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COLLEGE OF HUMANITIES AND SOCIAL SCIENCE

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PROFITABILITY DETERMINANTS OF SAVINGS AND LOANS COMPANIES IN GHANA

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DECLARATION

I hereby declare that this submission is my own work toward the award of the Master of Science in Accounting and Finance and that to the best of my knowledge, it contains no material previously published by another person, nor material which has been accepted for the award of any other degree of the University, except where due acknowledgement has been made in the text.

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DEDICATION

I First and foremost dedicate this study to the God almighty for his love, strength and wisdom to carry out this study successfully.I also dedicate it to my lovely and caring husband, Mr. Smith Owusu Ansah Acheampong for his constant source of support and encouragement throughout the process.Last but not the least, I dedicate to my two cute boys, Jayden Nana AdutwumAcheampongand Alvin Nana Agyei Acheampong for their inspiration and all who in one way or the other helped made this study a success.

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ABSTRACT

Profitability of banking industries are reliant on various variables which are typically factors exuding from both internal and external sources. The internal determinant factors are broadly impacted by the choices of the board and planned activities of the organization. The external determinants on the other hand are those variables which are not impacted by the choices and strategies of the board but pose influence from various events outside realm of the business. The main objective of the present study was to investigate into the profitability determinants of Savings and Loans (S&L) companies in Ghana with a focus on S&L Companiesin the Kumasi metropolis. The study adopted quantitative research approach. The study used OLS models and secondary data from 9 S&L companies.Moreover, the study revealed that Loan to Deposit ratio, liquidity ratio, inflation rate andexchange rate were significant determinants of profitability of using ROE as a parameter. Moreover, the study revealed that inflation, exchange rate, and interest ratewere significant determinants of the profitability of the focused S&L companies using ROA as indicator. The study concludes thatLoan to Deposit ratio, liquidity ratio, inflation rate and exchange rate were significant determinants of profitability among servings S&L companies in Ghana. The study recommends the need to make good use of the company's resources to attract more vibrant investors. The results from the study confirm the assumptions of RBV on the value of the company's resources, particularly its sales and marketing staff.Again, the study recommends that S&L companies in Ghana need to upgrade their marketing strategies by using the latest and most advanced e-marketing technologies to expand their technological capabilities. S&L companies need to renovate their services through online and mobile accessibility to inform the youth about good things from S&L and engage them.

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LIST OF ABBREVIATIONS

EPS	Earnings Per Share
ROA	Non-performing loans
GDP	Gross Domestic Product
S&L	savings and loans
ROI	Return on investment
ROE	Return on Equity
CAR	Capital Adequacy Ratio
NPLR	Non-performing Loan Ratio
LATDR	Loans and Advances to Total Deposit Ratio
LATD	Loans and Advances to Total Deposit
U.S	United State
CPI	Consumer Price Index
NPL	nonperforming loan
RCBs	reverse convertible bond
NIITA	National Information Technology Agency
TD/TA	Total debt/Total Asset
TL/TA	total liabilities to total asset
OLS	Ordinary Least Squares
REER	Real effective rate

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Profitability in particular is one aspect that robustly drives the effectiveness and efficiency in various organizations. In the banking sector, profitability is credited as a key specific factor that expedites financial performance. The potential and ability of the financialcompanies however relies upon their financial status particularly the profitability yields of the business (Lipunga, 2014). The financial sectorstands as a pillar that supports the economicdevelopment in every country and subsequently their operations are exceptionally in the financial market. Firm profitability is just the profits attain from a completed workwithin a specific period. Every firm in Ghana and behind the borderlines of Ghana is mainly active on boosting profitability in the expense of promoting business operations (Niresh and Velnampy, 2014). Accomplishing these motives have stimulate most firm to adopt innovative and fitting strategies to support them in promoting their operational activities and securing them with better profitability yields (Muya and Gathogo, 2016). Profitability nonetheless is secured through business completing activities like achieving efficiency a business transaction made and other speculativeactivities (Ogbadu, 2009).

Firm profitability can be measured by contrasting the distinction between complete expense and pay incomes (Stierwald, 2010). Profitability of a firm additionally characterizes the capacity for firm to accomplish anticipated outcome from operational activities (Anene, 2014). The profitability level of a firm is extremely pivotal for business advancement and improvement (Muya and Gathogo, 2016). Firms that have higher competitiveness are capable of achieving expectations in the business environmentas they effectively utilize opportunities toassume higher

profitability (Niresh and Velnampy, 2014). Thus, numerous organizations embrace diverse plans of action and systems to assist them with improving business exercises to amplify productivity just as accomplishing long term goals (Farah and Nina, 2016). Most firms explore different strategies that would empower them decrease cost of activity while expanding their business transactions (Schreibfeder, 2006). Per the accounting hypothesis, profitability is the general income accomplished by banks from their operational activities within a specific period (Tariq et al., 2014). Business banks typically accomplish their profitability from contributed capitals and other money related activities (San and Heng, 2013). The budgetary capacity of a bank depends on their accessible profitability accomplished from a given working year, the lower the profitability the base the organizations' capacity to embrace beneficial tasks and the other way around (Adeusi, Kolapo and Aluko, 2014).

Profitability gives clear picture concerning the presentation of the firm especially deciding how fit the bank is to allow further credits to potential clients. Productivity today fills in as the primary instrument for accomplishing competitive edge in the market context since it permits firms to improve their operational practices by guaranteeing that proper activities have been directed to accomplish attractive result (Tariq et al., 2014). Profitability is exceptionally crucial in the financial business since banks can advance exercises when they have higher budgetary level. In the financial industry, expanding investor pay is one of the fundamental courses of the institutions. Managers thusly ensure that every single internal action has reflected into the objectives and destinations of the business especially in accomplishing the financial objectives within a specific financial period.

Profitability is normally estimated utilizing performanceindicators, for example, return on asset, return on equity and liquidity just as gaining per share (EPS). It is utilized by firms to decide their financial capacities and potentials towards day by day operations and other related tasks (Majed, Said and Firas, 2012). ROA shows the board's exposition identify with operational activities especially in the financialoperations of the business (Sehrish, Irshad and Khalid, 2010). For this situation, a competitive market share may lead to improvement in performance or generally speaking profitability (Bentum, 2012).

1.2 Problem Statement

Profitability of banking industries are reliant on various variables which are typically factors exuding from both internal and external sources. The internal determinant factors are broadly impacted by the choices of the board and scheduled objectives of the organization. The external determinants on the other hand are those variables which are not impacted by the choices and strategies of the board but pose influence from various events outside realm of the business. This implies external determinants (both industry and macroeconomic related) are factors that reflect the conditions wherein the financial organizations work. From the study, it is exceptionally evident that discoveries of studies on factors deciding productivity of banks have been uncertain.

There has been no or limitedstudies on savings and loans organizations in Ghana. In Ghana especially, the conducted literaturesmainly focused on commercial banks and S&Ls(Nagaraju and Boateng, 2018; Abu, Domanban and Issahaku, 2017). For example, Abu et al. (2017) analyzed the determinants of default rate on the likelihood of defaults. The outcome indicated that size, financing cost, loanperiod, level of profitability and credit amount are the concurrent

determinants of likelihood of default. Nagaraju and Boateng (2018) determine how bank specific and macroeconomic factors influence the profitability of savings and loans (S&L) organizations in Ghana utilizing financialdata from 2011 to 2016 and revealed that capital ampleness, non-performing loans, bank size, Inflation and GDP adversely impactedprofitability of savings and loans organizations in Ghana. Researchershave conducted several studies concerningdeterminants of banks profitability by focusing on the commercial.S&L companies have received the least research attention to the savings and loans institutions limiting the number of studies in the area. Most of the literature study on the components that influence profitability comprisingbank-specific andmacroeconomicdeterminants while few have delvedintothe internal variables, which impact profitability. In light of the above, the present study focuses on the determinants of profitability in savings and loanscompanies in Ghana? This examination will bridge the gap and furthermore contribute empirical knowledge to the current literature on thedeterminants of profitability in banks, precisely in the Savings and Loans organizations.

1.3 Objectives of the Study

The main objective of the study is to examine profitability determinants of Savings and Loans (S&L) Companies in Ghana with a focus on Savings and Loans Companies in the Kumasi metropolis. In particular, the examination looks to:

1. To determine the effect of Capital Adequacy Ratio on profitability of S&L Companies
2. To determine the effect of NPL Ratio on profitability of S&L Companies
3. To examine the effect of Loan to Deposit on profitability of a S&L Companies
4. To assess the effect of size on profitability of S&L Companies

5. To determine the effect of Inflation on profitability of S&L Companies.

1.4 Research Question

1. What is the effect of Capital Adequacy Ratio on profitability of S&L Companies?
2. What is the effect of NPL Ratio on profitability of S&L Companies?
3. What is the effect of Loan to Deposit on profitability of a S&L Companies?
4. What is the effect of size on profitability of S&L Companies?
5. What is the effect of Inflation on profitability of S&L Companies?

1.5 Significant of the study

The present study is expected to contribute immensely towards financial development, financial management and financial literacy. Particularly, the following the Government, managements, investors and customers of the savings and loans companies as well as the academic community stand to benefit tremendously from this study. The management of the savings and Loans companies could adopt the findings of the present study to formulate policies that could enhance their profitability levels. Moreover, the management of the central bank Ghana could as well as benefit from the current study by implementing policies that could enhance the very factors that affect the profitability of the savings and loans companies in the country due to their collective contributions towards, employment creation, support of micro and small businesses etc. Finally, future researchers could benefit from the present study by adopting it a baseline study in order to build upon it.

1.6Overview of Methodology

This study adopted quantitative research approach to investigate profitability determinants of Savings and Loans Companies in Ghana with a focus on Savings and Loans Companies in the Kumasi metropolis. Based on the purpose of the study explanatory design was used. Creswell (2007) states that, the choice of a research design is determined by the objective of the study. The objective of this study is to examine profitability determinants of Savings and Loans (S&L) Companies in Ghana with a focus on Savings and Loans Companies in the Kumasi metropolis. Therefore, the selected research designs were appropriate for the study. The population of the study comprised of Savings and Loans in the Kumasi metropolis. Target population were nine (9) Savings and Loans companies who were willing to provide the needed information for the study. The study covered the period between 2009 to 2018 due to data availability. The researcher purposively selected a sample of nine S&L companies. Purposive sampling technique was used due the nature of the study and the kind of data required (Saunders et al., 2007). The selection criteria for selecting the S&L are that the S&L should be in operations for the past 10 years and none have been put out for sale. These S&L companies were selected because data was readily available. The time series data stretch from 2009 to 2018. This period provided a clear time series data observation and hence ideal for statistical analysis. Moreover, this was the period when the financial industry in Ghana experienced a massivecleanup.Data was transformed using EVIEWS statistical software and data was arranged in tables based on the objectives of the study (Kothari, 2004). The data was transformed into frequencies and percentages and measures of central tendencies (means and standard deviations, maximum and minimum) as a means of describing the data. The data was further diagnosed using normality, autocorrelation,

heteroscedasticity and multicollinearity tests to help validate the suitability of the data. Aside the multicollinearity, the data was further used to measure associations and variance inflation factor.

