INTERNATIONAL JOURNAL OF RESEARCH SCIENCE & MANAGEMENT

CORPORATE GOVERNANCE, FIRMS' PROFITABILITY AND SUSTAINABILITY IN RURAL COMMUNITY BANKS: EVIDENCE FROM GHANA

Eric Nsiah Gyabaah[*1], **Emmanuel Opoku Marfo**[2], **Kofi Owiredu-Ghorman**[3] **& Kwame Oduro Amoako**[4]

[*1,2,3&4] Department of Accountancy, School of Business and Management Studies, Sunyani Technical University, P. O. Box 206, Sunyani-Ghana

Abstract
The paper examines the relationship between Corporate Governance mechanisms (compliance to sound corporate governance practices, board size, board members' educational qualifications and bank's reputation),and profitability and sustainability of Rural Community Banks (RCBs) in Ghana. Data was obtained from key stakeholders of the nineselected RCBs using questionnaire. The results of this study indicate that corporate governance mechanisms especially, board size, regulatory compliance and bank's reputation have a significant effect on the RCBs profitability and sustainability. Nevertheless,board member's educational qualifications was insignificantly related to profitability and sustainability of the RCBs.In this regard, the study recommendsthe strengthening of corporate governance by appointing competent Board of Directors and management forRCBs to improve on theirprofitability and sustainability. In addition, providing appropriate training for staff, improving the conditions of service and ensuring effective monitoring and supervision by supervisory agencies are key to the profitability and sustainability of RCBs in Ghana.

Introduction
Revitalizing the financial systems is a core challenge facing emerging markets and developing economies (Battagliaand Gallo, 2015). Many countries, in Africa and Asia, since early 1980 have instituted several reforms that include entry deregulations, interest rate liberalization, removal of credit allocation and reduction of reserve requirements to promote corporate fairness, transparency and accountability (Amoako and Lyon, 2014; Okoye, et al., 2016). The banking sector's stakeholders such as "shareholders, creditors, regulators, and academics are examining the decision-making process in corporations and other organizations and are proposing changes in governance structures to enhance accountability and efficiency" (Adams and Mehran, 2003, p. 1).

Although there are numerous studies on corporate governance in advanced economies (e.g. Adams and Mehran, 2003; Caprio et al., 2007; Levine, 2004), only few papers focus on banks' corporate governance in emerging economies. Nevertheless, corporate governance and the complications in collective action confronted by stakeholders in guaranteeing the efficient allocation of resources and the hitches derived from different types of ownership and control, are critical for the survival of financial sector in emerging economies (Ahunwan, 2002;Amoako, et al., 2017; Tsamenyi et al., 2007).In 1976, the first rural bankwas established in Ghana to provide banking services to the rural population, providing credit to small-scale farmers and businesses as well as supporting development projects (*Tsamenyi and Uddin,2008).* Since then, the role of RCBs in the Ghanaian economy, cannot be overemphasized. Realising the pivotal role of the banking sector to the economic growth of Ghana, the Banking Act, 1993 (Act 328) was introduced which prompted free operations in the banking industry. This increased the number of banking and non-banking institutions in the financial industry culminating into an intense competition and rivalry among financial institutions. This ultimately resulted in low margins and several challenges to the sector and collapse of several of the non-competitive banks and micro-finance institutions (*Gallardo, 2005;*Anin, 2000). As at June 2016, less than half of (14 of the 30) banks classified as marginal or weak banks had failed to comply with Bank of Ghana's (BoG) directive on minimum capital, which required that all RCBs recapitalize to GH¢300,000 by December, 2015 (Akalaare, 2016). The profitability and financial sustainability failure of these banks have drawn the attention of stakeholders such as

regulators, policymakers, academics and the general public to seek answers on how these RCBs are performing and how sustainable their operations.

In spite of the immense contribution of RCBs to the Ghanaian economy which is characterized by volatile governance issues, corporate governance research has focused much on the "Big Commercial Banks". This renders immense opportunity to conduct this research on the relationship between corporate governance structures of RCBs and their performance and financial sustainability. This article is presented in four parts: a review of relevant literature and statement of the hypothesis, followed by the methods of data collection and analysis, discussion of the results and finally the conclusion.

