



## Accounting Ratios Information: An Instrument for Business Performance Analysis

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### ABSTRACT

The research study is an empirical work that looked at instrument for measuring organization performance using ratio analysis. It also ascertains the relevance of internal and external financial reports during ratio analysis for the purpose of establishing key relationship for the purpose of appraising financial performance of a business entity. Secondary class was used. Pearson correlation matrix and ordinary least square regression techniques were adopted to analysis data. The study revealed that there is significant relationship between ratio analysis and business performance as well as financial ratios based on the findings of this study, researchers recommended that financial ratio should be computed periodically to reveal areas strength and weakness of business. More so, ratio analysis should be adopted as an instrument to measure business performance in terms of profitability and liquidity.

**Keywords:** *Accounting Ratios, Business Performance and Decision-Making*

### 1. INTRODUCTION

Each business outfit generates a report in a financial term at the end of each month, quarter (i.e. a bridge report) and on an annual basis. A report such as the income statement and statement of financial position create a snapshot of how a business is functioning.

However, for a quicker view of a business financial health and a way to identify specific aspect of an entity, financial ratios are used.

Firstly, the claims of bondholders are long term. They are interested in the cash flow of the firm to service debts over a long period of time. The bondholders may evaluate this by analyzing the capital structures of the firm, the major sources and users of fund, the business profitability. Finally, an investor in a company's common stock is concerned principally with present and expected future earning as well as the stability of these earning over time. As a result, the investor usually concentrates on analyzing the profitability of the business performance.

Thousands of accounting models were developed during the past. Yet, the financial ratios still maintained its classical and fundamental power either as part of these financial and accounting models or as another important supportive analysis with it. As a result of the proven power of the ratios as an instrument in the practical financial and planning analysis, it has been helpful. Though, financial ratios analysis has its limitations; which can be summarized as follows there is considerable subjectivity involved as there is no theory as to what should be the right number for the various ratios; ratios may not be accurately comparable across different companies due to a variety of factors such as different accounting practices and different financial year; ratios are based on financial statements that reflect the past only and are not an indication of the future; and financial statements provide an estimation of the costs and not values.

Emanating from the above, to evaluate an organization's financial condition and performance, analysis and interpretation of various ratios should be given to a skilled analyst.

### 1.1 RESEARCH OBJECTIVE

The broad objective of this study is to provide empirical evidence on influence performance evaluation through ratio analysis using data from some selected quoted firms in Nigeria. The specific objectives will include:

- I. To investigate the effect of liquidity ratio on business performance assessment.
- II. To investigate the influence leverage ratio on business performance assessment.
- III. To determine the influence of market ratio on business performance assessment.
- IV. To determine the effect of profitability ratio on business performance assessment.

### 1.2 RESEARCH HYPOTHESES

In line with the research problems and objectives, the following hypotheses are formulated to be tested:

- HO1 : There is no significant relationship between liquidity ratio and business performance assessment.
- HO2 : There is no significant relationship between leverage ratio and business performance assessment.
- HO3 : There is no significant relationship between market ratio and business performance assessment.
- HO4 : There is no significant relationship between profitability ratio and business performance assessment evaluation.

## 2. LITERATURE REVIEW

### 2.1 CONCEPT OF ORGANISATION PERFORMANCE ASSESSMENT

Performance assessment of a company is usually related to how efficient a company can use its assets, shareholder equity and liability, revenue and expenses. Financial ratio instrument is one of the best tools of performance evaluation and assessment of any business entity. In order to determine the financial position of an organization and to make a judgment of how well a firm is efficient in its operation and management and how well it has been able to utilize its assets and earn profit different methods and/or tools are used, among which is the financial ratios.

Financial ratio can be seen as a relationship between two individual quantitative financial information connected with each other in some logical manner, and this connection, is considered as a meaningful financial indicator which can be used by the different financial information users. Brigham(2010) state that financial ratios are designed to help evaluate financial statements. Financial ratios are used as a planning and control tool. Financial ratios are used by internal and external financial data users in making their economic decisions; including investing, and performance evaluation decisions. Financial ratios analysis is used to evaluate the performance of an organization in order to determine the strong and weak points and it offers solutions by providing appropriate plans. However, a large number of standards and various financial ratios exist but the choice of ratios used depends on the activity of the organization and the purpose of analysis (Tofeeq, 1997).

### 2.2 LIQUIDITY RATIO AND FIRM PERFORMANCE EVALUATION

Liquidity ratios determine the organization's ability to pay debt in short term. Liquidity performance measures the ability to meet financial obligations as they fall due. What began as credit concerns for the US sub-prime market developed into concerns in global credit markets with unknown financial exposures and potential losses (ABSA, 2009). The resultant uncertainty made financial market participants exceedingly risk averse, such that they were unwilling to invest in any markets or financial instruments other than „safe havens“. This severely reduced the levels of liquidity in the global financial markets (SARB, 2009).