1.7 Scope and Limitations of the Study

Contextually, the study focused on profitability determinants of Savings and Loans Companies in Ghana with a focus on Savings and Loans Companies in the Kumasi metropolis. The study specifically focused on Capital Adequacy Ratio, Non-performing Loan Ratio, Loan to Deposit and size on profitability of S&L Companies. Geographically, the study focused on some selected companies in the Kumasi metropolis Ghana. The study was limited to only nine (9) companies covering ten (10) year period.

1.8 Organization of the Study

The study was organized into five chapters.The chapter one serves as the introduction section to the chapter. Chapter two presents the literaturereviewfor the study covering conceptual empirical and theoretical. In chapter three, the methodology is presented. In chapter four, results and discussions in Ghana. The chapter five presents the summary of the findings, conclusions and recommendations.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter presents literature of related study which aimed to examine profitability determinants of saving and loans companies in Ghana. Particularly the following issues have been raised and discussed accordingly: the overview of construct which consists of conceptualizing profitability and the determinants of profitability. The theoretical orientation of the study has been presented, followed by the empirical review and the conceptual framework.

2.1 Overview of Construct

2.1.1 Profitability

Gungor (2007) defines bank profitability as the association between income received and costs on liability. Bank profitability is expressed as a job of both smaller scale and large-scale determinants. Micro factors envelop the records in the balance sheet and statement of the income. Hence, they is additional named as bank-specific factors. On the other hand, macro factors are not related with the internal arrangement of the banks; anyway, they affect profitability in a significant way. Size, capital, management of risk, management expense, attractive protections and non-performing loans are regularly viewed as micro factors (Güngör 2007). Macro factors include inflation, interest rate, GDP growth and tax rate.

Profitability measurement is an important factor for investors to evaluate an enterprise, as it measures the ability of the enterprise to make a profit by showing the overall performance and results of the enterprise with this measure. The company should therefore be aware that

profitability is the first factor that attracts investors (Tao, 2016). Profitability refers to the economic success of an enterprise. The level of net profit is the decisive factor in this economic success in comparison to investment. Profit is the company's income after payment of all costs directly associated with income. The profitability of a company is the main objective and the guarantee of its long-term survival. It is therefore very important for businesses to measure current and past profitability and predict future profitability (Farred et al., 2016). One of the profitability variables is the return on Assets (Fareed, 2016).

Profitability is the money that a company can produce with its available resources. Most organizations aim to maximize profits (Niresh and Velnampy, 2014). Productivity incorporates the possibility to make profits by the entirety of the business endeavor activities of a business undertaking, firm or association (Muya and Gathogo, 2016). Profits are generally used to reward the entrepreneur for his investment. In fact, profit is an entrepreneur's main motivation for doing business. Profit is also used as an indicator to measure business performance (Ogbadu, 2009). Profitability is the association between the general costs and revenue of sales including the price of materials, labour, etc. (Stierwald, 2010).

Sugiyarso and Winarni (2005) define profitability as a company's ability to generate profits compared to sales, total assets and equity. Profitability has become one of the most influential factors in capital structure. The company wanted to achieve a high and stable level of profitability. Companies with high profitability will reduce their debt. This is because the company retains the bulk of its earnings from retained earnings, so that it can rely on its internal resources and reduce the use of debt in relative terms.

Profitability is the difference between the amount of profit generated by assets and the cost of liabilities. The literature presents the profitability of banks on the basis of micro and macro determinants. Balance sheet and profit and loss account are the micro determinants.Hifz Malik (2011) argues that profitability is one of the main objectives of financial management since the financial management objective is to decrease the wealth and profitability of the owner and is one of the main determinants of financial performance. Operations that are not profitable cannot survive. On the contrary, a highly profitable business has the potential to reward its owners with high ROI.

A bank is considered to be profitable if it can earn more than it pays. In other words, if the revenues generated are higher than the cost (Nagaraju and Boateng, 2018). Researchers have used different measures of profitability, but the most commonly employed indicators are ROA (e.g. Nagaraju and Boateng, 2018) and ROE (Mulchandani and Totola, 2016). ROA shows how efficiently a bank manages its assets in order to generate income. The issue with this ratio is that it does not include off-balance sheet items from the balance sheet total and therefore underestimates the value of the assets. ROE, which indicates the income of each unit of equity, also has some weaknesses. ROE do not always give a true picture of a bank's financial strength, as it can be affected by financial leverage. This is influenced by regulation. Rivard and Thomas (1997) argued that ROA is the optimal measure of profitability because it is not distorted by multiple equity. Bank performance is considered to be satisfactory when ROA exceeds 1% (Dutta et al., 2013).

Profitability can be considered as the ability of a company to generate more revenue than it pays to the bank. Different study has recruited particular measures for bank profitability. A portion of the examination utilized ROA as a level of productivity (Mawutor and Awah 2014, Boadi 2015, Antwi and Apau, 2015).

However, ROA and ROE are the most extreme for the most part utilized intermediaries. Most researchers have however contended on the side of ROA over ROE. In accordance with Hassan and Bashir, (2003), ROA demonstrates the pay earned per dollar of advantages and above all, it has the ability to manage the capacity utilize by the banksfinancialperformance to create profitability. It has additionally been advised by methods for Rivard and Thomas (1997) that bank profitability is best estimated by means of ROE for the reason that ROE isn't constantly mutilated by high value multipliers and accordingly ROE speaks to a superior proportion of the limit of a firm to create returns on its arrangement of profitability. ROA on the other hand gauges how strongly and effectively management of banks utilizes their equity of its shareholders.

2.1.2 Determinants of Profitability

Two main determinants have been discussed namely; bank-level determinants and macro-level determinants.

2.1.3 Bank-level Determinants

Capital Adequacy Ratio (CAR): The capital ratio has for quite some time been important item for evaluating wellbeing and sufficiency of banks. It is mainly employed by managers as general guidelines to evaluate the ampleness of banking organization's level of capital (Hassan and

Bashir, 2003). Besides the primary ratio that determines the robustness of capital is the proportion of equity to total asset. It's foreseen that the better this proportion, the lower the need for external source of financing hence ensure greater profitability to the bank. It shows the ability of the bank to take in misfortunes and deal with riskier investors (Antwi and Apau, 2015). CAR is simply defined as proportion of total equity to total asset, i.e. CAR=total equity/total asset. In fact, capital adequacy in a broader perspective alludes as the computation of the effectiveness and efficiency of commercial banks. It depicts the monetary organization's readiness and capacity to endure with unusual and operational shortcomings. This in general elaborates the firm potential to flourish in executing additional businesses.

Non-performing Loan Ratio (NPLR): This is a credit risk metric that quantifies the profitability nature of a financial organization. Loan assigning is a focal activity of savings and loans firms as their name recommend. S&L organizations thusly consider their portfolio as a totally fundamental asset. The excellent of asset of S&L firms are grounded on the general execution of the credits conceded. Many studies have displayed a number of approaches for estimating asset quality. Loans and Advances to Total Deposit Ratio (LATDR): an indispensable decision administrator of S&Ls needs to consider in realizing their objectives and the dissolvability of their company is the liquidity management. It shows the level of bank's credit supported by means of savings. The proportion of loans and advances is utilized as a metric of liquidity capacity of the bank. It shows how productively the money related foundation utilized contributors support using a loan activity that are relied upon to be helpless before default risk. LATD is a ratio utilized to foresee the capability of the bank to endure the deposit withdrawals

made by the institution's clients and its status to fulfill the advance requests by diminishing money assets.

Bank size (LNTA): The size of a firm can be estimated utilizing resources, deals, and staff quality. This paper will utilize resources as a factor of bank size. Company size also stands as a determinant of both economies and diseconomies of scale in the banking industry. In consistent with Saunders et al., (1990), bank size is typically estimated by the normal LNTA of the bank, thus the better the bank size, the better it's capability to ingest risk. LNTA (size) along these lines controls for the distinctions of in cost, item, and peril expansion. Bank size may moreover advantageously affect bank profitability if there are sizeable economies of scale. Then again if increment in broadening result to higher risk, the factors may moreover show terrible impact (Sufian and Chong, 2008).

The internal determinants are capital, credit chance, efficiency increment, working expenses, and size. Hashem (2016) finds that capital ampleness is conversely connected with profitability. In a word, keeping unreasonable capital degrees is identified with lower risk taking exercises and hence lower profitability in the short run. The U.S banks essentially have seen a development of their capital necessities which has actuated their capital proportions to increment. Thus banks have a cradle by keeping up better capital stores, be that as it may, the result is lower returns on that capital. That is because of absence of interest being enjoyed on cash this is bolted up as capital stores.

In the Greek financial framework, Athanasoglou, Brissimis, and Delis (2008) set up that on the grounds that the capital ratio, furthermore alluded to as the ratio of Stockholders' equity over total assets, expanded, profitability also improved. So this implied as Greek banks took on additional risk, their introduction to additional threat may bring about lower profitability. The Greek proof is blended like numerous different investigations due to the situations where the Greek banks act in. While scanning at the financial situations for U. S banks, a superior capital proportion totally builds productivity the lower it is (Berger 1995). It's extremely important that banks adjust their risk-taking procedures warily. Most concur that poor asset quality and infrequent phases of liquidity are the two basic reasons for money related foundation disappointments (Athanasoglou, Brissimis, and Delis, 2008). For banks with high-risk credits, there is an improved possibility that the advances will never again be repaid. This at that point implies that advance losses will deliver lower returns (Hashem, 2016.) Liquidity is in like manner expected to have a solid poor relationship with banking profitability. This is the reason the requirement for risk control is so essential in the financial quarter.

Also, literature has revealed working costs as one of the factors. That is frequently alluded to as how pleasantly the board executes the utilization of its advantages. This proportion is eagerly connected with the conviction of effective administration.Thus, the more productive a bank's administration is at continuing running charges low, the more its profitability can be. In Hashem (2016) discovered that the lower the costs were for the bank, the extra proficient was the bank as prove through higher profitability. However, Karim, Sami, and Hichem (2010) show that specific greater expenses, comprehensive of in finance, positively affected profitability. This paper delves the results assembled from bank with monstrous commissions and bank with low commissions.

This is believed to be on the grounds that the better the finance for faculty, the extra the representatives' impetus for making pay.

Distinctive determinant of the organization profitability is size (Niresh and Velnampy, 2014). Marete (2015) consider size of organization as the performance indicator that is exceptionally basic, especially in its workplace. On the off chance that organization size is greater, its effect on partners is more robust as well. The expansion of worldwide organizations inside the worldwide economy today demonstrates that firm size is fundamental in their professional workplace. Firm size as an intermediary for corporate assets is determinant of profitability on the grounds that economic scale theory recommends that for enormous enterprises, creation charges are truly low contrasted with smaller companies (Demirgunes and Ucler, 2015).

The internal aspects depict the board strategies of the banks and decisions implemented concerning the sources handling funds, expenditures and liquidity (Onuonga, 2014). In general, the financial statements of banks cover the information regarding to the bank-specific factors that have effect on profitability especially in the commercial banks. This directs our attention to the size of bank, bank liquidity, capital adequacy, credit risk and accuracy in the bank operations. Thus, in the premise of bank size, performance isdriving a particular pattern that larger banks are more efficient in harnessing the economies of scale in terms of executing business activities as liken to smaller companies (Sehrish, Irshad & Khalid, 2010).

