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Are Stock Returns Indicative of Company Financial Performance? : A Case Study of Listed Banks on the Ghana Stock Exchange

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Abstract:
The aim of the research is to assess the veracity of the assertion that stock returns are indicative of the financial performance of companies listed on Ghana stock exchange. Stock returns is the dependent variable, and Capital Adequacy Ratio, Asset Quality, Net Interest Margin, Earnings Per Share, Liquidity and Return on Assets are the independent variables. The financial statements of four listed banks from 2009 to 2018 were analysed. The purposive sampling technique was employed. Using SPSS version 21, multiple linear regression was run at 0.05 significance level. The hypotheses that liquidity, Asset Quality, Net Interest Margin, Return on Assets and Capital Adequacy Ratio have effect on the stock returns were rejected, leading to the assertion that stock analysts, portfolio managers and savvy investors should not rely on the above ratios in assessing the performance of the stock returns of listed banks in Ghana.

Keywords: Net interest margin, GCB bank, stock returns, regression, liquidity

1. Introduction

1.1. Background of the Study

The Banking sector in Ghana has gone through enormous transformations. Ghana, after independence from the British Colony in 1957 had appreciable foreign reserves. Mismanagement of these reserves saw serious depletion until it hit rock bottom in 1983. Ghana was in financial crisis. The per capita GDP growth of not more than -3% per annum during 1970-83, inflation which peaked at 123% in 1983, low levels of saving and investment, and a low volume of international trade, led to crisis in the financial sector (Antwi-Asare, 2000). Again, very high inflation wiped out the capital base of most of the banks and demand deposits accounted for more than 76% of total private sector deposits, constraining long-term lending (Addison & Asare-Antwi, 2000).

The Government of Ghana, under the auspices of the World Bank subscribed to the Economic Recovery Programme (ERP) in 1983 to liberalize the economy. This intervention reduced inflation from 123% in 1983 to 18.0% in 1991 while real GDP growth rate increase from -0.7 to 5.4 over the same period (Adam, 2009).

In the light of the financial liberalization, the Ghana Stock Exchange was instituted on 12th November 1990 with 20 listed companies to provide banks and non-banks the opportunity to raise long-term capital for their businesses. Banks that have so far listed on the Ghanaian Bourse include Ghana Commercial Bank (GCB Bank) in 1996, Ecobank GH. Ltd, 2006, Societe General, 2006, Republic bank, 1995 and Standard Chartered bank Ghana, in 2006.

The listed banks witnessed impressive financial results over the years. The same however could not be said with their corresponding stock returns. It is the expectation that as these banks continue to post impressive results over the years their stock returns must be appealing to investors, shareholders and stakeholders as a whole.

1.2. Problem Statement

It is generally perceived that as the financial performance of a company gets stronger so must the prices of its listed shares. This is not always the case, and shares of companies listed on the Ghanaian Bourse is no exception. The Financial Sector Composite Index (GSE-FSI) in 2011 recorded a value of 863.09 with a percentage return of -13.69%, and rose to 2,243.63 in 2014 with a return of 25.58%. It then reduced to 1,930.06 in 2015 with a return of -13.98% and to 1,543.41 and a return of -19.93% in 2016. It then ended at 2,310.58 at the last trading day in December, 2017 with a return of 49.51%. By the end of the first quarter of 2019, the GSE-FSI recorded a growth of 0.07 per cent. However, it fell sharply to -6.56 per cent in May 2019, reflecting rapidly falling share prices in April, 2019. Thus, there has been a disconnect between the stock returns of the listed banks in Ghana and their financial performance over the years. It is this phenomenon that this research attempted to unravel.

1.3. Research Objective & Research Question

The main objective of the research is to assess the relationship, if any, between banks financial performance and stock prices for listed banks on the Ghanaian Bourse. This leads to the formulation of the following research question:

"Are stock returns indicative of company performance? A case study of listed Commercial Banks on the Ghana Stock Exchange."

1.4. Research Hypothesis

The following hypothesis was drawn from the research question:

- Hypothesis 1: Stock prices of a company's stocks are influenced by its Return on Assets
- Hypothesis 2: Stock prices of a company's stocks are influenced by its Liquidity
- Hypothesis 3 Stock prices of a company's stocks are influenced by its Net Interest Margin
- Hypothesis 4: Stock prices of a company's stocks are influenced by its Earnings Per Share

1.5. Significance of the Research

There is a considerable amount of literature on the relationship between banks financial performance and econometric variables, the relationships between banks and non-banks financial performance vis-a-vis indicators such as Net Interest Margin, Profitability, credit risk and capital structure. The internal factors such as profitability, Capital Adequacy Ratio, Earnings per Share Asset Quality and Liquidity drive the growth of companies and must be addressed alongside the valuation methods often used to assess over-valued and under-valued stocks. This research provides the analysts deep understanding and insight into the analysis of the stocks of listed banks as additional financial due diligence measure. Again, the academics will find the research useful as it endeavours to close the literature gap with the findings of this research.

