

## **ASSESSMENT OF FIRMS SPECIFIC FACTORS THAT DETERMINE FINANCIAL PERFORMANCE OF THE NIGERIAN BREWERIES SECTOR (2010-2012)**

### **Abstract:**

The study assessed the specific factor that determines the financial performance of the Nigerian brewery firms. The study adopted an explanatory research design by which three firms out of the seven brewery firms quoted in the Nigerian Stock Exchange, were randomly selected. Correlation analyses were used to analyze the data. The findings show that leverage, liquidity and size each has a negative relationship with financial performance while age shows a positive relationship. The study recommends that there is need to determine an optimal debt level which balances the benefits of debt against the costs of debt and developing sound techniques of managing liquidity. Again firms should maintain moderate liquidity, to avoid the effects of both shortage and excess liquidity

### **Background of the Study:**

Apart from Financial measures, firms' performances are measured by market share, share value and others. It is not easy to select the most successful firm due to the fact that a firm may have a high level of profitability, but at the same time be in a very bad situation regarding its liquidity. The financial performance of a firm can be analysed in terms of profitability, dividend growth, sales turnover, asset base, capital employed among others. However, there is still debate among several disciplines regarding how the performance of firms should be measured and the factors that affect financial performance of companies (Liargovas & Skandahs 2008). A better financial profile of a company can be achieved by using several factors because no one factor will give an all-round result. Okwo & Ugwunta (2013) define performance evaluation as the assessment of manager's results, which involves, first, determining whether the money-manager added value by outperforming the established benchmark (performance measurement) and second determining how the money- manager achieved the calculated returns

Mwangi (2015) defines financial performance as a measure of organisation's earnings, profits, appreciations in value as evidenced by the rise in the entity's share price. Iswatia & Anshora (2007) state that performance is the function of the ability of an organisation to gain and manage the resources in several different ways to develop competitive advantage.

Many studies have been made on factors that determine the financial performance of firms in different countries, Nigeria inclusive but few studies have been done in this sector, so it is imperative to find out the factors that determine financial performance in brewery companies listed in Nigerian Stock Exchange Market.

### **Statement of the problem:**

There is an underlying assumption that the higher the leverage components of capital structure the less the tax payable but the greater the financial risk. However, Oye (2011) maintained that debt to a certain debt ratio results in higher return on equity, even though the benefits of the debt will be lower than cost after the trade-off level of capital structure. It is on the basis of this unresolved discussion that the study became necessary, in order to proffer solution.

### **Objectives of the Study:**

The main objective of the study is to assess firms specific factors such as leverage liquidity, firm size and age which determine financial performance of the Nigeria Brewery firms while the specific objectives includes:

1. To ascertain the effect of leverage in a firm financial performance (return on asset) of brewery firms in Nigeria
2. To determine the effect of liquidity on financial performance (return on asset) of brewery firms in Nigeria.
3. To ascertain the effect of size (total assets) of firms on financial performance of brewery firms in Nigeria
4. To evaluate the effect of firms' age on the financial performance (return on asset) of brewery firms in Nigeria.

#### **Research Questions:**

- I. To what extent does firms leverage affect the financial performance of the Nigerian brewery firms.
- II. Of what importance is firms' liquidity to the financial performance of the Nigerian brewery firms
- III. To what extent does the size of a firm affect the financial performance of the Nigerian brewery firms.
- IV. How does firm's age affect the financial performance of the Nigerian brewery firms.

#### **Hypothesis:**

1. Leverage has no significant effect on the financial performance (return on assets) of the Nigerian brewery firms listed in stock market.
2. Liquidity has no significant effect on the financial performance (return on asset) of brewery firms listed in Nigeria stock market
3. Firms size has no significant effect on the financial performance (return on asset) of brewery firms listed in Nigeria stock market
4. Firm age has no significant effect on financial performance (return on asset) of brewery firms listed in Nigeria stock .