Thachappilly (2009), also state that the Liquidity Ratios help Good Financial. He know that a business has high profitability, it can face short-term financial problems and its funds are locked up in inventories and receivables not realizable for months. Any failure to meet these can damage its reputation and creditworthiness and in extreme cases even lead to bankruptcy. In addition, liquidity ratios are work with cash and near-cash assets of a business on one side, and the immediate payment obligations (current liabilities) on the other side. The near-cash assets mainly include receivables from customers and inventories of finished goods and raw materials. Coupled with, current ratio works with all the items that go into a business' working capital, and give a quick look at its short-term financial position. Current

assets include Cash, Cash equivalents, Marketable securities, Receivables and Inventories. Current liabilities include Payables, Notes payable, accrued expenses and taxes, and Accrued instalments of term debt).  $\text{Current Ratio} = \text{Current Assets} / \text{Current Liabilities}$ . Similarly, Quick ratio excludes the illiquid items from current assets and gives a better view of the business' ability to meet its maturing liabilities.  $\text{Quick Ratio} = \text{Current Assets minus (Inventories + Prepaid expenses + Deferred income taxes + other illiquid items)} / \text{Current Liabilities}$ . In the final ratio under this article is cash ratio .Cash ratio excludes even receivables that can take a long time to be converted into cash.  $\text{Cash Ratio} = (\text{Cash} + \text{Cash equivalents} + \text{Marketable Securities}) / \text{Current Liabilities}$ .

James (2009), Pronounce that it is the analysis of financial statements that is used to measure company performance. If the ratios indicate poor performance, investors may be reluctant to invest. Therefore, the current ratio or working capital ratio, measures current assets against current liabilities. The current ratio measures the company's ability to pay back its short-term debt obligations with its current assets. Wherefore, the acid test ratio or quick ratio, measures quick assets against current liabilities. Quick assets are considered assets that can be quickly converted into cash. Generally they are current assets less inventory. The current ratio is calculated by dividing current assets by current liabilities. Current asset includes inventory, trade debtors, advances, deposits and repayment, investment in marketable securities in short term loan, cash and cash equivalents, and current liabilities are comprised short term banks loan, long term loans-current portion, trade creditors liabilities for other finance etc.

### 2.3 LEVERAGE RATIO AND FIRM PERFORMANCE EVALUATION

Leverage ratio shows how efficient the organization uses other people's money and whether it is using a lot of borrowed money (Lasher, 2005). Thachappilly (2009), in this articles him express about debt management. He mention that the Ratio of Debt to Equity has Implications for return on equity debt ratios check the financial structure of the business by comparing debt against total capital, against total assets and against owners' funds. The ratios help check how "leveraged" a company is, and also the financial manoeuvrability of the company in difficult times. Debt ratios and the related interest coverage

ratio checks the soundness of a company's financing policies. One the one hand, use of debt funds can enhance returns to owners. On the other hand, high debt can mean that the company will find it difficult to raise funds during lean periods of business (James, 2010). The ratio of these numbers tells a lot about the business. It is calculated by taking the debt owed by the company and divided by the owner's equity, also known as capital.

### 2.4 MARKET RATIO AND FIRM PERFORMANCE EVALUATION

Market value ratio is also call share ownership ratio. It referred to the stockholders way of analyzing the present and future investment in a company. In this ratio the stockholders are interested in the way certain variables affect the value of their holdings. It helps the stockholder to be able to analyze the likely future market value of the stock.

Abu Shanab (2008) examined the impact of returns and risks on the share prices for a sample of 38 industrial public companies in Jordan listed on Amman Security Exchange for the period of 2000 to 2007. The results of the study showed that there is no effect for the returns, risks and dividends on the market value per share. However, the results indicated that there is a significant relationship between cash flow and share prices.

AL Kurdi (2005) study explored the ability of the published accounting information to predict share prices for a representative sample of 110 Jordanian public companies listed in Amman Security Exchange for the period of 1994 to 2004. The results informed that there is a relationship between the published accounting information of the insurance public companies and their share. The results also informed that market information have more ability on predicting share prices compared to the accounting information. Abu Hasheesh (2003), examined the role of published accounting Information in predicting share prices. The study used a sample of 40 Jordanian public companies listed in Amman Security Exchange for the year 2003. The results showed that there is a positive significant positive relationship between the market price per share with the ratios of net profits to equity, net profits to total assets, and dividends to net profits as a total. The results showed also a significant negative relationship between the market price per share, with the ratios of fixed assets to total assets, the

creditors total to total of cash sources, and the wages ratio to total of expenses ratio.