Literature review and Hypothesis Development

Corporate governance defined

Corporate governance is a complex and multidimensional concept. A review of the literature shows that there is 'no one size fit all' definition of corporate and it differs from professional, research interests, socio-economic, political, legal, and cultural systems, influence definitions of corporate governance (Okike, 2007). The Organization for Economic Co-operation and Development (OECD) defined corporate governance as 'a set of relationships governing the various members of a corporation. It explains further that corporate governance specifies the distribution of rights and responsibilities among different participants in the corporation while spelling out the rules and procedures for making decisions on corporate affairs. By doing this, it provides the structure for setting objectives, the means of attaining those objectives, and monitoring of performance (OECD, 1999, 2004). Shleifer and Vishny(1997) define corporate governance as "dealing with the ways in which suppliers of finance to corporations assure themselves of getting a return on their investment" (p.737). The authors further explained that corporate governance deals specifically with difficulties of conflict of interest, design ways to prevent corporate misconduct which in turn protects the interests of stakeholders using incentive controls.According to Llewellyn and Sinha (2000), corporate governance refers to 'the mechanism, principles, and practices which establish the connection between management, the board of directors, and stakeholders in managing risks.' In their opinion, it is concerned with mechanisms for accountability, monitoring, and control of bank's management with respect to the use of resources and managing risks (Llewellyn & Sinha, 2000). Talbot (2012) has also defined corporate governance broadly as the political, economic, social, and legal mechanisms, which govern the activities of a company. The author further indicates that corporate governance is a mechanism for addressing public sector management, including transparency, accountability, regulatory reform, and public sector skills as well as providing good leadership.

Within the Ghanaian context, Kyereboah-Coleman and Biekpe (2008) described corporate governance as 'supervising and holding into account those who direct and control the management in a firm.' It also embodies legitimate lines of accountability by defining the nature of the relationship between a firm and its key corporate constituencies. The Ghana Securities and Exchange Commission defined corporate governance in 2002 as 'the manner in which corporate bodies are managed and operated' (Ghana Securities and Exchange Commission, 2002). Also, Keasey et al. (1997) have noted that corporate governance is concerned with the structures, processes, cultures, and systems that promote the successful operation of companies. In RCBs, where the main objective is to maximize profit for shareholders, best corporate governance practices are required not only to improve profitability and sustainability but also ensure financial sustainability in order to prevent investor losses and corporate failure. Thus corporate governance could increase investor confidence and goodwill, ensures transparency, fairness, responsibility, and accountability in RCBs in Ghana. Consequently, good corporate governance is a desired feature of RCBs to ensure the flow of both foreign and domestic investments for accelerated economic development of these banks.

Corporate governance research in the banking sector
There have been several studies on the determinants of corporate governance in relation to profitability. Studies such as Molyneux and Thornton (1992) report that ownership status is irrelevant in explaining bank profitability. On the contrary International Monetary Fund (2000) has indicated that ownership matters in bank profitability. Detragiache and Gupta (2004) report that foreign banks have comparatively low non-performing

INTERNATIONAL JOURNAL OF RESEARCH SCIENCE & MANAGEMENT

loans, and their capitalization and profitability were better during the Asian crisis relative to domestic banks. The structural and organizational differences such as culture between foreign and domestic banks may have effects for differences in cost structures as well as economies of scale (Awdeh, 2005). Other studies also posit that foreign banks tend to show resilience and less stable in loan growth, indicating a more diversified funding base (Dages et al., 2000; Bokpin, 2013). In contrast, Elyasiani and Rezvanian (2002) show that even though the cost structure of foreign and domestic owned banks are different, economies of scales measured derived for the two groups, are not significant. Bokpin (2013) and Macey and O'Hara, (2003) acknowledge the existence of difficulties, including information asymmetries, complexities in regulation, in the corporate governance of the banking sector. Further, such difficulties interfere with the way in which the usual corporate governance mechanisms are applied to the governance of financial institutions. In terms of banks size, Mongiardino and Plath (2010) indicate that the risk governance in large banks appears to have improved only to an extent despite improved regulatory pressure imposed by the credit crisis. Fahlenbrach and Stulz (2011) examined the influence of CEO inducements and share ownership on banks' profitability. The authors conclude that banks provided better incentives to CEOs performing worse during the economic crisis. The issue of corporate governance is contextual (Bokpin, 2013; Elyasiani and Rezvanian, 2002). As such, there is not much certainty as to whether the factors identified in previous studies which emphasis on larger banks may also apply in the case of community RCBs.

The profitability and sustainability of banks

In extant literature, two broad approaches(accounting or financial and non-financial) have been used to measure the performance of banks in terms of profitability and sustainability. Many studies have used the financial performance measurement framework or financial indicators as the basis for evaluating the performance and sustainability of banks. The performance measurement framework is also used as a tool to monitor specific variables that impact on the functions of the bank and lead to either success or failure of banks. Financial ratios are used to rank banks according to their performance and to inform policy and government intervention. In this context, there is a minimum 'threshold' by which financial performance is judged or measured (Amoako, et al., 2013; Ashcroft & Foreman-Peck, 1996).Some studies (such as Philip, 2012; Muasya, 2013; Harvey et al., 2014) finds some evidence of a positive relationship between liquidity and bank's profitability. Such studies argue that banks holding more liquid assets benefit from good perception in funding markets, reducing their financing costs which in turn increases their profitability. On the contrary, other researchers (such as Almazari, 2014; Goddard, et al.,2004) argue that, more liquidity increases bank's opportunity cost, given their low return relative to other assets, and in turn having a negative effect on profitability.

