SPONTANEOUS FINANCING AND PERFORMANCE OF MANUFACTURING FIRMS: EVIDENCE FROM NIGERIA

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Abstract

This paper examines the relationship between spontaneous financing and the performance of manufacturing firms in Nigeria, using annual time series data from a sample of 10 companies listed between 2010 and 2020. The study uses return on equity (ROE) and return on assets (ROA) as proxies for financial performance, serving as dependent variables, while the independent variables include account receivable turnover, account payable turnover, and inventory turnover.

The findings reveal that account receivable turnover (ART) and inventory turnover (IT) positively influence both ROA and ROE in the context of spontaneous financing through trade credit and its impact on the financial performance of manufacturing industries in Nigeria. Conversely, account payable turnover (APT) negatively affects both ROA and ROE in relation to spontaneous financing through trade credit

Keywords: Account Receivable Turnover, Inventory Turnover, Account Payable Turnover, Spontaneous Financing.

JEL classification: G32; L60; O16; M11

1. INTRODUCTION

The manufacturing sector is crucial in both developing and developed countries worldwide. However, the aspiration of most developing countries like Nigeria, is to achieve inclusive growth that can transform their economy, particularly through the manufacturing sector. The researchers have shown that manufacturing sector has emerged as a key driver of industrialization and diversification, with the ability to significantly impact the country's economic trajectory especially in the areas of employment generation, technological advancement and overall economic growth (Ojo and Ololade, 2013; Acerbi and Taisch, 2020, Orji, and Ojadi, 2021). Nevertheless, there ability to achieve this has continued to be a puzzle question especially now that most of the manufacturing firms are leaving Nigeria as a result of several factors like financing and other macro economy variables.

Interestingly, the manufacturing sector contribute significant to gross domestic product. However, it influences despite its natural and human resources is below the globally expectations as an emerging market. The Nigerian manufacturing sector has averaged a 10% annual contribution to GDP for nearly two decades. The sectors contributed 8.6% to GDP in the Q2 of 2023, maintaining a quarterly range of 8.4% to 10.2% over the past two years (CBN, 2013). This is significantly lower compared to what is obtainable in the emerging market manufacturing sectors, as illustrated in figure 1.0. As of 2022, the food, beverage, and tobacco sub-sector contributed 4.7% to Nigeria's GDP, while the cement and textile sub-sectors contributed 3.1% and 2.7%, respectively. However, international and local challenges have continued to hinder Nigeria's manufacturing sector, thereby calling for a review of policies and strategies with more focus on available financing options that can enhance their performance.

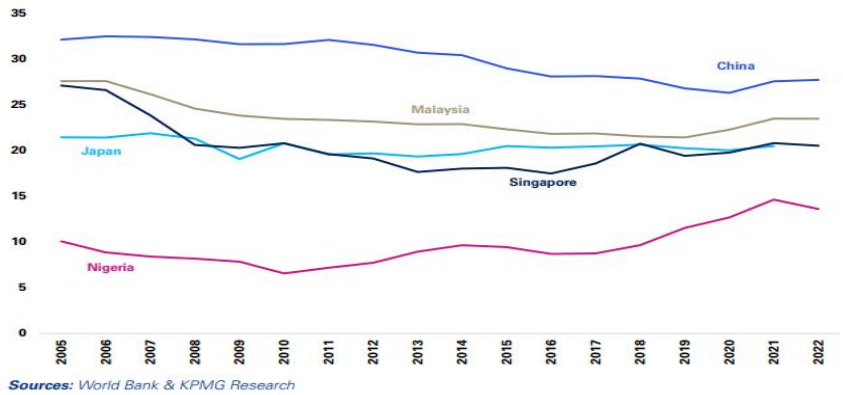

***Figure 1**: Contribution of Manufacturing to GDP (%)*

The underperformance of the Nigerian manufacturing sector and its inability to contribute significantly to gross domestic product (GDP) has often been attributed to a lack of funds, especially from traditional financial institutions for their day-to-day operations (Ojo and Ololade, 2013; Uremadu and Olawale, 2019). Furthermore, even when funds are available, accessibility can be challenging due to a mismatch

of funds, i.e., short-term financial needs versus medium or long-term needs for industries. Conventional financial institutions often view the manufacturing sector as risky, making it difficult to access funds from most deposit money banks (Adeyeye, Falade, and Adeniji, 2019; Zhang, Xing, and Tripe, 2021; Xie, Shi, Gu, and Xu, 2023). Nevertheless, even when deposit money banks are mandated to lend a percentage to the manufacturing sector, it often comes with high-interest rates and other administrative costs that affect their working capital and financial performance in the long run due to loan repayment. This has also been attributed to the low rate of capacity utilization of many manufacturing companies in Nigeria, leading to alternative funding options like spontaneous financing (Salisu and Kehinde, 2019).