On this note sizeable banks are predetermined to capitalize on more advantageous opportunities and benefits in comparison with smaller banks. Thus, powerful bargaining capacity is secured by

bigger firms enabling them to attain benefits from specialization and under the economies of scale (Alkhazaleh&Almsafir, 2014). Besides, several research works had pointed out the efficiency of size in terms of predicting banks' profitability via cost-efficiency of raising capital for larger banks (Tariq et al., 2014).

2.1.4 Macro-level Determinants

CPI-Inflation: Inflation rate is the rate at which the general ascent in the phase of costs, merchandise and ventures in an economy happens and how it impacts the expense of abiding of those living in a specific nation. The estimation of inflation rate is performed utilizing a portrayed item container which contains items and administrations on which the normal client goes through money consistently. Increasing inflation certainly has an impact on consumers purchasing power, which indirectly impacts on the demand and the supply for credit (Sufian and Chong, 2008).

Some exogenous factors can change the profitability of banks. Most studies use a common set of macroeconomic conditions. Inflation, business cycles and interest rates are the most commonly used. Examples of other variables are the size of the sector, ownership and market concentration. This factor does not seem to have as much impact on profitability as ownership. Ownership is a determining factor in this sector and is controlled by a hypothetical variable similar to that used for private banks. Many other researchers have produced reports showing that ownership is indeed not relevant to explain profitability (Athanasoglou, Brissimis and Delis, 2008). It should also be noted that banks in the United States and abroad often perform better in times of economic crisis than government-supported banks than private banks.

The inflation of a nation can vitally affects the profitability of its banks. This is usually in the literature as long-term interest or the money supply growth rate. Scientists find that if a bank can develop its business revenue quick to hold up with costs, inflation can positively affect banks. Most research show that inflation and long interest rate have a positive relationship with profitability. This is the situation in a develop economy where inflation can be determined out and banks can appropriately alter for these foreseen changes. Nonetheless, these components can't be as effortlessly controlled in countries, for example, Vietnam (Vu and Nahm, 2013) or Bangladesh (Sufian and Habibullah, 2009) where economies aren't as reliant and stable enough to allow for systematic expectation of an extremely unpredictable inflation course.

A business cycle is a pattern of money related extension and withdrawal. The macroeconomic business cycle was likewise concentrated by numerous individuals to check whether it had an effect on the profitability of banks. The discoveries propose that there is a relationship among bank'sprofitability and the business cycle of its basic business condition. The business cycle positively affects bank profitability, the significance of which is just inside the upward segment of the cycle (Garcia and Guerreiro, 2016). This implies banks are extra beneficial at the pinnacle of a business cycle. Past investigations give confirmation on the impacts of bank-specific, industry-specific, and macro-specific determinants of bank profitability. Most of the current studies have focused on a specific location and have not covered the whole country. The significant macroeconomic impact on bank profitability requires long-term data and analysis, although other factors also need to be taken into account. Even previous studies have not used sufficiently long sampling periods to determine the effects of changes in the macroeconomic

environment; for example (Athansoglu et al., 2008), a sampling period from 1999 to 2009 is used.

2.1.5 Overview of Savings and Loans

Savings and Loans Company is a statutory term used for non-bank financial institutions in Ghana. There are 37 Savings and Loans Companies released by the Bank of Ghana as at January 2017. Such institutions are licensed by the Bank of Ghana under the Financial Institutions non-Banking Law 1993 (PNDC Law 328).A savings and loans limited is a financial institution that specializes in accepting savings deposits and making mortgage and other loans. They are also known as thrift institutions in the United States, United Kingdom, Ireland and some Commonwealth countries. It is a system of banking (even though it is not a bank) where depositors and borrowers are members with voting rights, and has the ability to direct the financial and managerial goals of the organization. According to Dr. Emmanuel O. Owusu, the president of the Ghana Association of Savings and Loans Companies (GHASALC), savings and loans companies are classified under the first – tier of the Non – Banking Act. Savings and Loans Companies can operate deposit, current, and savings accounts; receive and clear checks through their sister banking institutions; and offer a wide range of credit facilities and money transfer services. Notwithstanding of these, savings and loans companies are not allowed to operate foreign accounts.

2.2 Theoretical Review

2.2.1 Market Power Theory

The theory of market power was developed on the grounds of Bain (1951) which emphasizes that the growth of market power leads to dominance and hence greater profitability (Athanasoglou, Brissimis&Delis, 2008). It is assumed that market focus is the best indicator of market power because highly focused markets represent different market failures that lead different companies to set prices for their goods and services at a level not particularly conducive to customers (Punt and Rooij, 2001). Likewise, the theory implies that a company with a high market share and diversified products and services can comfortably generate monopolistic profits and be successful or be able to outperform its competitors (Nkegbe &Yazidu, 2015).

Further, profits are the consequence of increased market share, where commercial banks can collude and generate excess profits for a company's diversified product portfolio and increase its market share and pricing power (Mirzaei, (2012). In addition, the theory of market power also holds that market dominance is an important variable that makes changes profitable, and hence companies need to strive on addressing market failures that stem from collusion and concentration through different legal barriers to market entry or withdrawal (Punt and Rooij, 2001).

On this regard, the theory of market power has been extended to the banking sector to justify the effect of profitability and market share of banks. This theory explains the positive correlation between a bank's size and its financial performance. The theory has further proposed that for firm to achieve profitability the industries market structure must be a focal point (Onuoga, 2014) since market forces in the banking sectors drive the profitability of banks (Ntow& Laryea, 2012). Per the theory, profitability of banks is a function of market externalities, and the term market

share indicator is also used (Obumuya, 2013). The structure of the sector, as measured by market concentration, should influence the profitability of commercial banks (Fisseha, 2015).

2.2.2 Agency Cost Theory

The Agency cost theory was developed based on the innovative contributions of Jensen & Meckling (1976). This theory states that the company's financial model can be used by managers and investors as a mechanism or instrument to address open cash flow issues. The archetypal problem of a principal agent (Gedajlovic and Shapiro, 2002) when the organizational form of a company is represented by professional managers holding limited ownership but managing the company for the benefit of generalized shareholders (owners) is elaborated in by the theory. However, agency cost results from the segregation of ownership and control, where managers maximize their profits or use the assets of the company for personal gain instead of maximizing goodwill or shareholder assets (Mian et al., 2012).

Jensen & Meckling (1976) divided agency costs into shareholder oversight costs, bonding cost and residual loss. The agency costs comprise brokerage costs resulting from a conflict of interest between managers and shareholders, and costs resulting from a conflict of interest between debtors and shareholders (Mian et al., 2012). Based on the theory, agency costs arise naturally from the disparities in interest and behavior of managers and directors that can affect the income of directors and the value and profitability of the company (Alfadhl&Alabdullah, 2013). 2.3 Empirical research

2.3 Empirical Review

Nagaraju and Boateng (2018) investigated how bank factors and macroeconomic factors impacted the profitability. The study discovered a significant relationship among profitability and the external and internal determinants. Capital Adequacy, NPL, Bank size, Inflation and GDP development rate all adversely influenced profitability of investment funds and credits organizations in Ghana. However, there was an ambiguous finding on the determinant of bank profitability though literature have been conducted. Antwi and Apau (2015) looked at the factors that led to the financial performance and concluded that ROA is widely used by managers to drive profitability in the banking sector. The study showed that operational activities are an important determinant of a company's profitability. However, the size of the bank has not had a significant impact on ROA. However, GDP growth was recognized as the main determinant of return on investment. In addition, research has shown that inflation has had a positive effect on RCBs' profitability.

Boadi et al. (2016) analyzed the variables that decide firm profitability in Ghana and established that the internal factors determining profitability of banks include, the quality of asset, the efficiency of the management, management liquidity, investments, bank size, bank versatility and risk funding just as capital sufficiency as some inside elements that decides banks' profitability. Additionally, the examination found that there were some outer components that affected profitability and they included GDP development and CPI Inflation and other related variables. In the midst of these determinants, the examination set up that swelling had negative effect on profitability of RCBs.

Ata Mills and Amowine (2013) surveyed the determinants of profitability of RCBs and built up that bank size, internal assets, the financial system and the capital structure all had an impact on the profitability of the RCBs. The investigation furthermore found that bank size had positive insignificant on bank productivity. It was also demonstrated that the interest-free return on total assets (NIITA) is a measure of profitability. In order to increase a bank's profitability, management must manage the institution's overall financial activities and take appropriate measures to minimize the risk of loss. Regardless of, the investigation discovered positive relationship among GDP development and cash flexibly development yet uncovered negative and significant relationship with identify with swelling and execution of country banks.

Owusu-Antwi et al (2014) analyzed the performance of S&Ls in the Ghanaian banking system and concluded that factors such as total asset value, total credit and inflation are the factors that determine the viability of S&Ls. Of these factors, liquidity was also considered insignificant compared to profitability; Mawutor and Awah (2014) on the contrary argued that liquidity has no impact on bank size and profitability. Nonetheless, they found that credit risk, leverage and efficiency are negative and strongly correlated with profitability.Anarfi et al. (2016) evaluated the profitability of S&Ls and concluded that factors such as the size of assets, bank loans, deposits, capital and general costs determine profitability. On the other hand, GDP, the exchange rate and interest rates were identified as macroeconomic factors that influence profitability. The study showed that bank loans and capital had a positive impact on profitability, but the size of the bank did not influence its profitability. However, the study showed that only the exchange rate had a negative impact on profitability.

Isaac Boadi (2015) looked at factors determining the profitability of the Ghanaian banking system and concluded that the size of the bank, including its capital and deposit structure, cost structure, efficiency, asset quality and liquidity are crucial to profitability. The research further showed that effective management practices had a positive impact on banks' operational performance and increased their profitability. It also found that capital structure was highly correlated with profitability. Economic growth was also positively correlated with profitability. Other factors such as deposit structure, overheads, unprofitable loans, inflation and real interest rates did not have a significant impact on banks' profitability in Ghana.

Opoku-Ageeman (2015) also noted that factors affecting the bank's profitability were operating efficiency, credit risk, liquidity, size of the bank, growth of the bank, cost of capital, years of experience, and share of ownership. He also states that there are external factors that determine profitability and that these are ROAA and ROE. Opoku-Agyemang noted that capital is positively correlated with profitability. The study concluded that factors such as GDP, money supply and inflation did not have a significant impact on profitability. The level of profitability of a rural bank determines its capacity and ability to do business in a commercial environment and, in particular, in a competitive market. Banks must create systems and strategies for the management and control of all internal activities in order to promote efficiency and transparency of all activities and thus maximize profitability.

Akhtar et al. (2011) examined the components affecting banks' profitability of Islamic banks of Pakistan for the period 2006-2009 and found that elements, for example, NPLs, management capital,operational efficiency, and Capital Adequacy were determinants of profitability of banks.

The examination found that management of capital had positive effect on profitability of Islamic banks in Pakistan. Nonetheless, bank size had negative effect on productivity and NPLs likewise had negative relationship with profitability. Capital proportion was additionally seen as having strong relationship with ROA. TD/TA and TL/TA all had positive and huge effect on productivity of Islamic banks in Pakistan.

Madishetti and Rwechungura (2013) evaluated the factors affecting the profitability of commercial banks in Tanzania and concluded that factors such as the capital adequacy ratio, operational efficiency, liquidity risk, credit risk and bank size are critical to the bank's profitability. Farhan et al. (2012) likewise investigated the determinants of NPLs in the Pakistan banking segment and established that Interest rate, Energy crisis, Unemployment, Inflation, GDP development and Exchange rate were financial determinants of productivity of banks. Besides, results from regression and correlation found that desire for GDP had significant negative relationship with NPL however different elements had positive connection with NPL.

