effect of multinationality and exchange rate exposure on the financial performance of multinational manufacturing companies listed on the Nigerian Stock Exchange was investigated in this study. Chung et al., [15] had documented that financial performance had been affected by some factors of international corporate structure, host country complex tax laws, legal and regulatory framework and guidelines, inadequate skills in international accountings and possible cost associated with calculation and global product and services pricing strategy [16]. Exchange rate exposures of translation exposure, transactional exposure and economic exposure inherent in multinationality cannot be underrated, rather must they must be identified and appropriately mitigated to ensure the sustainability of corporate organisational performance, culminating in strong sustainable financial performance.

There is no adequate literature in Nigeria considering the vulnerabilities and hostilities under which multinational companies in Nigeria operate. Thus, the influence of multinationality on the financial performance of manufacturing firms in Nigeria was investigated in this study. The level of effect of multinationality on the financial performance of multinational manufacturing companies in Nigeria was also explored in this study. Therefore, this study is justified, considering the dearth of empirical literature in which multinationality has been studied with a view to unravelling the problem of multinational manufacturing companies in Nigeria.

Subsequently, previous studies have found a connection between multinationality and financial performance [17, 18]. The prospects of adopting multinationality in improving the financial performance of multinational manufacturing companies had been documented in the literature [19, 20, 21, 22]. In most of the literature and prior research in some advanced economies, inconsistencies and divergent results have been documented, while some studies by Chen et al. and Bastic et al., [23,4] have revealed that multinationality had a positive effect on corporate performance, positing that corporate multinationality, internationalisation and offshore operational expansion base of multinational companies, have the potency to enhance and improve Financial performance, others have found and reported contradictory results [24, 25].

Research Objective: Examine the effect of multinationality on the Tobin's Q of multinational manufacturing companies operating in Nigeria.

Research Question: How does multinationality affect Tobin's Q of multinational manufacturing companies in Nigeria?

Research Hypothesis: Multinationality has no significant effect on Tobin's Q of multinational manufacturing companies operating in Nigeria.

The remainder of the study is considered in this manner: The review of extant literature is presented in section 2. In section 3 methodology is considered, the data analysis, results and discussion of findings are presented in section 4, while the conclusion and recommendations are presented in section 5 of the study.

2. Review of Related Literature

2.1. Conceptual Review

Financial Performance (Tobin's Q): In this study, financial performance is surrogated with Tobin's Q. Tobin's Q has been one of the regular measures of corporate financial performance in literature [26]. Sangno et al., [27] defined Tobin's Q as a financial performance measure of market valuation premiums, and a ratio of market value to the replacement value of the corporate assets [28]. Tobin's Q can be estimated and interpreted as the value of market expectation of the underlying

economic return that could be generated from the corporate-owned productive assets and in addition, Tobin's Q can be employed as a measure of the multinational company's long-term valuation of the company [29]. Multinational manufacturing companies have the capability to effectively exploit better sources of competitive advantage not accessible and available to domestic manufacturing companies. Some of these are potential possibilities for multinationality as most domestic manufacturing companies may not have such opportunities in favorable completion in the market share [30]. Moreover, the more international diversifications increase for the multinationals, the more they have increased potentials and dominance of the market presence that will help their market performance.

Multinationality: Multinationality ably provides evidence that heterogeneous managerial skills and characteristics have the strength to significantly affect an optimistic relationship between multinationality and firm value. A good number of empirical studies have provided findings and evidence about the immense benefits and costs effectiveness that multinationality brings. However, there is still no understanding consensus of the relationship between multinationality and firm value [31, 32, 33]. In addition to multinationality, managerial quality practices particularly add economic value to firms [34]. Multinationality impact on firm values have been broadened from the spectrums of internationalisation benefits: Corporations minimising the costs related to adapting to new international and diversity of cultural environments of host countries, increase in diverse penetration into foreign markets, foreign opportunities and responsibilities leading to closing the gaps widened due to geographical cultural diversities between countries. Multinationality triggers and precipitates effective performance, when new opportunities are well harnessed leveraging from experiences acquired from the local markets on how to take investable opportunities.