1.6. Scope of the Research

The banks performance analysis covered the period from 2009 to 2018, and financial performance ratios were employed to analyze the performance of these banks.

1.7. Overview of the Methodology

The research is exploratory with natural logarithm of stock returns of the selected four banks regressed over their financial performance indicators such as Net Interest Margin, Profitability, Liquidity and Earnings Per Share as independent variables. Regression analysis was employed to ascertain whether stock returns are indicative of company financial performance. Also, some portfolio analysts were interviewed on stock selection techniques.

1.8. Organization of the Research

Chapter one discussed the Introduction and Background of the research and the Research objectives/Question. Chapter Two features the Literature Review and provides information on the theoretical and empirical framework on which the research will add further knowledge to. Chapter Three covers the Research Methodology and Chapter Four discusses the Data Collection and Data Analysis using Regression technique. Chapter Five covers the findings and research synthesis to provide the Research model, concludes the research, provides recommendations and suggests areas of possible future research.

2. Literature Review

2.1 .Introduction

The literature review provides insight into the performance of companies' vis-a-vis their stock prices seen in different perspectives by different researches. Areas of discussion include the theoretical framework and empirical evidence. The theoretical framework encompasses the market timing theory, asymmetry information and announcement theory and stock pricing techniques conceptual framework.

2.2. Theoretical Framework

This research is carried out against the background of a number of theories aimed at attempting to establish the relationship between stock price and company performance in existing literature. Some of these theories are the market timing theory and the information asymmetry and announcement theory.

2.2.1. The Market Timing Theory

The market timing theory discusses how firms and corporations in the economy decide whether to finance their investment with equity or with debt instruments. There are two versions of equity market timing that lead to similar capital structure dynamics. The basic underlying assumptions are that, economic agents to be rational so that companies are assumed to issue equity directly after a positive information release which reduces the asymmetry problem between the firm's management and stockholders. It further goes on to assume that economic agents are irrational. It is also asserted that an external finance-weighted average of historical market-to-book ratios is negatively related to current market leverage (Baker & Wurgler, 2002). This they interpret as evidence for market timing. Furthermore, they find that the share of equity in aggregate securities issuance predicts aggregate stock-market returns.

2.2.2. The Information Asymmetry and Announcement

Empirical tests show that voluntary earnings disclosures include material information and that bad news is released in an untimely fashion leading to information leakage in the pre-announcement period. He further asserted that the results also indicate that quarterly earnings enhance stock market liquidity by shrinking bid-ask spreads. However, earnings forecasts exacerbate information asymmetry before and after the announcement date (Lakhal, 2008). On the grounds of corporate governance, corporate governance mechanisms cause a reduction of adverse information asymmetry (Ajina, Sougue, & Laouiti, 2013)

## 2.3. Stock Pricing Techniques and Conceptual Framework.

2.3.1. Stock Pricing Techniques

There are principally two schools of thought in the valuation of the shares of listed companies – the fundamentals analysis, which requires analysis of the financial statements of the company, and the technical analysis, which involves identifying some models in predicting future stock prices from historical prices. Some analysis may employ both approaches in their analysis. The fundamental analysis and technical analysis go contrary to what the efficient Market Hypothesis (EMH) postulates. According to the EMH, the markets fully, accurately and instantaneously incorporate all available information into market prices.

Stock prices are said to follow a random walk, thus, if the flow of information is unimpeded and information is immediately reflected in stock prices, then tomorrow's price will reflect only tomorrow's news and will be independent of today's price change. It can be acknowledged therefore that much of modern investment theory and practice hinge on the Efficient Market Hypothesis. In the attempt to assess the relationship between company financial performance and the stock price behaviour of four listed banks on the Ghanaian Bourse over a ten-year period (2009-2018), the natural logarithm of annual stock price returns of these banks were regressed over their financial performance using indicators such as Profitability (Return on Assets), Liquidity (LQ), Net Interest Margin (NIM) and Capital Adequacy Ratio. In this research, the author assumes that stock returns are identically independently distributed, that is, stock prices are normally distributed.