In Ghana, the Apex bank which is the mini-central bank charged with supervision of RCBs uses nine financial performance indicators or norm-referenced standards to assess performance in RCBs and rank them (Nair and Fissa, 2010). These financial indicators include: (i) total assets, (ii) total loans and advances, (iii) primary reserves (cash balances with other banks), (iv) secondary reserves (total investment), (v) total deposits, (vi) profit before tax, (vii) paid-up capital (PUC), (viii) net worth, and (ix) capital adequacy ratio (CAR). Based on the above indicators, RCBs are ranked into three main categories: Strong/satisfactory, fair, and marginal/unsatisfactory.

RCBs, which are described as satisfactory, are generally well governed and have adopted good governance and best practices for effective management of the banks (Nair and Fissa, 2010). Banks that are rated strong/satisfactory are fundamentally sound but have modest corrective weaknesses. Banks that are ranked as fair, have deficiencies, which can become severe. This is the watch category, which requires more than normal supervision by management. Marginal/unsatisfactory banks have serious weaknesses, which could impair future viability and sustainability of the bank if the weaknesses are not addressed through close supervision. These banks have a high risk of failure in the short-term and need close and constant supervision (Hilson and Boateng, 2010).

Hypothesis development

Regression analysis is appropriate when the purpose is to understand the relationship between one or more variables and a dependent variable. The advantage of this method is that variations and similarities become

INTERNATIONAL JOURNAL OF RESEARCH SCIENCE & MANAGEMENT

readily apparent. These techniques are used to establish the relationship between the independent variables and to test the formulated hypotheses using 95% confidence level. There are three models for determining this. The general model is given by equation (1)

$Prof_{it}, Sust_{it} = f(CorpGov)$ …………….. **(1)**

Where **$Prof_{it}$** is the profitability of bank 'i' at the time period 't'
$Sust_{it}$ is the sustainability of bank 'i' at the time period 't'

However, corporate governance is made up of several variables which are expanded in equation (2)

CorpGov = f(Compl, Bodsiz, BodQual, Reput) ……………. **(2)**

Where **Compl** is bank compliance to sound corporate governance practices
Bodsiz is board size
BodQual is board qualification
Reput is the bank reputation

The model can be expanded in equation (3) as:

$Prof_{it}, Sust_{it} = \beta_{0it} + \beta_{1it}Compl + \beta_{2it}Bodsiz + \beta_{3it}BodQual + \beta_{4it}Reput + \varepsilon_{it}$ …... **(3)**
where the subscripts **i** denotes sampled rural and community banks in the BrongAhafo Region of Ghana (**i = 1,2,3,4…. 9),**
t represent time period (**t= 2010, 2011, ... 2014),**
β_1, β_2, β_3, and **β_4** are the parameters to be estimated and
ε, represent the idiosyncratic error term.

Hence, in guiding the model, these important hypotheses were used in this study.

The following hypothesis was examined by the study;
H_1: There is a significant relationship between good corporate governance and profitability.
H_0: There is no significant relationship between good corporate governance and profitability.
H_1: There is a significant relationship between sound corporate governance and sustainability.
H_0: There is no significant relationship between sound corporate governance and sustainability.

Methods

Characteristics of RCBs Surveyed
In all nine RCBs were selected from a total of 21 RCBs in BrongAhafo Region for the study which represents 43% of the RCBs in the region. For the sake of animosity, pseudonyms have been used in replacing the names of the banks. The year of establishment and number of agencies have been shown in Table 4.

Table 1: Location and Size of Bank

Name of Bank	Year Established	No. of agencies
RCB 1	1981	5
RCB 2	1982	5
RCB 3	1981	4
RCB4	1997	2
RCB5	1983	4

RCB6	1978	4
RCB7	1987	6
RCB8	1984	6
RCB9	1982	7

*Notes.*Source: Compiled from Field Data

Data and Sample

Data for analysis of performance was collected from audited annual financial statements of the banks, which were presented to shareholders at annual general meetings in the last four years (2010-2014), through monthly data submitted for board meetings, and from quarterly reports from the internal. Data on Board Characteristics (BC) such as composition and size, Capital Adequacy (CA), Disclosure and Internal Control (DIC), compliance to the law, and other indicators of performance were obtained from each of the banks included in the study.

Every research requires the collection of information about the population to be studied (Denzin & Lincoln, 1994). The respondents, numbering four hundred (397), were selected from all the categories of performance ranking of RCBs by the BoG. The key stakeholders included the principal staff of RCBs comprising managers, the board of directors, shareholders, customers, and other stakeholders of RCBs. The sample population who were interviewed included:

Table 2: Categories of respondents, numbers, and proportions

Category of respondents	Number	Percentages
Managers /staff	54	13.60
board members	45	11.34
Shareholders	132	33.24
customers	108	27.20
stakeholders /opinion leaders	54	13.60
Association of RCBs	4	1.00
Total	397	100

(Source: Fields data, 2014)

Sampling technique

As suggested by Amin (2005), purposive sampling is important in quantitative and qualitative research, especially where particular characteristics of the population are already known. The research purpose and sample size have influenced the choice of sampling methods for this research. Considering the spatial distribution of the banks and previous knowledge about the respondents, the purposive sampling technique would be used to select nine out of the twenty-one (21) RCBs in the region for study. This method has the advantage of ensuring that banks in all the categories are included in the sample. As opined by Huberman and Miles (1994), the purposive sampling technique is simple, convenient, and cost-effective. The main disadvantage of this technique is that it has an inherent bias.