2.2. Theoretical Review

Agency theory supports financial performance, as well as the concept that agency theory is in connection with the relationship between shareholders and the managers who are saddled with the responsibility of ensuring adequate corporate performance and firm value. Firm value thrives when there is consistent profitability as a reflection of the strong strategic character and performance culture that drives the goals and objectives of the organisation anchored by a competent management team working to improve the fortunes of the organisation. The Agency theory was propounded by Ross in 1973. However, studies have shown that theory of agency was brought to clarity in literature by Jensen and Meckling [35]. The agency theory posits that an agency contract exists when the principal voluntarily delegates the authority to run and manage his productive resources (business/company) to an agent who

voluntarily accepts the offer in good faith [35].

The problem with agent and principal arises when there is a disparity between the interest of each of them, resulting to divergences of the desire of goals and rewards system. This causes conflict of interest. Divides. The principal (shareholders and investors) desires faithful and transparent dealings, adequate information disclosure, and adequate returns of wealth maximisation. However, in reality, it is very difficult for a principal to monitor the work of his/her agent to ensure that the agent works and makes some decisions in the best interest of the principal. Thus, the theory of agency helps in resolving conflicts between the principal and the agent with an aim of ensuring better relationship between them [36, 23].

2.3. Empirical Review

Nguyen and Kim [22] investigated the relationship between multinationality and financial performance, the implication of multinational enterprises in the literature of international business, corporate business management, corporate strategy and finance in the last fifty years. Using inductive exploratory qualitative research method and pragmatic content analysis, a critical review was adopted in the study. The study includes detailed review of 160 empirical articles in 43 scholarly journals and classic books published on multinationality for a period of 58 years from 1960 to 2017. It was found that there had been several inconsistencies that have caused divergences and ambiguities in empirical studies. It was concluded that multinationality had a positive significant relationship with financial performance. Valid recommendations in addressing the identified inconsistencies were also made for future researchers. The result as obtained by Nguyen and Kim [22] is consistent with previous studies that had studied multinationality. These studies had found a positive significant effect on firm values like the studies of [37, 38].

Sartika et al., [39] investigated the effect of activity ratios on firm value and firm profitability in multinationals in automotive companies. Secondary data obtained from automotive companies in Indonesia for a period of 4 years 2009-2012 was used in the study. Domestic diversification and stock return were considered as some of the ratios affecting firm value and firm profitability in the study. Descriptive statistics and inferential analysis were used in analysing the data of the study. It was observed that activity ratios had a positive significant effect on firm value, while stock returns had a negative significant effect on firm values and corporate profitability of the purposively selected automotive companies operating in Indonesia for the period under investigation. Company management was advised to pay special attention to stock returns and activities that will trigger stock returns and profitability of the companies. This result is in tandem with the result obtained in the study of [37] but on the other hand not consistent with the result obtained in the study of [40].

Mozumder et al., [41] did a study on exchange rate movements and firm value published in the Journal of Economic Studies. The authors adopt a disaggregated framework that distinguishes Eurozone from non-Eurozone firms, and financial from non-financial firms across the pre-crisis, crisis and post-crisis periods of the recent financial crisis. The authors find no significant difference between Eurozone and non-Eurozone, and financial and non-financial firms. Exposure is found to be higher during the financial crisis, across all sub-samples of firms. In the majority of cases, the exposure coefficient is significantly positive, indicating that European firms' stock returns are positively affected by depreciation (or appreciation).

Grant, Matousek, Meyer and Tzeremes [21] studied a research on multinationality and financial performance published in the International Journal of Operations & Production Management. The authors' estimated firms' efficiency levels in a production function-type framework through technical efficiency levels using nonparametric data envelopment analysis was studied. The authors included firms from both developed and developing economies, from different national origins and with different sectoral characteristics, with a particular focus on knowledge-intensive business services (KIBS) and capital-intensive business services (CIBS). The existence of the three-stage sigmoid (S-shaped) hypothesis between multinationality and financial performance measured through technical efficiency levels was on firms in the study for the case of KIBS. Finally, the empirical findings revealed that CIBS exhibited only the first two stages, thus forming a "U"-shape relationship.

