

Firm Characteristics and Earning Quality of Quoted Manufacturing Firms in Nigeria

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Abstract

Firm characteristics have been adjudged motivating factors responsible for increase in the earnings of firms globally. However, issues on firm characteristics in Nigeria focused mostly on financial institutions with less attention given to manufacturing sector that seems to play a pivotal role in enhancing economic growth. This study tends to examine the relationship between firm characteristics and earnings quality of quoted manufacturing firms in Nigeria. The study used annual data from 2011 to 2018 of six manufacturing firms (Livestock PLC, May and Baker PLC, AG Leventis PLC, Nestle Nigeria PLC, Nigeria Bottling Company and Champions Brewery). Panel data analysis was adopted and Hausman Test was used to determine which of the appropriate method to adopt for the analysis. The study found a positive and significant relationship between firm characteristics (measured by return on asset and current ratio) and earnings quality (measured by persistence). The study recommended that Manufacturing firms may choose to go for more debt especially where the interest rate is considerably low and also increase their liquidity asset and turnover as it has been found empirically so as to enhance the quality of firms reported earnings.

Keyword: Manufacturing, Earnings, Panel Analysis, Liquidity, Asset

Background of the Study

In recent years, the wave of financial scandals that rocked the international financial community has raised many questions and concerns about financial reporting quality all over the world (Agrawal & Chadha, 2005; Brown, Falaschetti, & Orlando, 2010). This was because of several incidents of high profile collapse of large corporate firms due to financial crises in virtually all continents of the world were recorded. Firms such as Enron, WorldCom, Tyco International, Adelphia, Arthur Anderson, Lehman Brothers, Freddy Mac, Fanny Mae, Goldman Sachs, Marconi, Northern Rock, Parmalat, Yukos, HIH Insurance, Satyam, Halliburton Oceanic Bank, Societe Generale Bank, City Express Bank, FCMB, Fin Bank, Afribank, Hallmark Bank, Apex Bank, Intercontinental Bank to mention a few, experienced corporate failures due to financial fraud. These incidents weaken investors' confidence in the management team and the financial reports (Biddle, Hilary & Verdi, 2009). The widespread failure in the financial information quality has created the need to improve the financial information quality and to strengthen the control of managers by setting up good firms structures.

In the case of Nigeria, financial information quality in Nigeria remains weak compared to many advanced economy. This resulted in hindering the growth of efficient equity markets. A common complaint among investors in Nigeria is that financial information on company performance is either unavailable or, if provided, lacks reliability (Shehu, 2011).

Corporate financial reporting has become a global concern mostly in recent time due to the reported cases of corporate failures arising from improper, false and misleading financial reporting in firms which hitherto had enjoyed good reputation due to the track record of great success in their lines of business (Agrawal & Chadha, 2005). A financial statement is misleading if it lacks the qualities of relevancy, accuracy, comparability, reliability, compatibility and it contains fundamental errors or is prepared with the intention to deceive and/or confuse the users. Such deception can be carried out in a number of ways, among which are falsifications of accounting records, falsification and omission of transactions, or misapplication of accounting principles (Higgs, 2003). Many explanations can be cited for the preparation of such misleading financial statements. As argued by the different convergence opinions. There is an opinion that misleading financial statements are prepared for the demand of high returns by shareholders on their investments.

In this view, this paper investigates the effect firm characteristics and earning quality of Nigeria manufacturing quoted firms. The made use of data covering the period of seven years for Six manufacturing firms that were selected namely; Livestock PLC, May and Baker PLC, AG Leventis PLC, Nestle Nigeria PLC, Nigeria Bottling Company and Champions Brewery. These years were chosen due to changes in the general price level in the country which led to changes in the firm financial statements and availability of data. The study is anchored on the Principal Agency theory based on the relationship between the principal (owners) and the agent (managers).