Findings

Governance Structure, Ownership, and Control of RCBs

From the results of the study, there is a clear distinction between ownership and management in RCBs. The banks are owned and governed by shareholders, mostly from the communities in which the banks are located. Each bank is managed by a board, whose members are elected by shareholders during annual general meetings (AGMs), on the basis of their reputation, educational, and professional qualifications. Each board has a chairperson, a vice-chairperson, and the manager, who serves as secretary to the board. The board is responsible for ensuring that the bank is governed in the best interest of all stakeholders. At every AGM, a third of the board retires, but they are eligible for re-election in accordance with the Companies Code. To facilitate its

INTERNATIONAL JOURNAL OF RESEARCH SCIENCE & MANAGEMENT

work, the board is assisted by supervisory sub-committees, such as audit and loans committees. Although RCBs to an extent have complied with the BoG governance requirements, there are many operational and management inefficiencies which affect performance, and sustainability of the banks (Frimpong, Amoateng, Gyabaah, 2017).

Table 3: Board Size and Gender Diversityof case RCBs as at 2014

Name of bank	Total	Male	Female
RCB 1	8	7 (2 of them are co-opted, members)	1
RCB 2	7	6	1
RCB 3	8	8 (1 of them is a co-opted member)	0
RCB 4	6	5	1
RCB 5	7	7	0
RCB 6	7	7 (1 of them is a co-opted member)	1
RCB 7	8	8 (1 of them is a co-opted member	0
RCB 8	7	6	1
RCB 9	6	6	0
% Total	100%	93.7%	6.3%

(Source: Field data, 2014)

In most cases, the staff of rural community banks is drawn from the communities in which they operate. According to the respondents, qualified females are not available and the few qualified women are not attracted to the rural community banks partly due to unattractive salaries and condition of service. Since a majority of customers, especially traders, are women, the interest of women is not adequately represented in the decision-making of the boards. Beyond gender diversity, education and professional qualifications of the board of directors are ingredients of good leadership and competent in decision-making and risk management which are core functions of boards. Therefore, the companies' code requires RCBs to employ managers with an impeccable background, educational, and professional expertise for effective management and control of RCBs.

An empirical study on board size found that large board size is likely to be less effective in decision making among directors and costly in terms of supervision and control of management. When a board gets too big, it becomes difficult to coordinate its activities and costs incurred and organizing board meetings are high. Therefore, a small board size is positively related to high performance (Lipton &Lorsch, 1992; Mak&Kusnadi, 2005). By limiting the board size to a minimum of five and a maximum of eleven as a BoG requirement all the banks surveyed operated within the efficient level of performance determined by the BoG.

The survey reviewed that the educational qualifications of the boards range from secondary to university. The junior workers included those with higher national diploma certificates from the polytechnics and secondary high school certificate holders. University degree in business management and accounting are a prerequisite for the appointment of managers, accountants, project officers, and internal officers. Most of the banks such as RCB3, RCB7, and RCB9 were unable to attract and retain professionals to their boards because the professional such as accountants required by the banks were also highly sought after by industries and the big banks. As a result of the rurality of the banks and their inability to provide adequate incentives to staff, the banks are unable to compete with industry and the big commercial banks in attracting female professionals in the rural areas.

It was also revealed that even though RCB2 had highly qualified members on the board with two of its members having PhDs, the bank has faced liquidity challenges since 2010 due to poor internal control and mismanagement of shareholders investment to the extent that the bank was unable to meet customers'

INTERNATIONAL JOURNAL OF RESEARCH SCIENCE & MANAGEMENT

withdrawal demands. Moreover as a result of high expenditure and inability to mobilize deposits and invest in profitable ventures. The bank fails to meet the Primary Reserve Bench Mark Ratio of 10% throughout the period. In 2015, the total staff load portfolio stood at 12% as against the benchmark 5%. Out of the total non-performing loan of GH₵ 126857.67, staff overdue loans amount end to GH₵ 57396.76 representing 45%, whilst overdue loans were GH₵ 14684.31 representing 11.57% of the non-performing loans. This did not lead to prudent financial management of the bank.

Descriptive Statistics

A description of the dataset for the analysis covers statistics like the mean, standard deviation, skewness, kurtosis, standard error of the mean, median, minimum, and maximum values. The mean and median measure the central tendencies while the deviation measures variability. The standard error of the mean indicates the closeness with which the sample mimics the population of the dataset. Skewness measures the symmetry of the dataset whilst kurtosis measures the peaks (see table 4). The table of descriptive statistics can be found in the appendices.

