



**THE IMPACT OF WORKING CAPITAL MANAGEMENT ON THE PROFITABILITY
OF BANKS IN GHANA**

BY

**DIANA YAA OWUSU
(10636757)**

**THIS LONG ESSAY IS SUBMITTED TO THE DEPARTMENT OF FINANCE,
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DECLARATION

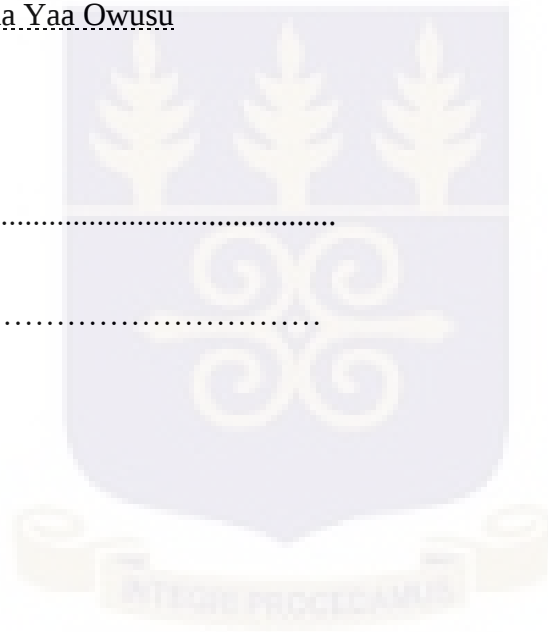
I hereby declare that apart from references to other people which have been duly cited, this project work is the result of my own work, and that it has neither in the whole nor in part been presented elsewhere.

Candidate's Name: Diana Yaa Owusu

Index Number: 10636757

Signature:

Date:



CERTIFICATION

I hereby declare that the preparation and presentation of this project work was supervised by me in accordance with the guidelines on supervision on project work laid down by the University of Ghana.

Supervisor's Name: Dr. Lordina Amoah

Signature:

Date:



DEDICATION

To my mum; I appreciate your exceptional faithfulness, dedication and commitment to me over the years. Thank you for the many hours of your time invested in me and encouraging me to achieve my dreams in life.



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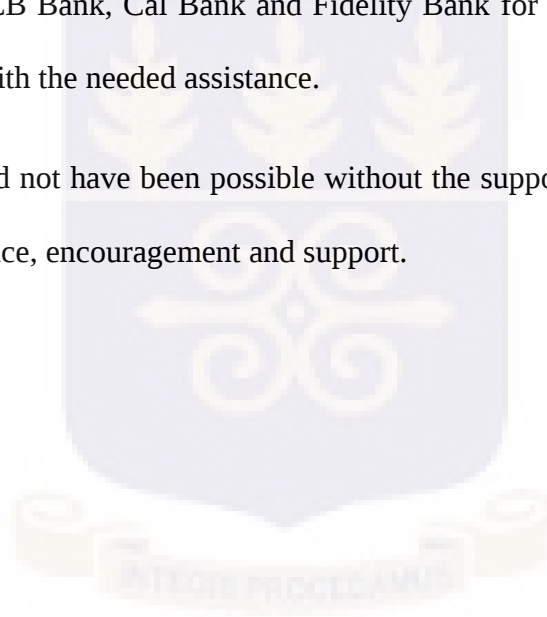


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ABSTRACT

This study sought to bring to the fore, the impact of working capital management on the profitability of banks in Ghana via a case study of FBN Bank, Zenith Bank, Guaranty Trust Bank, GCB Bank, Cal Bank and Fidelity Bank.

In the study, the researcher identified the relationship that existed between the components of working capital and the profitability of banks. The researcher as well identified the level of correlation that existed between the components of working capital and profitability of selected banks in Ghana.

The researcher used the financial statements of FBN Bank, Zenith Bank, Guaranty Trust Bank, GCB Bank, Cal Bank and Fidelity Bank in the gathering of data for the study from which analysis was made.