In addition, Olomi (2008) submitted that most medium-sized textile firms relied major on owner financing, trade credit and short-term bank loans to bankroll their operation as a result of inaccessibility to the long term capital market to secure a long term loan. This align with the study of Myers and Majluf (1984).) on pecking order theory even though it was originally developed for large, quoted companies. Nevertheless, it is relevant to small firms, including those in the manufacturing sector. Myers, et.al 1984) submitted that firms used internal financing through retained earnings or cash credit to meet their working capital needs before resorting to external sources. In addition to cash credit, manufacturing firms often rely on trade credit, where suppliers allow them to defer payments, and short-term bank loans to manage liquidity. These spontaneous financing options are crucial in the manufacturing sector, where maintaining smooth production cycles and managing inventory levels are essential (Adeyeye,et.al 2019; Dada, Ayo, and Adebiyi, 2016). Firms prefer these sources because they are quicker to access and typically involve fewer formalities compared to issuing new equity or long-term debt (Myers et.al, 1984).

Despite the high expectation of manufacturing sector in the areas of employment generation, technological advancement, and overall economic growth that can transform the country to industrial nation, manufacturing companies continued to face significant challenges in accessing deposit money bank loans due to high interest rates and other stringent lending criteria's. As a result, they increasingly rely on spontaneous financing, such as trade credit and accounts payable etc to sustain operations and drive growth. It is therefore imperative to investigate how spontaneous financing have been able to influences the performance of the manufacturing sector especially where it is expedient to maximize shareholder's wealth. Therefore, by investigating the relationship between spontaneous financing and firm performance of manufacturing, this study tends to provide insights that can inform policy interventions, assist business managers in making informed financial decisions, and support the sustainable growth and development of the manufacturing sector in Nigeria. The remaining of this paper follows a structured format: Section two encompasses the literature review, while section three outlines the methodology employed. Section four presents and discusses the results and the final section provides the conclusion.

2. REVIEW OF RELATED LITERATURES

Kumaraswamy and George (2019) examined the impact of receivable management on firm profitability of Saudi manufacturing firms. The study adopts fixed effect regression model to analyze the panel data with the operating profit margin as the dependent variable, days sales outstanding (DSO) and account receivable turnover (ART) as independent variables. The outcome of the study indicates that the firm profitability increases with the increasing number of times the firm collects its average account receivables. Farooq, Jaleel, Khurram and Tabash, (2021) explored the potential effects of trade credit and bank loans on corporate financial performance and how this effect varies when corporate firms acquire bank loans to finance the activities of trade credit. They adopted the redistribution theory, agency theory, pecking order theory and price discrimination theory. The findings of the study revealed corporate firms that offer bad credit terms have negative profit margin because it create financial distress, shortage of funds and other liquidity issues.

Yazdanfar and Öhman, (2016) investigated trade credit as a financing source among small and medium size enterprises, adopted the financing theory and transaction cost theory, they employed ordinary least square, fixed effects and generalized method moments. The result of the study revealed negative relationship exist between profitability and long term debt on trade credit. Whereas, positive relationship exists between short term debt and trade credit. Furthermore, Makori,(2018) considered short term financing of non- financial firms traded in Nairobi securities exchange. The study revealed that significant positive relationship exists between account receivable turnover financial performance and also significant positive relationship exist between financial performance and account payable turnover among the of non- financial firms traded in Nairobi securities exchange.

