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## Research Article

# Profitability of Listed Ghanaian Banks Determined by the Stylized Facts

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## Abstract

**Background and Objective:** The financial performance of firms have been postulated to be influenced by factors internal to the firm as well as those external to the control of the firms' management. The study examined internal and external determinants of bank profitability in Ghanaian banking industry. **Materials and Methods:** A panel data of 6 banks listed on the Ghana Stock Exchange was analyzed over the period 2010-2015, using pooled regression models. **Results:** The statistical results revealed that major determinants of bank profitability in Ghana include the bank capital adequacy, liquidity, total assets and real interest rate. Bank liquidity has significant negative effect on both return on assets and return on equity, while bank operating efficiency has negative and significant influence on only return on equity. On the other hand, while bank capital adequacy was positive and significant for determining both return on assets and return on equity, that of bank total assets has positive and significant influence on only return on assets. **Conclusion:** With respect to the external factors, the results show that real interest rate has significant positive relationship with both return on assets and return on equity, making it a key determinant of bank profitability unlike gross domestic product. It is recommended that banks should consider their interest rate carefully so that, bank performance can be enhanced. Also, efficient and effective liquidity management should be implemented by bank managers to ensure that banks do not become insolvent. Banks should therefore be encouraged to look beyond local market and strategically expand their operations to other markets and sectors of the economy. The government should implement policies to stimulate the growth of the economy to facilitate financial transactions.

**Key words:** Profitability, Ghana Stock Exchange, return on assets, return on equity, firms' management

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**Data Availability:** All relevant data are within the paper and its supporting information files.

## **INTRODUCTION**

The trends in financial deregulation, technological advancement, financial innovation and globalization are certainly posing new challenges for market participants in the Ghanaian financial sector. In reality, developments in technology and telecommunications are facilitating the borders of electronic banking and internet based financial products and services. According to Khrawish<sup>1</sup> and Asomaning<sup>2</sup>, these developments are certainly re-shaping the structure of financial institutions with regard to internal operations, interaction with customers and inter-institutional relations. Moreover, there has been a proliferation of new financial services as well as overlapping of markets activities between banks and non-bank financial intermediaries. All these developments surely have implications on the cost, revenue and hence the profitability of financial institutions.

This is particularly the case in Ghana where some businesses and individuals rely heavily on bank credit for both survival and growth. Financial institutions play the role of financial intermediation. They also collect and mobilize resources to finance businesses and developmental projects which are essential for economic development. An efficient financial system was a prerequisite for proper financial intermediation. This leads to sustainable private sector financial investment and the promotion of entrepreneurship.

The financial system contains a broad range of institutions which can be categorized into bank and non-bank financial institutions in Ghana, however, the banking system dominates<sup>3</sup>. It was estimated that, the banking system in Ghana contributes about 70% of the financial sector<sup>2,4</sup>. This makes the commercial banking sector critical to the development of the economy as failure of this sector could have adverse systemic effect on the entire economy.

According to Asomaning<sup>2</sup>, financial sector policies were characterized by severe financial repressions and most of the credit was channeled to the public sector. This triggered a series of reforms which included the liberalization of allocative controls of banks, restructuring of insolvent banks and reforms to prudential regulation and supervision<sup>2</sup>. Since the reforms were made, the banking sector has experienced a lot of private investments, making it one of the most important contributors to GDP in the county. Owing to the massive capital injection in the sector by both local and foreign investors, it has become necessary to investigate whether or not there exist factors that influence profitability and eventually performance of banks in Ghana.

Theoretically, the structure conduct performance (SCP) model relates three factors that determine the profitability of

banks<sup>5</sup>. According to Baye<sup>6</sup>, the structure of an industry refers to the factors such as technology, concentration and market conditions. Conduct relates to how individual firms behave in the market. Performance on the other hand was the resulting profits and social welfare that arise in the market. The SCP paradigm views these three aspects of the industry as being integrally related and asserts that the market structure causes firms to behave in a certain way of allocating resources leading to either an efficient or inefficient market<sup>6</sup>. As an alternative to the SCP model, Demsetz<sup>7</sup> proposed the efficiency hypothesis where higher profits of banks are due to high efficiency level, which in turn, leads to larger profit and market shares<sup>5</sup>. This hypothesis stipulates that a bank which operates more efficiently than its competitors gains higher profits. The capital asset pricing model introduced by Treynor<sup>8</sup> describes the relationship between risk and expected return such that systematic risk and expected return are highly correlated. The asset pricing theory asserts that in a competitive market, arbitrage will assure equilibrium pricing according to risk and return<sup>9</sup>.