Odusanya, Ilo and Bamidele (2018) investigated the determinants of firm profitability. The results show that slacked profitability applies significant positive on contemporaneous firm profitability. All things considered, short-term leverage, inflation rate, interest rate and risk related to finance have negative impacts on firm profitability. Skuflic, Mlinaric and Druzic (2016) considered the factors that determine profitability. Market concentration (Herfindahl-Hirschman Index) and total factor productivity clearly had a major positive impact on the profitability of the Croatian manufacturing industry during the period considered. It was also established that there is a significant but negative correlation between debt, solvency and debt

ratio. This result indicates that concentration and indebtedness are important factors for profitability and future investigations should absorb this fact.

Yuksel, Mukhtarov, Mammadov and Ozsan (2018) identified the factors that determine the bank's profitability. The study found that non-interest income, loan amount and growth of the economy are significant factors influencing profitability. Additionally, the 2008 global mortgage crisis negatively affects bank productivity in post-Soviet nations. As indicated by the estimation results, there is a positive relationship among non-interest salary and economic development with profitability. This result shows that when non-interest salary of the banks increments, for example, credit card fees and commission, it influences the financial performance of the banks, emphatically, and adds to bank profitability. The study again found thateconomicdevelopment emphatically influenced bank profitability. This result permits us to presume that higher GDP accompanies higher bank profitability for post-Soviet nations. At last, there is a negative relationship among credit to-GDP proportion and profitability of the banks in post-Soviet nations. This implies when the proportion of all loans to GDP expands, it impacted financial performance of the banks in a negative manner.

Lipunga (2014) evaluated the factors that determine profitability and revealed that the size, liquidity and operational efficiency of a bank have a statistically significant impact on ROA, while the solvency ratio is not significant. On the other hand, liquidity is an important determinant of ROA.

Liuspita and Purvanto (2019) considered the determinants of profitability. The study showed that not only the size of the company but also its age has a significant impact on profitability. It was found that a company's growth also has a significant impact on profitability and that the delay in achieving profitability also has a significant impact on profitability. It has also been shown that productivity is an important determinant of profitability, but that joining the industry has no proven impact on profitability. For Indonesian food and beverage companies, this means they can improve their performance, compete for investor confidence and gain a sustainable competitive advantage.

The Maigua and Muni (2016) study analyzed the determinants of banks performance using interest rate. Using 26 banks as a sample and performing numerous regression analyses to analyze the data. Results of the study showed that inflation, discount rate and exchange rate had a positive impact on banks' performance, while the reserve rate had a negative impact on banks' performance. Aleemu (2015) said that the profitability of eight Ethiopian commercial banks from the period 2002-2013, was the determining factor in the study. The study analyzed the data using fixed effect and multiple linear regression models and found out that the bank's size, solvency ratio and GDP were positive significantly related to profitability. Liquidity risk, operational efficiency, cost of funds and development of the banking sector was also considered negative and statistically significant in relation to banks' profitability. Finally, the link between administrative efficiency, staff efficiency, inflation and exchange rate was considered statistically insignificant.

Kyalo (2013) investigated the factors influencing profitability of banks in Kenya from 2010 – 2012. Secondary data gathered from 44 Kenyan banks were used in the study.The study found that capital investment significantly affects ROE while operational productivity, GDP and inflation have insignificant impact on ROE on value. The examination recommended that commercial banks in Kenya should put more center both the bank specific factors and the external environment together to think of viable techniques to improve their financial performance.

Boateng (2020) examined credit risk management and profitability. credit risk was found to be the hazardous and the most common risk among the three prominent types of risk (credit, market, and operational risks) S&L companies encounter in the discharge of their mandate on day-to-day basis. The results of the study have clearly demonstrated that the S&L Companies in Ghana are inefficient, the resultant effect is the high NPL accumulation, and a very weak profitability performance exhibited over the study period. The findings remind management and regulators of S&L Companies the need to pay much attention to credit risk management considering the adverse effect it exerts on the profitability of the financial institutions. The negative relationship found between nonperforming loans and the profitability indicators buttress the fact that if lending institutions intend to remain profitable and sustainable, then management of these institutions must give credit-risk management prominence in their strategic policies. The results of the study further pointed an accusing finger at inadequate screening of loan applicants as the major cause of nonperforming loans in the S&L Companies. This is because when risk analysis is poorly executed it adversely affects the lending institution, which exposes the

shareholders, depositors, as well as creditors to unwarranted risk through the depletion of capital and funds invested in these institutions.

Bunyaminu et al. (2019) assessed the determinants of business failure. From the analysis, the corporate determinants that are consistent indicator of financial distress are profitability ratio, specifically the Return on total asset and Leverage ratio.

Yusif (2019) examined the determinants of microfinance performance as well as the influence of microfinance financial performance. The study found factors such as capital adequacy ratio, firm's cost, firm's interest rate and inflation, to be significant determinants of microfinance performance, with CAR and firm's cost having a negative effect on performance; interest rate and inflation having a positive effect on performance of MFIs in Ghana. The study also found a negative and significant relationship between return on assets (ROA) and firm size (total assets), with firm size being used as a proxy for measuring MFIs outreach. The study concludes that capital adequacy ratio, firm cost incurred, firm interest rate and inflation are significant determinants of microfinance performance in Ghana, and that MFI that are performing better financially tend to have less outreach to the poor.

Usman and Lestari (2019) examined the determinants of commercial banks performance. The panel data with Eviews shows that asset quality has a negative effect and management efficiency has a positive impact on bank performance. Capital adequacy, liquidity, and gross domestic product growth rate do not affect the bank's performance. Managers need to tighten lending,

carry out credit restructuring and manage the balance between assets and liabilities and, supervise credit.

Sanyaolu et al. (2019) investigated banks specific and macroeconomic determinants of profitability. The result reveals that capital adequacy, nonperforming loan, loan to total asset and size have significant positive effect on profitability, while age was found to exert significant but negative effect on profitability. The study could not however establish significant positive effect of macroeconomic indicators (economic growth and interest rate) on profitability of deposit money banks while inflation rate has negative but insignificant influence on profitability.Osumanu (2019) examined the impact of liquidity on rural and community banks. Findings from the study revealed that quality of loan portfolio ratio; capital ratio and loan to total assets had significant and positive relationship with profitability. It was also revealed that shocks in all the liquidity variables had one or other implications on profitability.

2.4 Conceptual Framework

The main assumption of the study is to focus on profitability determinants of Savings and Loans Companies in Ghana with a focus on Savings and Loans Companies in the Kumasi metropolis. The study specifically focused on how Capital Adequacy Ratio, NPL, LTD and size influence profitability of S&L Companies as indicated in the Figure 2.1

Figure 2.1 Conceptual Framework

Author's Design (2020)

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter presents the relevant methods and techniques employed to examineprofitability determinants of Savings and Loans Companies in Ghana with a focus on Savings and Loans Companies in the Kumasi metropolis. The specific methods and techniques used for the study have been explained in details. These include: The research design and approaches employed in the study; population of the study, sampling technique, sampling procedure, data collection, data analysis, model specifications, variables descriptions and diagnostic tests.

3.1 Research design

Cooper et al. (2006) defined research design as the master plan and tool that a researcher adopts for a study based on the theme of the study and further outlines the processes that are involved in completing a study. This study adopted quantitative research approach to investigate profitability determinants of Savings and Loans Companies in Ghana with a focus on Savings and Loans Companies in the Kumasi metropolis. Based on the purpose of the study explanatory design was used. Creswell (2007) states that, the choice of a research design is determined by the objective of the study. The objective of this study is to examine profitability determinants of Savings and Loans (S&L) Companies in Ghana with a focus on Savings and Loans Companies in the Kumasi metropolis. Therefore, the selected research designs were appropriate for the study.

The population of the study comprised of Savings and Loans in the Kumasi metropolis. Target population were nine (9) Savings and Loans companies who were willing to provide the needed

information for the study. The study covered the period between 2009 to 2018 due to data availability.

3.2 Population

Saunders et al. (2007) considered population to be the complete set of individuals, objects and elements, from which a sample is selected. The population comprise of all S&Ls in Ghana, which are licensed within the Ashanti Region. Researcher like Saunders et al. (2007) argue that, the sample size must be sufficient for the researcher to make appropriate generalizations. When the sample is high, the results show a true reflection of the entire population while the opposite affects the representativeness of a result to the entire population. A larger sample size reduces the error margins in a study result. The population of the study comprised of Savings and Loans in the Kumasi metropolis. Target population were nine (9) Savings and Loans companies who were willing to provide the needed information for the study. The study covered the period between 2009 to 2018 due to data availability.

3.3 Sample Size and Sampling Technique

The researcher purposively selected a sample of nine S&L companies. Purposive sampling technique was used due the nature of the study and the kind of data required(Saunders et al., 2007). The selection criteria for selecting the S&L are that the S&L should be in operations for the past 9 years and none have been putout for sale. These S&L companies were selected because data was readily available. The time series data stretch from 2009 to 2018. This period provided a clear time series data observation and hence ideal for statistical analysis. Moreover, this was the period when the financial industry in Ghana experienced a massive shake up.

3.4 Data Collection

Secondary data was the main and only source of data used. These secondary data were only accessible from the financial reports of banks. These data were collected to help examine the determinants of nonperforming loan of Some Selected S&L companies. The time series data collected stretched from 2009 to 2018. The data were collected from annual financial reports of the selected S&L companies as well as the macroeconomic data from the World Development Index. The main variables used for the study included capital adequacy ratio, NPLs, interest rate, liquidity ratio, loan to deposit, inflation, asset quality, ROA and ROE were obtained from the annual financial statements of the selected S&Ls.

