Determinants of Share Pricing of Rural and Community Banks in Ghana

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Abstract
Over the years Rural and Community Banks have not been able to provide improved and contemporary financial services and compete well with the emerging financial institutions. The main challenge they face is inadequate share capital. Subscription to Rural and Community Banks shares is low and the need to promote interest in existing and prospective shareholders will enable them to take advantage of business opportunities and provide improve financial services. The study examined the impact of share price determinants on the prices of shares of Rural and Community Banks in Ghana. Survey questionnaires were administered on directors and senior managers of twenty five (25) Rural and Community Banks with a response rate of 86%. The data were tested using Regression Analysis and Statistical Package for Social Sciences (SPSS). Accounting and Economic variables were considered to be the main determinants of share pricing. Profitability, Liquidity and Wealth Effect of Investors were sub-variables considered to have relationship with RCBs share pricing and hence good determinants. Dividend Payout as a sub-variable in share pricing was considered weak. The study contributes to knowledge as it addresses the gap in existing literature by focusing on Rural and Community Banks (RCBs) shares unlike those financial institutions whose shares are traded on the Stock Market.

Keywords: RCBs, Shares, Accounting, Economic, Profitability, Liquidity, Wealth Effect of Investors, Dividend Payout

1. Background of the Study
Ghana’s Rural and Community Banks (RCBs) began pioneering innovation and participating scheme in July, 1976 (Giordano Dell-Amore Foundation, 1992). Before inception of the scheme, Ghanaian peasant farmers produced about 90% of the agricultural output with scarce financial assistance (Rural Banking Department, 1987). However, the innovation and participating strategy emerged as an antidote to the "rural savings siphoning" by the traditional banks in the cities and to mitigate credit challenges of farmers. Their credit requests were small amounts but high-risk facilities to these traditional banks.

The RCBs are the principal sources of formal financial services in the countryside and parts of the cities representing about fifty percent of banking coverage in Ghana (IFAD, 2008). Innovation is important for improving the operations of RCBs in Ghana especially in group-based lending schemes (Beinpuo, 2000; Chord, 2000). Thus group-based lending is to reduce transaction cost by giving out larger loans in lieu of multiple smaller ones. While group-based lending is perceived to be problematic, researchers have recognised its effectiveness in revering loans in instances of default (Huppi and Feder, 1990).

2. Review of Related Literature
Investment in Rural and Community Banks (RCB’s) as part owner prior to its incorporation and in the course of its life-long journey is of paramount importance to policy makers, development advisors and rural opinion leaders. From policy makers, development advisors, the government and foreign partner organisations, majority of the population live in the rural communities therefore individual investments through acquisition of Rural and Community Banks shares can raise colossal sums of capital for development projects (Adams, 1978). Rural and Community Banks-based capital mobilization improves central government revenue mobilization via taxation and control of currency in circulation to bring local folks aboard the monetary economy (Adams, 1978). Rural opinion leaders without hesitation are very concerned with opening up and networking their rural communities to the rest of the urban areas and the world at large through rural financial institutions stock financing (World Bank Research Observer, 1994).

Shares are the pillars of modern-day economies especially mobilizing the requisite capital for companies at a reasonably low cost as compared to other sources of funds such as borrowing (Uddin et al., 2013). It provides a means for investment and capital formation and can act as an indicator or predictor of overall business condition (Sharma, 2011).

The two main functions of shares are to provide a requisite link between companies that need funds to set up new businesses or to expand their current operations and providers of such funds (Nazir et al., 2013). To address short-term cash necessities RCB’s lend among themselves or from their mother bank-ARB Apex Bank Limited (Boapeah, 2011). In instances of long term financing RCBs sell shareholding interests in the bank to the public, or borrow from the public by selling shares (Atta-Bronya, 1997). Shares exist to enable Rural and Community Banks (RCBs) in need of long term financing to sell pieces of their business as shares for cash
or consideration other than cash.

A share is one of the equal parts into which a company’s capital is divided (Agarwal and Mohtadi, 2004). The amount realised from the issue shares of a company represents the total capital of the company (Abor and Biekpe, 2006).

In a profi cient market, share prices are determined primarily by basic factors such as earnings per share, dividend per share, payout ratio, size of the firm, dividend yield, management, diversification (Sharma, 2011). To estimate future share prices, fundamental analysts use share valuation ratios to derive a share current fair value and forecast future value. If fair value is not equal to the current share price, fundamental analysts believe that the share is either over or under valued and the market price will ultimately gravitate towards fair value.