In banking literature, the determinants of profitability are empirically well explored although the definition of profitability varies among studies<sup>10-13</sup>. Although, a number of studies have been undertaken on bank profitability<sup>14-15</sup>, the determinants of listed banks' profitability in Ghana needs further examination given new data and establishment of more banks in the last decades.

Bank profitability should therefore, reflect bank-specific risk, as well as macroeconomic risks or non-diversifiable (systematic) risk. In the light of this, most studies on determinants of profitability of commercial banks have considered bank specific factors (internal factors) as well as industry or external macroeconomic factors. In view of filling the gap, the objective of the study is to examine internal and external determinants of profitability [from the perspective of return on equity (ROE) and return on assets (ROA)] of banks listed on the Ghana Stock Exchange from 2010-2015.

## **MATERIALS AND METHODS**

For the dependent variable of the present study, return on assets (ROA) and the return on equity (ROE) have been used extensively as measures of profitability by researchers such as Golin<sup>16</sup> and Ofosu-Hene and Amoh<sup>3</sup>. The ROA indicates how effectively a bank was managing its assets to generate income. The problem with ROA was that it excludes from the total assets off-balance sheet items thereby understating the value of assets. This can eventually create a positive bias

where ROA was overstated in the evaluation of bank performance. Nevertheless, Rose and Hudgins<sup>11</sup> have argued that ROA was one of the most important measures of profit in recent banking literature. The studies of Hassan and Bashir<sup>17</sup>, Haron<sup>10</sup> and Alkassim<sup>12</sup> have all adopted ROA as a measure of profit.

As an alternative measure of profitability, the ROE was computed by dividing net income by equity. It measures the income earned on each unit of shareholders capital. The shortfall of this measure was that banks with high financial leverage tend to generate a higher ratio. Besides banks with high financial leverage may be associated with a higher degree of risk although these banks may register high ROE. Thus, ROE may sometimes fall short in exposing the true financial health of banks. Another challenge with using ROE was that it was affected by regulation. However, ROE is commonly used in conjunction with ROA.

From the financial statement and empirical literature, a variety of variables capable of influencing a bank's financial performance can be identified. The determinants that receive most attention in the banking literature are costs, assets, liability composition and size. As a measure of bank costs, the capital ratio has been used for assessing capital adequacy and the general health of banks. The levels of capitalization of banks help in times of financial distress. This was likely to translate into high financial profitability. In the study of the determinants of banks' performance for twelve countries selected from Europe, North America and Australia, Bourke<sup>18</sup> noticed a significant positive relationship between capital adequacy and profitability. Bourke<sup>18</sup> shows that the higher the capital ratio is, the more profitable a bank will be. Similarly, the study of Oforu-Hene and Amoh<sup>3</sup> concludes that banks which are well-capitalized are more profitable than others.

The size of a bank is important in determining success. Boyd and Runkle<sup>19</sup>, in their banking performance study, conclude that an inverse relation exists between size and profitability. Similar results are obtained by Jiang *et al.*<sup>20</sup> for Hong Kong, implying that larger banks achieve a lower level of profits than smaller ones. However, findings from both Sinkey<sup>21</sup> and Staikouras and Wood<sup>22</sup> are mixed. The former shows that firm size impacts banking profitability negatively for large banks but positively for small ones. The latter also concludes that medium-sized banks earn the highest return followed by small banks.

Expenses management is also conceived to affect performance. In practice, the lower the expense of a bank, the higher the bank's profit will be. Such a negative relation between expenses and profitability has been supported by studies of Kanchu and Kumar<sup>15</sup>, Bourke<sup>18</sup> and Jiang *et al.*<sup>20</sup>,

implying that profitable banks are able to operate at lower cost. On the contrary, Molyneux and Thornton<sup>23</sup> find that the expense variable affects European banking profitability positively. With regards to non-interest income ratio, when banks are more diversified, they can generate more income sources, thereby reducing its dependency on interest income which was easily affected by the adverse macroeconomic environment<sup>15</sup>. The results of Jiang *et al.*<sup>20</sup> show that diversified banks in Hong Kong appear to be more profitable. Gischer and Juttner<sup>24</sup>, however, find that fee income generating businesses actually exert a negative impact on banks' profit.

