



Firm specific attributes and financial performance of listed building materials firms in Nigeria

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ABSTRACT

This study investigates the impact of firm specific attributes on financial performance of listed building materials firms in Nigeria. The study used ordinary least square multiple regression to analyze the secondary data extracted from the annual reports and accounts of the seven sampled firms for the period 2005 to 2014. The study found that leverage, firm size and operating expenses have significant impact on the financial performance of building materials firms in Nigeria. The study also found that liquidity has no significant effect on the financial performance of the firms. In view of the findings, it is recommended among others that the management of listed building materials firms in Nigeria should reduce the level of leverage in their capital structure and focus more attention on equity financing, and increase their assets and expand the scope of their activities in order to increase their size as well as proper utilization of their operating expenses.

Key words: Leverage, Firm Size, Liquidity, Operating Expenses, Financial Performance

1. Introduction

Business entities are associated with certain firm attributes which impact on their performance either positively or negatively. Firm characteristics are those attributes such as firm size, leverage, liquidity, capital, firm age, dividend, market share, off balance sheet activities, operating expenses, among others, that affect the operations of a firm. Most business entities use debt to finance their operation with the hope of improving their performance. Leverage is the amount of debt used to finance firms' assets and other capital expenditure that can improve firms' performance (Lin, Li & Yang, 2006). Company's managers who are able to identify the level of leverages as components of firms' capital structure are rewarded by reducing firm's cost of finance thereby maximizing the firm's revenue (Zeitun & Tian, 2007).

Firm size is also expected to have an influence on a firm's performance (Dogan & Topala, 2014). Large firms may exercise economies of scale, have good knowledge of markets and are capable of employing competent managers for better performance (Driffield, Mahambare & Pal, 2005). However, large firms can be less efficient than smaller ones, because of the loss of control by managers over strategic and operational activities (Williamson, 1967). The types of assets a company has and the marketability of those assets are where a discussion of financial liquidity begins. Liquidity refers to the firms' ability to convert its current assets into cash in order to meet its day-to-day operations for better financial performance (Tatahi & Heshmati, 2009). Proper utilization of firms' liquidity can improve their financial performance.

Operating expenses is another item in a firm's financial statement that affects its financial performance. It is the amounts of money spend by a firm in running its business operations on daily basis. Operating expenses affect the financial performance of a firm either negatively or positively. If a firm over spend its cash on operating expenses, its financial performance would be affected negatively. If a firm minimizes its operating cost by properly managing it, its financial performance will increase positively.

The quest for individuals in Nigeria to own their personal houses, corporate organizations to expand their business operations to different parts of the country by building more branches, and the government to provide the needed infrastructural facilities in all the sectors of the Nigerian economy has made building materials firms an important subsector to be study in the country. Also, most of the previous studies on firm characteristics particularly in Nigeria focused more attention on financial sector and other subsectors of the manufacturing industry without considering the strategic importance of building materials subsectors and did not include operating expenses as a proxy of firm attributes despite the strong relationship that has been established in the literature between operating expenses and financial performance of firms (Ghasghaee and Fathollahi, 2014). This study is therefore an attempt to fill all these literature gaps. Therefore, the study generally seeks to evaluate the relationship between firm specific attributes and financial performance of listed building materials firms in Nigeria. It was also hypothesized that firm specific attributes proxied by leverage, firm size, liquidity and operating expenses has no significant impact on financial performance of listed building material firms in Nigeria.

2. Methodology

Correlation research design was adopted because the study attempts to measure the relationship between firm attributes and financial performance of listed building materials firms in Nigeria. The population of this study consists of all the building materials firms listed on the Nigerian Stock Exchange that have complete financial records on their websites or Nigerian Stock Exchange office for the period of 2005 – 2014. As at 31st December 2014, 13 firms were listed, out of the number, only seven firms have their financial statements available either on their website or in the office of Nigerian Stock Exchange. Accordingly, the population of the study consists of the seven (7) firms that satisfy the criterion. In view of the availability of data for all the firms, the study adopted census approach by studying all the firms. Panel data were extracted from the annual reports and accounts of the firm for the purpose of assessing the relationship between the variables of the study. Multiple regression was used for the panel data analysis in order to establish relationship between the variables. Multiple regression was considered

appropriate in view of the fact that it helps in not only establishing relationship between variables, but cause and effect of their relationship.

3. Model Specification and Variables Measurement

The model used to empirically test the hypotheses formulated is as follows:

$$ROA_{it} = \beta_{0it} + \beta_1 LVG_{it} + \beta_2 FSZ_{it} + \beta_3 LQT_{it} + \beta_4 OPE_{it} + \mu_{it}$$

The dependent and independent variables used in the model are explained in Table 1.