The study discovered that a negative relationship existed between Return on Capital Employed (ROCE), Acid Ratio (AR) and Cash Conversion Cycle (CCC); whereas, a positive relationship existed between Loan to Deposit Ratio (LDR) and Return on Capital Employed (ROCE). The researcher recommended that there will be the need for banks to increase their cash conversion cycle periods and prolong the settlement of their financial obligations falling due as well as increase the amount of loans in their portfolio by giving loans out to borrowing customers.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

According to (BOG Banking Sector Report November 2018), as at October 2018, the Ghanaian Banking industry was made up of thirty (30) universal banks. Thirteen (13) of which were locally - owned and the remaining seventeen (17) were owned by foreigners. The Ghanaian banking sector is currently recovering from the shock associated with the collapse of seven (7) locally-owned universal banks between 2017 and 2018. Some reasons were cited by the Governor of the Bank of Ghana in his press release on August 1, 2018. He stated that “from an Asset Quality Review (AQR) of banks conducted by the Bank of Ghana in 2015 and updated in 2016, a few indigenous banks were identified as vulnerable with inadequate capital, high levels of non-performing loans, and weak corporate governance”. He, again, pointed out during the press conference that some of these banks were faced with liquidity challenges. This resulted in these banks having to receive liquidity support from the Bank of Ghana in order to meet their short-term financial obligations that were falling due. The liquidity challenge faced by these banks can be attributed to their inadequate management of their working capital.

“Working capital management refers to the short-term financial planning of cash levels or liquidity of a firm”. This serves as an indicator for the short-term performance of a business; “hence the need to attach importance to the practice of efficient working capital management within businesses”. Yeboah and Agyei (2012) in their research paper defined “working capital management as a process which involves the supervision of the balance of current assets and

current liabilities of a firm in a manner that maturing obligations are met while fixed assets are properly serviced”. They further pointed out that liquidity with reference to banking businesses remained non-negotiable for at least two reasons. These include “meeting regulatory requirement and ensuring there are enough funds to meet customer withdrawals requests”.

Efficient working capital management in banks is important because it influences a bank’s return on assets, return on equity as well as the bank’s liquidity and profitability positions. When working capital is well managed with a bank, “it provides the following benefits: places the bank in a better position to meet its short term obligations falling due such as customer withdrawals, helps maintain customer confidence and leads to growth in the banking sector”. These benefits lead to an increase in job creation and contribute to the development of the nation.

“The objective of efficient working capital management is to ensure growth in the profitability of businesses; while providing the business with sound liquidity in order to meet its short-term obligations”. Owusu-Frimpong (2008), in his research discovered that “working capital related problems were mentioned as part of the most significant reasons for the failure of rural and community banks in Ghana”.

In as much as adequate working capital is necessary for the survival and sustainability of a business, Brealey, Myers and Allen (2011) opined that while inadequate working capital led to the bankruptcy of companies, having too much of working capital at the disposal of a business could also result in cash wastage and the ultimate decrease in profitability. This, as a result, leaves managers in a situation where they have to decide on what they deem fit as the optimal working capital need of the business. “To achieve this, they decide on the perfect payoff between liquidity and profitability; so as to, maximize the value of their firms”.

Banks are known to play a major role in the development of nations. Some of their contributions to the economy include but not limited to the provision of financial services to enterprises and customers as well as the provision of jobs to the country's population. According to Abor (2005), "not only are banks important for continuity of retail and microfinance business sectors, but they also serve as major source of funding for non-financial institutions and provide jobs to citizens".

Although there has not been enough empirical evidence to support the claim that "poor working capital management practices played a major role in the failures of these seven (7) locally-owned universal banks in Ghana", it can be deduced from the press statement of the Governor of the Bank of Ghana on August 1, 2018 that some of these seven (7) collapsed banks failed as a result of liquidity challenges.

It is on this backdrop that the researcher sought to conduct a research into "the impact of working capital management on the profitability of banks in Ghana through a case study of Fidelity Bank, GCB Bank, Cal Bank, FBN Bank, Guaranty Trust Bank and Zenith Bank".

1.2 Research Problem

One of the challenges that faced these seven collapsed banks had to do mainly with liquidity. Smith (1973) pointed out that most businesses which have collapsed due to poor working capital management had been as a consequence of financial managers usually proving to be incapable of managing their firm's working capital effectively.