3.5 Model Specification

The section below states, define and explain the models that were employed in this study. The models adopted for the regression are specified in this study. The researcher defined both controlled and dependent variables in the model. The study requirements demanded the use of pooled regression model to effect of each explanatory variable from the selected S&Ls. The pooled model is based on the assumption that, all variables have the same behaviour where there exist among them homoscedasticity without any autocorrelation. This assumption makes it possible to use OLS to estimate outcomes as presented in equation (2). The assumptions used in the pooled model are similar to that which was in the regression model as argued by Greene (2012). Following the work of Ahmad and Bashir (2013), the model is specified as follows;

The general form of the OLS model is specified as:

$$\boldsymbol{Y_{it} = \alpha + \mathbf{X}_{it}\beta + \varepsilon_{it}}$$

Where:

$\boldsymbol{Y_{it}}$ = The dependent variables (ROE, ROA)

$\boldsymbol{\alpha} = The\ intercept$

$\boldsymbol{\beta} = coefficient\ of\ independence\ variables$

$X_{it} = The\ independent\ variables$

$\boldsymbol{\varepsilon_{it}} = The\ error\ term$

$\boldsymbol{t} = represents\ the\ time\ series\ component$

$$ROE_{it} = \beta_0 + NPL_1 1_{it} + \beta_2 CA + \beta_3 LIQUIDITY + \beta_4 AQ_{it} + \beta_5 SIZE_{it} + \beta_6 INFLA_{it} + \beta_7 INTEREST_{it} + \varepsilon_{it} \ldots (3)$$

$$ROA_{it} = \beta_0 + NPL_1 1_{it} + \beta_2 CA + \beta_3 LIQUIDITY + \beta_4 AQ_{it} + \beta_5 SIZE_{it} + \beta_6 INFLA_{it} + \beta_7 INTEREST_{it} + \varepsilon_{it} \ldots (3)$$

Where:

ROE= Return on Equity

ROA= Return on Asset

NPLs= Non-performing loans

CA= Capital Adequacy – Log of Operating Profit

AQ = Asset Quality – ratio of the total loans to total assets (loan/asset)

Liquid= Liquidity - the ratio of liquid assets to total assets (liquid assets/assets)

Size= Size of the bank – Log of asset value

Infla = Inflation

Interest = Interest Rate

β_i: are coefficients

ε: error term

Table 3.1: Descriptions of Variables

Variables	Description/explanation
dependent variables	
Return on Assets	Log of earnings before interest and tax
Return on Equity	Log of Net Profit after Interest and Tax
Independent variables	
NPLs: Non-performing loans	Measured ratio of outstanding principalbalance of loans past due more than 90 days to outstanding principalbalance of all loans
Liquid:	Liquidity - the ratio of liquid assets to total assets (liquid assets/assets)
Asset Quality	AQ is ratio of the total loans to total assets (loan/asset)
Size	Size of the bank – Log of asset value
Interest rate (MPR)	Interest rate is normally measured with monetary policy rate (MPR) since the Bank of Ghana mostly uses the interest rate for sometimes determining cash flows in the economy particularly in the banking sector.

Exchange rate	Exchange rate was measured using the real effective rate. Real effective rate (REER) shows the relative value of a home currency to that of other currencies.

Source: Author's Compilations

3.6 Data Analysis

Babbie (2010) indicated that, data analysis is conducted after data has been gathered. Data analysis makes it possible to draw conclusions on the bases of theoretical ideas in literature. After data was collected from the financial statement of banks and other credit records, data was carefully edited and coded before being entered into statistical software. Data was transformed using EVIEWS statistical software and data was arranged in tables based on the objectives of the study (Kothari, 2012). The data was transformed into frequencies and percentages and measures of central tendencies (means and standard deviations, maximum and minimum) as a means of describing the data. The data was further diagnosed using normality, autocorrelation, heteroscedasticity and multicollinearity tests to help validate the suitability of the data. Aside the multicollinearity, the data was further used to measure associations and variance inflation factor.

3.7 Reliability and Validity Tests

As part of the regression model, diagnostic tests were conducted to detect whether there are heteroscedasticity and serial correlation issues within the data. The various tests conducted by the study have been fairly explained in the paragraphs below.

Normality Test: Normality tests are conducted to determine the accuracy of a sample for a standard normal distribution. Normality testsare estimated using either graphs or mathematical instruments. Formally, normality test is conducted by comparing histograms using a normal curve. In this normality measurement, a data is said to be normal when the shape of the distribution is in the form of a bell shape. Normality test becomes difficult to estimate when the sample size is very small (Maddala et al., 2009).

Serial correlation: Serial correlations are used to estimate the accuracy of presumptions as far as the regression model is concerned to observe the data series. Serial correlation helps to identify cases of serial correlation structures within a model and the presence of serial correlation leads to false conclusions to be made (Ahmad and Bashir, 2013).

Heteroscedasticity: A data is said to be heteroscedastic when there are sub-data groups with differences or variability, which are determined by the variance or dispersion in the statistical measure. Heteroscedasticity is experienced when homoscedasticity is absent. Estimating or measuring heteroscedasticity is important in the implementation of regression analysis by comparing variances because this helps to determine data accuracy and whether statistical test is significant (Ahmad and Bashir, 2013).

Multicollinearity: Multicollinearity is when there are high levels of interdependence of one variable on the other. Multicollinearity is a disturbance in a data leading to inaccuracy in the data. Multicollinearity is when one variable linearly predicts the other variable in a multiple regression. In a data that suffers from multicollinearity, the results of regression model vary

enormously when there are small variations in the data. Multicollinearity does not influence the predictive power of a data wholly but influence some variables that are individual predictors (Maddalae et al., 2009; Ahmad and Bashir, 2013).

CHAPTER FOUR

DATA ANALYSES AND DISCUSSIONS

4.0 Introduction

This chapter presents the results and discussions on profitability determinants of Savings and Loans (S&L) Companies in Ghana with a focus on Savings and Loans Companies in the Kumasi metropolis. Specifically, the study focused on the following: the effect of Capital Adequacy Ratio; the effect of Non-performing Loan Ratio; the effect of Loan to Deposit; the effect of size and the effect of Inflation on profitability of S&L Companies. The first part presents the descriptive statistics results, the second part presents the post estimation analysis, the third section presents OLS model results and the final section presents the discussions of the results.

4.1 Descriptive Statistics

Table 4.1: Descriptive Statistics of Construct used

	ROA	ROE	NPLS	LTD	Liquidity	Lending Rate	Interest Rate	Inflation	Exchange Rate	Capital Adequacy	Asset Quality
Mean	2.73	30.86	0.27	9.77	0.27	0.05	15.98	12.33	1.45	5.84	0.57
Median	3.74	25.06	0.08	9.69	0.24	0.04	15.72	10.75	1.45	5.93	0.55
Maxi	12.69	313	5.93	11.58	0.84	0.17	23.72	20.74	2.58	8.44	0.95
Mini	-4.69	-30.09	0.00	8.41	0.00	-0.03	10.08	6.34	0.91	0.00	0.00
Std. Dev.	4.09	41.57	0.88	0.88	0.19	0.03	4.42	3.89	0.39	1.76	0.17
Skewness	-0.20	3.64	5.91	0.21	1.11	0.78	0.19	0.83	0.37	-1.43	-0.41
Kurtosis	2.10	24.97	37.85	2.11	4.27	4.14	1.57	2.45	2.69	6.08	4.55
Probability	0.16	0.00	0.00	0.16	0.00	0.00	0.01	0.00	0.28	0.00	0.00
Sum Sq. Dev.	148	153	70.05	69.40	3.47	0.13	174	134	13.78	275	2.58
Observations	90	90	90	90	90	90	90	90	90	90	90

Table 4.1 presents the descriptive results on the variables employed in the study. The ROA of the focal companies was having a mean score of 2.73 and a standard deviation score of 4.09. The maximum score of ROA for the companies under study was 12.69 and the minimum score was -

4.69 with the median score at 3.74. The ROE of the studied banking industries was also with the mean score of 30.86 and 41.57 was the corresponding score for standard deviation, maximum and minimum scores of the ROE of the focal banking industries were 313.97 and -30.09 respectively while the median value was 25.06.With regards to the NPLs, a mean score of 0.27 and a standard deviation score of 0.88 was estimated while the maximum score was estimated at 5.93 and the minimum score was also estimated at 0.00. The median score for NPLs of the studied banking industry was estimated at 0.08.LTD as well was having a mean score of 9.77 and the corresponding standard deviation score for LTD was 0.19. For the companies under investigation, LTD is of maximum scores estimated at 11.58 and minimum scores estimated at 8.41 whilst 9.69 was estimated as the median scores of the LTD for the companies. Considering the liquidity of those banking companies, mean score and the standard deviation score were estimated at 0.27 and 0.19 accordingly, the maximum score was 0.84 and the minimum score was 0.00 whereas the median score for liquidity was estimated at 0.24.

With respect to lending rate, the study found a mean of 0.054 and a standard deviation of 0.03 with both maximum score and minimum score rating at 0.17 and -0.03 correspondingly while the median score for lending rate of the banking industry under investigation was 0.47. Also, the mean score for interest rate was estimated at 15.98 while the standard deviation was rated at 4.42 with a maximum score of 23.72 and a minimum score of 10.08. The median for interest rate was then rated 15.72 for the banking companies considered for this investigation.The inflation here was having 12.33 as the mean score and 3.89 was rated as it scores of standard deviation. The maximum value of inflation was estimated at 20, the minimum value was 6.34 while the median score of inflation was rated at 10.75.Further, the exchange rate of the financial companies under investigation was observed to have a mean score of 1.45 and a corresponding standard deviation

of 0.39, a maximum score of 2.58 and a minimum score of 0.91 whiles the median score for exchange rate in the studied financial institutions was 1.45.Capital adequacy of the investigated financial institutions was of mean scores of 5.84, standard deviation of 1.76, and the scores of maximum and minimum for capital adequacy were 8.44 and 0.00 in that order whiles the median score was 5.93. Finally, the study found that the asset quality of the focused financial institutions in this study was of mean and standard deviation scores estimated at 0.57 and 0.17 respectively. The maximum score of asset quality was estimated at 0.95 and the minimum score was estimated at 0.00 whiles the median value of asset quality of the investigated financial institutions was rated at 0.57.

4.2 Post Estimation Analyses (Test of Heteroscedasticity, Normality and Multicollinearity)

The study has conducted number of Post OLS model estimations analysis to validate the behaviour of the dataset in terms of reliability and validity. In this light the following post estimation analyses haven been conducted: Test of Heteroscedasticity, Normality and Multicollinearity. Each of the above-mentioned test have been presented in the next section.

4.2.1 Test of Heteroscedasticity

One of the post estimation analysis conducted in to validate the behaviour of the dataset in terms of reliability and validity is the Heteroscedasticity using Breusch-Godfrey LM test statistics. The rule is that for a dataset to be considered from heteroscedasticity issues the probability of the chi squire test must be insignificant as seen in the Table 4.2. Therefore, the study concludes that the dataset was from heteroscedasticity.

As showed in the Table 4.2 The study conducted

Table 4.2: Breusch-Godfrey Heteroscedasticity LM Test

F-statistic	1.062968	Prob. F(9,80)	0.3991
Obs*R-squared	9.612991	Prob. Chi-Square(9)	0.3827
Scaled explained SS	8.338661	Prob. Chi-Square(9)	0.5004

4.2.2 Test of Multicollinearity (Serial Correlation)

As showed in the Table 4.3 Multicollinearity is one of the post estimation analysis conducted in to validate the behaviour of the dataset in terms of reliability and validityusing Breusch-Godfrey Serial Correlation LM test statistics. The rule is that for a dataset to be considered from Multicollinearity issues the probability of the chi squire test must be insignificant as seen in the Table 4.3. Therefore, the study concludes that the dataset was from Multicollinearity.

Table 4.3: Multicollinearity Test

F-statistic	10.39506	Prob. F(2,78)	0.3451
Obs*R-squared	18.94027	Prob. Chi-Square(2)	0.5321

4.2.3 Test of Normality

As showed in the Figure 4.1 is one of the post estimation analysis conducted to validate the behaviour of the dataset in terms of reliability and validitywas normality using Jarque Bera test statistics. This test comprises of skewness, kurtosis and probability test as showed Figure 4.1.The study found skewness value of zero and kurtosis value of less than 3 as well as insignificant probability. These imply that the dataset was normally distributed. Therefore, the study concludes that the dataset is valid and reliable to a larger extent.