Table 1: Variable definitions

Variable Acronym	Variable Name	Variable Measurement and Source
ROA	Return on Assets	Measured as earnings before interest and tax divided by the firm's total assets (Okafor, 2007)
LVG	Leverage	Measured as the ratio of firm's total debt to equity (Salehi, 2009)
FSZ	Firm Size	Measured as natural logarithm of a firm's total assets (Dogan & Topala, 2013)
LQT	Liquidity	Measured as the ratio of firm's current assets to current liabilities (Owolabi & Obida, 2012)
OPE	Operating Expenses	Measured as the ratio of a firm's total operating expenses to its total assets (Zaman, 2009)
β	Intercept	
μ	Error Term	
i_t	Firm i at time t	

Source: Compiled by the author from various literature

The summary of the descriptive statistics of the variables are presented in Table 2

Table 2: Descriptive statistics

Variables	Min.	Max.	Mean	Std. Dev.
ROA	-0.258	0.792	0.1181286	0.1897649
LVG	0.360	8.471	1.587126	1.476421
FSZ	13.787	23.435	16.92374	2.77602
LQT	0.304	2.668	1.2458	0.521123
OPE	0.108	1.69	0.7899	0.3187097

Source: Extract from Stata output

From Table 2, the minimum and maximum values of return on assets are -0.258 and 0.792 respectively. Higher return on assets signifies better financial performance while lower return on assets shows lower financial performance. The average value of return on assets is 0.118 which signifies that the average financial performance of listed building materials firms in Nigeria is No.12b. The firms' minimum and maximum values of leverage are No.360b and N8.471b respectively, while the mean value is N1.58b. This signifies that the firms' capital structure is financed by debt more than equity. This is because the mathematical expression of firms' debt to equity ratio has shown values greater than one.

Firm size shows minimum and maximum values of N13.787b and N23.435b respectively. This implies that for the firms to have minimum financial performance. They must have an assets size valued at N13.787b and for maximum financial performance, The firm should have an assets size valued at N23.435b. The firms also need N16.923b to maintain average financial performance. The firms' liquidity shows minimum and maximum values of No.304b and N2.668b respectively. This implies that for firms to attain minimum and maximum financial performance they must to have liquidity positions of No.304b and N2.668b respectively. The average liquidity position of the firms is N1.2458b. This means that for the firms to perform averagely, they must maintain an average liquidity position of N1.2458b.

The operating expenses of the firms show minimum and maximum values of No.108b and N1.69b respectively. This implies that for the firms to achieve minimum and maximum financial performance, their operating expenses should not exceed No.108b and N1.69b respectively. The average operating expenses of the firms is No.7899b. This shows that for the companies to have an average financial performance, their operating expenses should not exceed No.7899b.

Finally, among the explanatory variables operating expenses has the lowest value of standard deviation of 0.3187. This signifies that operating expenses has the highest contribution to financial performance of listed building materials firms in Nigeria, while firm size has the highest value of standard deviation of 2.7760 which implies that firm size has the lowest contributions to financial performance of Nigerian building materials firms.

The correlation matrix explains the degree of relationship between the dependent and independent variables of the study as well as the independent variables among themselves. The summary of the associations among the variables of the study is presented in Table 3.

Table 3: Correlation matrix

Variables	ROA	LVG	FSZ	LQT	OPE
ROA	1				
LVG	-0.2951* (0.0131)	1			
FSZ	0.2889* (0.0153)	0.0952 (0.4332)	1		
LQT	0.3869* (0.0009)	-0.4079* (0.0005)	0.2637* (0.0274)	1	
OPE	0.1141 (0.3470)	0.4109* (0.0004)	0.0999 (0.4104)	0.0308 (0.8000)	1

Source: Stata output

Table 3 reveals that firm size and liquidity of the firms are positively and strongly correlated with return on assets. The values of 0.2889 and 0.386 of the variables indicated p-values of 0.0131 and 0.0009 that are significant at 5% and 1% respectively. The table also shows that leverage is negatively correlated with return on assets. The variable exhibited a relationship that is significant at 5%. In contrast, operating expenses have positive relationship with return on assets that is not statistically significant.

The relationship of the independent variables among themselves shows that on the one hand, liquidity and leverage are negatively correlated among themselves. On the other hand, the relationship between firm size and leverage, operating expenses and leverage, liquidity and firm size, operating expenses and firm size, and operating expense and liquidity, are positively related among themselves. Although some of the variables exhibited strong association, the overall relationship for the independent variables among themselves is not significant. This shown the absence of multicollinearity as can be observed from the tolerance value and variance inflation factor which have value less than 1 and 5 respectively.

5. Empirical Results

In view of the nature of the data, robustness test like multicollinearity and hetroskedasticity tests were conducted in order to see their existence or otherwise. The multicollinearity test revealed a variance inflation factor and tolerance values of less than 5 and 1 respectively, meaning that the data used in the study does not have any multicollinearity problems. The hetroskedasticity test revealed a χ^2 value of 1.00 with a p-value of 0.3171 which is not significant at any level of significance. This means there is complete absence of hetroskedasticity problem associated with the data of the study. Therefore, the study adopted ordinary least square regression model.