The consolidation of five (5) and collapse of two (2) local banks within the banking industry in recent times, have resulted in loss of jobs and the state having to raise bonds in order to safeguard depositors' funds at the expense of the taxpayer. A total of 1200 UT Bank and Capital Bank staff

had their appointments terminated by the receiver after the liquidation of their banks (<https://www.ghanaweb.com/GhanaHomePage/business/Ex-staff-of-UT-Capital-banks-demand-exit-pay-712335>). It was also reported that four hundred workers of the nonexistent Beige Bank had their appointments terminated by the newly formed Consolidated Bank. Again, the newly formed Consolidated Bank was said to be ready to lay off about 1700 staff of the defunct banks. These were seven hundred mobile bankers of the erstwhile Beige Bank and one thousand former employees of Royal Bank, Construction Bank, UniBank and Sovereign Bank (<https://citinewsroom.com/2018/08/28/consolidated-bank-to-sack-1700-out-of-3700-staff/>).

The Government of Ghana capitalized the newly formed Consolidated Bank with GH¢ 450 million as well as provided financial support through the issuance of bond worth GH¢ 5.76 billion towards the Purchase and Assumption Agreement under which the Consolidated Bank acquired all deposits, specified liabilities and good assets of the five defunct banks (<https://www.myjoyonline.com/business/2018/August-1st/govt-to-issue-57m-bond-to-support-newly-created-consolidated-bank.php>). All of these investments were made at the expense of the tax payer. This, as a result, has made it necessary for this research to be conducted.

Based on the points discussed above, this research generally sought to establish the relationship between working capital management on the profitability of banks from 2015 to 2017 in Ghana.

1.3 Research Purposes

The main purpose of this study was to:

- i. To ascertain the relationship between working capital management and profitability of banks in Ghana
- ii. To ascertain whether or not, the components of working capital are well managed by

Banks in Ghana

1.4 Research Questions

The study desired to answer these underlying questions:

- i. Does the management of working capital significantly affect the profitability of banks in Ghana?
- ii. Have the components of working capital of Banks in Ghana been efficiently managed?

1.5 Research Hypothesis

Based on the goal of this research, the following null and alternative hypotheses were tested:

H₀: There is no significant relationship between components of working capital management and the profitability of Banks in Ghana

H_a: There is a significant relationship between components of working capital management and the profitability of Banks in Ghana

1.6 Significance of the Research

The intent of this study was to “determine the impact of working capital management on the profitability of universal banks in Ghana”. Below are some of the reasons why this study would be of relevance to various stakeholders:

- For bankers, financial controllers, managers etc. this research will broaden their scope of knowledge in relation to how efficiently working capital elements can be managed and optimized.

- Other researchers will find this study very significant in that it will contribute to the enrichment of their literature on working capital management of banks from which they can tap ideas and obtain relevant information for further research.
- Furthermore, this research would provide banks with a better understanding of how to allocate funds in order to maximize their profits. It will serve as a guide for banks within Ghana to comprehend the consequence of managing working capital in order to avoid running into liquidity challenges when short-term obligations arise.
- Lastly, government and other key stakeholders such as the Bank of Ghana would be able to use the findings of this study in policymaking decisions for the banking industry. This will enhance the profitability of the banks through efficient working capital management.

1.7 Research Scope

The study was limited to six (6) banks which are; Fidelity Bank, Cal Bank, GCB Bank, FBN Bank, Guaranty Trust Bank and Zenith Bank, because of easy access to available data. Secondary data such as the published annual financials of Fidelity Bank, Cal Bank, GCB Bank, FBN Bank, Guaranty Trust Bank and Zenith Bank were used by the researcher in order to extract the needed information for data analysis and relevant information related to the working capital management practices of these banks.

The study was to analyze the annual financial statements of Fidelity Bank, Cal Bank, GCB Bank, FBN Bank, Guaranty Trust Bank and Zenith Bank for the period 2015 to 2017, in regards to their working capital management practices and profitability.

Hence, the findings of this study only relates to the “working capital management practices and profitability of universal banks in Ghana”.

1.8 Research Limitation

In view of the limited time, the study could not be extended to all other universal banks in the country. The findings of this study may, therefore, be limited; in that, it covered only six (6) universal banks in Ghana.

Even though universal banks in the country share common characteristics and face similar challenges, there exist the possibilities that the researcher might miss some relevant information peculiar to specific universal banks.

As a result, findings from the study may not significantly apply to all universal banks in Ghana. But, these limitations do not belie the quality of this research.

1.9 Organization of Study

This chapter introduced the study on the impact of working capital on the profitability of banks. The background discussed an overview of working capital management and its effect on the financial performance of a firm. The statement of the problem discussed possible issues that could arise as a result of mismanagement of components of working capital. Research objectives, research hypothesis, the significance of the research, research scope and the research limitation were also discussed in this chapter. Chapter two discussed the theoretical and empirical literatures

which were reviewed from other researchers and journals related to working capital management. Chapter three discussed the methodology employed in the study, whereas, chapter four discussed the analysis of the findings. Lastly, chapter five discussed summary of the findings, conclusions and recommendations of the study.



CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter reviews the literature on the impact of working capital on the profitability of banks. .

This chapter is divided into three parts, the first part deals with the overview of the literature, the second took into account the theoretical literature reviewed; and the third considers the empirical aspects of the literature.

2.1 Overview of Concepts

2.1.1 Definition of Working Capital

Firer, Jordan, Ross, Westerfield (2008) defined “working capital as an investment in current assets which are required to carry out operations of a business”. An alternative definition for working capital was given by Von and John (2000), they defined “working capital as the amount of current assets that have not been supplied by short term creditors”.

Kaveri (1985) provides a simpler definition for working capital. According to him, “working capital simply refers to the difference between current assets and current liabilities”. The definition for working capital provided by Kaveri (1985) was supported by the definition provided by Atrill (2006). He also defined working capital as the surplus of current assets over current liabilities.

Arnold (2008) gave a detailed definition of working capital. According to him, “working capital includes current assets such as inventory, work-in-progress goods, semi-finished goods, finished

goods and the algebraic sum of current liabilities such as various creditors as represented by outstanding factory payments”.

Fareed (2014) also pointed out that working capital could be defined as the excess of current assets over current liabilities. Shin and Soenen (1998) and Weston and Brigham (1977) shared a similar view on the definition of working capital. According to the definition given by Shin and Soenen (1998), “working capital refers to a time lag between the expenses made in the purchase of raw materials and collection made from the sale of finished goods”. Weston and Brigham (1997) on the other hand, defined working capital as those assets which are converted to different forms; from cash to receivables.

2.1.2 Managing Working Capital

Working Capital Management was described by Horne (1995) to mean the administration of current assets. Frimpong (2013) gave a different view on what the management of working capital represents. According to him, working capital management refers to the funding, investment and management of a firm’s net current assets within its policy guidelines. Failure on the part of businesses to determine the right level of working capital, can lead to huge losses and eventually insolvency. Working Capital Management ensures that firms have enough liquid assets at all times. It has to do with taking a decision on the architecture of firms’ current assets and how these assets are financed.

“A major objective of the management of working capital is the maintenance of an optimal balance within the peripherals of working capital”. Filbeck and Krueger (2005) pointed out that “the success of a business lies heavily on the financial executives’ ability to manage current assets and current liabilities”. Pass and Pike (1987) on the other hand, pointed out two objectives of

working capital management. According to them, these objectives include increasing the profitability of a company and ensuring sufficient liquidity for meeting short term obligations.

Three strategies for the administration of working capital were identified by Weinraub and Visscher (1998). These strategies were

- Aggressive Working Capital Management Strategy
- Hedging or Maturity Matching Working Capital Management Strategy
- Conservative Working Capital Management Strategy

Aggressive Working Capital Management Strategy refers to the type of working capital management that focuses on profit. It involves taking highly risky businesses decisions in order to make higher returns. Regarding this method, “long term funds are used by firms to cater for their fixed asset expenditures; whereas short term funds are used to finance working capital activities”. Firms using this approach tend to operate with lower levels of current assets such as cash, receivables and inventory as discovered by Watson and Head (2010).

Hedging or Maturity Matching Working Capital Management Strategy has to do with the management of working capital through the application of moderate risk in order to achieve the desired level of profit. This management strategy involves the use of long term funds in financing long term assets; and the use of short term funds to finance short term assets. It is a blend of the aggressive and conservative working capital management strategies.

Conservative Working Capital Management Strategy is the administration of working capital through the application of the lowest risk possible in order to achieve the targeted level of profit. This approach is known to have the lowest liquidity risk with a high interest cost. Firms use long

term funds to finance fixed assets and part of their current assets. These firms tend to maintain a positive net working capital at all times.

As reported by Gamlath and Rathirane (2014), the management of working capital even though ensures the survival of businesses; it also does aid in determining the market value of a firm. This is because there is a positive correlation between working capital management and a firm's profitability. This assertion is supported by Shin and Soenen (1998), who as well pointed out those decisions regarding the management of working capital, affects the profitability and survival of a business.

