Profitability Determinants of Savings and Loans Companies in Ghana: Evidence on Bank Specific and Macroeconomic Determinants

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ABSTRACT

The paper analyzes how bank specific and macroeconomic variables affect the profitability of savings and loans (S&L) companies in Ghana. The bank specific (internal) determinants data was collected from the financial statements of the S&L companies from 2011 to 2016 whereas the macroeconomic (external) determinants were sourced from the central bank of Ghana. The bank specific variables chosen for the study were capital adequacy ratio, non-performing loan ratio, loans and advances to deposit ratio and size of bank. The macroeconomic variables included were annual GDP growth rate and CPI-inflation rate. Data were analyzed using SPSS software and multiple regression model was used to find out the relationship between profitability and the internal and external determinants. Capital Adequacy, Non-performing Loans, Bank size, Inflation and GDP growth rate all negatively influenced profitability of savings and loans companies in Ghana. The only variable found to positively influence S&Ls profitability was Loans and Advances. Researchers have made different findings with regard to profitability determinants of banks which makes the findings inconclusive. We therefore recommend further research on profitability determinants banks especially, in the Savings and Loans sub banking sector.

Keywords: Profitability, Bank Specific, Macroeconomic, regression, Savings and Loans.

INTRODUCTION:

Profitability of banking institutions are dependent on numerous factors which are usually factors emanating from both internal and external sources. The internal determinant factors influenced by mainly the decisions of management and policy objectives of the institution. The external determinants however are those factors which are not influenced by the decisions and policies of management but by events outside the influence of the bank. This means that external determinants both industry and macroeconomic related, are factors that reflect the environments in which the financial institutions operate.

OBJECTIVES OF THE STUDY:

The main objective of this study is to understand the profitability determinants of Savings and Loans Companies in Ghana. Specifically, the study seeks to:

1. Find out how profitability of Savings and Loans Companies in Ghana response to changes in both the internal and the external factors.
2. Find out the factors which matters most in the determination of profitability of Savings and Loans Companies in Ghana.

LITERATURE REVIEW:

This section provide a brief review of the literature on studies that have examined the determinants of bank

profitability in Ghana and studies that have focused on the determinants of profitability of banks from the foreign front. Some of the studies about the determinants of profitability of banks in Ghana include Antwi and Apau (2015) who undertook a study on the determinants of financial performance of rural and community banks (RCBs) in Ghana. They concluded that RCBs performance measured by ROA is affected by credit risk management. Operational efficiency impacted negatively on profitability. CAR was found to be a significant key driver in explaining the performance of RCBs in Ghana. Portfolio composition and bank size had no impact on RCBs. GDP growth which was a variable for macroeconomic determinant was found to have less significance on profitability of RCBs. Inflation however impacted positively on RCB's profitability.

Kofi Boadi et al. (2016) also studied the profitability determinants of rural and community banks in Ghana where ROA was the profitability measure. Capital adequacy, asset quality, management efficiency, liquidity management, investments, bank size, bank resilience and funding risk were the bank specific variables whiles GDP growth and CPI Inflation were the macroeconomic determinants. Their findings indicated that capital adequacy, asset quality, investment, GDP growth, and bank resilience had a positive predictive impact on profitability of RCBs in Ghana. Inflation had a statistically negative effect on profitability of RCBs. Management efficiency and bank size on the other hand had no impact on RCBs profitability. Funding risk however was found to have a negative impact on RCBs profitability.

Ata Mills and Amowine (2013) in their study on determinants of rural banks financial profitability used ROA as their profitability measure and also used Bank size (log of Assets), loan loss provision to total loan ratio (LLPTL), non-interest income to total assets (NIITA), and total overhead expenses (NIETA) as bank specific variables. Macroeconomic variables included were GDP growth rate, Inflation rate and money supply growth (MSG). It emerged from their analysis that Bank size is not important in explaining rural bank profitability as it was found to be positive and insignificant. LLPTL also impacted negatively but significant on profitability. The ratio of non-interest income to total asset (NIITA) was found to be a vital driver of bank performance. Total overhead expenses to total asset (TOETA) were negative and significant to profitability. GDP growth and money supply growth were both found to be positive and significant to profitability. Inflation however was negative and significant to rural bank performance.

Owusu-Antwi et al. (2014) also in a study on the performance of rural banks in Ghana concluded that investment to total assets, total overhead cost to total asset, loan to total assets and inflation were the main drivers to rural banks profitability in Ghana. Liquidity was however found to be insignificant to profitability.