Iyama and Nwoha [24] investigated the effect of stock price movement and earnings per share on stock returns. Secondary data obtained from selected 22 banks and 110 non-banking companies for an unspecified number of years was used in the study. It was observed that macroeconomic variables of the inflation rate had a positive correlation between stock price movement and stock returns. The result obtained in this study of Haasis and Liefner [42] is found to be similar to the result found by Malaolu, Ogbuabor and Orji [43] who investigated the effect of microeconomics determinants on stock price movement in Nigeria.

Lee, Kim and Davidson [37] investigated the effect of value relevance on multinationality. The study was carried out from the economy of Korea, using some selected companies operating in Korea. The researchers hypothesized that the market positively values the multinational activities of Korean firms, which are operating in a small open economy in which firms have strong motivations for internationalization. The study found out that multinationality and intangibility directly and independently influence firm value, without any interference from each other. These results are also robust across studies, as indicated by Tobin's q measure. The study also found out that value relevance had a positive

significant effect on multinationality. The finding is consistent with the study of Grant, Matousek, Meyer and Tzeremes [21] who equally found a similar result.

3. Methodology

Research Design: In considering the effect of multinationality on financial performance, the *expo-facto* method was adopted. Data from a population of 22 multinational manufacturing companies listed in Nigeria was used in this study.

Method of Data Collection and Analysis: Secondary data were extracted from the audited financial statements of the selected manufacturing companies for the period under consideration. Descriptive statistics and inferential panel analysis were adopted.

Study Variables: Financial performance was surrogated using Tobin's Q. Hence Tobin's Q (Dependent Variable) and Multinationality (Independent Variable) were measured using Foreign sales to group total sales (FSGS),

foreign assets to group assets (FAGAS), foreign exchange rate (FEXR) and inflation rates (INFR).

Sample Size: Eighteen companies representing 80% of the population were purposively selected and studied for a period of 20 years giving 360 firm observations.

Model Specification

$$Y_{it} = (X_{it} + \mu_{it}) \quad (1)$$

Functional Relationship

$$TQ = f(FSGS_{it} + FAGAS_{it} + FEXR_{it} + INFR_{it} + \mu_{it}) \quad (2)$$

Model

$$TQ_{it} = \beta_0 + \beta_1 FSGS_{it} + \beta_2 FAGAS_{it} + \beta_3 FEXR_{it} + \beta_4 INFR_{it} + \mu_{it} \quad (3)$$

Where: TQ = Tobin's Q, FSGS = Foreign sales to group total sales; FAGAS = Foreign assets to group total assets, FEXR = Foreign exchange rates, and INFR = Inflation rates.

Table 1. Selected companies (NG. Naira)

S/N	Companies		Sector
1	7-Up Bottling Comp. Plc.	7UP	Consumer Goods
2	Cadbury Nigeria Plc.	CADBURY	Consumer Goods
3	Dn Tyre & Rubber Plc[Dip]	DUNLOP	Consumer Goods
4	Fidson Healthcare Plc	FIDSON	Healthcare
5	Glaxo Smithkline Consumer Nig. Plc.	GLAXOSMITH	Healthcare
6	Greif Nigeria Plc	VANLEER	Industrial Goods
7	Guinness Nig Plc	GUINNESS	Consumer Goods
8	Lafarge Africa Plc.	WAPCO	Industrial Goods
9	Meyer Plc.	MEYER	Industrial Goods
10	Neimeth International Pharmaceuticals Plc	NEIMETH	Healthcare
11	Nestle Nigeria Plc.	NESTLE	Consumer Goods
12	Nigeria-German Chemicals Plc.	NIG-GERMAN	Healthcare
13	P Z Cussons Nigeria Plc.	PZ	Consumer Goods
14	Portland Paints & Products Nigeria Plc	PORTPAINT	Industrial Goods
15	Unilever Nigeria Plc.	UNILEVER	Consumer Goods
16	Vitafoam Nig Plc.	VITAFOAM	Consumer Goods
17	Nigeria Breweries Plc	NB	Consumer Goods
18	Nigeria-German Chemicals Plc	NG-GERMAN	Healthcare