Table 4: Descriptive statistics

```
tabstat COMPLIANCE LIQUIDITY BANKSIZE RETURNONEQUITY RETURNONASSETS SUSTAINABILITY REPUTATION BOARDSIZE
> BOARDQUALIFICATION, statistics( mean sd skewness kurtosis semean median min max ) columns(statistics)
```

variable	mean	sd	skewness	kurtosis	se(mean)	p50	min	max
COMPLIANCE	10.42089	19.50075	-1.786188	7.425429	2.907	14.42	-62.66	38.31
LIQUIDITY	52.83822	21.54446	-.1013584	2.073593	3.211659	53.07	8.35	93.66
BANKSIZE	6.712798	.3130346	-1.185988	4.962627	.0466644	6.771752	5.730153	7.258669
RETURNONEQ~Y	5.786222	82.34676	-3.122944	20.58936	12.27553	24.93	-434.3	237.46
RETURNONAS~S	1.408444	5.638294	-3.296942	16.02842	.8405072	2.32	-26.97	7.48
SUSTAINABI~Y	75.37689	16.54109	.4388094	5.218282	2.465801	74.35	32.04	126.31
REPUTATION	.5333333	.504525	-.1336306	1.017857	.0752101	1	0	1
BOARDSIZE	7.111111	.745356	-.1781658	1.853306	.1111111	7	6	8
BOARDQUALI~N	.8255556	.1963943	-.583223	1.640363	.0292767	.88	.5	1

Profitability

The two measures of profitability are ROA and ROE. Return on equity has so much variability in the dataset with a lot of outliers which can be seen in the standard deviation (82.35) and the difference between the minimum and maximum values. The figures for kurtosis indicate that the dataset is not peaked but flat whilst the standard error does not confirm the sample mimics the population. As a result, ROE was not included in the regression analysis. The mean ROA is 1.41 and the standard deviation is 5.64. Overall, there is relative variability in profitability among rural community banks in the BrongAhafo region in Ghana, a situation that the researchers think is partly attributable to the observance corporate governance practices. Some banks made losses in some years as can be seen from the minimum and maximum values (-22.67 and 7.48). Comparing the mean (1.41) and median (2.32) shows the dataset is somehow normally distributed but with few outliers.

Sustainability

Sustainability of rural community banks shows long-term survival and customer confidence with the banks that were measured by deposit to total asset ratio. Keeping customer deposits provides the incentive to abide by

INTERNATIONAL JOURNAL OF RESEARCH SCIENCE & MANAGEMENT

corporate governance tenets and BoG instructions. The mean sustainability is 75.38 with a standard deviation of 16.54 and standard error of 2.47. There is relatively less variability and the dataset normally distributed (mean almost same as the median) and symmetrical (skewness = 0.44).

Corporate Governance
Among the corporate governance variables was compliance, which was measured by Capital Adequacy Ratio per return. The mean compliance was 10.42 and standard deviation of 19.5 indicating relative variability, which is also confirmed by the difference between the minimum and maximum values. There is a seemingly large difference between the central tendencies (mean and median), which does not indicate normality of dataset. The other corporate governance variables which are board size, board qualification, and bank reputation, have very close central tendencies (which is an indication of a normal distribution), very low standard deviations, low differences between minimum, and maximum values (which indicates low variability). The skewness and kurtosis that measure symmetry and peaks, respectively, are also low and close to zero while the standard errors show that the sample resembles the population.

There were three hypotheses stated on the effect of corporate governance on bank profitability, and sustainability. At 95% confidence interval, the result confirmed a significant effect of corporate governance on bank profitability was measured by liquidity (p=0.0001) and bank size (p=0.0000). Since the p-value falls within the confidence interval, we reject the null hypothesis. The second hypothesis shows a significant effect of corporate governance on profitability. The probability value is 0.0000 at 95% confidence interval, which again means that the null hypothesis should be rejected. The hypothesis that there is no significant effect of corporate governance on bank sustainability should be rejected because the p-value is 0.0014, which falls within the critical value of the confidence interval. The result of hypotheses places much emphasis on the fact that corporate governance has a significant effect on bank, profitability, and sustainability.

Table 5: Multivariate regression model

Equation	Obs	Parms	RMSE	"R-sq"	F	P
LIQUIDITY	45	5	16.91443	0.4397	7.846333	0.0001
BANKSIZE	45	5	.1737667	0.7199	25.69803	0.0000
RETURNONA~S	45	5	2.588854	0.8083	42.17628	0.0000
SUSTAINAB~Y	45	5	13.96267	0.3522	5.437748	0.0014

Analysis of Coefficients
The table of coefficients reports on the effect of the individual explanatory variables on each of the dependent variables and indicates whether or not they are significant. The regression model looked at all the independent variables in general put together. It could be seen that among corporate governance variables, compliance, and reputation showed a significant effect on profitability (liquidity and bank size). Although the general regression was significant, individually, it is these two explanatory variables that significantly have a positive effect on bank profitability. The positive coefficients under the coefficients column confirm this. The significance is determined by the p-value column which shows compliance (0.014) and reputation (0.012). For rural community banks to ensure high profitability, they must pay particular attention to compliance and reputation of the bank.