Mawutor and Awah (2014), in a study, on the assessment of efficiency and profitability of listed banks in Ghana where ROA was the proxy for profitability, Size, Liquidity, Credit risk, productivity and leverage were the independent variables. The results from their regression analysis indicated that profitability of banks is not affected by liquidity and bank size. Credit risk, leverage and productivity were all found to relate negative and significant to profitability.

Anarfi et al. (2016) used ROA as a variable for profitability in a study on determinants of bank profitability in Ghana. Asset size, Bank loan, Deposit, Capital, and Overhead were the bank specific determinants employed whiles GDP, Exchange rate and Interest rate constituted the macroeconomic determinants. They concluded that, bank loan, and capital impact positively on profitability of Ghanaian banks. Overhead cost was found to have a highly significant negative impact on profitability. Bank size and deposit however did not have impact on profitability. With respect to the macroeconomic determinants, only exchange rate was found to impacting negatively on profitability.

Isaac Boadi (2015) on his part in a study on profitability determinants of the Ghanaian banking sector took into consideration ROA as profitability measure. Liquidity ratio, capital structure, deposit structure, expenditure structure, efficiency, asset quality and bank size as bank specific factors. Also GDP growth, Inflation and real interest rate were the macroeconomic (external) determinant factors. It was found that, management efficiency positively influenced profitability of Ghanaian banks. Capital structure also had a statistically significant relationship with profitability. Economic growth (GDP) was also found to relate positively to profitability. The rest of the factors; deposit structure, overhead, non performing loans, inflation and real interest rate had no significant influence on profitability of Ghanaian banks.

In a master thesis by Opoku-Agyeman (2015), he studied about the factors influencing profitability of domestic and foreign banks in Ghana. The bank specific variables considered in the study were; operating efficiency, credit risk, liquidity, bank size, bank growth, funding cost, years of experience and bank ownership. The external variables were bank concentration, real GDP, Inflation and Money supply. The profitability variables were ROAA and ROAE. The results indicated that bank specific variables are more significant in explaining variations in profitability than external variables. The two most significant variables that affect profitability of

both domestic and foreign banks are operational efficiency and credit risk. Funding costs was significant and positive to profitability. Bank capitalization also had a significant influence for banks in Ghana. The external variables such as GDP, money supply and inflation did not have significant influence on profitability in the banking industry as a whole.

From the foreign front too, a lot of studies have been carried out to find out the determinants of profitability of banks. A study conducted by Akhtar et al. (2011) on factors influencing the profitability of Islamic banks of Pakistan for the period 2006 to 2009 employed only bank specific determinants in their analysis. ROA was the proxy used for profitability whiles gearing ratio, Non-performing loan ratio, Asset management, Operating efficiency and Capital Adequacy were the explanatory variables used in their study. They found out that Asset management had a positive and significant relationship with profitability of Islamic banks in Pakistan. Bank size impacted profitability negatively and insignificant whiles, Non-performing loan ratio related negatively to profitability. Capital ratio had a significant impact on ROA. TD/TA and TL/TA all had positive and significant effect on profitability of Islamic banks in Pakistan.

Kosmidou et al (2008) studied the determinants of profitability of domestic UK commercial banks for a period of 7 years. They focused on the impact of bank specific characteristics, macroeconomic conditions and financial market structure on UK owned commercial banks. Two measures of profitability were used in the study i.e.; return on average assets (ROAA), and net interest margin (NIM). Five bank specific (internal) determinants namely; cost to income ratio (COST) which is an indicator of efficiency in expenses management, ratio of liquid assets to customer and short term funding (LIQUID) to represent liquidity, ratio of loan loss reserves to gross loan (LOSRES) as an indicator of banks' asset quality, ratio of equity to total asset (EQAS) representing capital strength, and the total assets of a bank representing its size (SIZE). Four external determinants were also used in the study namely; GDP growth and inflation representing macroeconomic variables. the remaining two other external determinants representing market structure were concentration in the banking industry (CONC) and stock market capitalization (MACPASS). Their findings indicated that capital strength (EQAS) is the main determinant of UK banks profit. The other significant determinants were cost-to-income ratio and bank size both of which affect profitability negatively. The effect of liquidity on profitability was found not to be clear cut as it varied with the measure of profitability used. They also found no clear cut effect of loan loss reserve on profitability as it was negatively related to ROAA but positively with NIM. The GDP growth and inflation both had significant and positive relation with profitability of UK banks, Concentration in the banking industry, and stock market development also had a positive impact on profitability of UK owned banks.