Source: Nigeria Stock Exchange (2021)

Table 2. Summary Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
TQ	360	1.236	1.777	-0.553	8.166
FSGS	360	0.041	0.094	0.000	1.002
FAGAS	360	0.097	0.038	0.028	0.169
FEXR	360	221.559	70.542	150.660	306.950
INFR	360	11.802	2.753	8.062	16.524

Source: Author's Computation, 2021, underlying data from annual reports of the selected firms.

Note: Tobin's Q (TQ); foreign sales to group total sales (FSGS), Foreign Assets to Group Total Assets (FAGAS), Foreign Exchange Rates (FEXR) and Inflation Rate (INFR)

4. Data Analysis, Results and Discussion

4.1. Descriptive Statistics

The summary statistics of the variables of interest in this study are presented in this section. It presents the descriptive analysis using mean, median, minimum and maximum which summarily describes the nature of central tendency and dispersion of the variables used.

In Table 2, *Tobin's Q (TQ)*, has the mean value which is 1.236. The minimum value is -0.553 and the maximum value is 8.166 with a standard deviation of 1.777. The minimum, maximum and standard deviation values suggest that there is a wide range in the value of TQ of the firms. Also, the average value that is above 1 indicates that the selected firms are worth more than the cost of their assets.

For Foreign sales to group total sales (FSGS), Foreign Assets to Group Total Assets (FAGAS), Foreign Exchange Rates (FEXR) and Inflation Rate (INFR), the average values are 0.041, 0.097 N221.559/USD and 11.802% respectively. The minimum values are 0.000, 0.028, N150.660/USD and 8.062% for foreign sales to group total sales (FSGS), Foreign Assets to Group Total Assets (FAGAS), Foreign Exchange Rates (FEXR) and Inflation Rate (INFR) respectively while the maximum values are 1.002, 0.169, N306.950/USD, and 16.524% respectively.

4.2. Correlation and VIF Results

In this section, the results of correlation analysis and VIF

carried out are presented. This became necessary in order to investigate the level of associations among the variables and identify possible multicollinearity issues. The correlation also shows the direction and strength of the associations among the variables selected for this study.

Table 3 shows that Tobin's Q (TQ) has negative associations with foreign sales to group total sales (FSGS), Foreign Assets to Group Total Assets (FAGAS), Foreign Exchange Rates (FEXR) and Inflation Rate (INFR). High correlation coefficient among any pair of dependent variable does not have any harmful effect on the regression result. Based on this, the associations among the explanatory variables were checked. Summarily, the associations among the explanatory (independent) variables ranged between 0.0006 and 0.5656. The highest correlation value found among the independent variables in the table 3 was between Foreign Exchange Rates (FEXR) and Inflation Rate (INFR). The correlation is expected between two macroeconomic variables and it does not suggest multicollinearity problems. The average value of VIF ($1.2 < 3$) further confirms the statement that the association between Foreign Exchange Rates (FEXR) and Inflation Rate (INFR) or any pair of the independent variable does not suggest multicollinearity problems.

To examine multinationality effect on the financial performance of multinational manufacturing companies listed on the Nigerian Stock Exchange, this subsection presents the results (in Table 4) of the panel regression estimated where Tobin's Q (TQ) is regressed on Foreign sales to group total sales (FSGS), Foreign Assets to Group Total Assets (FAGAS), Foreign Exchange Rates (FEXR) and Inflation Rate (INFR).