By believing that prices do not accurately re flect all available information, fundamental analysts look to capitalize on perceived price discrepancies.

Over the years, studies have been conducted in various jurisdictions of the world on share pricing. For instance, Challa and Challam (2015) conducted an empirical study on equity share price determinants and concluded that the understanding of share pricing dynamics is helpful in making profitable decisions.

Also, Inyiama (2014) examined the influence of foreign exchange rate, inflationary rate, real gross domestic product and interest rate on share prices in a study which focused on macroeconomic variables and share price movements.

Nirmala et al. (2011) explored the factors influencing share pricing. Also, Javaid (2010) studied the elements of equity prices in the stock market and concluded that market forces have influence on the pricing of shares.


One of the pioneering works of share pricing was on share price determinants (Collins, 1957) in the United States. Other notable studies conducted to advance innovative strategies for share pricing includes the works of Balakrishman (1984) on the influence of dividend per share; and Srivastava (1984) in a cross-sectional research involving three hundred and twenty seven (327) institutions in India. This work concluded that high dividends are associated with higher market prices of securities. Similarly, Sen and Ray (2003) undertook a longitudinal study in India on the key determinants of share price.

Regarding the determinants of share price, previous studies conducted focused on commercial banks and listed companies. Within the Ghanaian context, several studies were conducted in the past on RCBs. For instance, Darkwah (2012) conducted a study on the financing of rural and community banks in Ghana with much emphasis on mergers and acquisitions which concluded that RCBs have been instrumental in the growth of agrarian societies within which the banks are located.

Obeng (2008) studied the influence of rural banking in Ghana on farmers. This work concluded that high interest rates stifle the demand for loans. Perhaps, the high interest rate could be attributable to lack of funds to advance loans to borrowers.

Furthermore, it is appropriate to consider studies focusing on the financial markets and systems to ascertain the trend within the framework of rural financing and banking. Idun and Aboagye (2014) focused their study on bank competition, financial innovations and economic growth in Ghana. Studies that focused on the determinants of share price as far as Ghana is concerned included dividend policy and its effect on share prices in Ghana (Baah et al., 2014).

Drawing from the chronicle of the above studies conducted, it is clear that studies focused on the pricing of shares in relation to companies and traditional banking institutions. It is clear that share pricing in RCBs has not been extensively explored as far as novel research is concerned to further the improvement of RCBs performance. Similarly, majority of the studies were conducted in different jurisdictions which have peculiar characteristics and sample character. It is therefore novel to conduct a study that focuses on the Ghanaian environment. It is by this that, the performance of RCBs can be boosted to ensure their vibrancy. It is therefore appropriate to conduct a study that identifies the determinants of share pricing and the impact of those determinants on the prices of shares of RCBs in Ghana.

3. Methodology of the Study

The study population involved Rural and Community Banks (RCBs) in the Ashanti Region which amounted to twenty six (26). The sampling frame therefore consisted of the 26 RCBs in the Ashanti Region. The sampling frame was specifically chosen from the Ashanti Region because of the high concentration of RCBs in the region, highest paid-up capital, profit performance and total assets as compared to other regions in Ghana. In all the
target population for the study were 175.

Sampling was done using purposive sampling technique to collect data from the target population comprising of board of directors; senior managers; head of accounts and finance; and head of operations. Purposive sampling was adopted because of the desire of this study to collect the requisite information from respondents with the most experience and knowledge in the pricing of RCBs shares. Practically, the survey questionnaire was administered on board of directors; and senior management staff of RCBs comprising of 175 respondents of which 150 was retrieved representing the sample size for the study.

Data collection preceded the analysis of the data. The study used data made up of primary and secondary. The secondary data were picked (collected) from annual reports and financial statements of RCBs, Bank of Ghana (BOG), ARB Apex Bank, Ghana Statistical Service (GSS), Registrar General’s Department and other research materials on share prices and macroeconomic variables. The primary time series data source covered the period December 2012 to December 2014 yearly data. Data validity and reliability was ensured by collecting information only from the source to ensure accuracy as a basis for generalizations.

This study adopted the quantitative analytical approach where both the exploratory and the descriptive approaches to examine the relationship between the independent variables and the dependent variables. The exploratory data analysis approach emphasised on the use of diagrams to understand the data. Descriptive statistics enabled the researcher to describe (and compare) variables numerically. Data collected from the RCBs were edited, rationalized and collated. The data were coded with each question given a unique code. The field data were also categorised and tabulated to respond to the study objectives. The data collected were analysed using Microsoft Excel (ME) and STATA 13 statistical softwares. Multiple regression and correlation analysis were applied to determine the connection between the dependent and independent variables.