Another study was conducted by Fadzlan Sufian (2009) on factors influencing bank profitability in Malaysia. ROA was the proxy used for profitability whiles the bank specific determinants used were; LLP/TL, NII/TA, NIE/TA, LOANS/TA, LOGTA, and EQUITY/TA. The macroeconomic determinants employed in the study were LNGDP and INFL. The results indicated that Banks with higher loan concentration shows lower profitability level. Banks with higher level capitalization, higher percentage of income from non-interest sources, and high operational expenses shows higher profitability. The finding again indicated that economic growth has negative effect on Malaysian bank's profitability. Meanwhile, high inflation rate has positive effect on profitability of Malaysian banks.

Madishetti and Rwechungura (2013) researched on the determinants of commercial banks profitability in Tanzania where both internal and external factors were used in their analysis. They found out after their regression analysis that capital adequacy, operating efficiency, liquidity risk, credit risk and bank size which represents the internal determinants influence banks' profitability. The annual GDP growth rate and annual inflation rate which are the external determinants do not influence the performance of Tanzanian banks.

Farhan et al. (2012) conducted an empirical research on the determinants of NPLs in the Pakistani banking sector. The economic determinants considered in their research were: Interest rate, Energy crisis, Unemployment, Inflation, GDP growth and Exchange rate. NPL was the dependent variable. Correlation and regression analysis was used for the study. The results from the analysis indicated that with the exception of GDP which has a significant negative relationship with NPL, all other variables were related significantly positive with NPL.

RESEARCH GAP:

From the literature reviewed it is very clear that findings of studies on factors determining profitability of banks have been inconclusive. In Ghana particularly, the available literature is found on only universal banks and rural and community banks. There has been no or little literature on savings and loans companies in Ghana. This study will therefore fill that gap and also add to the existing literature on profitability determinants of the banking institutions.

DETERMINANTS AND MEASURES OF PROFITABILITY:

Measures of profitability:

Profitability can be defined as the ability of a business in this case bank to collect more revenue than it pays out. Different studies have employed different measures for bank profitability. Some of the studies used ROA as a measure of profitability (Boadi 2015, Anarfi et al. 2016, Mawutor & Awah 2014, Antwi & Apau 2015). Other studies also used ROE as proxy for profitability of banks (Hassan and Bashir, 2003, Mustapha Akinkunmi 2017). A third measure of profitability used by other researchers is Net Interest Margin (NIM) (Kosmidou et al. 2008, Akinkunmi 2017). But in most cases ROA and ROE are the most commonly used proxies. Most researchers have however argued in support of ROA over ROE. According to Hassan and Bashir, (2003), ROA shows the profit earned per dollar of assets and most importantly, it reflects the management's ability to utilize the banks' financial and real investment resources to generate profit. It has also been suggested by Rivard and Thomas (1997) that bank profitability is best measured by ROA for the reason that ROA is not distorted by high equity multipliers and as a result ROA represents a better measure of the ability of a firm to generate returns on its portfolio of assets. ROE on the other hand measures how efficiently a bank management is utilizing its shareholders funds. Hassan and Bashir (2003) argue that, ROE is affected by ROA as well as by the bank's degree of financial leverage (equity/asset). ROA tend to be lower for financial intermediaries therefore, most banks heavily utilize financial leverage to increase their ROE to competitive advantage levels. In view of the arguments by Rivard and Thomas (1997), and Hassan and Bashir (2003), this study will also adopt ROA as the Measure of Profitability.

Determinants of Profitability:

Determinants of bank profitability are classified into internal and external factors. Internal factors emanates from within, that is factors influenced by the decision of management and their policy objectives whiles external factors are factors which are not influenced by management decisions and policies but, by events outside the influence of the bank. The internal determinants factored into this study are capital adequacy ratio (CAR), non-performing loan ratio (NPLR), loans and advances to total deposit (LATD), and bank size. The external determinants (macroeconomic factors) employed in the study are GDP growth rate and CPI-Inflation rate.