Model Specification

$$EQ = f(FCs) \quad 1$$

Where, Firm characteristics (FCs) are the independent variables which are measured using firm profitability and liquidity while the dependent variable which is earning quality (EQ) is measured using firm's persistence. The functional equation for the model is specified as;

$$PERS = f(ROA, CR) \quad 2$$

Consequently the econometric regression model used to capture both the independent variables and the dependent variables is hereby specified as:

$$PERS = \alpha_0 + \alpha_1 ROA + \alpha_2 CR + \mu_t \quad 3$$

Where: PERS=Persistence, ROA = Return on Assets and CR = Current ratio
 α_0 , α_1 , and α_2 are the parameters to be estimated and μ_t is the error term.
 A priori expectation: β_1 , and β_2 , >0 while $\beta_2 < 0$.

Result

Descriptive Statistics Test

The descriptive statistics test information of the variables used in this study is presented in the table below

Table 1

Descriptive Statistics Test

	ROA	PER	CR
Mean	1.459611	47647.43	0.940000
Median	1.423108	39410.00	0.890000
Maximum	2.063058	112680.0	1.260000
Minimum	1.141033	23389.00	0.810000
Std. Dev.	0.269679	28508.21	0.151064
Skewness	1.318066	1.519721	1.208820
Kurtosis	3.923915	4.037817	3.102250
Jarque-Bera	95.58445	126.3621	71.72916
Probability	0.000000	0.000000	0.000000
Sum	429.1257	14008344	276.3600
Sum Sq. Dev.	21.30898	2.38E+11	6.686400
Observations	294	294	294

Source: Research Computation, 2020.

From the descriptive result, it showed that all the variables suffered from normality problem due to the significant of the Probability value obtained. This called for the need to transform the adopted variables (such as, the natural log or square root) to make the data normal.

Residual Test

This section presents the result of the robustness test conducted on the data using variance inflation factor (VIF) and tolerance statistics to check multi collinearity in the data used for the study.

Table 2

Multi Collinearity Test

Variable	VIF	1/VIF
CR	1.26	0.7912
ROA	1.26	0.7912

Source: Researchers Computation, 2020.

The variance inflation factors were consistently less than 10 indicating complete absence of multicollinearity since the range value is between 0 and 10. In addition, the tolerance values are consistently greater than 0.1 or 10%, thus, further substantiating the fact that there is complete absence of multicollinearity between the independent variables. This further provides evidence that multicollinearity will not affect the inferences drawn from the results of this study.

Pooled Panel Regression Model

All the data in the study is pooled together and regressed. Information on the Pooled Panel regression is presented in the table below

Table 3

Pooled Panel Regression Result

Variable	Coefficient	Std. error	t-Statistic	Prob.
C	8.480187	0.107500	78.88544	0.0000
LROA	1.512367	0.074793	20.22068	0.0000
LCR	0.734100	0.135473	5.418770	0.0000
R-squared		0.587273	Mean dependent var	10.63370
Adjusted R-squared		0.584437	S.D. dependent var	0.497025
S.E. of regression		0.320403	Akaike info criterion	0.571680
Sum squared resid		29.87357	Schwarz criterion	0.609267
Log likelihood		-81.03691	Hannan-Quinn criter.	0.586732
F-statistic		207.0335	Durbin-Watson stat	2.238292
Prob(F-statistic)		0.000000		

From the table above, it showed that there is a positive and significant relationship between log of return on asset (LROA) and log of persistence (LPER). The result indicated that 1 percent increase in Log of Persistence stimulates 151.2% increases in the log of return on asset and it was significant at 1%. This finding conformed to the expected a priori expectation of this study. This implies that when manufacturing firms increases their return on asset it will lead to an increase in earnings quality of the firms as measured by persistence.

Similarly, from the pooled panel result it showed that there is a positive and significant relationship between log of current ratio (LCR) and log of persistence (LPER). The result indicated that 1 percent increase in Log of Persistence stimulates leads to 73.4% increases in the log of current ratio and it was significant at 1%. This finding also conformed to the expected a priori expectation of this study. This implies that when manufacturing firms increases their current ratio it will lead to an increase in earnings quality of the firms as measured by persistence.