The macroeconomic external factors of bank financial profitability are determinates which bank management cannot directly control. In spite of this, the ability of management to anticipate changes in the bank's external setting and making efforts to take advantage of such anticipated changes was critical. In the banking sector, external conditions affecting banking operations can be deduced. First of all, there was likelihood that higher demand for bank credit during periods of economic boom generates better returns than in times of recession. High aggregate growth rate may strengthen the debt servicing capacity of domestic borrowers and therefore, contribute to less credit risk and vice versa<sup>25,26</sup>. Thus, it was expected that an improvement in economic growth helps bank performance. Studies that recognize the importance of economic growth on banking performance include Oforu-Hene and Amoh<sup>3</sup>, Gerlach *et al.*<sup>27</sup> and Moreno<sup>28</sup>.

Secondly, it was generally believed that a rising interest rate should lead to higher banking sector profitability by increasing the spread between the saving and the borrowing rates<sup>15</sup>. Hanweck and Kilcollin<sup>29</sup> find that this relationship was particularly apparent for smaller banks in the USA during the 1976-1984. Small banks may have difficulty in maintaining profit levels whenever their interest rates fall. Further studies<sup>14,22</sup> indicate a positive relationship between interest rates and bank profitability.

Thirdly, the effect of inflation was also another important determinant of banking performance. In practice, in periods of high inflation rates, there were high loan interest rates and thus high income. Swarnapali<sup>30</sup>, however, asserts that the effect of inflation on banking performance depends on whether inflation was anticipated or unanticipated. The relationship between inflation and bank performance was mixed<sup>31</sup>. If inflation was fully anticipated and interest rates are adjusted accordingly, a positive effect on profitability will result. However, its adverse effect causes cash flow difficulties for borrowers. Indeed, if the banks are sluggish in adjusting

their interest rates when there was a rise in inflation, then bank costs may increase faster than bank revenues leading to losses. Ofori-Hene and Amoh<sup>3</sup> concludes that high and variable inflation may cause difficulties in planning and negotiating loans.

The study was analyzed using panel regression technique. According to Vong and Chan<sup>32</sup>, panel data were commonly used because it has the advantage of giving more information as it consists of both the cross sectional and the time series information. Secondary data was obtained from six listed banks (these are Cal Bank Limited, Ecobank Ghana Limited, GCB Bank Limited, HFC Bank Limited, Societe-Generale Bank Limited and Standard Chartered Bank Limited) on the Ghana Stock Exchange from 2010-2015. However, data on external factors was sourced from the Ghana Statistical Service (GSS) and Bank of Ghana. Based on the literature review, the model of profitability is specified as:

$$BPERF = f(I^*, E^*)$$

where, I\* and E\* are the sets of internal and external determinants of bank performance (BPERF). This informs the functional specification. The linear model below employed earlier by Khrawish<sup>1</sup>, is adopted for this study:

$$BPERF_{it} = \beta_0 + \beta_1 BOE_{it} + \beta_2 BCA_{it} + \beta_3 BL_{it} + \beta_4 BAQ_{it} + \beta_5 BTA_{it} + \beta_6 GDPG_{it} + \beta_7 RIR_{it} + \epsilon_{it}$$

Where:

- BPERF = Bank performance (ROA and ROE)
- $\beta_0$  = Intercept coefficient
- $\beta_i$  = Coefficient for each of the independent variables
- BOE = Bank operating efficiency
- BCA = Bank capital adequacy
- BL = Bank liquidity
- BAQ = Bank asset quality
- BTA = Bank total assets
- GDPG = Annual growth rate for gross domestic product
- RIR = Real interest rate
- $\epsilon_{it}$  = Error term, where  $\epsilon_{it} = \mu_i + \gamma_t$
- t = Time, annual
- i = ith individual firm

The study specifies an econometric model with bank profitability represented by return on assets (ROA) and return on equity (ROE) separately. The independent variables were both internal and external factors. The internal factors were operating efficiency (BOE), measured as the ratio of expenses to loan, capital adequacy (BCA) measured as the ratio of equity

to total assets, liquidity (BL) measured as advances to deposits ratio, asset quality (BAQ) measured as provision for bad debt to total advances and total assets (BTA) measured as the natural log of total assets. The external factors used were annual growth of gross domestic product (GDPG) and real interest positive whiles BL and BOE results for BCA, BAQ and BTA in the model were positive factors, both GDPG and RIR to be negative. With respect to the external factors both GDPG and RIR were expected to have positive relationship with profitability.