Capital Adequacy Ratio (CAR):

The capital ratios have long been valuable tool for assessing safety and soundness of banks. Bank supervisors use capital ratios as rules of thumb to measure the adequacy of banking institution's level of capital (Hassan and Bashir, 2003). The ratio of equity to total assets is considered one of the basic ratios for capital strength. It is expected that the higher this ratio, the lower the need for external funding and the higher the profitability of the bank. It shows the ability of the bank to absorb losses and handle risk exposure with shareholders (Antwi and Apau, 2015). It is computed as the ratio of total equity to total asset (CAR = Total Equity/Total Asset)

Non-performing Loan Ratio (NPLR):

This is a credit risk measure that measures the asset quality of a banking institution. Loan granting is one of the core businesses of savings and loans companies as their name suggest. S&L companies therefore see their loan portfolio as a very paramount asset. The quality of asset of S&L companies depends on the performance of the loans granted. Asset quality is measured in diverse ways by different researchers. Some measure it as Loan Loss Provision to Total Asset (LLPTA), or Loan Loss Reserve to Total Asset (LLRTA). Others too use Total Loans to Total Assets (Kofi Boadi et al., 2016), or Non-performing Loans to Total Assets (Akhtar et al. 2011), loan impairment charges to total assets, and also reserves for impaired loans to gross Loans.

Loans and Advances to Total Deposit Ratio (LATDR):

Liquidity management is an important decision managers of S&Ls must take in order to meet its obligations and the solvency of the institution. It indicates the percentage of bank's loan funded through deposits. The ratio of loans and advances is used as a measure of liquidity position of the bank. It indicates how efficiently the bank made use of depositors fund on credit activities which is expected to be at the mercy of default risk. LATD is a ratio used to find the ability of the bank to survive the deposit withdrawals made by the bank's customers and its readiness to meet the loan demands by reducing cash assets.

Bank Size (LNTA):

The size of a firm can be measured using assets, sales, and employees strength. This study will make use of assets

as a measure of bank size. In the financial sector, potential economies and diseconomies of scale are generally captured using company size. According to (Saunders et al., 1990), Bank size is usually measured by the natural log of total assets (LNTA) of the bank, hence the higher the bank size, the higher its ability to absorb risk. LNTA (Size) therefore controls for the variations of in cost, product, and risk diversification. Bank size may have a positive effect on bank profitability if there are significant economies of scale. On the other hand if increase in diversification result to higher risk, the variables may exhibit negative effect (Sufian and Chong, 2008)

CPI-Inflation:
Inflation rate is the rate at which the general rise in the level of prices, goods and services in an economy occurs and how it affects the cost of living of those living in a particular country. The calculation of inflation rate is done using a defined product basket which contains products and services on which the average consumer spends money throughout the year. Higher inflation will definitely affect the purchasing power of consumers which will indirectly affect demand and supply of loans.

GDP growth rate:
GDP refers to the total market value of all goods and services that are produced within a country per year. It is an important indicator of economic strength of a country. The increase in economic activities of the country will definitely trigger an increase in loans demand by customers and with improved lending activities; banks are able to generate more income which translates into profit.

METHODOLOGY:

Introduction:
Research methodology in every scientific study is very important since content, face and concurrent validity and reliability need to be achieved. Causal research design was employed in this study. According to Zikmund et al. (2013, P.59) causal or explanatory research design seeks to identify cause-effect relationships that will be tested. The sample size of seven S&L companies in this study was based on availability of data. The data used was secondary data obtained from the financial statements of the sampled S&Ls. The data was analyzed quantitatively using SPSS version 16.

Model Specification:
The study adopted a model used in previous studies which includes that of Antwi & Apau, (2015), Owusu-Antwi et al. (2014), and Atta Mills & Amowine, (2013). To be able to assess the statistical relationship between the dependent variable (profitability) measured by ROA and the independent variables which comprises of bank specific variables (CAR, NPLR, LATDR, and Bank Size) and macroeconomic variables (Real Interest rate, CPI-Inflation rate and GDP growth rate), multiple regression model was used in the analyzes.

Table 1: Description of variables and their expected relationship with profitability

	Variables	**Description**	**Hypothesized Relationship with Profitability**
Dependent	ROA	Net Income/Total Assets	N/A
Independent	CAR	Total Capital/RWAs	+
	NPLR	Impaired Loans/Total Loans	-
	LATDR	Loans and Advances/Total Deposit	+/-
	LNTA	Natural logarithm of total assets of bank	+/-
	Inflation	Annual CPI-Inflation rate	+/-
	GDP	Annual GDP growth rate	+