2.3.2. Conceptual Framework

The research is based on the concept that stock price of a company cannot be computed only from fundamental analysis or technical analysis, but by using key company financial indicators that influence stock pricing. Fundamental analysis involves using information from the financial statements of a company, whereas technical analysis employs models such as Black Scholes/Merton approach. This research took information from the financial statements of four listed banks on the Ghana Stock Exchange to derive key performance indicators such as Profitability (Return on Assets), Net Interest Margin (NIM), and Liquidity. Figure 1 below shows the inter-relationships.
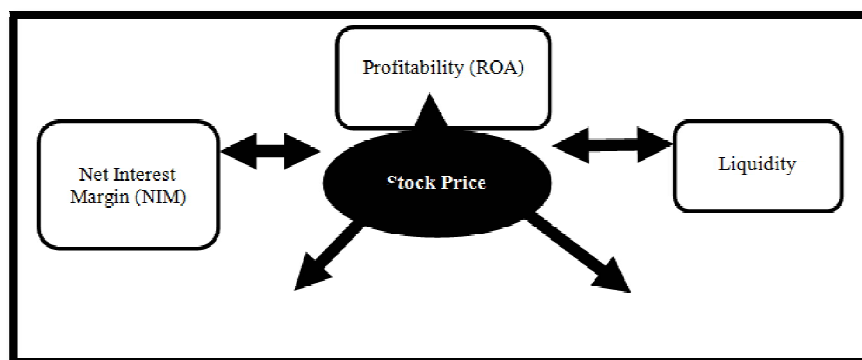
Figure 1: Stock Prices and Company Performance Indicators
Source: Author's Design

2.4. Profitability and Company Financial Performance

In their research on the determinants of capital structure, (Huang & Song, 2002)considered profitability as Earnings before Interest and Tax (EBIT) scaled by total assets. They asserted that tax-based models suggest that more profitable firms will use more debt, as they have greater need to shield the income from corporate taxes.

2.5. Capital Adequacy Ratio and Bank Performance

Capital adequacy is the driving force of banks. In the banking sector of Nigeria, (Onaolapo & Olufemi, 2012)examined the effects capital adequacy conditionality on the performance of selected banks within the Nigerian banking sector for the period 1999-2008 and found that all the performance indicators tested such as Returns on Assets (ROA), Returns on Capital Employed (ROCE) and Efficiency Ratios (ER) among others do not reflect much on Capital Adequacy Ratio (CAR) of the Nigerian banking sector.

2.6. Liquidity Ratio and Company Performance

The basic function of the liquidity ratio is to measure a company's capability to settle all current debt with all current available assets. The stability and financial health, or lack thereof, of a company and its efficiency in paying off debt is indicated by ratios and is of great importance to market analysts, creditors and potential investors. For the benefit of this research, the author adopts Liquidity ratio (LQ)), calculated as Cash equivalents + marketable securities + accounts receivables) divided by current liabilities.

2.7. Net Interest Margin and Bank Performance

Net Interest Margin (NIM) provides a quick assessment of the asset-liability management of an institution. Again, the existence of the interest margin is the result of the transactions uncertainty faced by banks and that NIM depended on four other factors, namely the degree of managerial risk aversion, the size of transactions undertaken by the bank, market structure in which a given bank had to operate and the variance of interest rates (Owusu-Antwi, Banerjee, & Antwi, 2002).

2.8. Asset Quality and Bank Performance

According to (Achou & Tenguh, 2008), Non-Performing Loans (NPL) has an inverse relationship with banks' profitability, and suggested that it is of crucial importance that banks practice prudent credit risk management and safeguarding the assets of the banks and protect the investors. To close this empirical research gap, this research attempted to assess the relationship between the stock price behaviour of a selected Ghana listed banks and the financial performance of these banks.

2.9. Bank Efficiency and Stock Returns

Recent research has shifted towards the use of additional data such as accruals (DeFond & Park, 2001)and revenues, (Jegadeesh & Livnat, 2006)to understand how they affect stock prices and returns. As posited by (Kothari, 2001), the overall results from such studies indicate that performance measures that have evolved voluntarily in an unregulated environment are more likely to be incrementally informative than those mandated by regulation.

2.10. Summary of the Chapter Two

The Chapter considered some theoretical framework on stock price movements and company performance in the areas of market timing theory, bank efficiency, asset quality and Net Interest Margin. The Conceptual framework of the research involved stock prices of the listed banks linked to financial performance indicators such as Profitability (Return on Assets), Liquidity (LQ), Net Interest Margin (NIM), Capital Adequacy Ratio (CAR), Earnings per Share (EPS) and Asset Quality (AQ). Having completed the literature review, the next chapter (Chapter Three) considered the Research Methodology.