Table 4.3 presents the summary of the pooled multiple regression results obtained from the model of the study.

Table 4: Regression results

<i>Variables</i>	Coefficient	P-Values	Tolerance	VIF
<i>Constant</i>	-0.2893317	0.031		
<i>LVG</i>	-0.0436275	0.014	0.625025	1.60
<i>FSZ</i>	0.0172824	0.029	0.881033	1.14
<i>LQT</i>	0.0637149	0.172	0.702220	1.42
<i>OPE</i>	0.1327294	0.068	0.783762	1.28
<i>R²</i>	0.2664			
<i>Wald Chi²</i>	5.90			
<i>Prob. Chi²</i>		0.000		

Source: Stata output

Table 4 shows that leverage has negative significant impact on the financial performance of listed building materials firms in Nigeria. This can be observed from the computed value of beta coefficient of -0.0436 with p-value of 0.014 which is statistically significant at 5% level of significance. This is in line with

the findings of Magpayo (2011) and Ojo (2012) who reported negative significant relationship between leverage and firms' financial performance. The result is in contrast with the findings of Yoon and Jang (2005), Pacchori and Tatala (2012) and Damouri, Khanagha and Kaffash (2013) who found that leverage is negatively and insignificantly associated with performance of firms and the findings of Rehman (2013) who found a positive significant relationship between leverage and financial performance.

The table also revealed that firm size is positively and significantly correlated with the financial performance of listed building material firms in Nigeria. The beta coefficient of the variables is 0.0172824 and the p-value is 0.029 which is significant at 5% level of significance. This indicates that size has positive significant impact on the financial performance of firms. The implication of this finding is that the bigger the size of the firms the higher the quantum of profit to be reported by the firms. The finding is consistent with the findings of Driffield, Mahambare and Pal (2005) and Stierwald (2009) who found a positive significant relationship between firm size and financial performance, but inconsistent with the findings of Shih (2012) who found a negative significant relationship between firm size and financial performance.

Furthermore, the result exhibits evidence of positive insignificant relationship between liquidity and financial performance of listed building materials firms in Nigeria. The result shows a beta coefficient of 0.0637149 with p-value of 0.172 indicating that the p-value is not statistically significant. This implies that liquidity as one of the proxies of firm characteristics does not significantly affect the financial performance of listed building materials firms in Nigeria. The finding is in line with the study of Niresh (2012) who found no evidence of significant relationship between liquidity and financial performance. The result however contradicted the findings of Hendander (2005), Gill and Mathur (2011), Owolabi and Obida (2012), and Dalvi and Baghi (2014) who found positive significant relationship between liquidity and firms' financial performance; and the findings of Cheung, Chung and Fung (2012) who reported negative significant association between liquidity and firms' financial performance.

Finally, the table reveals that operating expenses have positive relationship with the financial performance of listed building materials firms in Nigeria. The relationship which is statistically significant shows a beta coefficient of 0.1327294 with p-value of 0.068 which is significant at 10% level of significant. This implies that operating expenses have significant effect on the financial performance of the firms. This supports the findings of Shil and Pramanik (2012), but contradicts the findings of Krishnan (2006) who found negative significant relationship between operating cost and financial performance and the findings of Zaman (2009), who found positive insignificant relationship between operating cost and firms' financial performance.

The combined and overall effect of the predictor variables on the explained variable showed that the model is adequate and free from misspecification. The Wald Chi² value of 5.90 with Prob. Chi² of 0.0000 which is significant at 1% level of significance shows that the model is well fitted with the variables of the study. Furthermore, the coefficient of determination R² which stands at 27% indicates the proportion of the total variation in dependent variable (return on assets) that is explained by the independent variables (leverage, firm size, liquidity and operating expenses). This signifies that 27% of the total variation in financial performance of listed building materials firms in Nigeria is caused by the combined effect of leverage, firm size, liquidity and operating expenses; while the remaining 73% is caused by other factors outside the model of this study.

6. Concluding Remarks

The study examined the impact of firm specific attributes on financial performance of listed building materials firms in Nigeria. Based on the findings of this study, leverage has negative significant influence on financial performance, while firm size and operating expenses has positive significant impact on the financial performance of listed building materials firms in Nigeria. Liquidity has positive insignificant influence on financial performance of listed building materials firms in Nigeria. It is recommended that the management of listed building materials firms in Nigeria should reduce the level of leverage in their capital structure and focus more attention on equity financing as well as selecting debt financing with cheaper cost attached. The firms should increase their assets and expand the scope of their activities by building more branches in order to increase their size for better financial performance. The listed building materials firms in Nigeria should maintain their current liquidity position in order to enable them have good working capital for them to continue operating in line with the going concern concept of accounting. The management of listed building materials firms should be concerned about the efficiency of their expenditure not the volume, for better financial performance.

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