Source: Author's assumption

The regression model:
Since the independent variables are more than one, multiple linear regression was used in the analysis. The model of the study is of the form:
$$ROA = \beta_0 + \beta_1 CAR + \beta_2 NPLR + \beta_3 LTDR + \beta_4 LNTA + \beta_5 GDP + \beta_6 Inflation + \varepsilon$$
Where:
ROA = Return on Assets

CAR = Capital Adequacy Ratio
NPLR = Non-performing Loan Ratio
LTDR = Loans to Deposit Ratio
LNTA = Natural log of Total Asset (Bank size)
GDP = Gross Domestic Product
Inflation = Consumer Price Index Inflation Rate
β_0 = constant term
$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6,$ and β_7 are coefficients of the independent variables respectively.
ε = Error term

FINDINGS AND DISCUSSION:

This section deals with the analysis and discussion of findings of the study based on the regression model specified above.

Table 2: Descriptive Statistics of Variables

	N Statistic	Minimum Statistic	Maximum Statistic	Mean Statistic	Std. Deviation Statistic	Skewness Statistic	Std. Error
ROA	42	-.440	.219	.002	.085	-3.301	.365
CAR	42	-.103	.450	.167	.125	.283	.365
NPLR	42	.008	1.856	.127	.325	4.483	.365
LATDR	42	.188	5.228	.679	.769	5.297	.365
LNTA	42	15.121	20.838	1.800	1.418	.087	.365
CPI-Inflation	42	8.300	17.500	1.273	4.106	.056	.365
GDP Growth	42	3.500	14.100	7.013	3.849	.837	.365
Valid N(listwise)	42						

Source: Author's computation

Descriptive statistics:

Table1 above is a descriptive statistics of all variables employed in the study. Minimum, maximum, mean, standard deviation and skewness were computed. The minimum ROA for the sampled S&L companies was – 44% even though some of the companies make as high as 21.9% returns on their assets. This means some of the S&L companies sampled for the study were making losses at the time of the research. The statutory required CAR for S&Ls in Ghana is 10% so with an average ratio of 16.7% implies that the S&Ls in Ghana comply with the statutory requirement of the Central Bank of Ghana. NPLR which is a measure of portfolio quality of banking institutions recoded a mean ratio of 12.7% an indication that averagely, 12.7% of all loans disbursed are not performing and that is worrying situation. An average LATDR of 67.9% means that S&L companies use 67.9% of their mobilized deposit to finance loan granting activities which is lesser that the ideal ratio of between 80% and 90%. Size of S&Ls ranges from 15.1 to 20.8 an indication that there are no much variations in size among the S&L companies. From 2011 to 2016 financial years, the minimum Inflation and GDP rates recorded were 8.3% and 3.5% respectively whereas the maximum rates recorded were 17.5% and 14.1% respectively.

Test for multicollinearity among variables:

To rule out the absence of multicollinearity, researchers recommended a correlation between any two variables not exceeding 0.8. From table2 below correlation between any two variables does not exceed 0.8 with the exception of between GDP and Inflation which is exactly 0.8. This indicates that there is absence of multicollinearity. Another test of multicollinearity is the use of variance inflation factor (VIF), and tolerance. A VIF value of greater than 10 and tolerance value of less than 0.10 indicates the presence of multicollinearity. But From table5, all VIF values are less 10 and tolerance values are also more than 1 hence the absence of multicollinearity.

Table 3: Correlations coefficients among variables

		ROA	CAR	NPLR	LATDR	LNTA	Inflation	GDP
Pearson Correlation	ROA	1						
	CAR	0.0038	1					
	NPLR	-0.7293	-0.0471	1				

		ROA	CAR	NPLR	LATDR	LNTA	Inflation	GDP
	LATDR	0.1406	0.0182	-0.1698	1			
	LNTA	0.1482	-0.1201	-0.2558	0.0972	1		
	Inflation	-0.1823	0.2666	0.1710	-0.2332	0.4104	1	
	GDP	0.0620	-0.2741	-0.1844	0.3253	-0.4275	-0.832	1

Source: Author's computation

Model fit evaluation:

The coefficient of determination R^2 is the means of assessing the performance of a regression model. R^2 explains the amount of variation in the dependent variable being explained by the independent variables. From table4 below, there is existence of relationship between the dependent and the independent variables. The model is well fitted with approximately 60% ability to influence the profitability. That means that the independent variables jointly predict 60% variation in profitability of S&Ls companies in Ghana. The adjusted R^2 (51.7%) adjusts for bias in R^2 as the number of variables increases. The model is statistically significant at 5% level since from table5 F-statistics is 0.000 which postulate the model to be significant