Among the other dependent variables, it is seen that compliance is the only significant single independent variable. It is significant for profitability (0.000) and shows a positive effect on return on assets. For sustainability, compliance shows negative significant (0.001) effect. This negative effect is not surprising because for banks to show compliance which was measured by capital adequacy ratio, banks tie up capital to meet the regulatory requirement and even some keep secondary reserves to meet unforeseen liquidity situations.

INTERNATIONAL JOURNAL OF RESEARCH SCIENCE & MANAGEMENT

This has an opportunity cost of investing the excess funds to be more profitable and sustainable. It is therefore consistent with literature that in attempt to remain compliant with capital requirements, there is a trade-off with profitability, which eventually leads to sustainability (Casu, Giradone, &Molyneux, 2006).

Correlation Analysis
Pearson correlation coefficients between corporate governance variables and the outcome variables were generally positive for most of them. Compliance showed strong negative correlation (-0.568) with sustainability, but the very strong positive relation with profitability (0.888), bank size (0.796), and liquidity (0.510). This indicates that apart from sustainability, compliance with corporate governance principles has a strong positive effect on the profitability of rural community banks. This result confirms the work of Ben Naceur and Goaied (2008) who found a positive relationship between capital adequacy ratio and bank profitability even though they used a different measure of profitability.

Bank reputation has a weak negative correlation (-0.294) with bank sustainability but the positive relation with ROA (0.4950), bank size (0.412), and liquidity (0.584). This suggests that banks need to be mindful of its reputation if it wants to be profitable and perform well. Board of directors and management should engage in actions that will profile the company well thus attracting good public image through obtaining enviable ranking every year as provided by the regulator of the industry.

Board characteristics made up of board qualification and board size showed mixed relationships with the dependent variables. Board qualification showed strong positive correlation with bank size (0.608) and average positive correlation with profitability (0.406). There was weak positive relationship between board qualification and sustainability and liquidity. The relationship between board size and all the dependent variables were negative and weak apart from liquidity, which was positive but still a weak correlation.

Regression Analysis
There were 45 observations of nine rural community banks for a five-year period. There were five parameters estimated which are made up the constant and the four variables of corporate governance. There were two variables that measured bank profitability. The multivariate regression for the two variables indicated a significant effect of corporate on the liquidity of rural community banks. The explanatory power of corporate governance on liquidity is 44% (0.4397) read from the R-sq column of the regression table. Another measure of bank profitability was bank size. The result shows that 72% of changes in bank size is attributable to corporate governance practices. The regression confirms that corporate governance explains bank profitability. It can again be seen that 81% of variations in bank profitability (measured by ROA) is accounted for by corporate governance practices and principles. The model shows that corporate governance accounts for 35% of variations in bank sustainability. Although this figure is the least among all the equations above, it is still huge and significant. Rural community banks should therefore not take corporate governance practices for granted because of the percentage of explanatory for all the dependent variables.

Discussions
The aim of this study is to examine the relationship between corporate governance, profitability and sustainability of RCBs in the Brong-Ahafo region of Ghana. Overall, the descriptive statistics show variability, normality, symmetry, and peakness for most of the variables but not all. In order to ensure that almost all the variables obey these assumptions, a more robust statistical analysis was chosen. It is for this reason that multivariate regression was chosen. A description of the dataset for the analysis covers statistics like the mean, standard deviation, skewness, kurtosis, standard error of the mean, median, minimum, and maximum values. The mean and median measure the central tendencies while the deviation measures variability. The standard error of the mean indicates the closeness with which the sample mimics the population of the dataset. Skewness measures the symmetry of the dataset whilst kurtosis measures the peakness (how close the dataset are to the mean).

Among the corporate governance variables was compliance, which was measured by Capital Adequacy Ratio per return. The mean compliance was 10.42 and standard deviation of 19.5 indicating relative variability, which

INTERNATIONAL JOURNAL OF RESEARCH SCIENCE & MANAGEMENT

is also confirmed by the difference between the minimum and maximum values. There is a seemingly large difference between the central tendencies (mean and median), which does not indicate normality of dataset. The other corporate governance variables which are board size, board qualification, and bank reputation, have very close central tendencies (which is an indication of a normal distribution), very low standard deviations, low differences between minimum, and maximum values (which indicates low variability). The skewness and kurtosis that measure symmetry and peaks, respectively, are also low and close to zero while the standard errors show that the sample resembles the population. Thus, similar to previous studies (such as Dages et al., 2000; Bokpin, 2013; Elyasiani and Rezvanian, 2002; Bokpin, 2013; Macey and O'Hara, 2003) in corporate governance, board size and bank reputation have a positive relationship with the profitability of RCBs in Ghana. Nevertheless, board qualification's relationship to corporate governance practices was insignificant.