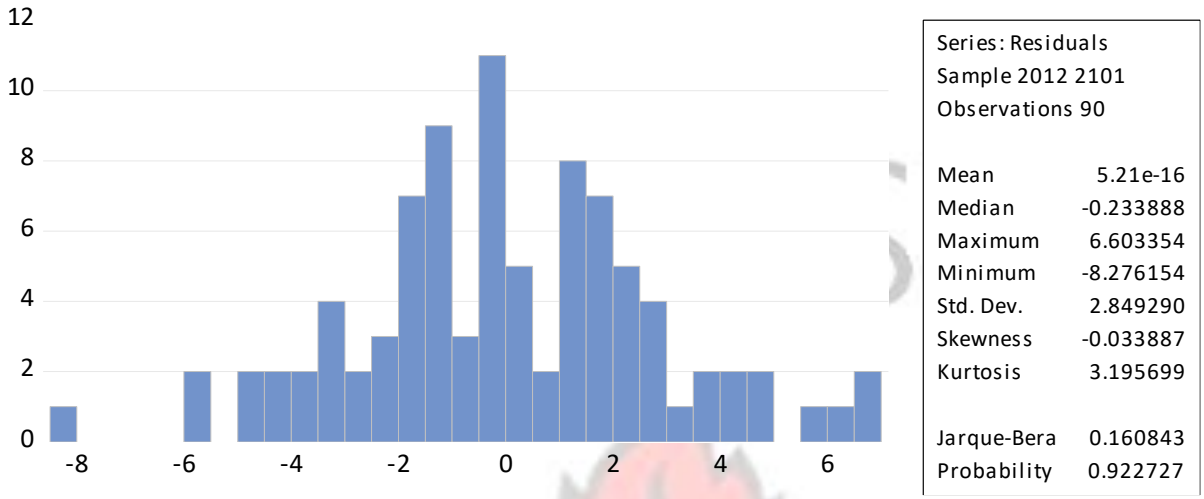

Figure 4.1 Test of Normality: Jaque Bera

4.3 Correlation Matrix

Table 4.4: Correlation Matrix

	NPLS	Capital Adequacy	Lending Rate	Liquidity	LTD	Asset Quality	Interest rate	Inflation (%)	Exchange Rate	ROA	ROE
NPLS	1										
Capital Adequacy	.044 (.680)	1									
Lending Rate	.105 (.326)	.413 (.000)	1								
Liquidity	-.004 (.970)	-.249 (.018)	-.143 (.180)	1							
LTD	-.062 (.562)	.555 (.000)	.074 (.485)	-.262 (.013)	1						
Asset Quality	-.206 (.051)	.233 (.027)	.246 (.020)	-.496 (.000)	.215 (.042)	1					
Interest rate(%)	.135 (.204)	.149 (.162)	-.172 (.105)	.315 (.003)	.278 (.008)	-.316 (.002)	1				
Inflation (%)	.285 (.007)	-.344 (.001)	-.178 (.094)	.072 (.498)	-.409 (.000)	-.085 (.426)	.370 (.000)	1			
Exchange Rate	-.057 (.593)	.347 (.001)	-.069 (.517)	.404 (.000)	.615 (.000)	-.305 (.004)	.682 (.000)	-.173 (.104)	1		
ROA	-.021 (.848)	-.292 (.005)	-.028 (.791)	-.265 (.012)	-.412 (.000)	.345 (.001)	-.467 (.000)	.259 (.014)	-.634 (.000)	1	
ROE	-.010 (.928)	-.206 (.052)	.051 (.635)	.117 (.273)	-.309 (.003)	.053 (.619)	-.208 (.049)	.180 (.089)	-.354 (.001)	.506 (.000)	1

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

In relations to the Table 4.4 of the study, there was an insignificant correlation (R=-0.021, p-value=0.848) between ROA and NPLs. Also, a significant correlation (R=-0.292, p-value=0.005) was observed between ROA and capital adequacy and an insignificant correlation was found between ROA and lending rate (R=-0.028, p-value=0.791). There was a significant correlation (R=-0.265, p-value=0.012) between ROA and liquidity. Again, the correlation between ROA and LTD was significant (R=-0.412, p-value=0.00). There was also a significant correlation (R=0.345, p-value=0.001) between ROA and asset quality. Further, the study found a significant correlation (R=-0.467, p-value=0.000) between ROA and interest rate, a significant correlation (R=0.259, p-value=0.14) between ROA and inflation and significant correlation (R=-0.634, p-value=0.000) between ROA and exchange rate of the financial institutions considered in this investigation.

Again the study discovered an insignificant correlation (R=-0.010, p-value=0.928) between ROE and NPLs, an insignificant correlation between (R=-0.206, p-value=0.052) ROE and capital adequacy and an insignificant correlation (R=0.051, p-value=0.635) between ROE and lending rate of financial companies. Moreover, ROE was observed to have an insignificant correlation (R=0.117, p-value=0.273) with liquidity; significant correlation (R=-0.309, p-value=0.003) with LTD; insignificant correlation (R=0.053, p-value=0.619) with asset quality; and significant correlation (R=-0.208, p-value=0.049) with interest rate of the financial industries under investigation. Also, there was an insignificant correlation (R=0.180, p-value=0.089) between ROE and inflation and there was a significant correlation between ROE and exchange rate (R=-0.354, p-value=0.001)

4.4 Panel Pooled OLS

Table 4.5: Panel Pooled OLS

Dependent Variable	ROE	ROA
Independent Variables	A	B
Non-Performing Loans	-3.28	-0.08
	(5.17)	(0.42)
Loan to Deposit	34.89**	1.14
	(11.84)	(0.97)
Liquidity	161***	2.78
	(38.33)	(3.16)
Lending Rate	90.53	-8.68
	(120)	(9.94)
Interest Rate	-0.44	-0.35**
	(1.65)	(0.13)
Inflation	3.35**	0.45***
	(1.60)	(0.13)
Exchange Rate	-109***	-5.04**
	(28.04)	(2.31)
Capital Adequacy	-1.04	-0.13
	(3.20)	(0.26)
Asset Quality	12.67	3.65
	(30.31)	(9.94)
C	-234**	-2.59
	(97.52)	(8.05)
F-value (prob > F)	4.018	9.428
	(0.000)	(0.000)
R-squared	0.311	0.514
Adjusted R-squared	0.233	0.460

Notes: *p < 0.1, **p < 0.05 and ***p < 0.01 level respectively.
Standard errors in brackets.

As showed in the Model A the study revealed that 31.1% changes in profitability of the saving and loans companies was caused capital adequacy ratio, NPLs, interest rate, liquidity ratio, loan to deposit, inflation and asset quality when ROE was used as proxy for profitability. Specifically, the study revealed that LTD (β=34.89, p-value=0.004), liquidity (β=161.79, p-value=0.000), inflation (β=3.35, p-value=0.040), exchange rate (β=-109.50, p-value=0.000) were the significant determinants of profitability of the selected financial institutions at 95% confidence level when using ROE as a parameter. Also, NPLs (β=-3.28, p-value=0.527), lending rate (β=90.53, p-value=0.454), interest rate (β=-0.44, p-value=0.787), capital adequacy (β=-1.04, p-value=0.744) and asset quality (β=12.67, p-value=0.676) were insignificant determinants of the profitability of the selected financial institutions when using ROE as a parameter.

As indicated in the Model B the study revealed that 51.4% changes in profitability of the saving and loans companies was caused capital adequacy ratio, NPLs, interest rate, liquidity ratio, loan to deposit, inflation and asset quality when ROA was used as proxy for profitability. The study revealed that inflation (β=0.45, p-value=0.001), exchange rate (β=-5.04, p-value=0.032) and interest rate (β=-0.35, p-value=0.011) were the significant determinants of the profitability of the focused financial industries at 95% confidence interval when using ROA as indicator. However, NPLs (β=-0.08, p-value=0.850), LTD (β=1.14, p-value=0.247), liquidity (β=2.78, p-value=0.382), capital adequacy (β=-o.13, p-value=0.622), asset quality (β=3.65, p-value=0.147) and lending rate (β=-8.68, p-value=0.385) were insignificant determinants of the profitability of the financial industries under investigation when using ROA as an indicator.

4.5 Discussion of Results

4.5.1 Effect of Capital Adequacy Ratio on profitability

The capital ratio has for quite some time been important item for evaluating wellbeing and sufficiency of banks. It is mainly employed by managers as general guidelines to evaluate the ampleness of banking organization's level of capital (Hassan and Bashir, 2003). Besides the primary ratio that determines the robustness of capital is the proportion of equity to total asset. It's foreseen that the better this proportion, the lower the need for external source of financing hence ensure greater profitability to the bank. It shows the ability of the bank to take in misfortunes and deal with riskier investors (Antwi and Apau, 2015). CAR is simply defined as proportion of total equity to total asset, i.e. CAR=total equity/total asset. In fact, capital adequacy in a broader perspective alludes as the computation of the effectiveness and efficiency of commercial banks. It depicts the monetary organization's readiness and capacity to endure with unusual and operational shortcomings. This in general elaborates the firm potential to flourish in executing additional businesses. Nagaraju and Boateng (2018) investigated how bank factors and macroeconomic factors impacted the profitability. The study discovered a significant relationship among profitability and the external and internal determinants. Capital Adequacy, NPL, Bank size, Inflation and GDP development rate all adversely influenced profitability of investment funds and credits organizations in Ghana. However, there was an ambiguous finding on the determinant of bank profitability though literature have been conducted.

4.5.2 Effectof NPL Ratio on profitability

This is a credit risk metric that quantifies the profitability nature of a financial organization. Loan assigning is a focal activity of savings and loans firms as their name recommend. S&L

organizations thusly consider their portfolio as a totally fundamental asset. The excellent of asset of S&L firms are grounded on the general execution of the credits conceded. Many studies have displayed a number of approaches for estimating asset quality. Akhtar et al. (2011) examined the components affecting banks' profitability of Islamic banks of Pakistan for the period 2006-2009 and found that elements, for example, NPLs, management capital, operational efficiency, and Capital Adequacy were determinants of profitability of banks. The examination found that management of capital had positive effect on profitability of Islamic banks in Pakistan. Nonetheless, bank size had negative effect on productivity and NPLs likewise had negative relationship with profitability. Capital proportion was additionally seen as having strong relationship with ROA. TD/TA and TL/TA all had positive and huge effect on productivity of Islamic banks in Pakistan.

4.5.3 Effect of Loan to Deposit on profitability

Loans and Advances to Total Deposit Ratio (LATDR): an indispensable decision administrator of S&Ls needs to consider in realizing their objectives and the dissolvability of their company is the liquidity management. It shows the level of bank's credit supported by means of savings. The proportion of loans and advances is utilized as a metric of liquidity capacity of the bank. It shows how productively the money related foundation utilized contributors support using a loan activity that are relied upon to be helpless before default risk. LATD is a ratio utilized to foresee the capability of the bank to endure the deposit withdrawals made by the institution’s clients and its status to fulfill the advance requests by diminishing money assets. Odusanya, Ilo and Bamidele (2018) investigated the determinants of firm profitability. The results show that slacked profitability applies significant positive on contemporaneous firm profitability. All things

considered, short-term leverage, inflation rate, interest rate and risk related to finance have negative impacts on firm profitability. Skuflic, Mlinaric and Druzic (2016) considered the factors that determine profitability. Market concentration (Herfindahl-Hirschman Index) and total factor productivity clearly had a major positive impact on the profitability of the Croatian manufacturing industry during the period considered. It was also established that there is a significant but negative correlation between debt, solvency and debt ratio. This result indicates that concentration and indebtedness are important factors for profitability and future investigations should absorb this fact.