Ajayi and Hassan (2019) conducted an empirical investigation on the relationship between spontaneous financing and the performance of manufacturing firms in Nigeria. The study utilized regression analysis and found a positive association between spontaneous financing, as measured by trade credit and retained earnings, and firm performance indicators such as return on assets (ROA) and return on equity (ROE). The findings suggest that manufacturers who effectively utilize spontaneous financing sources experience improved financial performance of manufacturing firms in Nigeria. Furthermore, the study of Odebiyi, Ojo and Akindele (2019) on impact of spontaneous financing on firm performance and productivity growth in the manufacturing sector in Nigeria was examined. The study employed panel data analysis and found that spontaneous financing positively influenced firm performance, as measured by profitability and productivity growth. The research emphasized the role of retained earnings and trade credit as significant sources of spontaneous financing in enhancing firm outcomes.

Oloko and Adelakun (2020) explored the relationship between spontaneous financing, firm performance, and economic volatility in the context of manufacturing SMEs in Nigeria. The study employed a moderated regression analysis and revealed

that spontaneous financing positively influenced firm performance. Furthermore, the findings indicated that economic volatility moderated the relationship between spontaneous financing and performance, suggesting that the positive impact of spontaneous financing might be more pronounced during periods of economic instability. Adebiyi and Adesina (2019) conducted an empirical study on spontaneous financing and the performance of manufacturing firms in Nigeria, considering the moderating role of financial development. The study utilized regression analysis and found that spontaneous financing positively influenced firm performance indicators such as return on assets and return on equity. Furthermore, the research revealed that the level of financial development in the country moderated this relationship, suggesting that a supportive financial environment enhances the impact of spontaneous financing on firm performance.

Dada, Ayo, and Adebiyi (2016) investigated the relationship between spontaneous financing and the financial performance of small and medium enterprises (SMEs) in the manufacturing sector. The study employed regression analysis and revealed a positive association between spontaneous financing, measured by retained earnings and informal loans, and SMEs' profitability. The findings highlighted the importance of leveraging internal resources and informal financing channels for improved financial performance. Olawale, Ogunlana, and Adesina (2017) examined spontaneous financing and the performance of small and medium enterprises (SMEs) in Nigeria, considering the moderating effect of firm age. The study used survey data and regression analysis and found that spontaneous financing, particularly through retained earnings, positively influenced SME performance. Moreover, the research revealed that firm age moderated this relationship, indicating that the impact of spontaneous financing may vary depending on the stage of a firm's development.

Salisu and Kehinde (2019) conducted an empirical study on spontaneous financing and firm performance in the manufacturing sector in Nigeria. The study employed regression analysis and found a positive relationship between spontaneous financing, measured by trade credit and retained earnings, and firm performance indicators such as profitability and return on assets. The research highlighted the importance of spontaneous financing as a significant source of funding for manufacturing firms and its contribution to their financial performance. Uremadu and Olawale (2019) explored the relationship between spontaneous financing and firm performance in manufacturing small and medium enterprises (SMEs) in Nigeria. The study employed survey data and regression analysis and found that spontaneous financing, particularly through trade credit and retained earnings, positively influenced firm performance indicators such as sales growth and return on investment. The findings emphasized the role of spontaneous financing in enhancing the financial performance of SMEs in the manufacturing sector.

Ogunnaike and Oladejo (2020) conducted an empirical study on spontaneous financing and firm performance in the manufacturing sector of Nigeria. The research employed panel data analysis and found that spontaneous financing, specifically through retained earnings and trade credit, had a positive and significant

impact on firm performance indicators such as return on assets and sales growth. The study highlighted the importance of effectively utilizing internal resources and informal financing channels for improved performance outcomes in the manufacturing sector. Adeyeye, Falade, and Adeniji (2019) examined the relationship between spontaneous financing and firm performance in the Nigerian manufacturing sector, specifically focusing on the role of trade credit. The study utilized regression analysis and found that trade credit positively influenced firm performance measures such as return on assets and return on equity. The research emphasized the significance of trade credit as an essential source of spontaneous financing that contributes to the financial health and profitability of manufacturing firms.

Akinlo, Adesola, and Alimi (2018) conducted an empirical study on spontaneous financing and firm performance in the Nigerian manufacturing sector. The research employed a dynamic panel data model and found a positive relationship between spontaneous financing, measured by retained earnings and trade credit, and firm performance indicators such as return on assets and sales growth. The study emphasized the importance of effective management of internal resources and informal financing channels for enhancing firm performance in the manufacturing sector. Onugu and Nneji (2017) investigated the impact of spontaneous financing on the financial performance of small and medium enterprises (SMEs) in the manufacturing sector of Nigeria. The study utilized survey data and regression analysis and found a positive association between spontaneous financing, including retained earnings and trade credit, and SMEs' financial performance measures such as profitability and liquidity. The research highlighted the significance of spontaneous financing in supporting the growth and sustainability of SMEs in the manufacturing sector.