Table 3. Correlation Matrix of Variables

	TQ	FSGS	FAGAS	FEXR	INFR	VIF	1/VIF
TQ	1						
FSGS	-0.1522	1				1.05	0.956
FAGAS	-0.3266	0.0812	1			1.02	0.984
FEXR	-0.239	0.1608	0.0785	1		1.53	0.654
INFR	-0.1345	0.0006	0.0984	0.5656	1	1.50	0.668
						1.27	

Source: Author's Computation, 2021, underlying data from annual reports of the selected firms.

Note: Tobin's Q (TQ), Foreign Sales to group total sales (FSGS), foreign Assets to Group Total Assets (FAGAS), Foreign Exchange Rates (FEXR) and Inflation Rate (INFR)

Table 4. Tobin's Q and Multinationality

$$TQ_{it} = \beta_0 + \beta_1 FSGS_{it} + \beta_2 FAGAS_{it} + \beta_3 FEXR_{it} + \beta_4 INFR_{it} + \mu_{it}$$

Variable	(1)	(2)	(3)
	Pooled	Fixed	+++ Random
FSGS = Foreign sales to group total sales	-1.7794	0.4800	0.3858
	(1.6487)	(1.0102)	(0.3138)
FAGAS = Foreign assets to group total assets	-0.1432***	-0.1092**	-0.1156*
	(0.0406)	(0.0535)	(0.0685)
FEXR = Foreign exchange rates	-0.0052*	-0.0060***	-0.0059***
	(0.0027)	(0.0015)	(0.0010)
INFR = Inflation rates	0.0081	0.0147	0.0150
	(0.0674)	(0.0376)	(0.0211)
Constant	3.7525***	3.4253***	3.4787***
	(0.7536)	(0.5669)	(1.1160)
Observations	360	360	360
R-squared	0.1614	0.2247	0.2245
Adj. R-squared	0.1322	0.1864	0.1862
F-test	5.534	7.536	31.59
Prob > F	0.000	0.000	0.000
Hausman [Prob > Hausman]	0.81 [0.937]		
LM tests [Prob > LM]	249.27 [0.000]		
Heteroskedasticity [Prob > Hetero]			4.66 [0.031]
Cross Sectional Independence [Prob > csd]			2.491 [0.042]

Source: Author's Computation, 2021, underlying data from annual reports of the selected firms.

Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1 +++ Represents the chosen Random Effect Regression with Driscoll-Kraay standard errors

Hausman and LM Test

In Table 4, it is observed that it is appropriate to use random effect model in investigating the effect of Multinationality on financial performance of multinational manufacturing companies listed on the Nigerian Stock Exchange. Explicitly, the LM and Hausman tests statistics in the lower portion of the table 4 are estimated to be 249.27 (*p-value* = 0.000) and 0.81 (*p-value* = 0.937) respectively. These show inclination towards random effect model.

Model Fitness

As in Table 4, the adjusted R - squared indicates that Multinationality indicators (explanatory variables) account for about 18.62% of the variances in Tobin's Q (TQ). Also, the *F-statistic/Wald-Chi2* (31.59; *p-value* = 0.000) is significant at 1% level of significance. These indicate a good fit and confirm the realism of the model. Moreover, the diagnostic tests result in this case shows significant values (*p-values* < 0.05) suggesting that the model is not free from Heteroskedasticity and Cross Sectional Independence problems and the model can only be useable if estimated with Driscoll-Kraay standard

errors. Consequently, Random Regression with Driscoll-Kraay standard errors was used.

$$TQ_{it} = \beta_0 + \beta_1 FSGS_{it} + \beta_2 FAGAS_{it} + \beta_3 FEXR_{it} + \beta_4 INFR_{it} + \mu_{it}$$

$$TQ_{it} = 3.4787 + 0.3858FSGS_{it} - 0.1156FAGAS_{it} - 0.0059FEXR_{it} + 0.0150INFR_{it} + \mu_{it}$$