## RESULTS AND DISCUSSION

**Descriptive statistics of variables:** Four internal factors and two external factors were used as independent variables. Both descriptive and inferential methods of data analyse were employed. The statistical method used was pooled panel regression method. Analytical tools and techniques used to examine the data were regression and t-test for determining the significance level of the independent variables. In addition, means and standard deviations were also calculated and situated within the benchmarks of minimum and maximum of the respective variables. These were done using E-views analytical software. The level of probability used for checking the significance of the independent variables was the standard 5% (0.05). The descriptive statistics of these variables are presented in Table 1.

It can be observed from Table 1 that over the period of the study, banks listed on the Ghana Stock Exchange have been performing quite well with a ROA mean of 8.2164%. It implies that, the average annual return on assets of the banks is about 8%, with standard deviation of 4.132%. Thus, the variability of the firms not generating the mean ROA is 4. The ROA has a minimum return of about 1.17% and a maximum of 14.87%. This portrays a poor performance of the listed banks.

Table 1: Results of descriptive statistics

Variables*	Mean	SD	Minimum	Maximum
ROA	8.216	4.132	1.17	14.87
ROE	22.917	10.145	1.16	40.39
BOE	15.093	7.974	4.73	52.28
BCA	12.581	3.228	6.90	19.31
BAQ	1.710	1.442	0.09	7.13
BTA	20.321	0.805	18.49	21.62
BL	76.579	28.637	23.10	92.15
GDPG	7.633	3.060	4.00	14.40
RIR	-2.126	2.869	-6.91	2.10

Source: Authors' calculated based on data from study banks and Ghana statistical service. \*ROA: Return on assets, ROE: Return on equity, BOE: Bank operating efficiency, BCA: Bank capital adequacy, BAQ: Bank asset quality, BTA: Bank total assets, BL: Bank liquidity, GDPG: Annual growth rate of gross domestic product, RIR: Real interest rate

The result indicated that the mean of annual ROE is 22.917%. This means banks listed on the stock exchange generate an average return of 22.9% on the equity investments of shareholders. This means that listed banks generate relatively better returns as compared with the use of ROA as indicator of performance. However, the standard deviation from the mean ROE is as high as 10 and this indicates a high variability. The minimum ROE is 1.16% with a maximum return as high as 40.29%. This implies that, depending on the situation, equity holders can get as low as 1.16% or gain as high as 40% on their equity investments. Overall, it can be observed from the results that, although the average ROE was higher than the ROA, it was more risky as it was associated with higher standard deviation, thus, a higher possibility of not achieving the average ROE as compared to the ROA.

With respect to the independent variables the results indicate that, the mean of bank operating efficiency was 15.093. This comes with a minimum value of 4.73 and a maximum value 52.28. The mean figure shows that listed banks were relatively efficient in terms of expenses they make as compare to their loans. Bank capital adequacy for this study was measured as the ratio of equity to total assets. It can be seen from the Table 1 that it has a mean of 12.581 with a minimum value of 6.90 and a maximum value of 19.31. This means that most of the banks in Ghana were leverage and also confirms the fact that majority of the banks rely on debt as a source of funding for their operations.

Bank asset quality used in this study was measured as the provision for bad debt to total advances. The BAQ has a mean of 1.7 with minimum and maximum figures as 0.09 and 7.13, respectively. This indicates that most banks in Ghana were doing well in terms of recovering the loans they give to their customers. Moreover, bank liquidity measured as advance to deposit ratio was quite high indicating that most of the listed banks give out customers deposits as loans. It has a mean of 76.5794 with minimum and maximum figures as 23.10 and 92.15, respectively.

In addition, bank total assets indicate the size of a particular bank. It was measured as the natural log of total assets. From Table 1, banks listed on the Ghana Stock Exchange were relatively of the same size with a standard deviation of 0.8 and minimum and maximum figures as 18.49 and 21.62, respectively. Thus, the banks were relatively of the same size.