Yuksel, Mukhtarov, Mammadov and Ozsan (2018) identified the factors that determine the bank's profitability. The study found that non-interest income, loan amount and growth of the economy are significant factors influencing profitability. Additionally, the 2008 global mortgage crisis negatively affects bank productivity in post-Soviet nations. As indicated by the estimation results, there is a positive relationship among non-interest salary and economic development with profitability. This result shows that when non-interest salary of the banks increments, for example, credit card fees and commission, it influences the financial performance of the banks, emphatically, and adds to bank profitability. The study again found that economic development emphatically influenced bank profitability. This result permits us to presume that higher GDP accompanies higher bank profitability for post-Soviet nations. At last, there is a negative relationship among credit to-GDP proportion and profitability of the banks in post-Soviet nations. This implies when the proportion of all loans to GDP expands, it impacted financial performance of the banks in a negative manner.

4.5.3 Effect of size on profitability

The size of a firm can be estimated utilizing resources, deals, and staff quality. This paper will utilize resources as a factor of bank size. Company size also stands as a determinant of both economies and diseconomies of scale in the banking industry. In consistent with Saunders et al., (1990), bank size is typically estimated by the normal LNTA of the bank, thus the better the bank size, the better it's capability to ingest risk. LNTA (size) along these lines controls for the distinctions of in cost, item, and peril expansion. Bank size may moreover advantageously affect bank profitability if there are sizeable economies of scale. Then again if increment in broadening result to higher risk, the factors may moreover show terrible impact (Sufian and Chong, 2008).

The internal determinants are capital, credit chance, efficiency increment, working expenses, and size. Hashem (2016) finds that capital ampleness is conversely connected with profitability. In a word, keeping unreasonable capital degrees is identified with lower risk taking exercises and hence lower profitability in the short run. The U.S banks essentially have seen a development of their capital necessities which has actuated their capital proportions to increment. Thus banks have a cradle by keeping up better capital stores, be that as it may, the result is lower returns on that capital. That is because of absence of interest being enjoyed on cash this is bolted up as capital stores.

Antwi and Apau (2015) looked at the factors that led to the financial performance and concluded that ROA is widely used by managers to drive profitability in the banking sector. The study showed that operational activities are an important determinant of a company's profitability. However, the size of the bank has not had a significant impact on ROA. However, GDP growth

was recognized as the main determinant of return on investment. In addition, research has shown that inflation has had a positive effect on RCBs' profitability.

4.5.4 Effect of Inflation on profitability

The estimation of inflation rate is performed utilizing a portrayed item container which contains items and administrations on which the normal client goes through money consistently. Increasing inflation certainly has an impact on consumers purchasing power, which indirectly impacts on the demand and the supply for credit (Sufian and Chong, 2008).Some exogenous factors can change the profitability of banks. Most studies use a common set of macroeconomic conditions. Inflation, business cycles and interest rates are the most commonly used. Examples of other variables are the size of the sector, ownership and market concentration. This factor does not seem to have as much impact on profitability as ownership. Ownership is a determining factor in this sector and is controlled by a hypothetical variable similar to that used for private banks. Many other researchers have produced reports showing that ownership is indeed not relevant to explain profitability (Athanasoglou, Brissimis and Delis, 2008). It should also be noted that banks in the United States and abroad often perform better in times of economic crisis than government-supported banks than private banks.

The inflation of a nation can vitally affects the profitability of its banks. This is usually in the literature as long-term interest or the money supply growth rate. Scientists find that if a bank can develop its business revenue quick to hold up with costs, inflation can positively affect banks. Most research show that inflation and long interest rate have a positive relationship with profitability. This is the situation in a develop economy where inflation can be determined out

and banks can appropriately alter for these foreseen changes. Nonetheless, these components can't be as effortlessly controlled in countries, for example, Vietnam (Vu and Nahm, 2013) or Bangladesh (Sufian and Habibullah, 2009) where economies aren't as reliant and stable enough to allow for systematic expectation of an extremely unpredictable inflation course.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

This chapter presents the summary of findings, conclusions and recommendations in relation to profitability determinants of S&L companies in Ghana with a focus on Savings and Loans Companies in the Kumasi metropolis. Specifically, the findings, conclusions and recommendations focused on the effect of Capital Adequacy Ratio; the effect of Non-performing Loan Ratio; the effect of Loan to Deposit; the effect of size and the effect of Inflation on profitability of S&L Companies.

5.1 Summary of Findings

5.1.1 Determinants of Savings & Loan Profitability (ROE)

The study revealed that 31.1% changes in profitability of the saving and loans companies was caused capital adequacy ratio, NPLs, interest rate, liquidity ratio, loan to deposit, inflation and asset quality when ROE was used as proxy for profitability. Specifically, the study revealed that LTD (β=34.89, p-value=0.004), liquidity (β=161.79, p-value=0.000), inflation (β=3.35, p-value=0.040), exchange rate (β=-109.50, p-value=0.000) were the significant determinants of profitability of the selected financial institutions at 95% confidence level when using ROE as a parameter. Also, NPLs (β=-3.28, p-value=0.527), lending rate (β=90.53, p-value=0.454), interest rate (β=-0.44, p-value=0.787), capital adequacy (β=-1.04, p-value=0.744) and asset quality (β=12.67, p-value=0.676) were insignificant determinants of the profitability of the selected financial institutions when using ROE as a parameter.

5.1.2 Determinants of Savings & Loan Profitability (ROA)

As indicated in the Model B the study revealed that 51.4% changes in profitability of the saving and loans companies was caused capital adequacy ratio, NPLs, interest rate, liquidity ratio, loan to deposit, inflation and asset quality when ROA was used as proxy for profitability. The study revealed that inflation (β=0.45, p-value=0.001), exchange rate (β=-5.04, p-value=0.032) and interest rate (β=-0.35, p-value=0.011) were the significant determinants of the profitability of the focused financial industries at 95% confidence interval when using ROA as indicator. However, NPLs (β=-0.08, p-value=0.850), LTD (β=1.14, p-value=0.247), liquidity (β=2.78, p-value=0.382), capital adequacy (β=-o.13, p-value=0.622), asset quality (β=3.65, p-value=0.147) and lending rate (β=-8.68, p-value=0.385) were insignificant determinants of the profitability of the financial industries under investigation when using ROA as an indicator.

5.2 Conclusions

This study was conducted to investigate into the profitability determinants of S&L companies in Ghana with a focus on Savings and Loans Companies in the Kumasi metropolis using quantitative research approach and OLS models. The study revealed that 31.1% changes in profitability of the saving and loans companies was caused capital adequacy ratio, NPLs, interest rate, liquidity ratio, loan to deposit, inflation and asset quality when ROE was used as proxy for profitability. Moreover, the study revealed that LTD, liquidity, inflation, exchange rate were the significant determinants of profitability of the selected financial institutions at 95% confidence level when using ROE as a parameter. Also, NPLs, lending rate, interest rate, capital adequacy and asset qualitywere insignificant determinants of the profitability of the selected financial institutions when using ROE as a parameter.

On the other hand, the study revealed that 51.4% changes in profitability of the saving and loans companies was caused capital adequacy ratio, NPLs, interest rate, liquidity ratio, loan to deposit, inflation and asset quality when ROA was used as proxy for profitability. The study revealed that inflation, exchange rate, and interest ratewere the significant determinants of the profitability of the focused S&L companies at 95% confidence interval when using ROA as indicator. However, NPLs, LTD, liquidity, capital adequacy, asset quality and lending rate were insignificant determinants of the profitability of the financial industries under investigation when using ROA as an indicator.

5.3 Recommendations

Based on the findings from the study the following implications and recommendations are made: Results from the OLS analysis demonstrate that the more a firm size is expanded, the profits for S&L companies tend to trigger higher. Per the empirical findings, profitability yields of S&L firms in Ghana are primary affected by inflation, exchange rate, and interest. There is a positive impact of liquidity and capital adequacy ratio on profitability which are essential in attracting customers and driving the profitability of S&L companies.

The study recommends the need to make good use of the company's resources to attract more vibrant investors. The results from the study confirm the assumptions of RBV on the value of the company's resources, particularly its sales and marketing staff. On the other hand, in practice, to remain competitive in the industry, theS&Lcompanies will have to actively explore and grow new businesses to increase LTD, which will considerably affect their profits. The new business will be created by attracting new customers, especially the youth.

Again, the study recommends that S&L companies in Ghana need to upgrade their marketing strategies by using the latest and most advanced e-marketing technologies to expand their technological capabilities. S&L companies need to renovate their services through online and mobile accessibility to inform the youth about good things from S&Land engage them as insurers.

Beside the above, the study suggests that the level of capital in these S&L businesses is a cause for concern. We believe that the level of capital is the largest positive indicator of the profitability of S&L businesses in Ghana. Theoretically, this conclusion is consistent with RBV, which emphasizes that solid internalassets, inclusive of financial strength, are a competitive edge. In practice, the stability of a S&L company depends on the availability of sufficient capital base to support its market diversification strategy. They should also reduce the cost of attracting external funds through capital resources, invest more in better projects that are more profitable and have a well-furnished research and development division to enable in the implementation of more urgent and desirable insurance products that are in demand largely in the market context.

The study further draws attention that in terms ofprofitabilityi.e. liquidity was insignificant indicators. This finding indicates that the vesting of assets (fixed assets and cash) in this study did not affect the profitability of S&L companies, indicating that S&L managers should not be overly anxious about acquiring new tangible assets or cash. Intangible assets including goodwill, reputation, and brand identity as mentioned earlier in the introduction have a greater role in expanding profits due to the fact that these S&L firms render intangible services rather than tangible products. Companies must pay attention to building a good reputation and reliability in

the industry in order to enable them to achieve market leadership, ensure transparency in the sale of S&L policies, and smoothly managing claims while evading claim squabble. It is equally essential to strengthen the company's goodwill by handling claims effectively, which speeds up the claim process. The insurer's resources must also be carefully invested by the company's risk managers to ensure payment of any claims. In addition, as a service company, strong relationships must be established with the company's S&L customers. S&L agents should strive to build long-term relationships with their clients through professional, efficient and reliable work.

5.4 Suggested Areas for Future Studies

This study was conducted to investigate into the profitability determinants of S&L companies in Ghana with a focus on Savings and Loans Companies in the Kumasi metropolis using quantitative research approach and OLS models. One of the limitations of this research is that it focuses only on very few internal and external determinants of S&Lprofitability. It is proposed that future research should examine both internal and external factors together to obtain a more complete picture of the determinants of S&L company profitability. It is suggested that future studies should focus on using many other control variables to enhance the efficiency of the study report. An effective company must be sensitive and responsive not only to changes in the external environment, but also to internal factors that affect profitability. In addition, future studies could try to find an appropriate indicator of corporate insensitivity and include this variable as a predictor of S&L company profitability. Companies that have a good reputation in the industry and can quickly identify potential opportunities and risks within the industry by implementing appropriate business strategies may be able to respond to these external changes.