During the data collection, the researcher took into consideration ethical issues to ensure the study does not encounter any crucial ethical dilemma through seeking the consent of the various Rural and Community Banks that were selected before using their data for the study.

4. Results and Discussions
4.1 Determinants of RCB’s Share Pricing
The determinants are categorised into accounting and economic. The scale of measurement for the variables was subjected to reliability test to ascertain its consistency using Crobach’s Alpha. The overall reliability statistic for the determinants; accounting and economic, had a Cronbach’s alpha of 0.82 which is greater than 0.70 indicating a reliable scale for this study.

4.2 Accounting Determinants
The market price per share was identified as the major accounting determinant of RCBs share pricing with the highest mean value of 4.8861. The implication is that the unit values of shares are very critical in determining the prices of RCBs shares if traded on the stock market.

Further, dividend per share which is the proportion of the earnings the RCBs management distribute to shareholders as dividends ranked second to the market price per share with a mean value of 4.7215.

In addition, the extent to which the RCBs have cash to meet immediate and short-term obligations, thus liquidity, was also identified as an accounting determinant in the pricing of RCBs shares. Liquidity, being the third major determinant of RCBs shares had a mean value of 4.6709.

Notwithstanding, price/earnings ratio, book value and price volatility were identified as the minor three determinants in the pricing of shares. Evidently, price volatility which represents the unstable nature of the prices of goods and services in Ghana was identified as the least determinant of share pricing among RCBs in Ghana with a mean value of 3.6203. From the Table 4.2, price volatility was followed by book values which represent the underlying written value of RCBs assets as shown in their balance sheet with a mean value of 3.8101.
4.2.1 Comparing Accounting Determinants

A one way repeated ANOVA was conducted to compare scores of the accounting determinants of share prices of RCBs in Ghana with statistical test. The mean values of the accounting determinants are presented in Table 4.2.1. The model is significant at \( p < 0.005 \) [Wilks’ Lambda=0.313, \( F (12, 67) = 12.246 \)].

Table 4.2.1: Multivariate Test of Accounting Determinants

<table>
<thead>
<tr>
<th>Effect (Consequence)</th>
<th>Value</th>
<th>F</th>
<th>df</th>
<th>Error</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wilks' Lambda</td>
<td>0.313</td>
<td>12.246</td>
<td>12.000</td>
<td>67.000</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Source: Field Survey, 2015

4.3 Economic Determinants

With respect to economic determinants, ten (10) factors were identified as; the profitability of RCBs, Wealth Effect of Investors (WEI), Economic Value Added (EVA), Treasury Management/Treasury Bills (TMB), Share Price Fluctuation (SPF), Supply of Money in the Economy (SME), Inflationary Rate in time (INF), Consumer Price Index (CPI), Prevailing Exchange Rate in time (EXR) and Growth of Gross Domestic Product in time (GDP).

From the above economic determinants, a key performance indicator of RCBs share pricing; profitability, was identified as the major economic determinant with a mean score of 4.7900. The result implies that the profits of RCBs are very critical in determining their share prices. It further shows that the financial performance of RCBs cannot be underestimated with respect to the pricing of shares.

Following the profitability of RCBs was the wealth effects of investors which measures the financial and economic position of shareholders of the banks with a mean value of 4.1400. The Economic Value Added which also represents the amount of wealth added to shareholders investment by management was identified as the third economic determinant. EVA had a mean score of 4.0800 as the third economic determinant of RCBs share pricing.

Moreover, the growth in GDP was identified as the least economic determinant of RCBs share pricing with the lowest mean score of 3.0900.

From the least identified determinants, prevailing exchange rate in time and consumer price index followed GDP growth with mean values of 3.1000 and 3.2200 respectively.

Details of the economic determinants of RCBs share pricing are presented in Table 4.3.