Real interest rate (RIR) has its mean as -2.126%. The minimum and maximum figures are -6.91 and 2.10%, respectively with a standard deviation of 2.869. The mean figure of -2.1267% indicate that over the period of study real

Table 2: Regression results of return on assets model

Regression	Coefficient	Standard error	t-ratio	Significance level
CONS	-34.902	18.864	-1.850	0.075
BOE	-0.015	0.093	-0.61	0.877
BCA	0.550	0.189	2.906	0.007***
BAQ	0.348	0.420	0.827	0.415
BL	-0.061	0.030	-2.046	0.050**
BTA	1.888	0.857	2.203	0.036**
GDPG	0.095	0.231	0.410	0.685
RIR	0.668	0.276	2.418	0.022**

Source: Authors' calculated based on data from study banks and Ghana statistical service, \*\*,\*\*\*indicate significance at 5 and 1% levels respectively, R-Squared: 0.485, adjusted R-squared: 0.356, F-statistic: 3.761 (0.005)

interest rate has remain relatively negative. This may also be due to the fact that Ghana's inflation has been quite high coupled with low nominal deposit rate. The mean GDPG figure from Table 1 is 7.633% with a standard deviation of 3.060. The mean figure indicate that Ghana's GDP has grown around 7%. The highest growth recorded over the period is 14.4% with the lowest around 4%. This connotes the fact that the economy of Ghana has been growing quite well.

**Pooled regression results for ROA model:** Two pooled regressions were run using two different profitability indicators, ROA and ROE. The results for ROA are reported in Table 2.

The F-statistic of 3.761, with a probability value of 0.005 indicates that the overall model was significant and that all the independent variables were jointly significant in causing variation in the dependent variable. The results of the diagnostics indicate that the regression model has not been misspecified and as such worth discussing.

It can be seen from the result that the bank operating efficiency has negative effect on return on assets over the period of the study. This was in line with the expectation of the study. The expectation was that the higher the expenses of a bank, the weaker its performance. Such a negative relation between expenses and profitability has been supported by studies of Bourke<sup>18</sup> and Jiang *et al.*<sup>20</sup>, implying that profitable banks were able to operate at lower cost. However, the t-ratio of -0.61 was non-significant as a determinant of bank profitability in Ghana.

The results show that there exists a positive effect of bank capital adequacy on return on assets. It has a coefficient of 0.55. This result is highly significant at 1% level. The significant positive relationship between capital adequacy was supported by empirical evidence in literature. For instance, Bourke<sup>18</sup> notices a significant positive relation between capital adequacy and profitability, showing that the higher the capital ratio is, the more profitable a bank will be.

Table 3: Regression results of return on equity model

Regression	Coefficient	Standard error	t-ratio	Significance Level
CONS	28.112	39.825	0.706	0.486
BOE	-0.638	0.196	-3.248	0.003***
BCA	1.004	0.400	2.513	0.018**
BAQ	-0.625	0.888	-0.704	0.487
BL	-0.296	0.063	-4.691	0.000***
BTA	1.867	1.810	1.032	0.311
GDPG	0.013	0.488	0.027	0.979
RIR	1.316	0.583	2.255	0.032**

Source: Authors' calculated based on data from study banks and Ghana statistical service, \*\*,\*\*\*indicate significance at 5 and 1% levels, respectively, R-squared: 0.619, Adjusted R-squared: 0.583, F-statistic: 6.494 (0.000)

Asset quality was another variable used as internal determinant of bank profitability in this study. From the results in Table 2, asset quality has positive effect on profitability of banks. This means that bank profitability increase if the bank was very efficient in collecting its debt. However, asset quality was not significant. This implies that in spite of its positive effect, capital adequacy do not have significant influence on bank profitability making it an unimportant determinant of bank profitability in Ghana.

The empirical findings of this study revealed that there exists a negative and significant relationship between bank liquidity and return on assets. This suggested that as banks give higher percentage of their deposit as loans their performance falls. This may be due to the fact that banks become more illiquid as most of their deposits were given out making it difficult to meet their immediate obligations to customers which can lead to financial distress.

The estimated results revealed that bank total assets which indicate bank size was positive and significant in influencing bank performance. It must be noted that the size of bank accounts for size related economies of scale. Size is a result of a bank strategy but the variable alone does not guarantee the earning of excess returns. The findings of this study contradicts the empirical findings of Sinkey<sup>21</sup>, that firm size impacts banking profitability negatively for large banks but positively for small ones. Moreover, Staikouras and Wood<sup>22</sup> also conclude that medium-sized banks earn the highest return followed by small banks. This therefore suggests that banks in Ghana gains in efficiency as their size expands.