Chen, Cheng, and Hsu (2016) conducted a study in Taiwan to explore the relationship between retained earnings and firm performance in the manufacturing sector. Their research highlighted the positive impact of retained earnings on firm performance indicators, including profitability and asset efficiency. The study emphasized the value of internal resources, such as retained earnings, in enhancing the financial performance of manufacturing companies. Mumtaz, Patoli, Junejo, Hassan, Malokani and Malokani (2024) examined working capital management In Pakistan's manufacturing sector between 2021–2024 with the aid of mulitple regression. The results indicate that decreasing accounts receivable (AR) collection time significantly operating profit margin (OPM) due to reinvestment and reducing reliance on external financing. Similarly, a shorter cash conversion cycle (CCC) is linked to increased profitability by enhancing operational efficiency. There findings further revealed that positive relationship exist between inventory and return on asset as a result of adequate inventory management..

3.RESEARCH METHOD

The study adopted an ex post facto research design sourcing secondary data from 2010 to 2020 financial report of the selected companies, such as, Greif Nig.

Plc, U.A.C Nig. Plc, Chellarams Nig. Plc, A.G. Leventis Nig. Plc, Chemical & Allied Products Plc, Unilever Nig. Plc, PZ Cussons Nigeria Plc, Beta Glass Nig. Plc, John Holt Plc, Cutix Nig. Plc was considered based on their performance in the Nigeria Stock Exchange.

3.1 MODEL SPECIFICATION

Based on the existing literature, the research model was developed to test the above stated hypotheses. Account receivables turnover, account payables turnover and inventories turnover are modelled against the profitability.

The explicit model specification is as follow:

ROA= (ART, APT, IT)

Implicitly the model becomes:

$ROA_{it} = \beta_0 + \beta_1 ART_{it} + \beta_2 APT_{it} + \beta_3 IT_{it} + \mu_{it}1$ ---------- (i)

$ROE_{it} = \alpha_0 + \alpha_1 ART_{it} + \alpha_2 APT_{it} + \alpha_3 IT_{it} + \mu_{it}2$ ----------(ii)

Where:
ROA = Return on Assets.
ROE = Return on Equity.
ART = Accounts Receivable Turnover
APT = Account Payable Turnover
IT = Inventories Turnover
$\beta 0$ &αo = Constants.
$\beta 1, \beta 2, \beta 3, \alpha 1, \alpha 2, \alpha 3$ = Coefficient variables.

3.2 DEFINITION AND MEASUREMENT OF VARIABLE

Data for this study were sourced from financial reports of the selected companies for the period specified. We present the data and their measurement below:

Variable	Description/Measurements	Data Sources	Measurement
ROE	Return on Equity	Financial Reports of selected companies.	PBIT Divided by Shareholders fund
ROA	Return on Assets	Financial Reports of selected companies.	PBIT divided by total assets employed
ART	Accounts Receivable Turnover	Financial Reports of selected companies.	Sales/Average Accounts receivable
APT	Account Payable Turnover	Financial Reports of selected companies.	Credit purchases / Average Account Payable
IT	Inventory Turnover	Financial Reports of selected companies.	Cost of Goods Sold / Average Inventory

Sources: publication of financial report of the selected manufacturing company and Nigeria stock exchange (2020)

4. RESULT AND DISCUSSION

4.0. PRESENTATION OF DATA

The data were obtained from the publication of financial report of the selected manufacturing company, CBN Statistical Bulletin. The data used in the study to examine the effect of spontaneous financing in form of trade credit on the financial performance of manufacturing industries in Nigeria, include Return on Asset (ROA) and Return on Equity (ROE) as dependent variable and the independent variables which are , Account Receivable Turnover (ART), Account Payable Turnover (APT) and Inventory Turnover (IT) are used as the independent variables. The data series covered the periods between 2010 and 2020.in Nigeria

4.1. DESCRIPTIVE STATISTICS

This section provides discuss the descriptive statistics like minimum and maximum values, mean, and standard deviation of the variables used in the study. The results are presented on table 1.

