

Empirical Evaluation of Financial Performance Differentials between Quoted and Unquoted Firms in Nigeria: Asset Base and Revenue as critical Determinants

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Abstract

There has been a long debate on what constitutes the financial performance of a firm. The thrust of this paper therefore was to determine the financial performance of quoted and unquoted firms in Nigeria using asset base and revenue as critical determinants. The study is hinged on the philosophy and perception that quoted firms performs better than unquoted firms. A sample of Eighteen (18) firms was selected, nine apiece for quoted and unquoted companies. The analysis of the firms covered a period of nine years from 2008 to 2017. Vital information from the selected firms' audited financial reports for various years were collected and analyzed. A Panel data fixed effect was used to determine the financial performance of quoted and unquoted firms while a paired sample statistics test was used in comparing the mean difference of both firms. Empirical results indicate that asset base and revenue have positive impact on the financial performance of quoted firms while only revenue has a positive relationship with financial performance of unquoted firms. The study concludes that there is a difference in the financial performance of quoted and unquoted firms in Nigeria. This difference may have emanated from the fact that unquoted companies lack the financial muscle that could be garnered by quoted firms; thus necessitating the recommendations that the Nigerian Stock Exchange should review its listing requirements to accommodate unquoted companies intending to be quoted.

Keywords: Asset Base, Revenue, Profit Margin, Quoted, Unquoted, Financial Performance

JEL CODE: M0, M11, M12

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1. Introduction

There has been an unending debate among researchers on the constituents of financial performance of a firm. The growth used as a measure of financial performance is based on the belief that growth is a precursor to the attainment of sustainability, competitive advantage and profitability (Markman, 2002). The rate of growth of an enterprise arguably is a function of the profit margin of the enterprise. The most widely emphasized goal of a firm is to maximize the value of the firm to its owners which is the driving force that makes a firm to succeed (Kannadhasan, 2008).

Most investors commit their resources to entities with large revenue base, great profitability potentials and future growth and stability. The process of growth and financial performance have been analyzed by researchers at the macro-economic level to the detriment of smaller (unquoted) companies. Therefore, the comparison of the financial performance of quoted firms with open access to the financial market and unquoted firms with no access is imperative.

A quoted firm is a firm that has sought and received listing for its shares on the Stock Exchange (SEC, 2005). Such quoted firms have numerous owners and can easily trade and transfer its equity shares. The motivation to be listed in the stock exchange results from the need to boost capital to meet present and future business growth, diversify its shareholders base, improve the debt-equity ratio and in some cases raise money to retire existing short-term facilities.

A quoted firm promotes economic growth and development in the aspects of improvement in aggregate consumption and investment. In this regard, Barlett (2000) states that the main mechanism through which the quoted firms affect the economy is through the so called wealth effect. The rise in stock prices raises wealth and an increase in wealth encourages consumers to increase their spending on consumption goods and investment thereby increasing the wealth of a nation that could trigger economic growth and development. In all, quoted firms allow for efficient transfer of funds between two parties: the borrowers and the lenders. Consequently, all borrowers and lenders are better off than they would have been if the transaction was not consummated provided such resource is prudently utilized.

Unquoted firms are those firms that are not listed in the Stock Exchange. Firms might be unquoted because of their small size and inability to meet listing requirements for stocks which include annual revenue bracket, listing fees and minimum number of outstanding shares. According to Hallberg (2000), unquoted firms have a big potential to bring about social and economic development. However, they are limited by capital outlay, and other resources. High rate of business mortality, inability to access the capital market for fund raising, poor management practices, among other factors are some of the identified challenges that unquoted business are facing in developing economy.

The relationship between unquoted firms and the Nigerian economy is controversial. Some strands of literature posit that unquoted firms have positive effect on the Nigeria economy. Ojukwu (2006) argues that unquoted firms stimulate indigenous entrepreneurship, provides employment to greater number of people, mobilize and utilize domestic savings and raw materials, provide intermediate raw materials or semi-processed products to large scale enterprises. Besides, unquoted firms have positively impacted the Nigerian economy in terms of output of goods and services, job creation at relatively low capital cost especially in the fast growing service and hospitality sector. They have also provided a vehicle for reducing income disparities as well as developing a pool of talented and semi-skilled labour on the basis of future industrialization.