#### **Conceptual Review:**

Tian (2007), explains the concept of performance as controversial issue in the finance strategy of most corporate organisations due to its multidimensional meanings. Research on firm performance emanates from organisation theory and strategic management (Murphy 1996). Performance measure could be in form of financial or organisational performance such as maximizing profit on assets, profit maximization, and maximizing shareholder's benefits. These are at the core of the firm's effectiveness (Chakravarthy 1986).

Operational performance such as growth in market share, provide a broad definition of performance as they focus on the factors that ultimately lead to financial performance (Hoffer & Sandberg 1987).

Profit efficiency is superior to cost efficiency for evaluating the performance of managers. This performance measure is more embraced because it seeks to raise revenue against minimum costs, hence, controlling cost to its barest minimum. It seems reasonable to assume that shareholders losses from agency costs are close to proportional losses of accounting profits that are measured by profit efficiency. Almajali (2012) argues that there are various measures of financial performance. For example return on sales reveals how much a company earns in relation to its sales, return on assets explain a firm's ability to make use of its assets and return on equity reveals what return investors take for their investments. Company's performance can be evaluated in three dimensions. The first dimension is the company's productivity, or processing inputs into outputs efficiently. The second dimension is profitability dimension or the level of which the company's earnings are bigger than its costs. The third dimension is market premium, or level at which company's market value exceeds its book value (Walker 2001), Cohen, Chang & Ledford (1997) measured accounting returns using return on assets (ROA). They indicated that return on assets (ROA) is widely used by market analysts as a measure of financial performance, as it measures the efficiency

of assets in producing income. The most used measure of financial performance is return on asset (ROA). So the study used return on assets (ROA ie ratio of profit after tax to total asset) as a measure of financial performance.

#### **Empirical Review:**

##### **Leverage as a determinant of financial performance:**

The word leverage is an American terminology for gearing. Leverage is the extent of use of fixed interest capital (debt and preference capital) in financing a company's corporation. Leverage is to America while gearing is to British (Oye 2011). There are two types of leverage: operating and financial. Operating leverage is the factor that influences business risk while financial leverage is the factor that influences financial risk. Business risk is the risk of the company's operations without regard to how the company is financed. It has to do with the earnings before interest and taxes (EBIT) of the Company's normal business operations. On the other hand, Financial risk is the increased risk of equity holders due to financial gearing which does not arise from a company's investment .It is due solely to the capital structure or more specifically to the level of gearing. Hence when a company introduces fixed interest debt into its capital structure it increases its financial risk, which is partly because the interest must be paid irrespective of earnings. The firm-specific factor includes leverage which is measured by the ratio of total debt to equity. Pandey (2007) leverage refers to the proportion of the debt to equity in the capital structure of a firm. The financial or leverage decision is a significant managerial decision because it influences the shareholder's return and risk and the market value of the firm. The ratio of debt-equity has implications for the shareholders dividend, and risk, which affects the cost of capital and the market value of the firm. Maleya & Willy (2013) on factors affecting the financial performance of listed companies at the Nairobi securities exchange in Kenya conducted their study using both descriptive and inferential statistics (Pearson correlation and multiple regressions) for data analysis. The study found that leverage has a significant negative effect on financial performance. Charumath (2012) in his study on the determinants of profitability of Indiana life insurers, analysed his data using linear multiple regression model through multicollinearity and homoscedasticity for a period of three years (2008-2011) for both private and public Indian life insurers. He deduced that leverage, negatively and significantly influenced the profitability of Indian insurers. Mou & Wanrapec (2013) carried out a study on factors affecting financial performance of 50 firms listed on Shangai stock exchange for period of 2008 to 2013 using multiple regressions with ordinary least square. After taking into account the problems of multicollinearity, heteroskedasticity and autocorrelation the study finds that leverage affects financial performance of those firms listed. Kwaning, Awuah & Mahama (2015) in factors affecting financial performance of non-life insurance companies in Ghana (2015) for a period of 2009 -2013 with adoption of purposive sampling selection of 10 non-life insurance companies out of 26 companies registered as at the end of 2014, found out that there is slightly weak correlation between performance and leverage. Zeitun & Tian (2007) found that debt level is negatively related, with financial performance, similarly, Simerly & Li (2000), Gleason (2000) showed negative relationship between financial performance and leverage level. While Ghosh, Naj. & Sirman (2000), Berger & Bonaccorsi di Patti (2006), Mirle & Jane reported a positive relationship; Maley & Willy (2013) reported that there is no relationship between the two at all.