Table 1: *Descriptive Statistics*

Descriptive Values	**ROA**	**ROE**	**ART**	**APT**	**IT**
Mean	64616.27	20613.39	16.88500	51.59600	16106.82
Median	67542.02	20166.16	16.82000	46.09000	7292.840
Maximum	69810.02	22449.41	18.99000	104.2000	99987.08
Minimum	54612.26	19199.06	15.14000	27.39000	3470.900
Std. Dev.	5459.555	1232.293	1.000814	20.98416	29552.48
Skewness	-0.770929	0.402747	0.435429	1.641059	2.639683
Kurtosis	2.051974	1.628029	3.660449	5.146281	8.027324
Jarque-Bera	1.365033	1.054635	0.497744	6.407842	22.14404
Probability	0.505344	0.590186	0.779680	0.040603	0.000016
Sum	646162.7	206133.9	168.8500	515.9600	161068.2
Sum Sq. Dev.	2.68E+08	13666921	9.014650	3963.015	7.86E+09
Observations	10	10	10	10	10

Source: authors compilation (2022).

Table 1 presents the descriptive statistics with more emphasizes on the minimum and maximum values, mean, and standard deviation of the study variables. The mean and median values fall within the range of the minimum and maximum. This shows that the data is normally distributed.

The standard deviation for the Return on Asset (ROA), Return on Equity (ROE) Account Receivable Turnover (ART), Account Payable Turnover (APT), and Inventory Turnover (IT) are 5459.555, 1232.293, 1.000814 , 20.98416 and 29552.48 respectively. The data set on all the variables are positive skewed except Return on Asset (ROA) that is Negative skewed. The variables that are positively

skewed means that they are skewed to the right, while the negative skewed variables that is Return on Asset (ROA) is negatively skewed to the left.

Further forward, the kurtosis value of the all the variables revealed that, the spontaneous financing in form of trade credit on the financial performance of manufacturing industries in Nigeria which is measured using Return to Asset (ROA), Return on Equity (ROE) , are less than three, that is they are platykurtic while Account Receivable Turnover (ART), Account Payable Turnover (APT) and Inventory Turnover (IT) are all greater than three, that is they are leptokurtic.

4.2. RESULTS

This section focus on the stationarity (unit root) test, OLS multiple regression analysis, and the co-movement/correlation matrix result.

4.2.1. UNIT ROOT TEST RESULTS

Table 2: *Stationary (Unit Root) Tests Result*

Variable	ADF Test statistic	Mackinnon's Critical Value at 1%, 5% & 10%			Order of Integration	Prob.
		1%	5%	10%		
D(ROA)	-3.17968	-4.29707	-3.21270	-2.74768	I(1)	0.0525
D(ROE)	1.65377	-4.29707	-3.21270	-2.74768	I(1)	0.9980
D(ART)	-3.60789	-4.42061	-3.25981	-2.77113	I(1)	0.0306
D(APT)	1.2783	-4.42061	-3.25981	-2.77113	I(1)	0.9951
D(IT)	-33.3319	-4.42061	-3.25981	-2.77113	I(1)	0.0001

Source: Researcher's Computation (2022)

The Augmented Dickey-Fuller (ADF) test was used to conduct a pre-test on the study's variables. Table 2 presents the results of the stationarity test for the time series data. The table shows that the absolute values of the ADF test statistics for all the variables in the study surpass their respective MacKinnon critical values at 1%, 5%, and 10% significance levels, respectively. This indicates that all study variables are integrated of order I(1). Therefore, the results are suitable for further econometric estimations.

4.2.2. OLS MULTIPLE REGRESSION RESULTS

Table 3 shows the Ordinary Least Squares (OLS) test conducted to capture the short-term relationships as well as the degree of proportional variation among the variables.