The findings of the study indicated that there was positive effect of GDP growth on profitability of banks<sup>33,34</sup>. This means that as the size of a country expand in terms of productivity, bank profitability increases. This was therefore, in line with the expectation of the study because as productivity was increasing in a country, it presupposes that investors were borrowing which put the banks in a position to increase interest income through lending. This result was also

supported by Gerlach *et al.*<sup>27</sup>, who indicated that a high aggregate growth rate may strengthen the debt servicing capacity of domestic borrowers and therefore, contribute to less credit risk. Unfortunately, the low t-ratio of 0.410 indicated that GDPG was non-significant in determining the profitability of listed banks.

The result of real interest rate indicates that the real interest rate has positive effect on profitability of banks listed on GSE over the study period. The result was therefore, in line with the empirical findings of Staikouras and Wood<sup>22</sup> and Cheang<sup>14</sup>. They indicated that falling interest rates during recession led to slower growth in loans and increase in loan loss.

**Pooled regression results for ROE model:** The pooled regression results of how internal and external factors affect the profitability of listed banks using ROE as the dependent variable are presented in Table 3. About 58.3% of variations in ROE during the period 2010-2015 were explained by the independent variables. It therefore, suggests that the explanatory power of ROE model was relatively higher than that of ROA. The F-statistic of 6.494, with a probability value of 0.000 indicated that the overall model was highly significant and that all the independent variables were jointly significant in causing variations in ROE.

The results in Table 3 also indicate that bank operating efficiency (BOE) has negative effect on return on equity. The expectation was that the higher the expenses of a bank the weaker it financial performance. The negative coefficient means that profitable banks were able to operate at lower cost. However, unlike the case of ROA, BOE was significant in influencing ROE at 1% level. In addition, the results show that bank capital adequacy has a positive effect on return on equity. This means that as capital adequacy increases, profitability increases. This result was significant at 5% level.

Asset quality has negative relationship with profitability of banks listed on the Ghana Stock Exchange (GSE). However, this was not significant. Bank liquidity has negative and significant effect on return on equity. This is highly significant at 1% level. It means that an increase in bank liquidity will cause bank profitability to fall. This indicated that as banks become more illiquid as most of their deposits are offered as loans, it becomes difficult to meet day to day running of the bank. The estimated results from the study reveal that bank total assets which indicate bank size was positive in influencing bank performance. In this case, the larger the size of a bank, the better was its performance. However, in the case of ROE, BTA was non-significant in influencing bank profitability.

With respect to external factors, real GDP growth and real interest rate were used. The findings of the study indicate that GDP growth and profitability of banks were positively related. This means that as the size of a country expand in terms of productivity, bank profitability increase. On the other hand, the t-ratio indicates that GDPG was not significance in determining ROE. Finally, with real interest rate, the result indicates a positive effect on profitability of banks. The result indicates that RIR was highly significant in influencing ROE.

### **CONCLUSION AND POLICY RECOMMENDATIONS**

The study examined the determinants of bank profitability using banks listed on the Ghana Stock Exchange. The statistical results revealed that major determinants of bank profitability in Ghana included the bank capital adequacy, liquidity, total assets and real interest rate. Whiles liquidity have significant negative relationship with both return on assets and return on equity, that of bank operating efficiency is only negatively significant with return on equity. On the other hand, while bank capital adequacy has positive and significant effect on both return on assets and return on equity that of bank total assets is only positive and significant on return on assets. With respect to the external factors, the results show that real interest rate has significant positive effect on both ROA and ROE making it a key determinant of bank profitability unlike GDPG.

These results have policy implementations. In the first place, bank re-capitalization is important so that bank financial performance can be boosted. Banks should endeavour to retain earnings to boost up capital. Secondly, efficient and effective liquidity management should be adopted by bank managers to ensure that banks do not become insolvent. Since banks are less profitable when less liquid, bank managers should be encouraged to invest in more liquid assets. This will not only improve bank profitability but it will also enable banks to meet their short term obligations as they fall due.

In addition, economies of scale derived from bank size play a crucial role in bank profitability. The benefit of size would reflect in the ability to reach wider markets. Banks should therefore, be encouraged to entre other local market as well as strategically operate in other international markets and economies. Finally, a healthy economy is a prerequisite for healthy banking system. In an economy where government stimulates the creation of jobs and the right investment climate for both local and foreign investors, banks are likely to perform well.

### **SIGNIFICANCE STATEMENTS**

This study discovers the internal and external factors which can be beneficial for commercial banks listed on Ghana Stock Exchange. This study help the researchers to uncover the critical factors of concern with respect to determining banks' return on assets and return on equity. Thus, a new theory on the determinants of banks' financial performance within the Ghanaian context may be arrived at.

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