Ngwuonugu (2005b) asserts that in developed economies of Germany, United States of America and even South Korea, unquoted firms account for 64 percent of industrial employment, a comparative figure in Nigeria is around 31 percent less than half of those in the developed countries. The 31 percent of unquoted firms' contribution to industrial growth is rather disturbing given the high degree of unemployment rate in Nigeria as well as the poverty level in the country as measured by the following indices and figures on the Nigerian's Human Development Indicator: high illiteracy rate, infant mortality rate, life expectancy at birth and GDP growth rate. In spite of the fact that there is hardly any documented, reliable and current data, it is rather obvious that the contribution of unquoted firms to the Nigerian output in particular and Gross Domestic Product in general are less satisfactory. Evidence of this poor performance is buttressed by the fact that most manufacturing enterprises in Nigeria had operated well below capacity in the last two decades. At times the capacity utilization has been as low as thirty percent.

The outbreak of the covid-19 pandemics has worsened the abysmal production performance of both quoted and unquoted companies in Nigeria. Only the multinational business thrived with unquoted firms folding up and thus worsening the unemployment situation in the country with its attendant high rate of crime.

Several related empirical studies on financial performance focused on corporate governance, ownership structure, profit sharing, managerial ownership and financial performance of firms to the neglect and exclusion of the financial performance of unquoted companies. Among such studies are Ahmadu, Amina and Tukur (2005); Henrik (2002); Engelbert, *et al*; (2005); Sanghoon (2006). Again, official statistics ignored the financial performance of unquoted firms. They fail to consider that the financial performance of unquoted firms is imperative because of their role in a national economic development and sustainability.

Moreso, empirical studies comparing financial performance of quoted and unquoted firms have shown contradictory results. Some studies like Walker and Petty (1978); Anderson and Reeb (2002) found evidence that unquoted firms out performed quoted firms while Tomas (2008) and Obiora (1987) negated this assumption. Daily and Dollinger (1992), argue that unquoted firms are more likely to outperform management controlled firms (quoted). This is because owners of unquoted firms are more likely to maximize firm value, enabling them to personally realize any financial and economic gain. In contrast,

professional managers of quoted firms may not pursue profit- maximizing and growth oriented strategies because they prefer to maximize their own benefits by pursuing other activities such as maximizing short-run sales revenues.

2. Literature Review

2.1 Theoretical Framework

The study is anchored on two distinct theoretical perspectives which are the Traditional Theory of the Firm and the Marri's theory of growth.

2.1.1 Traditional Theory of the Firm

The traditional theory of the firm is popularly referred to as the objective of the firm theory, which posits that businesses are set up with the sole objective of profit maximization. Profits are surpluses above the average cost of operation. Raiph (2002) states that the first objective of any business despite all that have been written and said about social and other aims must be to make profit. The going concern of a business enterprise will be threatened if sufficient profits are not maximized. The firm by pursuing its objective of profit maximization also maximizes social economic welfare. However, recent empirical evidences have argued that profits are uncertain and it is difficult for firms to maximize their profits under conditions of uncertainty as there might be dearth of practical information to be profit maximizers. This has led to the emergence of the growth maximization theory.

2.1.2 Marris's Theory of Growth

The proponent of this theory posits that modern firms are interested in growth maximization rather than profit maximization. According to Marris (1964), managers of large firms aim at promoting the growth and security of their firms. Incentives are given to employees for the purpose of expanding the size of the firm beyond profit-maximizing size and to steady growth rate. If the firm's choice is that of a higher growth rate, it will spend more on advertisement, research and development in order to create more demand and new products. Hence, he retains higher proportion of current profits for such growth promoting activities. Consequently, dividend to shareholders will be reduced and the share prices will fall. Besides, Marris emphasized the ever present threat of takeover if the resources of the enterprise are inefficiently managed.

2.2 Empirical Literature

Tomas (2008) investigated the performance of quoted and non-quoted companies in Europe using a dimensional panel data employing some financial ratios. The results showed that quoted firms in Europe performed significantly better not only in terms of profit, but also in terms of cash flow generation.