Table 3: *OLS Multiple Regression Result*

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	60260.35	29624.52	2.034138	0.0882
ART	9.266991	1700.347	2.005450	0.9958
APT	111.9151	82.24919	-1.360683	0.2225
IT	0.078350	0.057921	1.952712	0.2249
R-squared	0.427738	Mean dependent var		64616.27
Adjusted R-squared	0.646846	S.D. dependent var		5459.555

S.E. of regression	5058.252	Akaike info criterion	20.18460
Sum squared resid	1.54E+08	Schwarz criterion	20.30564
Log likelihood	-96.92302	Hannan-Quinn criter.	20.05183
F-statistic	41.49490	Durbin-Watson stat	1.134919
Prob(F-statistic)	0.308345		

Source: Researcher's Computation (2022)

The OLS multiple regression out is presented below in Table 3. The Adjusted R^2 coefficient of 0.646846 indicates that 64.68% of the total variation in the dependent variables is explained by the explanatory variables, while the remaining 35.32% is attributed to factors that were not included in the model. These unaccounted factors are significant enough to explain variations in spontaneous financing, such as trade credit, and their impact on the financial performance of manufacturing industries in Nigeria, as reflected by performance variable like return on assets (ROA) and return on equity (ROE).

From the model, the standard error values for all the variables shows that the parameter estimates for Account Receivable Turnover (ART) and Inventory Turnover (IT) are statistically significant, as their values are less than half of their respective coefficients. Whereas, Account Payable Turnover is statistically insignificant, as its standard error exceeds half of the coefficient value. Durbin-Watson statistic was used to test for the presence of autocorrelation with a value of 1.134919 that still falls within the range of positive serial autocorrelation.

Table 4. *Autocorrelation Table*

0<d< Positive serial autocorrelation
1.4<d< No serial autocorrelation
2.4 <d< Negative serial autocorrelation
3.4<d< Inconclusive

The specified range ($0 < 1.134919 < 1.4$) indicates the presence of positive serial autocorrelation among the explanatory variables.

Normal Distribution Test (T-Test)

Null Hypothesis (H0): The individual parameters are not significant.

Alternative Hypothesis (H1): The individual parameters are significant.

Based on the decision rule that If the T-calculated value is greater than the T-tabulated value, the null hypothesis (H0) is rejected, and the alternative hypothesis (H1) is accepted. Conversely, if the T-calculated value is less than or equal to the T-tabulated value, the null hypothesis (H0) is accepted and the alternative hypothesis (H1) is rejected.

Level of significance = at 5% = 1.96
Where N: Sample size, = 10
K: Number of parameters = 3
Degree of freedom = N-K, (10-3) = 7
T-tabulated = 0.025 @5%level of sign.

T-tab = 0.025 Df , 7 = 1.895
That is the T.tab = 1.895 from the T. statistical table.

Table 5: *The T-test table*

Variables	T-statistics	T-tab	Remark
ART	2.005450	1.895	Significant
APT	-1.360683	1.895	Significant
IT	1.952712	1.895	Insignificant

Decision Rule:

From table 5 above, the T- statistics revealed that the estimate parameters of Account Receivable Turnover (ART) and Inventory Turnover (IT) are greater than the t-tabulated that is 2.005450 and 1.952712 >1.895, respectively. This indicates that parameters estimate of parameters estimate of Account Receivable Turnover (ART) and Inventory Turnover (IT) are individually statistically significant @5% level of significance. The result also indicate that parameters estimate of parameters estimate of Account Receivable Turnover (ART) and Inventory Turnover (IT) had a positive influenced on the return of Asset (ROA) and Return on Equity (ROE) of the spontaneous financing in form of trade credit on the financial performance of manufacturing industries in Nigeria. Since t-statistics is > t-tab we therefore fails to reject the null hypothesis.

The result also revealed that the parameters estimate of Account Payable Turnover (APT) value is less than the T tabulated value that is -1.360683<1.895. The indicate that the parameters estimate of Account Payable Turnover (APT) is individually statistically insignificant @5% level of significance. The results found that the parameters estimate of Account Payable Turnover (APT) negatively influenced on the of Return on Asset (ROA) and Return on Equity (ROE) of the spontaneous financing in form of trade credit on the financial performance of manufacturing industries in Nigeria.

In addition, F-statistics is normal used to examine simultaneous significance of all the estimated parameters.

The hypothesis is stated.

H0: $\beta 1 = \beta 2$

H1: $\beta 1 \neq \beta 2$

If the amount of F-calculated is greater than the F-tabulated (F-cal>F-tab), therefore we accept the alternative hypothesis (H1) and that the overall estimate is statistically significant, otherwise accept (H0) the.