The two measures of profitability are ROA and ROE. Return on equity has so much variability in the dataset with a lot of outliers which can be seen in the standard deviation (82.35) and the difference between the minimum and maximum values. The figures for kurtosis indicate that the dataset is not peaked but flat whilst the standard error does not confirm the sample mimics the population. As a result, ROE was not included in the regression analysis. The mean ROA is 1.41 and the standard deviation is 5.64. Overall, there is relative variability in profitability among rural community banks in the BrongAhafo region in Ghana, a situation that the researcher thinks part of it is attributable to the observance corporate governance practices. Thus, similar to Adebayo, et al. (2011) and Saleem, et al. (2011),this study argues that profitability of RCBs in Ghana is significantly influenced by liquidity and vice versa.

Other variables which measure profitability are liquidity and bank size. It was found that, the means and median values the variables are very close to each other which indicate that the distribution is normally distributed (Pallant, 2007). Almazari (2014)and Goddard, et al., (2004) found a negative relationship between liquidity and profitability. On the contrary other researchers (such as Philip, 2012; Muasya, 2013; Harvey et al., 2014) find some evidence of a positive relationship between liquidity and bank's profitability. Consistent with the later, this study finds out that liquidity and bank size shows symmetry and peakness as can be seen from the skewness and kurtosis respectively. The minimum and maximum values indicate higher range for liquidity but there is some consistency in their central tendencies.

Conclusion

In the face of declining performance and profitability in some of the RCBs surveyed, developing ways of improving corporate governance in which all stakeholders – boards of directors, shareholders, suppliers, customers, and the external supervisory agencies, work together to achieve their objectives, remain one of the biggest challenges facing RCBs in BrongAhafo region in particular and Ghana as a whole. Therefore, future research should focus on how to improve governance mechanisms so that non-performing RCBs can build up their image, introduce innovative products and services which would be more attractive to customers in the face of stiff competition and challenging economic environmental conditions. Further research may also investigate how governance in RCBs compares with governance practices in the commercial and development banks in evaluating efficiency, profitability, and financial sustainability in the banking sector in Ghana.

References

[1] Adams, R. B., & Mehran, H. (2003). Is corporate governance different for bank holding companies?Economic Policy Review 9 (1), pp. 123-142
[2] Adebayo O., David A., Samuel O., (2011), "Liquidity Management and Commercial Banks' Profitability in Nigeria." Research Journal of Finance and Accounting, 2222-1697
[3] Ahunwan, B. (2002). Corporate governance in Nigeria. Journal of Business Ethics, 37(3), 269-287.
[4] Akalaare, M. A., (2016). 30 RCBs face collapse over mismanagement. Available at https://www.graphic.com.gh/business/business-news/30-rural-banks-face-collapse-over-mismanagement.html (accessed on 30/10/2017).
[5] Almazari, A. A. (2014). Impact of Internal Factors on Bank Profitability: Comparative Study between Saudi Arabia and Jordan. Journal of Applied Finance & Banking, 4(1), 125–140.

INTERNATIONAL JOURNAL OF RESEARCH SCIENCE & MANAGEMENT

[6] Amin, M. E. (2005). Social science research: Conception, methodology and analysis. Makerere University.

[7] Amoako, K. O., Marfo, E. O., Gyau, K. E., & Asamoah, F. O. (2013). Cash Budget: an Imperative Element of Effective Financial Management. Canadian Social Science, 9(5), 188-191.

[8] Amoako, K.O., Marfo, O.E, Gyabaah, E.N. and Owiredu-Ghorman,K. (2017). Achieving a sustainable business: The role of Environmental management accounting in corporate governance. International Journal of Academic Research in Accounting, Finance and Management Sciences, Volume 7, Issue 4.pp

[9] Amoako, I. O., & Lyon, F. (2014). 'We don't deal with courts': Cooperation and alternative institutions shaping exporting relationships of small and medium-sized enterprises in Ghana. International Small Business Journal, 32(2), 117-139.

[10] Anin, T. E. (2000). "RCBs". Banking in Ghana. Woeli Publishing Services: Accra, pp. 176

[11] Ashcroft, K., & Foreman-Peck, L. (1996). Quality standards and the reflective tutor. Quality Assurance in Education, 4(4), 17-25.

[12] Awdeh, A. (2005). Domestic banks' and foreign banks' profitability: differences and their determinants. Cass Business School, London, mimeo.

[13] Ben Naceur, S., &Goaied, M. (2008). The determinants of commercial bank interest margin and profitability: evidence from Tunisia.Research in International Business and Finance, 21 (2), 297-315

[14] Bokpin, G. A. (2013). Ownership structure, corporate governance and bank efficiency: an empirical analysis of panel data from the banking industry in Ghana. Corporate Governance: The international journal of business in society, 13(3), 274-287.

[15] Buchanan, B. G. (2017). The way we live now: Financialization and securitization. Research in International Business and Finance, 39, 663-677.

[16] Casu, B., Girardone, C., &Molyneux, P. (2006). Introduction to banking (Vol. 10). Pearson Education.