Atje and Jovanovic (1993) investigated a cross country of quoted firms and economic growth over the period 1980 – 1988. They found a significant correlation between average economic growth and market capitalization for forty countries. In a similar study by Levine and Zervos (1998), they employed data on 47 countries from 1976 through 1993 and found that stock liquidity are strongly related to growth, capital accumulation and productivity.

Obiora (1987) investigated the financial performance of quoted and unquoted registered

firms in Nigeria. He used Multivariate Analysis and financial ratios for the firms investigated. The findings showed that quoted firms performed better than unquoted firms in Nigeria.

Schoubben and Hulle (2004) examined the difference between quoted and unquoted firms in Belgium. Panel data from quoted and unquoted firms were used and result showed that quoted firms are less leveraged than unquoted firms.

Walker and Petty (1978), compared the financial profile of large and small firms using ratios of liquidity, profitability, leverage, business risk and dividend indicators. They concluded that there exist differences in the financial performance of large and small firms. With respect to profitability, small firms were more profitable than large firms. They argued that the result could be the nature of the small firms used.

Sanghoon (2006) investigated the ownership structure and financial performance of South Korea. He used panel data for South Korea firms from 2000 through 2006. The study shows that ownership structure is related to financial performance.

Nurhan, Mustafa and Abullahi (2007) investigated whether foreign owned firms perform significantly better than domestically owned Turkish corporations. They employed t-test statistics to ascertain if there are differences on operating margin, (OPM), Return on assets (ROA) and Return on equity (ROE). The result reveals that foreign ownership performs better than domestic owned ones in areas of ROA. The study was for the period of 2003 through 2004. From the literature review, the following hypotheses are derived:

- H₁: There is significant difference between the total revenues of quoted and unquoted companies in Nigeria.
- H₂: There is significant difference between the total asset base of quoted and unquoted companies in Nigeria.
- H₃: There is significant difference between the total profits of quoted and unquoted companies in Nigeria.

3. Research Method

The data for this study was from secondary sources collected from the Nigeria Stock Exchange, Audited Financial Report of Firms, CBN Annual Report and Statement of Account for various years. The panel data fixed effect model was used in estimating the financial performance of quoted and unquoted firms in Nigeria. In this study, financial performance (operating profit) will be regressed on asset base and revenue. We shall carry out a Hausman Test to ascertain whether fixed effects or random effects model shall be employed to estimate the relationship. Paired Sample Test was utilized in estimating the relationship between the financial performance of quoted and unquoted firms.

Vital information from the Firms Audited Financial Report and Statement of Accounts for various years were collected and analyzed. A sample of Eighteen (18) firms was selected, nine for quoted firms and nine for unquoted firms. The analysis of the firms covered a period of nine years from 2009 to 2017. A panel data fixed effect was used to determine the

financial performance of quoted and unquoted firms while a paired sample statistics test was used in comparing the mean difference of both firms.

3.1 Model Specification

The study is guided by a mathematical function specified as follows:

$$FP = F(AB, REV) \dots \dots \dots (1)$$

Where:

FP = Financial Performance (Proxy by firms' profit)

AB = Asset base of the firm (the total worth of the firm)

REV = Firm's Revenue (Proxy by firm's annual earned income)

For econometric computation, equation 1 transforms to:

$$FP = \beta_0 + \beta_1 AB_1 + \beta_2 REV_2 + ut \dots \dots \dots (2)$$

Where $\beta_1 - \beta_2$ = parameters to be estimated;

Ut = Stochastic error term

We formally write model 1 in a fixed effects (regression) model as:

$$FP_{it} = a_1 AB_{1it} + a_2 REV_{2it} + U_{it} \dots \dots \dots (3)$$

Where:

$i = 1, 2, \dots, n$, number of firms; U_{it} = error term

$t = 1, 2, \dots, t$, number of years

where i stands for the i th cross sectional unit and t for the time period. As a matter of convention, we will let i denotes the cross-section identifier and t the time identifier. It is assumed that there are a maximum of N cross sectional units or observations and a maximum of T time periods.

We put the subscript i on the intercept term to suggest that the intercepts of the selected eighteen firms may be different; the differences may be due to special features of each company, such as managerial style or managerial philosophy, corporate values and cultures among other factors.