Model Parameters

Based on the result, the coefficients of FSGS and INFR were all positively signed ($\beta_1 = 0.3858$; $\beta_4 = 0.0150$) > 0 and these results were found consistent with the expectations of the study. However, FAGAS and FEXR were negatively signed ($\beta_2 = -0.1156$; $\beta_3 = -0.0059$) < 0 and these were not in consonance with the expectation of the study which is that multinationality should have a positive impact on financial performance of multinational manufacturing companies in Nigeria. Also, foreign sales to group total sales FSGS positively ($\beta_1 = 0.3858$) < 0 affects Tobin's Q (TQ) of multinational manufacturing companies listed on the Nigeria Stock Exchange. Considering the probability of the t-statistics of FSGS (P-value of 0.3138) which is higher than the 5% level of the chosen level of

significance of 5%, it implies that FSGS insignificantly affects Tobin's Q (TQ). The coefficient of FSGS means that a unit change in FSGS would yield a 0.3858 increase in Tobin's Q (TQ) of multinational manufacturing companies listed on the Nigerian Stock Exchange.

Also, Foreign Assets to Group Total Assets (FAGAS), negatively affects Tobin's Q (TQ) of multinational manufacturing companies listed on the Nigerian Stock Exchange. The probability of the t-statistics (P-value of 0.0685) which is higher than the 5% level of the chosen level of significance, implies that FAGAS insignificantly affects Tobin's Q (TQ). Also, the coefficient of FAGAS (-0.1156) means that a unit change in FAGAS would yield a 0.1156 decrease in Tobin's Q (TQ) of multinational manufacturing companies in Nigeria. In addition, foreign exchange rates (FEXR) negatively affects Tobin's Q (TQ) of multinational manufacturing companies listed on the Nigeria Stock Exchange. Considering the probability of the t-statistics of FEXR (P-value of 0.0010) which is less than 5% level of the chosen level of significance of 5%, it is implied that FEXR significantly affects Tobin's Q (TQ). However, the coefficient of FEXR (-0.0059) means that a unit change in FEXR would yield a 0.0059 decrease in Tobin's Q (TQ) of multinational manufacturing companies listed on the Nigerian Stock Exchange.

Then, Inflation rates (INFR) positively affect Tobin's Q (TQ) of multinational manufacturing companies listed on the Nigeria Stock Exchange. Considering that the probability of the t-statistics of INFR (P-value of 0.0211) which is less than 5% level of the chosen level of significance of 5%, it implies that FEXR significantly affects Tobin's Q (TQ). Also that the coefficient of FEXR (0.0150) means that a unit change in FEXR would yield a 0.0150 increase in Tobin's Q (TQ) of multinational manufacturing companies listed on the Nigerian Stock Exchange.

In addition, as in the Random regression model that best predicts the effect of multinationality on Tobin's Q (TQ) in Table 4, Foreign Sales to Group Total Sales (FSGS) with ($\beta = 0.3858$; Sig. > 0.05) yields a positive but insignificant relationship with Tobin's Q (TQ) at 5% significance level; Foreign Assets to Group Total Assets (FAGAS) with ($\beta = -0.1156$; Sig. < 0.10) provides a negative and statistically significant relationship with Tobin's Q (TQ) at 10% significance level; Foreign Exchange Rates (FEXR) with ($\beta = -0.0059$; Sig. < 0.01) provides a negative and statistically significant relationship with Tobin's Q (TQ) at 1% significance level, while Inflation Rate (INFR) with ($\beta = 0.0150$; Sig. > 0.05) provides a positive and insignificant relationship with Tobin's Q (TQ). With these, it is therefore deduced that FAGAS and FEXR significantly affect Tobin's Q (TQ) at the time of the study. Nevertheless, the results established that multinationality predictors jointly had a significant effect on Tobin's Q and that this effect is significant at 1% level as visible in Table 4.

Base on the results presented in Table 4, at a level

significance of 0.05, *F-statistic* is 31.59, while the *P-value of the F-Statistics* is 0.000, which is less than 0.05, hence the null hypothesis was rejected while the alternative was accepted. This implies that multinationality had a positive significant effect on Tobin's Q of multinational manufacturing companies listed on the Nigerian Stock Exchange.