Table 4: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.774a	.599	.517	.058919

Source: research data

Predictors:

(Constant), GDP Growth, Non-performing Loan Ratio, Capital Adequacy Ratio, Loans & Advances to Total Assets, Natural log of Total Assets, CPI-Inflation, Real Interest Rate b. Dependent Variable: Return on Assets

Table 5: ANOVAb

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.176	7	.025	7.262	.000a
	Residual	.118	34	.003		
	Total	.294	41			

Source: research data

Predictors:

(Constant), GDP Growth, Non-performing Loan Ratio, Capital Adequacy Ratio, Loans & Advances to Total Assets, Natural log of Total Assets, CPI-Inflation, Real Interest Rate. b. Dependent Variable: Return on Assets

Table 6: Regression results of determinants of profitability with ROA as the dependent variable

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	.351	.181		1.936	6.095	-.017	.719					
	CAR	-.063	.083	-.093	-7.567	4.543	-.232	.106	3.776	-.127	-.081	.762	1.312
	NPLR	-.204	.032	-.783	-6.431	2.096	-.269	-.140	-7.293	-.736	-.689	.775	1.291
	LATDR	.011	.013	.101	8.398	4.067	-.016	.038	1.406	.141	.090	.789	1.268
	LNTA	-.008	.009	-.139	-9.630	3.422	-.026	.009	1.482	-.161	-.103	.549	1.823
	Inflation	-.007	.004	-.356	-1.811	7.874	-.016	.001	-1.823	-.293	-.194	.297	3.367
	GDP	-.011	.005	-.496	-2.329	2.579	-.020	-.001	6.203	-.366	-.249	.253	3.960

Dependent Variable: ROA

Source: research data

Regression Equation and Discussion of Results:
The regression equation for the model from table6 above will be:
ROA = 0.351 -0.63CAR -0.204NPLR + 0.011LTDR - 0.008LNT – 0.011GDP– 0.007Inflation

CAR and Profitability:
The results of the regression analysis are presented in table6 above. Contrary to the hypothesized relationship, CAR relates negatively to profitability measured by ROA. A negative coefficient of -.093 implies that a unit increase in capital adequacy will lead to 9.3% decrease in profitability of S&Ls in Ghana. A p-value of 4.543 makes the relationship insignificant at 5% confidence level. This result is in contradiction with the findings of Marshal (2013), Antwi & Apau (2015), and Boadi et al. (2016) who found positive relationship between capital adequacy and profitability of S&Ls in Ghana. It however conforms to the findings of Gizaw et al. (2015) and Ofosu-Hene & Amoh (2016).

NPLR and Profitability:
The ratio of impaired loans to total loans has a negative impact on profitability of S&L companies in Ghana. The NPLR recorded a coefficient-.783, meaning that, a unit increase in non-performing loans will lead to a 78.3% reduction in profitability of S&Ls. This is so because banking institutions services non-performing loans with their earned profit. A p-value of 2.096 is high above .05 therefore the relationship is insignificant. The same negative relationship was found from the studies of Mawutor et al. (2015), Kolapo et al. (2012), and Kargi (2011).

LATDR and Profitability:
Loans and advances to deposit ratio related positively with profitability. Coefficients of .101 suggest that a unit increase in LATDR will result in 10.1% increase profitability of S&L companies. This is not strange since interest generated from loans and advances form greater part of profit earned by S&L companies in Ghana. The positive relationship was in agreement with the findings of Kolapo et al. (2012) and Perera & Morawakage (2016) but in contradiction with the findings of Mawutor et al. (2015) and Kargi (2011).

LNTA and Profitability:
Size of bank recorded a coefficient of -.139 which indicates that a unit increase in bank size will lead to a decrease in profitability of S&L companies in Ghana by 13.9%. The negative relationship implies that either diversification resulted in higher risk or management failure to control cost due to over expansion. The negative relationship between size and profitability was in conformity with the findings of Mawutor et al. (2015), Marshal (2013) and Atta Mills & Amowine (2013). The relationship found was in contradiction with the finding of Antwi & Apau (2015).