4. Result and Discussion

4.1 Result of Hausman Specification Test

Since the panel model is being adopted, the individual effect terms can be modeled using either fixed or random effects. A formal test that will help us to choose between fixed effects model (FEM) and random effects model (REM) was performed with the Hausman Specification Test (HST) also known as Durbin-Wu-Hausman Test. The outcomes for the regressions show that they are statistically significant at the 10 percent significant level $\text{Prob} > \chi^2 = 0.0007$ and $\text{Prob} > \chi^2 = 0.0663$. We therefore use the fixed effects model

for the interpretation of our empirical analysis since it is consistent and the individual effects are correlated with other regressors in the model as well as having a larger test statistics.

4.2 Empirical Results

Table 1: The influence of asset base and revenue on the financial performance of quoted firms

Variable	Fixed effects	Random effects
Constant		-3.001
T-Statistic (Constant)		-3.248
Revenue (Log Rev)	0.9274	-1.1119
Asset Base (Log AB)	0.1155	0.0273
T-statistic (Revenue)	10.748	11.281
T-statistic (Asset Base)	2.214	0.326
Fixed Effect		
-Qi-	-1.03	0.57
-Qii-	-1.35	0.70
-Qiii-	-2.99	-0.55
-Qiv-	-1.88	-0.38
-Qv-	-3.01	-0.69
-Qvi-	-2.97	-0.80
-Qvii-	-1.20	0.54
-Qviii-	-1.58	0.18
-Qix-	-1.42	-0.06
Observations	100	100
R ²	0.94991	0.934032
Adjusted R ²	0.94780	0.93251
Prob (F-stat)	0.000	
Hausman test (p-value)	0.0663	
SE of regression	0.2276	0.2652
Durbin Watson statistics	1.95	0.78

Table 2: Influence of asset base and revenue on the financial performance of unquoted firms

Variable	Fixed Effects	Random Effects
Constant		-1.488
T-statistic (Constant)		-1.2291
Revenue (Log R)	1.0671	
Asset Base (Log A _s B)	-0.0280	
T-statistic (Revenue)	11.4521	

T-statistic (Asset Base)	-0.7452	
Fixed Effects		
-UQi	-0.89	-0.51
-UQii	-1.11	0.33
-UQiii	-1.40	0.06
-UQiv	-1.30	0.18
-UQv	-1.43	-0.07
-UQvi	-0.92	0.35
-UQvii	-2.55	-1.05
-UQviii	-1.05	0.36
-UQix	-1.07	0.22
Observations	100	100
R ²	0.957925	0.903737
Adjusted R ²	0.949226	0.897453
Prob (f-stat)	0.000	
Hausman Test (p-value)	0.0007	
SE of regression	0.637844	0.673817
Durbin Watson Statistics	1.72	1.68

Table 3: Paired samples Test to compare profit, Asset base, Revenue of quoted and unquoted firms

Pair of Variables	QR – UR	QAsB- UAsB	QP-UP
Mean	6.4466	4.3226	5.8165
St. Dev.	6.1340	1.0707	4.0861
St. Error of Mean	5.2340	1.0707	4.0461
t- value	1.034	4.224	1.277
p-value	0.304	0.000	0.205

Keys: i. QR and UR = total revenue of quoted and unquoted firms respectively.

ii. QAB and UAB = total asset base of quoted and unquoted firms respectively.

iii. QP and UP = total profit of quoted and unquoted firms respectively.

4.3. Discussions

The outcomes in **Table 1** above show that the changes in financial performance across firms can be explained by changes in asset base and revenue. The two variables have positive relationship with financial performance and the relationship is statistically significant ($A_sB =$

0.9274, $REV = 0.1155$ and $prob. = 0.000$). Specifically, about 95 percent of the variations are explained by the explanatory variables. The Durbin Watson statistic in the fixed effects model also shows that the model is free of serial (auto) correlation. The outcome implies that an increase in asset base and revenue all other factors held constant will increase the financial performance of the firms.