There is an underlying assumption that the higher the leverage components of capital structure the less the tax payable but the greater the financial risk. However, Oye (2011) maintained that debt to a certain debt ratio results in higher return on equity, even though the benefits of the debt will be lower than cost after the trade off level of capital structure.

##### **ii. Firm's age:**

Firms' age has to do with the number of years the firm has been in existence. It is believed that the older the firm the more experienced and dexterity it achieves. Older firms have more experience and enjoy the benefits of learning. They are not prone to the liabilities of newness and can therefore enjoy superior performance. Older firms may also benefit from reputation effects, which allow them earn a higher margin on sales. On the other hand, older firms are prone to inertia, and

bureaucratic classification that goes along with age, they might have developed routines, which are out of touch with changes in market conditions, in which case there is an inverse relationship between age and profitability, hence Agarwal & Gort (2002) argue that old age may also make knowledge, abilities and skills obsolete and induce organisational decay.

Sovensen & Stuart argued that company's age affected the firms' performance. They further argued that organisational inertia operating in old firms tend to make them inflexible and unable to appreciate changes in the environment. Liargovas & Skandalis (2008) reported that older firms are more skilled since they have superior performance. Loderer (2009) found a positive and significant relationship between age of a firm and profitability.

### **iii. Liquidity:**

The international financial reporting standards (2006) define liquidity as the available cash for the near future, after taking into account the financial obligations corresponding to that period, Almaji, Alamro, Al-soub(2012) found that firm liquidity had significant effect on financial performance of insurance companies. The result suggested that the insurance should increase the current assets and decrease current liabilities because the positive relationship between the liquidity and financial performance. In contrast to the above reasoning, based on a theoretical model by Jovanovic (1982) suggested that a moderate amount of liquidity may propel entrepreneurial performance, but that an abundance of liquidity may do more harm than good. Therefore, they concluded that the effect of liquidity on firms' financial performance is ambiguous. Liargovas & Skandalis (2008) argue that firm can use liquid assets to finance its activities and investments when external finance are not available. On the other hand, higher liquidity can allow a firm to deal with unexpected contingencies and to cope with its obligations during periods of low earnings. Melaya & Willy (2012) recorded that liquidity has a positive significant relationship with financial performance.

### **iv. Size:**

The size of a firm is another factor that determines its financial performance. Size in this context is the total assets of the firm. The size of the firm may affect its financial performance in many ways. Previous studies in finance have shown that company size can predict the future stock price (Simerly & Li 2000). Melaya & Willy (2013) state that firms' size has no significant effect on the financial performance (return on assets). Hvide and these (2007) in their studies concluded that larger firms have better performance. Flamini et al (2009) suggested that bigger firms are more competitive than smaller firm in harnessing economies of scale in transactions and enjoy a higher level of profits. Athanasoghu (2005) assert that increase in the company increases the performance of the bank. Almajali et al (2012) argued that the size of the firm can affect its financial performance. Yogi (2007) argues that if firms become exceptionally large, the effect of size will be negative due to bureaucratic and other reasons. Mirie & Jane (2015) reported that there is a significant relationship between size and financial performance. Malik (2011) in his Pakistan study found that there is significantly positive relationship between company size and profitability.

### **Research Design:**

The data for this study were collected from brewery firms listed in Nigerian Stock Exchange, for the period 2010 to 2012. Three out of the seven listed brewery companies were randomly selected, and analyses conducted using correlation matrix and ordinary least square regression.