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APPENDIX

Appendix 1: Dataset

FIRM	YEARS	NPLS	Capital Adequacy	Lending Rate	Liquidity	LTD	Asset Quality	Interest rate(%)	Inflation (%)	Exchange Rate	ROA
1	2009	0.133649	5.723585	0.020532	0.003352	9.163877	0.773622	18	19.3	1.4282	6.223852
1	2010	0.281051	5.68358	0.024199	0.007029	9.206232	0.267597	13.5	10.7	1.4738	4.637559
1	2011	0.050734	6.173786	0.067204	0.030883	9.239608	0.532971	12.5	8.7	1.5505	5.849696
1	2012	0.050734	6.173786	0.067204	0.030883	9.239608	0.532971	15	9.2	1.88	7.243875
1	2013	0.038851	6.244167	0.060126	0.031502	9.434044	0.576237	18	11.4	2.2	7.166843
1	2014	0.038851	6.244167	0.060126	0.031502	9.434044	0.576237	21	15.4	3.2	5.062636
1	2015	0.126848	5.545177	0.117609	0.042387	9.139811	0.762206	26	7.4	3.7944	2.577394
1	2016	0.126848	5.545177	0.117609	0.042387	9.139811	0.762206	25.5	15.4	4.2002	1.831266
1	2017	0.091878	6.216606	0.082722	0.026055	9.912844	0.539132	20	12.3	4.4	3.018746
1	2018	0.091878	6.216606	0.082722	0.026055	9.912844	0.539132	17	10.4	4.8	2.470235
2	2009	0.021061	6.322565	0.02218	0.032091	9.855924	0.522836	18	19.3	1.4282	2.885228
2	2010	0.105751	6.259581	0.090531	0.029882	10.16593	0.663334	13.5	10.7	1.4738	5.749126
2	2011	0.105751	6.259581	0.090531	0.029882	10.16593	0.663334	12.5	8.7	1.5505	12.69333
2	2012	0.213361	4.70953	0.11395	0.102868	8.945072	0.75528	15	9.2	1.88	7.311394
2	2013	0.213361	4.70953	0.11395	0.102868	8.945072	0.75528	18	11.4	2.2	6.577738
2	2014	0.151943	5.209486	0.032032	0.196358	8.424639	0.620886	21	15.4	3.2	0.471171
2	2015	0.151943	5.209486	0.032032	0.196358	8.424639	0.620886	26	7.4	3.7944	5.182473
2	2016	0.194087	5.26269	0.038767	0.198807	8.523175	0.679125	25.5	15.4	4.2002	4.512754
2	2017	0.194087	5.26269	0.038767	0.198807	8.523175	0.679125	20	12.3	4.4	5.962876
2	2018	0.125982	4.736198	0.015113	0.181833	8.735525	0.634244	17	10.4	4.8	4.936396
3	2009	0.023161	3.850148	0.007496	0.213288	8.67761	0.544293	18	19.3	1.4282	5.423839
3	2010	0.018196	4.521789	0.042035	0.274628	8.442254	0.544945	13.5	10.7	1.4738	9.521009
3	2011	0.018196	4.521789	0.042035	0.274628	8.442254	0.544945	12.5	8.7	1.5505	4.644456
3	2012	0.102971	5.068904	0.073079	0.385342	8.468423	0.409912	15	9.2	1.88	6.852556
3	2013	0.102971	5.068904	0.073079	0.385342	8.468423	0.409912	18	11.4	2.2	5.742627
3	2014	1.010919	8.448914	0.038387	0.020082	11.45648	0.95353	21	15.4	3.2	3.93908
3	2015	0.11145	5.774552	0.024202	0.25588	9.082621	0.521986	26	7.4	3.7944	4.066902
3	2016	5.9375	5.686975	0.073144	0.318101	8.893847	0.008783	25.5	15.4	4.2002	4.32183
3	2017	5.9375	5.686975	0.073144	0.318101	8.893847	0.008783	20	12.3	4.4	1.263185
3	2018	0.157163	5.55296	0.059166	0.222063	9.257129	0.610841	17	10.4	4.8	6.4691
4	2009	0.157163	5.55296	0.059166	0.222063	9.257129	0.610841	18	19.3	1.4282	9.312047
4	2010	0.103777	0	-0.03416	0.224254	9.554568	0.549791	13.5	10.7	1.4738	9.273809
4	2011	0.084257	5.509388	0.05647	0.215759	9.636784	0.629913	12.5	8.7	1.5505	7.724676
4	2012	0.084257	5.509388	0.05647	0.215759	9.636784	0.629913	15	9.2	1.88	7.687735
4	2013	0.086291	5.407172	0.013027	0.282759	9.371183	0.628523	18	11.4	2.2	3.448436
4	2014	0.231542	0	0.02856	0.336955	9.249465	0.497548	21	15.4	3.2	1.757583

4	2015	0.231542	0	0.02856	0.336955	9.249465	0.497548	26	7.4	3.7944	3.676215
4	2016	0.240403	3.526361	0.063797	0.832892	8.418477	0.460044	25.5	15.4	4.2002	3.325109
4	2017	0.240403	3.526361	0.063797	0.832892	8.418477	0.460044	20	12.3	4.4	3.161291
4	2018	0.085573	4.26268	0.030324	0.29566	9.467073	0.532451	17	10.4	4.8	5.211054
5	2009	0.085573	4.26268	0.030324	0.29566	9.467073	0.532451	18	19.3	1.4282	5.477925
5	2010	0.154835	4.644391	0.005366	0.290229	9.504278	0.544906	13.5	10.7	1.4738	-2.01396
5	2011	0.040402	6.452049	0.039867	0.409224	9.233471	0.495798	12.5	8.7	1.5505	-3.36127
5	2012	0.040402	6.452049	0.039867	0.409224	9.233471	0.495798	15	9.2	1.88	3.306624
5	2013	0.052275	5.170484	-0.002	0.247431	9.798183	0.582357	18	11.4	2.2	5.666008
5	2014	0.144923	3.931826	0.06155	0.846125	8.593043	0.564145	21	15.4	3.2	5.01918
5	2015	0.144923	3.931826	0.06155	0.846125	8.593043	0.564145	26	7.4	3.7944	5.785612
5	2016	0.119297	4.394449	0.010926	0.713751	8.765146	0.506321	25.5	15.4	4.2002	7.131474
5	2017	0.03725	7.789869	0.058675	0.092632	10.91101	0.769954	20	12.3	4.4	9.143583
5	2018	0.03725	7.789869	0.058675	0.092632	10.91101	0.769954	17	10.4	4.8	7.838469
6	2009	0.029558	5.332719	0.018404	0.415635	9.415727	0.457329	18	19.3	1.4282	2.702579
6	2010	0.142695	6.736967	0.017428	0.165209	10.34126	0.626949	13.5	10.7	1.4738	7.901062
6	2011	0.06383	7.129298	0.143719	0.283056	9.872977	0.627507	12.5	8.7	1.5505	-2.33028
6	2012	0.06383	7.129298	0.143719	0.283056	9.872977	0.627507	15	9.2	1.88	-2.38169
6	2013	0.037447	5.736572	0.091456	0.392481	9.590829	0.821394	18	11.4	2.2	1.318221
6	2014	0.037447	5.736572	0.091456	0.392481	9.590829	0.821394	21	15.4	3.2	4.211438
6	2015	0.040084	6.021023	0.025768	0.663575	9.180087	0.246856	26	7.4	3.7944	1.848468
6	2016	0.049202	7.397562	0.172027	0.251308	10.15105	0.657702	25.5	15.4	4.2002	5.175115
6	2017	0.049202	7.397562	0.172027	0.251308	10.15105	0.657702	20	12.3	4.4	1.607519
6	2018	0.023171	5.852202	0.028513	0.385364	9.749753	0.830437	17	10.4	4.8	-4.69494
7	2009	0.088967	4.795791	0.025946	0.249945	10.21134	0.419699	18	19.3	1.4282	-3.4826
7	2010	0.088967	4.795791	0.025946	0.249945	10.21134	0.419699	13.5	10.7	1.4738	1.33532
7	2011	0.033628	8.119994	0.053057	0.101928	11.20614	0.792528	12.5	8.7	1.5505	3.727783
7	2012	0.033628	8.119994	0.053057	0.101928	11.20614	0.792528	15	9.2	1.88	3.911353
7	2013	0.04615	7.182352	0.01841	0.168068	10.80172	0.60277	18	11.4	2.2	3.918663
7	2014	0.041729	7.555905	0.038797	0.247933	10.45132	0.654698	21	15.4	3.2	3.772831
7	2015	0.130952	0	-0.03321	0.292846	10.36631	0.455478	26	7.4	3.7944	4.122259
7	2016	1.00818	8.085795	0.088144	0.121325	11.25743	0.928124	25.5	15.4	4.2002	4.237396
7	2017	1.00818	8.085795	0.088144	0.121325	11.25743	0.928124	20	12.3	4.4	3.231934
7	2018	0.04135	6.985642	0.046155	0.271017	10.4684	0.535412	17	10.4	4.8	3.752314
8	2009	0.04135	6.985642	0.046155	0.271017	10.4684	0.535412	18	19.3	1.4282	4.553435
8	2010	0.004807	6.455199	0.008354	0.196658	10.79872	0.611912	13.5	10.7	1.4738	-3.16123
8	2011	0.218325	5.236442	0.034099	0.372676	10.19958	0.36892	12.5	8.7	1.5505	-2.87136
8	2012	0.218325	5.236442	0.034099	0.372676	10.19958	0.36892	15	9.2	1.88	-2.5709
8	2013	1.010768	7.962764	0.083319	0.181995	10.97859	0.884176	18	11.4	2.2	-3.32357
8	2014	1.010768	7.962764	0.083319	0.181995	10.97859	0.884176	21	15.4	3.2	-4.4152
8	2015	0.039887	6.646391	0.034737	0.369005	10.38727	0.469054	26	7.4	3.7944	-2.75845

8	2016	0.039887	6.646391	0.034737	0.369005	10.38727	0.469054	25.5	15.4	4.2002	-2.3884
8	2017	0.015497	6.408529	0.022832	0.53262	10.1217	0.407244	20	12.3	4.4	-2.40406
8	2018	0.023047	6.882437	0.047276	0.603845	10.05844	0.31402	17	10.4	4.8	-3.38997
9	2009	0.023047	6.882437	0.047276	0.603845	10.05844	0.31402	18	19.3	1.4282	-3.48678
9	2010	0.0335	7.424165	0.062287	0.393668	10.51056	0.527043	13.5	10.7	1.4738	-3.62169
9	2011	0.0335	7.424165	0.062287	0.393668	10.51056	0.527043	12.5	8.7	1.5505	-3.01909
9	2012	0.02911	7.651596	0.038641	0.141284	11.58188	0.558536	15	9.2	1.88	-2.96387
9	2013	0.02911	7.651596	0.038641	0.141284	11.58188	0.558536	18	11.4	2.2	-2.33028
9	2014	0.039807	8.00102	0.115078	0.184395	11.33	0.588187	21	15.4	3.2	-2.38169
9	2015	0.039807	8.00102	0.115078	0.184395	11.33	0.588187	26	7.4	3.7944	-2.89151
9	2016	0.035884	7.057037	0.021973	0.363298	10.67967	0.49755	25.5	15.4	4.2002	-2.51996
9	2017	0.037957	7.510978	0.051868	0.517258	10.38381	0.417203	20	12.3	4.4	-2.96387
9	2018	0.037957	7.510978	0.051868	0.517258	10.38381	0.417203	17	10.4	4.8	-2.38169