3. Research Methodology

3.1. Introduction

This chapter presents the methods used in this study to investigate the relationship between stock prices of selected listed banks on the Ghanaian Bourse and their corresponding company financial performance. It provides the scope and methodology required to answer the research question. Included in this chapter are the research design, target population, sample design, data collection and instruments, data collection procedures and data analysis.
The researcher used correlational research method to investigate company financial performance and stock price movements.

3.2. Research Design

This study employed descriptive as well as correlation research study. The author designed a questionnaire of ten questions as primary data. These questions were handed personally to fifty technical-savvy investment managers (portfolio managers) in ten investment management companies in Ghana to solicit their stock selection styles. Secondary data on the financial statements of the four listed banks were collected from the banks and/or published banks financial statements from their websites. The respondents to the questionnaire were given a ten-working day ultimatum to answer the questions and the completed questionnaires were collected in person as the respondents were all located in Accra.

3.3. Sampling

This study was conducted through a random sampling of four of the eleven listed banks on the Ghana Stock Exchange. However, on the choice of the respondents to the questionnaire, the Expert sampling approach was employed in which members considered with high investment management expertise were chosen for participation.

3.4. Data Collection

The data on the financial statements of the listed banks were obtained from the head offices of the banks and from the Ghana Stock Exchange Annual Reports. The research period under consideration is from 2009 to 2018, long enough to determine a meaningful trend in the financial performance of the banks. The responses to the questionnaire were collected in person with 90% response rate. The prices of the stocks of the selected listed banks were sourced from the Ghana Stock Exchange website.

3.5. Data Analysis

The study used quantitative data to run multiple linear regression. The linear model is of the form:

$$Y = a + \beta_1(ROA) + \beta_2(NIM) + \beta_3(AQ) + \beta_4(CAR) + \beta_5(L) + \alpha$$

where β_1, β_2.,,,,,,,,, β_5 are the coefficients of the independent variables

Y = stock returns, computed as $\ln(S(t)-S(t-1))$ for the period 2009 to 2018, where
$S(t)$ is the end trading date each year and $S(t-1)$ is the beginning trading date of each year.
ROA = Return on Assets, derived as Profit After Tax/Total Operating Assets
NIM = the Net Interest Margin (Net Interest Income/Average Operating Assets),
L= the Liquidity of the Bank, computed as Cash equivalents + marketable securities+ accounts receivables) divided by current liabilities
a= constant
α = the Error term.

The premise to this research is that stock returns are expected to move in tandem with company financial performance according to the Efficiency Market Theory. The veracity of this assertion was tested by running multiple regression of the natural log of the stock returns of the listed banks on the stated key financial performance indicators and the Analysis of Variance (ANOVA) was analysed with a 95% confidence level and 5% significance level.

4. Data Analysis and Discussion

4.1. Introduction

This chapter presents the findings of the research in line with the research objective. This research employed the use of Statistical Package for the Social Sciences (SPSS) version 21.0 to analyse the data. Inferential statistics was employed to provide the resultant findings of the research. Inferential statistics are used to make inferences or judgments about a population on the basis of a sample (Zikmund, Babin, Carr, & Griffin, 2010).

4.2. Data Presentation

The questionnaire given to the Investment managers were collated and input into Microsoft Excel to assess the approach they use in selecting which stocks to trade in and the possible advice they offer their clients with stock buy/sell decisions.

The financial statements of the four listed banks on the Ghanaian Bourse were input in Microsoft Excel sheet and the parameters of both the dependent and independent variables were computed. The resulting values were transferred into Statistical Package for the Social Sciences (SPSS) version 19 to provide meaningful interpretation and inferences.
To be able to understand the work of the Investment Bankers and Portfolio Managers who provide buy/sell advice on shares to clients, twenty of such personnel were asked to complete a questionnaire (Appendix A).
Below are the responses to the questionnaire:

4.2.1 .Method of Analyzing Company Stock Prices

Of the twenty investment personnel, eighteen (18) use fundamental analysis and two (2) use Technical analysis.

4.2.2. Approach Used in the Fundamental Analysis

Eighteen respondents use the Net Asset approach, the Multiples approach, and the Free Cash flow approach. The two who use Technical analysis approach said they employ the Black Scholes and Asset Pricing methodologies to estimate the prices of stocks.

4.2.3. Stock Price Volatility

The respondents asserted that the volatility of the listed stock prices of the four banks belonging to the GSE-FSI was quite low with some stock prices hardly moving over a considerable period of time.