[17] Dages, B. G., Goldberg, L. S., & Kinney, D. (2000). Foreign and domestic bank participation in emerging markets: Lessons from Mexico and Argentina.Federal Reserve Bank of New York Economic Policy Review (September): pp. 17–36

[18] Elyasiani, E., &Rezvanian, R. (2002). A comparative multiproduct cost study of foreign-owned and domestic-owned US banks. Applied Financial Economics, 12(4), 271-284.

[19] Frimpong, K., Amoateng, A.K. and Gyabaah, E. N (2016), The Efficacy of Credit Risk Management on the Corporate Performance of RCBs in Ghana, Journal of Construction Project Management and Innovation Vol. 6 (2): 1460-1476

[20] Gallardo, Joselito S. (2005). Comparative review of microfinance regulatory framework issues in Benin, Ghana, and Tanzania. World Bank Publications. p. 27.

[21] Goddard, J., Molyneux, P., & Wilson, J. O. (2004). The profitability of European banks: a cross-sectional and dynamic panel analysis. The Manchester School, 72(3), 363-381.

[22] Harvey, R. Lins, V. and Roper, H. (2004). The effect of Credit Risk on Corporate liquidity. Journal of Financial Economics, 74, 3-30.

[23] Huberman, A. M., & Miles, M. B. (1994). Data management and analysis methods. In Handbook of Qualitative Research, 2nd ed. Norman Denzin and Yvonna Lincoln, eds. Sage Publications. 2000. pp. 769-802

[24] Jensen, M. C., &Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. Journal of financial economics, 3(4), 305-360.

[25] Keasey, K., Thompson, S., & Wright, M. (Eds.). (1997). Corporate governance: Economic and financial issues. OUP Oxford.

[26] Kyereboah-Coleman, A., &Amidu, M. (2008). The link between small business governance and performance: The case of the Ghanaian SME sector. Journal of African Business, 9(1), 121-143.

[27] Lipton, M., & Lorsch, J. W. (1992). A modest proposal for improved corporate governance. The business lawyer, 59-77.

[28] Llewellyn, D. T., & Sinha, R. (2000). Monitoring and control of banks: the role of regulation and corporate governance. Corporate Governance in Banking and Finance. McGraw-Hill, New Delhi.

INTERNATIONAL JOURNAL OF RESEARCH SCIENCE & MANAGEMENT

[29] Mak, Y. T., &Kusnadi, Y. (2005). Size really matters: Further evidence on the negative relationship between board size and firm value. Pacific-Basin Finance Journal, 13(3), pp. 301-318.

[30] Marfo, E. O., Amoako, K. O., &Amaning, N. (2014). Corporate Social Responsibilities as Determinant of Human Resource Management (HRM) reporting for MNCs in Emerging Economies. British Journal of Economics, Finance and Management Sciences, 9(2), 24-45.

[31] Miles, M. B., & Huberman, A. M. (1994). Qualitative data analysis: An expanded sourcebook. Sage.

[32] Molyneux, P., & Thornton, J. (1992). Determinants of European bank profitability: A note. Journal of banking & Finance, 16(6), 1173-1178.

[33] Muasya, M. (2013). The Relationship between Credit Risk Management Practices and Loans Losses. A Study on Commercial Banks in Kenya, Unpublished MBA Project, University of Nairobi, Kenya

[34] Okike, E. N. (2007). Corporate governance in Nigeria: The status quo. Corporate Governance: An International Review, 15(2), 173-193.

[35] Okoye, L. U., Evbuomwan, G. O., Achugamonu, B. U., &Araghan, I. (2016). Impact of corporate governance on the profitability of the Nigerian banking sector. Esut journal of accountancy, 7(1), 281-292.

[36] Pallant, J. (2007). SPSS survival manual: A step-by-step guide to data analysis using SPSS version 15. Nova Iorque: McGraw Hill.

[37] Philip, S. (2012). Liquidity Risk and Credit in the Financial Crisis, Journal of Financial Economics, 101, 297–312.

[38] Qqq De Andres, P., &Vallelado, E. (2008). Corporate governance in banking: The role of the board of directors. Journal of banking & finance, 32(12), 2570-2580.

[39] Saleem Q., Rehman R. (2011)., "Impacts of liquidity ratios on profitability (Case of oil and gas companies of Pakistan)." Interdisciplinary Journal of Research in Business, Vol. 1, Issue. 7, pp.95-98

[40] Shleifer, A., &Vishny, R. W. (1997). A survey of corporate governance. The Journal of Finance, 52(2), 737-783.

[41] Tsamenyi, M., & Uddin, S. (2008). Introduction to corporate governance in less developed and emerging economies. In Corporate governance in less developed and emerging economies (pp. 1-11). Emerald Group Publishing Limited.

[42] Tsamenyi, M., Enninful-Adu, E., &Onumah, J. (2007). Disclosure and corporate governance in developing countries: Evidence from Ghana. Managerial Auditing Journal, 22(3), 319-334.

[43] Tsamenyi, M.,a and Shazad U. (2008). "The Case of RCBs in Ghana". Corporate Governance in Less Developed and Emerging Economies. Research in Accounting in Emerging Economies, Volume 8, pp.1 - 11
.