Table 4.3: Economic Determinants

<table>
<thead>
<tr>
<th>Economic determinants</th>
<th>Mean</th>
<th>Mean Rank</th>
<th>Std. Dev.</th>
<th>Std. Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Profitability of RCBs (PRB)</td>
<td>4.7900</td>
<td>1</td>
<td>1.4722</td>
<td>0.1368</td>
</tr>
<tr>
<td>2. Wealth Effect of Investors (WEI)</td>
<td>4.1400</td>
<td>2</td>
<td>1.7234</td>
<td>0.1154</td>
</tr>
<tr>
<td>3. Economic Value Added (EVA)</td>
<td>4.0800</td>
<td>3</td>
<td>1.4817</td>
<td>0.1199</td>
</tr>
<tr>
<td>4. Treasury Management/Treasury Bills (TMB)</td>
<td>4.0200</td>
<td>4</td>
<td>1.7231</td>
<td>0.1456</td>
</tr>
<tr>
<td>5. Share Price Fluctuation (SPF)</td>
<td>3.7400</td>
<td>5</td>
<td>1.5993</td>
<td>0.1297</td>
</tr>
<tr>
<td>6. Supply of Money in the Economy(SME)</td>
<td>3.5700</td>
<td>6</td>
<td>1.8271</td>
<td>0.1613</td>
</tr>
<tr>
<td>7. Inflationary Rate in time (INF)</td>
<td>3.5400</td>
<td>7</td>
<td>1.6661</td>
<td>0.1386</td>
</tr>
<tr>
<td>8. Consumer Price Index (CPI)</td>
<td>3.2200</td>
<td>8</td>
<td>1.4742</td>
<td>0.1225</td>
</tr>
<tr>
<td>9. Prevailing Exchange Rate in time (EXR)</td>
<td>3.1000</td>
<td>9</td>
<td>1.3962</td>
<td>0.1138</td>
</tr>
<tr>
<td>10. Growth of Gross Domestic Product in time(GDP)</td>
<td>3.0900</td>
<td>10</td>
<td>1.1984</td>
<td>0.1072</td>
</tr>
</tbody>
</table>

Source: Field Survey, 2015
Comparing Economic Determinants Variables

A one way repeated ANOVA was conducted to compare mean scores of the economic determinants of share prices of RCBs in Ghana with statistical test. The means are presented in Table 4.3.1. The model is significant at \( p < 0.005 \) [Wilks’ Lambda=0.448, F (9, 91) = 12.246].

<table>
<thead>
<tr>
<th>Effect (Consequence)</th>
<th>Value</th>
<th>F</th>
<th>Df</th>
<th>Error</th>
<th>Sig. (p-value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wilk’s Lambda</td>
<td>0.448</td>
<td>12.468*</td>
<td>9.000</td>
<td>91.000</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Source: Field Survey, 2015

5. Impact of share price determinants on share price

The impact of share price determinants relating to 91 Day Treasury Bill, Liquidity, Inflation, Economic Value Added, Dividend Per Share and Profitability on share prices was tested using multiple regression.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Estimate</th>
<th>Standard Error</th>
<th>t-value</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. 91 Day Treasury Bill</td>
<td>2.634e-01</td>
<td>9.192e-01</td>
<td>0.287</td>
<td>0.7759</td>
</tr>
<tr>
<td>2. Liquidity</td>
<td>2.203e-08</td>
<td>1.401e-08</td>
<td>1.573</td>
<td>0.1234</td>
</tr>
<tr>
<td>3. Inflation</td>
<td>6.090e-01</td>
<td>1.080e+00</td>
<td>0.564</td>
<td>0.5759</td>
</tr>
<tr>
<td>4. Economic Value Added</td>
<td>-2.188e-08</td>
<td>8.516e-09</td>
<td>-2.570</td>
<td>0.0139 *</td>
</tr>
<tr>
<td>5. Dividend Per Share</td>
<td>-7.417e-03</td>
<td>1.190e-02</td>
<td>-0.623</td>
<td>0.5366</td>
</tr>
<tr>
<td>6. Profitability</td>
<td>7.792e-08</td>
<td>2.360e-08</td>
<td>3.301</td>
<td>0.0020 *</td>
</tr>
</tbody>
</table>

Source: Field Survey, 2015 (*Significant at \( p < 0.05 \))

5.1 Regression results on impact of share price determinants

The regression tool was applied to predict the variation in price per share while other variables were unchanged. The test indicated that price per share is normally distributed with equal variance across all values of independent variables. Each independent variable has a linear linkage with price per share. Dividend per share has no huge statistical effect on price per share \( (p = 0.5366) \). Holding all other variables constant, economic value added largely has negative impact on the price per share of RCBs. For a one unit increase in economic value added, price per share of RCBs decreases by 0 units. \( t = -2.570, p = 0.0139 \). Moreover Inflation and Liquidity have no statistical impact on price per share \( (p=0.05) \). Holding all other variables constant, profitability largely has an encouraging impact on price per share. As profitability increases, price per share decreases by \( 7.792e-08 \) \((t=3.301, p = 0.002)\). Moving forward, a 91day treasury bill has no statistical impact on price per share \( (alpha=0.05) \). The r-squared (efficiency of the module adopted) value of 0.384 \( (\text{adjusted } r^2 = 0.294) \) depicts that the model is about 38.4 % of the variation in price per share.