4.2.4. Ranking of the Banks' Performance Indicators and Impact on Their Stock Prices

Return on Assets (ROA) and Liquidity (LQ) were chosen by all respondents as very important performance indicators of the listed banks. Earnings Per Share (EPS) was the second important indicator and Net Interest Margin (NIM) was the least important performance indicator followed by the Price to Earnings ratio (P/E ratio).

4.3. Discussion of Research Findings

This section established the detailed results of the research work. In order to assess the effect of stock prices on the selected key banks performance indicators of Liquidity, Return on Assets, Asset Quality, Net Interest Margin and Earnings per Share, the natural log stock returns of the listed banks were regressed on the above key performance indicators and the results are shown below.

Regression of GCB Bank stock Returns on independent Variables

In running multiple regression of natural log of stock price (dependent variable) on Liquidity (LQ), Net interest margin (NIM), Earning Per Share (EPS) and Return on Assets (ROA) as independent variables, the multivariate test used is the standard multiple regression model adopted from Rogg (2000) and stated as:

GCB STOCK RETURNS = -1.486 + 111.24LQ + 12.50NIM + 0.069EPS

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.903ᵃ	.815	.668	.3361882	2.079

Table 1: Model Summary 1
a. Predictors: (Constant), Earnings Per Share, Return on Assets, Liquidity Ratio, Net Interest Margin
b. Dependent Variable: Stock Returns

From Table 1, the R-squared is 81.5%, implying that only 81.5% of the variance in stock prices of GCB Bank stock can be explained by or accounted for the variation in the Return on Assets, Net Interest Income, Earnings Per Share and Liquidity and 18.5% is explained by other factors.From the ANOVA table below, (TABLE 2), the sig. (p value) = 0.044, which is less than 0.05.That is, the regression line predicted by the independent variables does explain a significant amount of the variance in the dependent variable, [$F_{(4,5)}$ =0.736; $p<0.05$]. The Durbin Watson (DW) statistic value of 2.079 implies there is no autocorrelation.

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.496	4	.624	5.521	.044ᵇ
	Residual	.565	5	.113		
	Total	3.061	9			

Table 2: ANOVA 1
a. Dependent Variable: Stock Prices
b. Predictors: (Constant), Earnings per Share, Return on Assets, Liquidity Ratio, Net Interest Margin

Coefficients											
		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics		
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF	
1	(Constant)	-1.486	.874		-1.700	.150	-3.733	.761			
	Return On Assets	-1.317	5.692	-.057	-.231	.826	-15.950	13.316	.599	1.670	
	Liquidity Ratio	111.237	88.416	.324	1.258	.264	-116.043	338.517	.556	1.799	
	Net Interest Margin	12.156	6.274	.685	1.937	.110	-3.973	28.285	.296	3.383	
	Earnings Per Share	.069	.502	.054	.138	.896	-1.222	1.360	.242	4.140	

Table 3: Coefficients 1
a. Dependent Variable: Stock Returns

The data indicated that unstandardized coefficient beta for Return on Assets is negative (B1=-1.317) and it is not significant since p = 0.826 (two-tailed). Unstandardized coefficient beta of 111.24, 12.156, 0.069 for Liquidity ratio, Net Interest Margin and Earnings per Share consecutively are all not significant as their p-values are greater than 0.05. Thus, stock performance, measured by stock returns are not influenced by company performance measures such as Return on Assets, Liquidity, Earnings Per Share, and Net Interest Margin as far as the listed shares of GCB Bank is concerned. Also, from Table 3, the VIF value of all the independent variables are below 10, which suggests that there is no multicollinearity in the independent variables. Again, Earnings Per Share showed a negative correlation with Return on Assets, Liquidity and Net Interest Margin, nut positively correlated with Net Interest Margin.

Model			Earnings Per Share	Return On Assets	Liquidity Ratio	Net Interest Margin
1	Correlations	Earnings Per Share	1.000	-.122	-.512	-.665
		Return On Assets	-.122	1.000	-.007	-.325
		Liquidity Ratio	-.512	-.007	1.000	.107
		Net Interest Margin	-.665	-.325	.107	1.000
	Covariances	Earnings Per Share	.252	-.349	-22.750	-2.096
		Return On Assets	-.349	32.403	-3.299	-11.617
		Liquidity Ratio	-22.750	-3.299	7817.338	59.440
		Net Interest Margin	-2.096	-11.617	59.440	39.368

Table 4: Coefficient Correlations 2
Dependent Variable: Stock Prices

4.3.1. Regression Ecobank Stock Returns on Independent Variables
ECOBANK STOCK RETURNS = -5.8295 - 8.295ROA+ 0.32EPS + 32.621NIM+3.44LQ