Hausman Test

The Hausman Test used in determining the model selection of a panel data regression model is performed on the adopted variables and the result is presented in the table below

Table 4

Hausman Test

Test cross-section random effects

Test Summary	Chi-Sq. Statistic Chi-Sq. d.f.	Prob.
Cross-section random	0.000000	2
* Cross-section test variance is invalid. Hausman statistic set to zero.		
** WARNING: estimated cross-section random effects variance is zero.		

From the table above, the Hausman test indicated that the random effect model is appropriate for the study. Hence, null hypothesis that random effect is appropriate is accepted against the alternative hypothesis that fixed effect is appropriate. This is because the Hausman's Chi-Sq P-value is not significant.

Regression Result

Information on the Panel regression of Random and Fixed Effect model are presented in the table below.

Table 5

Panel Random Effect and Fixed Effect Regression Result

Variable	Random Effect				Fixed Effect			
	Co-eff	Std. error	t-stat	Prob.	Co-eff	Std. error	t-stat	Prob.
C	8.480187	0.115981	73.11734	0.000	8.480187	0.115981	73.11734	0.000
LROA	1.572367	0.080693	18.74215	0.000	1.572367	0.080693	18.74215	0.000
LCR	0.734100	0.146161	5.022550	0.000	0.734100	0.146161	5.022550	0.000
R2	0.587273				0.587273			
D.W	2.238292				2.238292			
Prob. (F.Stat.)	0.00000				0.00000			

From the panel regression results (random and fixed effect regression models) in the table above, the result indicated that a positive and significant relationship existed between log of return on assets and log of persistence among the manufacturing firms in Nigeria. A percentage increase in return on assets would leads to 157.2% increase in persistence of the selected manufacturing firms in Nigeria and it was significant. This finding also supports the a priori expectation of this study.

Similarly, a positive and significant relationship existed between the log of credit ratio and log of persistence among the manufacturing firms in Nigeria. A percentage increase in credit ratio would leads to 70% increase in persistence of the selected manufacturing firms in Nigeria and it was significant. This finding also supports the a priori expectation of this study.

Conclusion and Recommendation

The study has investigated the effect of profitability and liquidity on earnings quality of specific listed manufacturing firms in Nigeria. It was discovered in the study that liquidity exerts a positive and significant effect on manufacturing firms' earnings quality in the Nigerian economy. This means that manufacturing firms' current ratio is a significant factor to be considered should a firm quoted on the floor of the Nigerian stock exchange wants to enhance and improve the quality of their earnings. It was also discovered that profitability has a positive and significant effect on earnings quality of quoted manufacturing firms. It means that as the return on the assets of the manufacturing firms increases, earnings quality also increase. This is a significant factor to be considered by manufacturing firms in the Nigerian stock exchange.

The study recommended that Manufacturing firms may choose to go for more debt especially where the interest rate is considerably low and also increase their liquidity asset and turnover as it has been found empirically so as to enhance the quality of firms reported earnings.

Finally, the principal agency theory adopted by this study has indicated its relevance to this study. According to the theory, agents were contracted to manage an organization by the principal under a set down goals. One of these set goals is maximization of the principal wealth. In this study, firm characteristics measured by profitability and current ratio seem to have a positive effect on earning quality. This implies that the agent seems to be increasing

the shareholder wealth (Principal) in the selected manufacturing industry in Nigeria. However, the positive relationship between current ratio and earning quality may be interpreted otherwise in terms of its effect of the shareholders (Principal). Current ratio is short term liquidity; it indicates the manager set balances on the usage of funds most especially profit of the firm. The manager will not tie down the firm idle fund, hence, reinvest into a profitability venture which may expose the firm's current liabilities, current assets, creditors and other short term obligations request for funds. The manager's action may have a conflicting interest with that of the principal. The case may not be the same if the firm has a strict lay down rule in term of their dividend policy. This study corroborates existing knowledge on the position of the adopted theory.

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