**Table 1:Description of variables**

VARIABLES	MEASURES	DESCRIPTION
Dependent variable return on assets (ROA)	Performance	Total sales/total assets
Independent variables liquidity (LQ)	Firm Liquidity	CA/CL
Leverage (LV)	Firm Leverage	Total long term/ total assets
Logarithm total assets (LTA)	Firm Size	Logarithm total assets
Age (AG)	Firm Age	No of years from inception

**Model Specification:**

ROA= F (LQ, LV, LTA, AG)

$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon$

Y= ROA, X<sub>1</sub>=LQ, X<sub>2</sub>=LV, X<sub>3</sub>=LTA, and X<sub>4</sub>=AG

$ROA = \beta_0 + \beta_1 LQ + \beta_2 LV + \beta_3 LTA + \beta_4 AG + \epsilon$

An explanation is as follows:

ROA= return on assets

LQ= liquidity

LV= leverage

LTA= logarithm total assets

AG= age

$\beta_0$ = constant

$\beta_1, \beta_2, \beta_3, \beta_4$ = regression parameters

$\epsilon$ = error term.

**Table 2: Correlations Matrix**

		Return on Assets	Liquidity	Leverage	Log Total Assets	Age
Return on Assets	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	9				
Liquidity	Pearson Correlation	.033	1			
	Sig. (2-tailed)	.932				
	N	9	9			
Leverage	Pearson Correlation	-.600	.021	1		
	Sig. (2-tailed)	.087	.958			
	N	9	9	9		
Log Total Assets	Pearson Correlation	.535	-.046	-.982(**)	1	
	Sig. (2-tailed)	.138	.906	.000		
	N	9	9	9	9	
Age	Pearson Correlation	.671(*)	.121	-.944(**)	.962(**)	1
	Sig. (2-tailed)	.048	.756	.000	.000	
	N	9	9	9	9	9

\* Correlation is significant at the 0.05 level (2-tailed).

\*\* Correlation is significant at the 0.01 level (2-tailed).

Table 2 reports of the correlation between the variables used in this study with 9 observations in 3 companies.

It is clear that the correlation between return on assets and other variables are statistically significant. According to the results, both logarithm assets and Age show positive strong correlation with ROA, while liquidity and leverage are weakly positively correlated with ROA.

**Table 3: Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.979(a)	.959	.917	.0765822

a Predictors: (Constant), Age, Liquidity, Leverage, Log Total Assets

In table 3, the R square value indicated that 95-97, variation in return on assets was explained by the contributions of independent variables. Whereas R is 0.959 implies that there is a strong relationship between independent variables and dependent variable.



**Table 4: Coefficients (a)**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta	B	Std. Error
1	(Constant)	34.911	5.096		6.850	.002
	Liquidity	-1.211	.285	-.550	-4.254	.013
	Leverage	-2.973	.646	-2.514	-4.601	.010
	Log Total Assets	-3.252	.472	-5.123	-6.885	.002
	Age	.070	.010	3.290	7.052	.002

a Dependent Variable: Return on Assets

In table 4, the coefficient of the liquidity variable (LQ) is significant, but indicated a negative effect on the ROA-1.211, which means that increase in the liquidity leads to decrease in the return on asset. The rise in logarithm total assets and leverage has confirmed the decrease in return on asset of firms, but the variables are proved significant and negative effect on return on assets with p-values (0.05). The p-values of age evidences the positive and significant effect of age on return on asset all at 5% significance level, so by keeping all other factor constant, one percent change in age leads to 7.0% increase in return on asset.

**Recommendations:**

1. There is need for purchase and use of heavier equipment for proper functioning, which requires that finance could be sourced outside to maintain some level of liquidity needed in handling some routine costs/expenses.
2. The result of analysis proves that financial performance has negative relationship with the three out of factors tested. This Nigerian Brewery firms should apply caution in liquidity level, leverage level and size of their firms to avoid negative effect on the financial performance.
3. Nigerian Brewery firms should be encouraged to strive to remain in business for a long time since there is a positive relationship between age and financial performance which implies that age helps firms to become efficient, because with time, firms discover what they are good at and find better ways of doing things.

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