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.668[a]	.447	.004	.4555744	1.696

Table 5: Model Summary 2
a. Predictors: (Constant), Liquidity, Return on Assets, Earnings per Share, Net Interest Margin
b. Dependent Variable: Stock Retruns

From Table 5, the R-squared of 44.70% indicated that only 44.70% of the variance in stock prices of GCB Bank stock can be explained by or accounted for, by the variation in the Return on Assets, Net Interest Income, Earnings Per Share and Liquidity and 56.30% is explained by other factors.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	-5.285	3.786		-1.396	.222	-15.017	4.448		
	Return On Assets	-8.295	7.355	-.601	-1.128	.311	-27.202	10.611	.390	2.567
	Earnings Per Share	.032	.079	.154	.405	.702	-.171	.234	.763	1.310
	Net Interest Margin	32.621	18.226	1.306	1.790	.133	-14.230	79.472	.208	4.814
	Liquidity	3.446	3.490	.656	.988	.369	-5.524	12.417	.250	3.992

Table 6
a. Dependent Variable: Stock Returns

From the ANOVA table below, (TABLE 6), the sig. (p value) = 0.482, which is greater than 0.05suggests that the regression line predicted by the independent variables does not explain a significant amount of the variance in the dependent variable, $[F(4,5)=1.009; p>0.05]$. The Durbin Watson (DW) statistic value of 1.696 implies there is no autocorrelation.

		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.837	4	.209	1.009	.482[b]
	Residual	1.038	5	.208		
	Total	1.875	9			

Table 7: ANOVA 2
a. Dependent Variable: Stock Price
b. Predictors: (Constant), Liquidity, Return on Assets, Earnings per Share, Net Interest Margin

The data indicated that unstandardized coefficient beta for Return on Assets is negative (B1= -8.295) and it is not significant since p = 0.222 (two-tailed). Unstandardized coefficient beta of 0.032, 32.6621, 3.446 for Liquidity ratio, Net Interest Margin and Earnings Per Share consecutively are all not significant as their p-values are greater than 0.05. Thus, stock performance, measured by stock returns are not influenced by company performance measures such as Return on Assets, Liquidity, Earnings Per Share, and Net Interest Margin as far as the listed shares of Standard Chartered Bank is

concerned. Also, from Table 7, the VIF value of all the independent variables are below 10, which suggests that there is no multicollinearity in the independent variables. Also, Asset Quality displayed positive correlation with Capital Adequacy Ratio and Earning Per Share, but negatively correlated with Return on Assets and Liquidity.

Coefficient Correlations[a]			Asset Quality	Capital Adaquacy Ratio	Return On Assets	Earnings Per Share	Liquidity
Model							
1	Correlations	Asset Quality	1.000	.124	-.183	.289	-.392
		Capital Adaquacy Ratio	.124	1.000	.278	-.269	-.465
		Return On Assets	-.183	.278	1.000	.083	-.257
		Earnings Per Share	.289	-.269	.083	1.000	-.313
		Liquidity	-.392	-.465	-.257	-.313	1.000
	Covariances	Asset Quality	83.681	7.633	-9.657	.254	-9.634
		Capital Adaquacy Ratio	7.633	45.334	10.799	-.174	-8.417
		Return On Assets	-9.657	10.799	33.235	.046	-3.982
		Earnings Per Share	.254	-.174	.046	.009	-.081
		Liquidity	-9.634	-8.417	-3.982	-.081	7.235

Table 8: Coefficients 3
Dependent Variable: STOCK PRICE

4.3.2. Regression of Republic Bank Stock Returns on Independent Variables

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.762[a]	.580	.244	.4161227	2.261

Table 9; Model Summary 3
a. Predictors: (Constant), Earnings Per Share, Return on Assets, Liquidity, Net Interest Margin
b. Dependent Variable: Stock Returns

From Table 9, the R-squared of 58.0% indicated that only 58.00% of the variance in stock prices of Republic Bank stock can be explained by or accounted for, by the variation in the Return on Assets, Net Interest Income, Earnings Per Share and Liquidity and 42.00% is explained by other factors. From the ANOVA table below, (TABLE 10), the sig. (p value) = 0.280, which is greater than 0.05, implying that the regression line predicted by the independent variables do not explain a significant amount of the variance in the dependent variable, $[F(4,5) = 1.727; p>0.05]$. The Durbin Watson (DW) statistic value of 1.696 implies there is no autocorrelation.