5.2 Correlations between share price determinants and share prices

The relationship between the price per share and inflation, profitability, liquidity, 91 day Treasury bill and economic value added were tested using the Pearson Correlation Coefficient.

<table>
<thead>
<tr>
<th>SP</th>
<th>PRO</th>
<th>LIQ</th>
<th>DPS</th>
<th>EVA</th>
<th>INF</th>
<th>TBILLS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.487**</td>
<td>1</td>
<td>0.181</td>
<td>0.654**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>PRO</td>
<td>0.112</td>
<td>0.001</td>
<td>-0.036</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LIQ</td>
<td>0.002</td>
<td>0.532**</td>
<td>0.920**</td>
<td>0.026</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>DPS</td>
<td>0.074</td>
<td>0.159</td>
<td>0.238</td>
<td>0.080</td>
<td>0.283</td>
<td>1</td>
</tr>
<tr>
<td>EVA</td>
<td>0.009</td>
<td>-0.002</td>
<td>0.125</td>
<td>-0.024</td>
<td>0.188</td>
<td>0.492**</td>
</tr>
</tbody>
</table>

**. Correlation is significant at 0.05 (95%) level (1-tailed).

5.2.1 Liquidity (LIQ) and Share Prices (SP)

The Pearson product-moment correlation was applied to ascertain liquidity and share price connection. The results show a positive connection between share price and liquidity of the RCBs at correlation coefficient of 0.181 at an insignificant \( p = 0.219 \). The coefficient of 0.181 indicated a weak positive connection between liquidity and share price.

5.2.2 Profitability (PRO) and Share Prices

With respect to the association between profitability and share prices, the correlation analysis showed a positive
linkage between the profitability of RCBs in Ghana and their prices per share at correlation coefficient of 0.487 at p = 0.000. The coefficient of 0.487 shows medium positive relationship between the variables at a significant value of 0.000.

5.2.3 Dividend Per Share (DPS) and Share Prices
There was negative linkage between RCBs dividend and share price. The correlation coefficient showed a negative connection between dividend per share of RCBs in Ghana and their prices per share at correlation coefficient of -0.112 at p = 0.449. The coefficient of -0.112 shows a weak negative relationship between the variables at an insignificant probability value of 0.449.

5.2.4 Inflation (INF) and Share Prices
In establishing the relationship between the rate of changes in the consumer price index in Ghana and the prices per shares of RCBs in Ghana, the Pearson correlation coefficient was used. The results show a weak positive relationship with share prices at r = 0.074. However, even though the relationship is positive, the relationship is statistically insignificant at p = 0.616.

5.2.5 91 Day Treasury Bills (TBILLS) and Share Prices
The relationship between the 91 day treasury bill of Ghana and the share prices of RCBs was explored to be negative at r=-0.009 at p>0.05. The correlation coefficient of -0.009 shows no possible relationship between the variables since r is closer to 0. The p-value being greater than 0.05 also implies that the relationship between 91 day treasury bill is statistically insignificant.

5.2.6 Economic Value Added (EVA) and Share Prices
Testing the relationship between EVA and RCBs Share Prices, an insignificant positive connection was established at p=0.992 with coefficient (r) of 0.002.

6. Conclusion
The objective was meant to identify the determinants of share pricing of RCBs in Ghana. Indeed, twenty-five (25) RCBs were involved in this study which explored the determinants of RCBs share pricing in two main dimensions: accounting determinants and economic determinants. Each of these determinants has its sub-variables. For instance some of the accounting variables identified included market price per share; dividend per share; liquidity of the bank among others.

The specific economic determinants of RCBs share pricing identified comprised of profitability of RCBs; wealth effect of investors; economic value added; treasury management/treasury bills inter alia.

The study clearly revealed that the determinants of RCBs share pricing are accounting and economic. The study recommends the directors and managers of RCBs to design financial policies in relation to share floatation, pricing and projected share proceeds in order to reach out to potential investors and subscribers.

Moreover, from the identification and subsequent linkage of the critical variables including, profitability, liquidity and economic added value, the study recommends that practitioners and consultants advise management of RCBs in taking pragmatic decisions in the pricing and floatation of shares considering the most significant determinant factors. As a result, practitioners and consultants are advised to take a realistic approach in assisting management in the determination of share prices of RCBs.

References