## 2.5 PROFITABILITY RATIO AND PERFORMANCE EVALUATION

Profitability ratios are indicators for the firm's overall efficiency. It's usually used as a measure for earnings generated by the company during a period of time based on its level of sales, assets, capital employed, net worth and earnings per share. Profitability ratios measures earning capacity of the firm, and it is considered as an indicator for its growth, success and control. Creditors for example, are interested in profitability ratios since this indicate the company's capability to meet their interest obligations. Shareholders are also interested in profitability. This indicates the progress and the rate of return on their investments. Profitability ratio evaluate how well a company is performing by analyzing how profit was earned relative to sales, total assets and net worth of companies.

James (2009), state that the Profitability Ratio Analysis of Income Statement and Balance Sheet are used to measure company profit performance. The income statement and balance sheet (now called Statement of Comprehensive Income and Statement of Financial Position, respectively) are the two important reports that show the profit and net worth of the company. Its analyses show how well the company is doing in terms of profits compared to sales. He also shows how well the assets are performing in terms of generating revenue.

Thachappilly (2009), discuss about the Profitability Ratios Measures on Margins and Returns such as gross, Operating and/or Net Profits, ROA ratio, ROE ratio, ROCE ratio. However, he stated that to determine the Gross profit is the surplus generated by sales over cost of goods sold. That is, Gross Profit Margin = Gross Profit/Net Sales or Revenue. Moreover, Operating profits are arrived at by deducting marketing, administration and R&D costs from the gross margin. Nonetheless, He explains that Operating Profit Margin = Operating Profit/Net Sales or Revenue. He also explains that the return on resources used is divided into three categories such as ROA, ROE, and ROCE: At first the Return on Assets = Net Profit/ (Total Assets at beginning of the period + Total Assets at the close of the period)/2) .The denominators are the average total assets employed during the year. Return on Equity = Net Profit/

(Shareholders' Equity at the beginning of the year + Shareholders' Equity at the close of the year)/2). ROCE ratio: Return on Capital Employed = Net Profit/ (Average Shareholders' Equity + Average Debt Liabilities).

Oberholzer & Van der Westhuizen (2004) investigated the efficiency and profitability of ten banking regional offices of one of South Africa's larger banks. This study demonstrates how conventional profitability and efficiency analyses can be used in conjunction with DEA. Although their study concentrated on banking regions, their findings confirm those of Yeh (1996) that DEA results as an efficiency measure have a relationship with both profitability and efficiency ratios. The conclusions were that there are significant relationships between conventional profitability and efficiency measures and allocated cost and scale of efficiency had no significant relationship with technical efficiency.

## 3. METHODOLOGY

The data used for the study was based on secondary data **information of selected firms**( ) The information regarding their ratios analysis figures of liquidity, profitability leverage , market e.t.c were gathered and examined in relation to their significant contribution performance.

## 4. DATA ANALYSIS AND INTERPRETATION

### 4.1 DATA ANALYSIS

The below is the descriptive statistics of the sampled firms that disclosed information concerning ratio analysis for the periods 2009 to 2013.

Table 1: Descriptive Statistics. Variables	Mean	Std. Deviation	Jarque-Bera
ROA	0.099	0.342	74217.88(0.0)*
LIQR	1.010	0.806	26048.45(0.0)*
LEVR	12.200	20.100	367.54(0.0)*
MKTR	3.629	30.580	178820.9(0.0)*
PROFTR	6.020	11.095	583.72(0.0)*

Source: Secondary data from samples firms (2018)

Table 1 shows the mean (average) for each of the variable, their standard deviation (degree of dispersion) and Jarque-Bera (JB) statistics (normality test). The results in table 1 provided some insight into the nature of the selected firms that were used in this study. Firstly, the large standard deviation of leverage

ratio and market ratio shows that these variables drive firm performance evaluation of the sampled firms even profitability ratio also drive firm performance evaluation with a standard deviation of 11.095. The high value of the standard deviation may also associate with high risk. Secondly, it is observed that on the average, the performance of the sampled quoted firms in Nigeria is about 9%. Lastly, the Jarque-Bera (JB) statistics in table 1 shows that the variables are normally distributed at 1% level of significance.

In examining the relationship among the variables, we employed the Pearson correlation coefficient (correlation matrix) and the results are presented in table 2.