4.3. Discussion of Findings

The model investigated the effect of multinationality on Tobin's Q of multinational manufacturing companies listed on the Nigerian Stock Exchange. Mixed results were harvested from the individual variables of the model. Foreign Assets to Group Total Assets (FAGAS) and Foreign Exchange Rates (FEXR) had a negatively significant effects on Tobin's Q. Foreign sales to group total sales exhibited a positively insignificant effect on Tobin's Q. On the contrary, the model revealed that the inflation rate had a positively significant effect on Tobin's Q of multinational manufacturing companies listed on the Nigerian Stock Exchange and this result is consistent with prior studies [42, 37, 41, 27, 22].

Nguyen and Kim [22] investigated the relationship between multinationality and financial performance; as well as the implication of multinational enterprises on the literature of international business, corporate business management, corporate strategy and finance in the last fifty years. They discovered that there had been several inconsistencies which have caused divergences and ambiguities in empirical studies and concluded that multinationality had a positive significant relationship with financial performance. Valid recommendations that are useful for addressing the identified inconsistencies were made for future researchers.

Sangno, Kim and Wallace [27] examined the value relevance of multinationality on the firm value of Korean firms and found that multinationality had a positively significant effect on firm value and financial performance due to cross-country adventurism in response to business expansion at the domestic stage. The study further revealed that multinationality mediates the positive and causal relationship between intangibility of assets and firm value; and that multinationality had a negative significant effect on Tobin's Q among the companies investigated in Korea.

In addition, multinationality and intangibility directly and independently had a positively significant effect on Tobin's Q from the market perspective and generally on firm value at large. This result was found to be inconsistent with the result reported in the study of Sartika, Feranika and Wahyudi [39] who investigated the effect of activity ratios on firm value and firm profitability in multinationals in automotive companies and found that stock returns had a negative significant effect on firm values and the corporate profitability of the purposively selected automotive companies operating in Indonesia during the period under investigation.

5. Conclusions and Recommendations

5.1. Conclusions

Evidently, Tobin's Q measures the financial and market performance of the companies. It was revealed, at the end of this study, that Foreign Sales to Group Total Sales, Foreign Assets to Group Total Assets, Foreign Exchange Rates and Inflation Rates behaved differently. While Foreign Sales to group Total Sales revealed a positive insignificant effect, Foreign Assets to Group Total Assets and Foreign Exchange Rates revealed negative insignificant and significant effects respectively. The results revealed that foreign sales had a positive but insignificant effect on Tobin's Q. This could imply that the foreign sales were not sufficient enough to yield much-expected sales to cover overhead expenses incurred in the foreign operations. Also, it could imply that the foreign operations were under harsh and severe import or export tax burdens that may have affected the overall landing cost passed over to the selling prices and subsequently on to volume of sales. In conclusion, the joint results revealed that multinationality had a positive significant effect on Tobin's Q of the multinational manufacturing companies listed on the Nigerian Stock Exchange.

5.2. Recommendations

Based on the results of the panel data analysis carried out which revealed that foreign exchange rates exhibited a negative significant effect, it is therefore recommended that the multinational manufacturing companies should reduce foreign exchange exposure by sourcing raw materials and workforce from the domestic market, considering the volatility of foreign exchange rates in Nigeria. Additionally, the study revealed that manufacturing companies' total sales were positively insignificant, this could imply that the sales were grossly inadequate. Consequently, economic policies should be geared towards encouraging Nigerians to patronise made-in-Nigerian goods, as this could improve total sales of the multinational manufacturing companies operating In Nigeria.

Scope for Future Research

This study considered only the determinants of multinationality as it affects Tobin's Q as a surrogate of financial performance of multinational manufacturing companies, other future research could consider other determinants including but not limited to debt/equity mix, ownership structure and product diversifications. By implication, this study provides a new insight and integral understanding of the significance of multinationality as novelty research in context of emerging literature in Nigeria, adding new discussions to the body of knowledge

in the light of multinationality approach not widely discussed in the Nigerian literature.

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