CPI-Inflation and Profitability:
The coefficient of inflation was -.356 which means that a unit rise in inflation will lead to a 35.6% increase in profitability of S&L companies in Ghana. The implication here maybe that S&L companies do not factor inflation in fixing of their interest rate. The p-value of 7.874 makes the relationship insignificant implying that inflation is not an important factor in determining profitability of S&L companies in Ghana. The negative relationship is in consistence with the findings of Kosmidou et al (2008), Demirguc-Kunt & Huizinga (1999), Boadi et al. (2016), and Atta Mills & Amowine (2013). It however contradicts the findings of Ofosu-Hene & Amoh (2016), Owusu-Antwi et al. (2014), and Antwi & Apau (2015).

GDP Growth and Profitability:
At the normal circumstance GDP growth rate is supposed to impact positively on business activities related to the demand and supply of deposit and loans. Economic growth is supposed to create an enabling environment for businesses to thrive but the findings indicated a negative relationship between GDP and profitability with a coefficient of -.496. This means that a unit increases in GDP growth will lead to a reduction in profitability of S&Ls by 49.6%. The negative relationship was in consistence with the findings of Antwi & Apau (2015), Sufian (2009) but, in contradiction with the findings of Hassan & Bashir (2003), Kosmidou et al. (2008), and Atta Mills & Amowine (2013). This negative relationship may be attributed to the general slowdown in the GDP growth coupled with rise in inflation in Ghana during the period of the study, 2011 to 2016.

CONCLUSION:

The objective of the study was to find out what constitutes the determinants of profitability of Savings and Loans Companies in Ghana. The findings from the regression analysis showed that CAR which indicates the financial robustness related negatively and insignificant with profitability of S&Ls. This is an indication that capital adequacy is not an important determinant of profitability of S&L companies in Ghana. NPLR impacted negatively on profitability of S&L companies in Ghana. This relationship did not come as a surprise since non-performing loans are serviced with profit earned by the banking institutions. LATDR on the other hand was found to relate positively with profitability. This was in line with the expected hypothesized relationship because interest generated from loans and advances form greater portion of S&L Company's profit. LNTA which was a proxy for size related negatively and insignificant with profitability of S&L. Size ensures economies and diseconomies of scale but, the negative relationship implies that either diversification resulted in higher risk or inability of management to control cost due to over expansion. Inflation affects the real costs and revenues which call for it been factored in fixing interest rate. If inflation is anticipated, banks can adjust interest rate in order to increase revenues than cost. The findings revealed that inflation had a negative relationship with profitability of S&Ls in Ghana. The relationship suggests that management of S&L companies do not factor in potential rise in inflation in their interest rate build-up. At the normal circumstance GDP growth rate is supposed to impact positively on business activities related to the demand and supply of deposit and loans. But the findings indicated a negative relationship between GDP and profitability. This negative relationship may be attributed to the general slowdown in the GDP growth together with rise in inflation in Ghana during the period of the study, 2011 to 2016.

RECOMMENDATION:

Following review of various literatures in both developing and developed economies, it was evidenced that researchers have made different findings as they try to study the factors that determines banks profitability depending on the period of the research, variables used, and the institutions considered. It makes the findings on profitability of banks inconclusive therefore, it is very vital for further research on the topic to be carried out especially in the S&L banking sector. It is also recommended that due to uncertainty associated with inflation and other macroeconomic indicators, managements of S&L companies should anticipate the potential changes in the economic indicators and factor it in their interest build-up. S&L companies are encouraged to strengthen their credit management efforts in order to minimize their level of non-performing loans. It was evidenced from the descriptive statistics that the average CAR was 16.7% which implies that S&L companies hold excess capital. Management of S&Ls should therefore desist from the practice and invest the excesses since holding capital without investing affects profitability. Government should also know that performance of the economy and other macroeconomic indicators that are outside the control of the management of S&L companies affect their profitability. Every successive government of Ghana must therefore promote good policies that will lead to growth in economy which will translate into banks profit.

REFERENCES:

Anarfi et al. (2016). Determinant of Bank Profitability in Ghana: New Evidence. *Asian Journal of Finance and Accounting*, Vol.8 NO.3

Antwi and Apau (2015). Financial Performance of Rural and Community Banks (RCBs) in Ghana. *The International Journal of Business and Management,* Vol. 3 Issue 2

Atta Mills and Amowine (2013). The Rurual Bank Profitability Nexus: Evidence from Ghana. *International Journal of Application or Innovation in Engineering & Management,* Vol.2 Issue 4

Akinkunmi M. A., (2017). Determinants of Banks' profitability in Nigeria: Does relative market power matter? *Journal of Finance and Bank Management,* Vol.5, No.1 Pp.42-53

Akhtar, F. M., et al. (2011). Factors influencing the profitability of Islamic Banks in Pakistan: Internal factor analysis. *International Research Journal of Finance and Economics*, ISSN 1450-2887, Issue 66.