Calculating the F-tabulated
F@5% level of sign. K-1, N-K
Where K = 3(number of variables)
N = 10 (numbers of observations or samples)
F-tab = 3-1 10- = 2 , 7

F-tab@0.05, 3, 7 = 19.35

Thus, from the F distribution table the f tabulated @5% level of significance = 3.86. Also recall that the f calculated/ f statistics = 41.49490

F-statics shows that that the entire regression model was fit and further confirms the value of the R2, The calculated F-value (41.49490) is greater than the f-tabulated given the degree of freedom K-1, N-K. we therefore fail to reject the null hypothesis. This signifies that the overall relationship between the output of Account Receivable Turnover (ART) , Account Payable Turnover (APT) and Inventory Turnover (IT) are significant @5% level of significance.

5. DISCUSSION OF FINDINGS

It was found that the parameter estimates for account receivable turnover (ART) and inventory turnover (IT) positively influenced the return on assets (ROA) and return on equity (ROE) in the context of spontaneous financing through trade credit for the financial performance of manufacturing industries in Nigeria. Conversely, account payable turnover (APT) had a negative impact on ROA and ROE in the same context.

The result from the error correlation test revealed that the causal there is absent of multicollinearity in the model. There is high positive linear relationship between return to asset (ROA), return to equity (ROE) and account receivable turnover (ART), inventory turnover (IT) with the value of 0.706462 and 0.597956respectively. While low negative linear relationship exist between return to asset (ROA) return to equity (ROE) and account receivable turnover (ART) with the value of -0.203123.There is moderate positive linear relationship of account receivable turnover (ART) and inventory turnover (IT) on the spontaneous financing in form of trade credit on the financial performance of manufacturing industries in Nigeria with the value of 0.125054, and 0.040207respectively ,since $0.5 \leq r \leq 0.7$, while for high positive linear relationship $0.7 \leq r \leq 0.9$. The leading diagonal must have a perfect relationship because those variables are of the same.

However , the study found that parameters estimate of account receivable turnover (ART) and Inventory Turnover (IT) had a positive influenced on the return of Asset (ROA) and Return on Equity (ROE) of the spontaneous financing in form of trade credit on the financial performance of manufacturing industries in Nigeria, account payable turnover (APT) Negatively influenced on the of Asset (ROA) and return on equity (ROE) of the spontaneous financing in form of trade credit on the financial performance of manufacturing industries in Nigeria both in the short run and the long run.

6. CONCLUSION AND RECOMMENDATION

This study examined the impact of spontaneous financing on the performance of manufacturing firms in Nigeria between 2010-2020. The study can be concluded that account receivable turnover (ART) and inventory turnover (IT) had a positive influenced on the return of Asset (ROA) and Return on Equity (ROE)

of the spontaneous financing in form of trade credit on the financial performance of manufacturing industries in Nigeria. This implied that the account receivable turnover (ART) and inventory turnover (IT) would influence the spontaneous financing in form of trade credit on the financial performance of manufacturing industries in Nigeria.

However, return on equity (ROE) from spontaneous financing, such as trade credit, on the financial performance of manufacturing industries in Nigeria indicates that account payable turnover (APT) is not a significant factor. This suggests that trade credit, as a form of spontaneous financing, does not have a notable impact on the financial performance of these industries when analyzed through the lens of APT. Therefore, this study established that account receivable turnover; (ART) account payable turnover (APT) and inventory turnover (IT) play a key role on the spontaneous financing in form of trade credit on the financial performance of manufacturing industries in Nigeria.

Based on the findings and recommendations of this study; the following recommendations were made:

1. Manufacturing companies should be highly motivated to find methods for improving and optimizing the use of their assets. By maximizing the utilization of their resources throughout the production processes and the distribution of finished products, they can significantly enhance their profitability.
2. Adequate infrastructure, such as a constant power supply and good road networks, continues to be a major challenge for manufacturing firms in most developing countries. Therefore, the government at both the national and state levels should provide adequate facilities to enhance and support the activities of manufacturing firms in order to reduce their operational costs.
3. Government policies on macroeconomic variables such as interest rates, exchange rates, inflation rates, and import duties should be reviewed for the manufacturing sector to enhance operational efficiency and provide incentives like grants, subsidies, and tax holidays.
4. Manufacturing firms in Nigeria should adopt sustainable new technologies and innovations that can enhance their production output and make them more competitive on the global stage.

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