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1.196	4	.299	1.727	.280[b]
	Residual	.866	5	.173		
	Total	2.062	9			

Table 10: ANOVA 3
a. Dependent Variable: Stock Returns
b. Predictors: (Constant), Earnings per Share, Return on Assets, Liquidity, Net Interest Margin

Coefficients		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
Model		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	.303	.922		.328	.756	-2.069	2.674		
	Return On Assets	2.256	1.298	.629	1.739	.143	-1.080	5.593	.641	1.560
	Net Interest Margin	-4.641	6.981	-.314	-.665	.536	-22.587	13.305	.377	2.656
	Liquidity	-.604	1.602	-.159	-.377	.722	-4.723	3.515	.471	2.124
	Earnings Per Share	.219	.101	.944	2.174	.082	-.040	.478	.446	2.244

Table 11: Coeeficients
a. Dependent Variable: Stock Returns

The data indicated that unstandardized coefficient beta for Return on Assets is negative (B1= 2.256) and it is not significant since p = 0.143 (two-tailed). Unstandardized coefficient beta of -4.641, -0.604, 0.219 for Liquidity ratio, Net Interest Margin and Earnings Per Share consecutively are all not significant as their p-values are greater than 0.05. Thus, stock performance is not influenced by company performance measures such as Return on Assets, Liquidity, Earnings Per Share, and Net Interest Margin as far as the listed shares of Republic Bank is concerned. Also, from Table 12, the VIF value of all the independent variables are below 11, which suggests that there is no multicollinearity in the independent variables. Also, Earnings Per Share had a positive correlation with Return on Assets and a negative correlation with Liquidity and Net Interest Margin.

	Model		Earnings Per Share	Return On Assets	Liquidity	Net Interest Margin
1	Correlations	Earnings Per Share	1.000	.380	-.220	-.505
		Return On Assets	.380	1.000	.339	-.551
		Liquidity	-.220	.339	1.000	-.468
		Net Interest Margin	-.505	-.551	-.468	1.000
	Covariances	Earnings Per Share	.010	.050	-.036	-.355
		Return On Assets	.050	1.684	.705	-4.996
		Liquidity	-.036	.705	2.568	-5.239
		Net Interest Margin	-.355	-4.996	-5.239	48.739

Table 12: Coefficient Correlations
a. Dependent Variable: Stock Returns

4.3.3. Regressing Tan bank Stock Returns on Independent Variables
The regression equation in this context could be written as:
STANCHART (STANBANK) STOCK RETURNS = 5.893 + 0.458ROA + 0.641LQ – 40.831LQ + 0.09EPS

	R	R Square	Adjusted R Square	Std. Error Of The Estimate	Durbin-Watson
1	.924[a]	.854	.563	.32756	1.904

Table 6: Model Summary
a. Predictors: (Constant), Earnings per Share, Liquidity, Return on Assets, Net Interest Margin
b. Dependent Variable: Stock Returns

From Table 14, the R-squared of 85.40% was obtained indicating that only 85.40% of the variance in stock prices of GCB Bank stock can be explained by or accounted for, by the variation in the Return on Assets, Net Interest Income, Earnings Per Share and Liquidity and 14.60% is explained by other factors. From the ANOVA table below,
(TABLE14), the sig. (p value) = 0.203, which is greater than 0.05, suggesting that the regression line predicted by the independent variables does not explain a significant amount of the variance in the dependent variable, [$F_{(6,3)}=2.936$; $p>0.05$]. The Durbin Watson (DW) statistic value of 1.904 implies there is no autocorrelation.

	Model	Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1.890	6	.315	2.936	.203[b]
	Residual	.322	3	.107		
	Total	2.212	9			

Table 7: ANOVA
a. Dependent Variable: Stock Prices
b. Predictors: (Constant), Earnings per Share, Liquidity, Return on Assets, Net Interest Margin, Capital Adequacy Ratio, Asset Quality

Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.893	1.972		2.989	.058
	Return On Assets	.458	1.939	.142	.236	.829
	Capital Adequacy Ratio	5.229	7.533	.515	.694	.538
	Liquidity	.641	1.546	.137	.415	.706
	Asset Quality	-.842	4.904	-.147	-.172	.875
	Net Interest Margin	-40.831	16.240	-1.087	-2.514	.087
	Earnings Per Share	.009	.259	.013	.036	.973

Table 8: Coefficients
a. Dependent Variable: Stock Prices

The data indicated that unstandardized coefficient beta for Return on Assets is negative (B1= 0.458 and it is not significant since p = 1.939 (two-tailed). Unstandardized coefficient beta of -5.229, 0.641, -40.831and 0.09 for Liquidity, Net Interest Margin and Earnings Per Share consecutively are all not significant as their p-values are greater than 0.05. Thus, stock price, measured by stock returns are not influenced by company performance measures such as
Return on Assets, Liquidity, Earnings Per Share, and Net Interest Margin as far as the listed shares of Stanchart Bank is concerned. Again, Earnings Per Share showed positive relationship with Liquidity and Return on Assets, but showed negative correlation with NIM, CAR and AQ.