The outcomes in **Table 2** above shows that the aggregate performance of the fixed effects equation is quite satisfactory with a high R^2 of about 96 percent and the computed p-value is quite significant at 0.000. The DW statistics clearly shows the absence of auto correlation between the criterion variable (profit) and the predictor (asset base and revenue). The positive result of revenue (1.0671) implies that an increase in revenue increases the financial performance (profits) of firms all other factors held constant.

The results further indicate that an increase in asset base of firms is negatively correlated (-0.0280) with financial performance of the firms for the period under review. This implies that asset base reduces the profit of firms. This may be due to the inability of the unquoted firms to mobilize sufficient capital from the capital market for their expansion and growth objectives. Raising of capital mainly by personal savings and retained earnings and from friends and cooperatives by Nigerian unquoted firms may negatively affect financial performance of the firms both in the short and long-run.

The result in **Table 3** shows that there is no significant difference ($p\text{-value } 0.304 > 0.05$) between the total revenues of quoted and unquoted at 5% significant level. The difference only lies in the managerial and unique characteristic features of each firm. Thus leading to the rejection of the first formulated hypothesis which states that there is significant difference between the total revenues of quoted and unquoted companies in Nigeria.

Regarding asset base, the results indicate that there is significant difference ($p\text{-value } 0.000 < 0.05$) between the total asset base of quoted and unquoted firms at 95% confidence level. This is indicated in the gap between the mean difference and the standard error of mean. In other words, there is great marginal increase in the asset base of quoted firms compared to that of unquoted companies. This result led to the acceptance of the second hypothesis which states that there is significant difference between the total asset base of quoted and unquoted companies in Nigeria.

As regards profit, the result shows that there is no significant difference ($p\text{-value } 0.205 > 0.05$) between the total profits of quoted and unquoted companies at 95% confidence level. This reflects the peculiar attributes of each of the companies. Therefore the third hypothesis which states that there is significant difference between the total profits of quoted and unquoted companies in Nigeria is rejected.

This empirical evidence agrees with Tomas (2008) who found that quoted firms in Europe performed significantly better not only in terms of profit, but also in terms of cash flow generation. It also corroborates Obiora (1987) evidence that quoted firms performed better than unquoted firms in Nigeria. However, it disagrees with the findings of Walter and Petty (1978) who concluded that with respect to profitability, small (unquoted) firms were more profitable than large firms.

5. Conclusion

The general objectives of the study is to evaluate the performance of quoted and unquoted companies in Nigeria using assets base, revenue and operating profits as key measurement indices. Nine (9) quoted and nine (9) unquoted firms were used for the study. The analysis for the quoted firms shows that asset base and revenue of the selected firms had a positive influence on their financial performance. This implies that expansion activities of the firms in the area of increasing asset base and revenue will increase the operating profit margin of the entity reflecting their ability to expand with access to cheaper funds.

The results for unquoted firms show that only revenue of the firms had a positive influence on their financial performance. This may be due to certain shortcomings associated with unquoted firms such as restricted access to acquisition of funds at a relatively lower rates among other factors. Further evidence from the paired samples test indicates that quoted firms have a higher capacity to mobilize funds for increased asset base. The study therefore conclude that an increase in revenue all other factors held constant will increase the financial performance of both quoted and unquoted firms in Nigeria while an increase in asset base will increase the profit margin of quoted firms positively; on the contrary, it has a negative effect on the profit margin of unquoted companies.

The empirical results have some cogent policy implications for corporate entities as well as policy makers and regulators regarding effective policies and regulations as it affect firms and the economy.

First, the Nigerian Stock Exchange annual revenues thresholds, minimum number of outstanding shares, number of shareholders, listing fees and other requirements for a company to be quoted should be reviewed to accommodate the peculiarities of unquoted companies.

Second, a massive enlightenment campaign should be embarked upon by the Nigerian Stock Exchange, the Securities and Exchange Commission and other regulators to sensitize small and unquoted firms on the benefits accruable for being designated as a quoted company.

Lastly, to encourage firms to be quoted, the Nigerian Stock Exchange must as a matter of urgency should develop and improve their capacity in the area of effective management, market deepening, eradication of insider dealings and infrastructural inadequacies among other inefficiencies. This will no doubt boost the confidence of small and unquoted companies to seek the benefits of being quoted in the Stock Exchange.

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