Boadi K. et al. (2016). Role of Bank specific, Macroeconomic and risk determinants of Banks profitability: Empirical evidence from Ghana's Rural Banking Industry. *International journal of economics and financial Issues,* Volume 6, Issue2.

Boadi I. (2015). Profitability Determinants of the Ghanaian Banking Sector in ongoing Wave of Consolidation. *International Journal of Business and Management,* Vol. 10 N0. 12

Demirkuc-Kunt & Huizinga (1999). Determinants of Commercial Bank Interest Margin and Profitability. Some

International Evidence. *The World Bank Economic Review,* Vol.13 No.2 P.379-408

Gizaw, M. et al (2015). The impact of credit risk on profitability performance of commercial banks in Ethiopia. *African Journal of Business Management,* 9(2), 59–66. doi:10.5897/ajbm2013.7171

Hassan, M. K., & Bashir, A. H. M. (2003). *Determinants of Islamic banking profitability.* Paper presented at the 10th ERF Annual Conference, Morocco, and 16–18 December.

Kargi H. S. (2011). *Credit risk and the performance of Nigerian Banks.* Department of Accounting, Faculty of Administration, Ahmadu Bello University, Zaria Nigeria.

Kosmidou, K., Tanna, S. and Pasiouras, F. (2008). Determinants of profitability of domestic UK commercial banks: panel evidence from the period 1995-2002. Economics finance, and accounting applied research working paper series no. RP08-4. Coventry: Coventry University.

Kolapo et al. (2012). Credit Risk and commercial banks' performance in Nigerian: A panel model approach. *Australian Journal of Business and Management research,* Vol.2 No.2 Pp.31-38

Mawutor, J. K.M. et al (2015). Credit Risk Management and Profitability of Banks listed on Ghana Stock Exchange. *International Journal of Empirical Finance,* Vol.4 No.7 p.396-406.

Madishetti S. & Rwechungura K. A. (2013). Determinants of Profitability in a developing Economy: Empirical evidence from Tanzania. *Asian Journal of Research in Banking and Finance,* Vol. 3, No. 11, Pp. 46-65.

Mawutor & Awah (2014). Assessment of Efficiency and Profitability of listed Banks in Ghana. *Accounting and Finance Research,* Vol. 4 No.1

Marshal, M. T. (2013). Determinants of Bank's Profitability in Developing Economy: Evidence from Nigeria. *Organizations and Markets in Emerging Economies*, Vol.4 No.2 p.8

Ofosu-Hene, E. D. & Amoh, P. (2016). Risk Management and performance of listed banks in Ghana. *European Journal of Business Science and Technology,* Vol.2 Issue2

Owusu-Antwi et al. (2014). The performance of rural banks in Ghana: the Ages have past anything recommended for the future. *International Review of Management and Business Research,* Vol. 3 Issue 2

Opoku-Agyemang (2015). *Factors influencing the profitability of domestic and foreign banks in Ghana.* Unpublished Master Thesis, School of Business and Social Sciences, AARHUS University.

Owusu-Antwi et al. (2014). The Performance of Rural banks in Ghana: the Ages have past anything recommended for the future. *International Review of Management and Business Research,* Vol. 3 Issue2.

Perera, L. A. S. & Morawakage, P.S. (2016). Credit Risk Management and Shareholders value creation: With special reference to Listed banks in Sri Lanka. *Kelaniya Journal of Management,* Vol.5 No.2

Rivard, R. J., and Thomas, R. (1997). The effect of interstate banking on large bank holding company profitability and risk. *Journal of Economics and Business*, 49, 61–76.

Sufian F. (2009). Factors influencing banks profitability in a developing economy: Empirical evidence from Malaysia. SAGE publications, *Global Business Review,* Pp.225 – 241

Sufian, F. & Chong, R.R. (2008). Determinants of Bank Profitability in a Developing Economy: Empirical Evidence from Philippines. *Asian Academy of Management Journal of Accounting and Finance.* [Online] 4(2) p.91-112.

Sauders et al. (1990). Ownership Structure, Deregulation and Bank Risk taking. *The Journal of Finance*, Vol.45 Issue 2 P. 643- 654

William G. Zikmund et al. (2013). *Business Research Methods.* A South-Asian Perspective. India: Cengage Learning.