	Model		Earnings Per Share	Liquidity	Return On Assets	Net Interest Margin	Capital Adequacy Ratio	Asset Quality
1	Correlations	Earnings Per Share	1.000	.498	.386	-.099	-.425	.357
		Liquidity	.498	1.000	.540	.406	-.701	.622
		Return On Assets	.386	.540	1.000	.376	-.707	.904
		Net Interest Margin	-.099	.406	.376	1.000	-.662	.420
		Capital Adequacy Ratio	-.425	-.701	-.707	-.662	1.000	-.842
		Asset Quality	.357	.622	.904	.420	-.842	1.000
	Covariances	Earnings Per Share	.067	.199	.194	-.416	-.828	.453
		Liquidity	.199	2.390	1.619	10.183	-8.163	4.720
		Return On Assets	.194	1.619	3.759	11.836	-10.330	8.596
		Net Interest Margin	-.416	10.183	11.836	263.726	-81.005	33.472
		Capital Adequacy Ratio	-.828	-8.163	-10.330	-81.005	56.751	-31.114
		Asset Quality	.453	4.720	8.596	33.472	-31.114	24.054

Table 9: Coefficient Correlations
a. Dependent Variable: Stock Returns

4.4. The Hypothesis Revisited
          The inferences from the research findings via-a-vis the hypotheses are such that:
From the hypothesis 1, it can be stated that the assertion that stock prices of listed banks on the Ghanaian Bourse are influenced by their Return on Assets is rejected. Also, from hypothesis 2, it can be stated that the assertion that stock prices of listed banks on the Ghanaian Bourse are influenced by their Liquidity is rejected. From Hypothesis 3, the assertion that stock prices of listed banks on the Ghanaian Bourse are influenced by their Net Interest Margin is rejected. Finally, the assertion by hypothesis 4 that stock prices of listed banks on the Ghanaian Bourse are influenced by their Earnings per Share is rejected.
There are therefore other factors that actually influence the stock prices of these banks aside the above stated key financial ratios.

5. Conclusion
          From the results obtained, it can be asserted that stock prices of the listed banks on the Ghanaian Bourse are not indicative of the key financial performance indicators of these banks. This is in line with the assertion by (Umar & Musa, 2013)who studied the relationship between firm's stock prices and Earning per Share. They posited that firm's Earnings Per Share has no relationship or significant impact on stock prices and should not be used to predict the behaviour of stock prices in Nigeria. However, the findings of this research are contrary to the research findings of (Menaje, 2012), and (Ball & Brown, 2001) who examined the relationship between firm's financial performance and stock price of the companies listed on the Philippine Stock Exchange using Return on Assets and Earning per Share as independent variables posits that there is positive significant relationship between firm's stock price and Earnings Per Share Price while the relationship between Return on Asset and share prices showed a weak negative correlation.
          The research has demonstrated that the financial market in Ghana is not efficient. The strong form of the Efficient Market Hypotheses that states that all information - both the information available to the public and any information not publicly known, is completely accounted for incurrent stock prices does not hold in Ghana. Financial ratios of these banks are a public information used in assessing the performance of the banks and as these banks excel in performance, their stock returns must exhibit upward movement tendencies, albeit averagely so. There is the possibility that big institutions

in Ghana purchase stocks as assets without attempting to trade them. This do not enhance the volatility of the stock prices on the Bourse.

Again, as asserted by the Investment bankers and portfolio Managers that were interviewed, most analysts use financial statements to analyse undervalued and overvalued shares in their decision-making process. They should not consider the key financial ratios such as Capital Adequacy ratio, Liquidity ratio, Net Interest Margin, Return on Assets and Asset Quality when they undertake such analysis.

6. Recommendation

In analyzing the stock prices of companies, most financial analysts use the fundamental analysis approach to assess whether their stocks are over-valued or under-valued. The use of key performance ratios such as Return on Assets, Asset quality, Net Interest Margin, Liquidity and Earnings per Share are not driving determinants of company performance vis-à-vis stock returns. This has been proven empirically in this research.

It is advisable that investment bankers and portfolio managers in Ghana should continue to use financial statements to analyze stock prices of listed companies' stocks. The unimpressive stock returns from the listed banks could arguably be due to the inefficiency of the Ghanaian Bourse.

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