#### 4.2 FIRMS CORRELATION MATRIX TABLE

Table 2: Pearson Correlation Matrix ROA	LIQR	LEVR	MKTR	PROFTR
ROA				1.000
LIQR		-0.156		1.000
LEVR		0.048	-0.059	1.000
MKTR	0.059	-0.260	0.064	1.000
PROFTR	0.189	0.081	0.459	1.122

Source: Firms correlation matrix computation (2018)

In Table 2, we focus on the correlation between firm performance evaluation (ROA) and the individual explanatory variables. The result shows that performance is negatively associated with liquidity ratio (LIQR = -0.156 while leverage ratio (LEVR= 0.048), market ratio (MKTR 0.059) and profitability ratio (PROFTR) are positively correlated with firm performance evaluation. A closer look at the value of the correlation coefficient results revealed that leverage ratio and profitability ratio that has a significant correlation relationship. The correlation matrix also revealed that no two explanatory variables were perfectly correlated. This means that there is the absence of multicollinearity problem in our model. Multicollinearity between explanatory variables may result to wrong signs or implausible magnitudes, in

the estimated model coefficients, and the bias of the standard errors of the coefficients.

The simple regression result obtained is presented in table 3 below.

#### 4.3 REGRESSION TABLE

Table 3: Simple Regression Result Explanatory variables	Coefficient	T-Test	Prob - Value
CONSTANT	0.134	3.311	0.0011
LIQR	-0.060	-2.114	0.0356
LEVR	-0.0009	-0.720	0.4719
MKTR	1.610	0.021	0.9831
PROFTR	0.006	2.742	0.0066

Source: Correlation of regression (2018)

R-squared = 0.058061,  
Adjusted R-squared = 0.041165,  
F-statistic = 3.436398,  
Prob (F-stat) = 0.009486  
DW= 1.711164.

From table 3 above, it would be observed from the coefficient of determination (R<sup>2</sup>) value of 0.041165 that about 4% of the systematic variations among the sampled firms are jointly explained by the independent variables. This means that the low value of adjusted R-squared is attributed to the exclusion of other possible variables that might contribute to performance evaluation through ratio analysis. The F-statistic value of 3.436398 and its associated p-value 0.009486 show that the model on the whole is statistically significant. This means that there exists a significant linear relationship between the variables.

Following the above, it should be noted that liquidity ratio (LIQR) has a significant negative impact on firm performance evaluation (ROA). This implies that high liquidity among Journal of Accounting and Financial Management the sampled firms will significantly lead to low performance of the firms. The significant negative impact of liquidity ratio is that the variable passed the t-test at 5% level of confidence. Leverage ratio (LEVR) has a negative and insignificant impact on firm performance evaluation (ROA). The insignificant of the variable is because the t-test failed at even 10% level of confidence. Market ratio (MKTR) has a positive and insignificant impact on firm performance evaluation (ROA) while

profitability ratio (PROFTR) has a positive significant impact on firm performance evaluation (ROA). This implies that increase in profitability ratio will lead to significant increase in firm performance evaluation.

The Durbin Watson value of 2.94367 revealed the absence of serial correlation in the result but it is irrelevant due to the nature of the data employed.

#### 4.4 DISCUSSION AND RESULTS

This study examines performance evaluation through ratio analysis of the selected quoted firms for the periods 2009 and 2013. The study employed descriptive statistic, Pearson correlation matrix and simple ordinary least square regression technique. The descriptive statistic revealed that the high value of the standard deviation of leverage ratio, market ratio and even profitability ratio may be associated with high risk. The Jarque-Bera (JB) statistics shows that the variables are normally distributed at 1% level of significance. Pearson correlation matrix value revealed that leverage ratio and profitability ratio has a significant correlation relationship while all other explanatory variables are weakly correlated with firm performance evaluation. The correlation matrix also revealed that no two explanatory variables were perfectly correlated. This means that there is absence of multi linearity problem in our model. From the empirical findings using the simple regression techniques, it was observed that liquidity ratio has a negative and significant impact on firm performance of quoted firms in Nigeria at 5% level of significance. Leverage ratio and market ratio has a negative and a positive and insignificant on firm performance evaluation at even 10% level. Profitability ratio has a significant positive impact on firm performance evaluation. The Durbin Watson value of 2.94367 revealed the absence of serial correlation in the result but it is irrelevant due to the nature of the data employed.

#### 5. CONCLUSION AND RECOMMENDATIONS.

This study examined performance assessment through ratio analysis in quoted Nigerian firms. From the empirical findings using the simple regression techniques, it was observed that liquidity ratio has a negative and significant impact on firm performance

evaluation of quoted firms in Nigeria at 5% level of significance. Profitability ratio has a significant positive impact on firm performance evaluation. Profitability ratios measures earning capacity of the firm, and it is considered as an indicator for its growth, success and control.

Conclusively, this research calls for further research to be conducted in the area of performance assessment through ratio analysis.

#### RECOMMENDATION

Based on the empirical findings, the study therefore suggests that;

- I. The study recommends that management and policy holders should see liquidity ratio as the major factors influencing firm performance assessment.
- II. It is recommended that profitability ratio should be regarded as a factor that determines performance assessment.
- III. The study suggested the use of other possible variables that might contribute to performance assessment through ratio.

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