2.1.3 Importance of Working Capital Management

Working Capital Management is important for a number of reasons. Some of these reasons have been outlined below:

- a) Working Capital management aids in the long term continuity of the business. It provides “the business with the ability to meet its long term commitments as and when they fall due. By this, it enables firms to be solvent”.
- b) Working Capital Management ensures the smooth operations of a business. By this, “when firms working capital is well managed, they are better able to meet their short term commitments as and when they fall due”. This enables the business to operate efficiently without any interruptions.
- c) A productive working capital management strategy enables firms address seasonal and cyclical needs of their firms as pointed out by Seidman (2005).
- d) The proper management of working capital helps improve the liquidity position of a firm.

2.1.4 Cash Conversion Cycle

As reported by Watson and Head (2010), “the Cash Conversion Cycle establishes the link that exists between the peripherals of working capital and the inflow of cash received for the firm”. Thus, “there exists a positive correlation between investments in working capital and the cash conversion cycle”. They also pointed out that the required amount of working capital is dependent on the sales budget and cash cycle of the firm, even though there is a possibility of a variance between the forecasted and actual. Several empirical studies suggest that there exists a negative correlation between the cash conversion cycles of firms and their level of profitability. This assertion has been supported by studies conducted by Sarbapriya (2012) and Shin and Soenen (1998)

2.2 Theoretical Literature

2.2.1 Theories on Mergers and Acquisitions

There exist a number of theories that explain how working capital management can be efficiently done in order to benefit the firm as a whole. Some of these theories include:

- Fisher’s Separation Theory
- Liquidity Preference Theory
- Operating Cycle Theory
- Miller and Orr’s Cash Management Model
- Baumol Model of Cash Management
- Trade-Off Theory
- Perking Order Theory

2.2.2 Fisher's Separation Theory

This is a theory that establishes the clear distinction between Gross Working Capital often referred to as Investment and Net Working Capital also referred to as Financing Investment. The rationale behind this theory is to assist firms avoid the confusion surrounding Gross Working Capital and Net Working Capital. Gross Working Capital refers to working capital associated with current assets such as trade receivables, cash and bank balances, inventory of stock among others.

Net Working Capital, on the other hand, refers to that portion of working capital associated with a firm's investment decision regarding what proportion of its long or short term capital to be used to finance its working capital. Simply put, Net Working Capital is the difference between a firm's current asset and its current liabilities.

A firm's investment decision regarding how to finance its Net Working Capital is dependent on whether or not the firm has a positive or negative Net Working Capital. In a situation where the firm has a positive Net Working Capital (that is, the firm's current assets exceeds the firm's current liabilities) financing of Net Working Capital will be done using the firm's long term capital (equity) or long term borrowing. On the other hand, in a situation where the firm has a negative Net Working Capital (that is, the firm's current liabilities exceeds the firm's current assets) financing of Net Working Capital will be done using the firm's short term capital which leads to an increase in borrowing cost.

This theory therefore gives firms an idea on how to finance their net working capital.

2.2.3 Liquidity Preference Theory

This is a theory explaining the rationale behind firm's holding assets that can easily be converted into cash. These reasons can be attributed to the three motives for the demand of liquidity. These

motives are transactionary, speculative and precautionary. Cash in the form of an asset is considered by this theory as the most liquid asset.

If the demand for liquidity by a firm is more frequent, it will prefer to hold most of its assets in asset that can easily be converted into cash. This will enable the firm meet its daily demand for liquidity in the operations of its business. This will as a result, enable the firm meet its short term obligations falling due as well as invest in its working capital.

2.2.4 Operating Cycle Theory

This theory states that the most appropriate way to view the liquidity management of a firm is the inclusion of working capital components such as trade receivables and inventory turnover as part of the operating cycle rather than only considering the current and acid test ratios of measurement.

Trade Receivables Turnover refers to how long it takes firm to covert its receivables into cash. In a situation where the firm grants its customers longer credit periods for repayment the less liquid its trade receivables. On the other hand, in a situation where the firm grants its customers shorter credit periods for repayment the more liquid its trade receivables.

Inventory Turnover refers to how long it takes a firm to convert its inventory of stock into sales. In a situation where the manufacturing and distribution of inventory do not match anticipated sales, it leads to a lower inventory turnover ratio. This implies a less liquid inventory holding period. According to a study conducted by Weston (1979), he suggested that when a firm has a high current ratio, it implied that the firm had idle current assets for instance inventory, and therefore do not generate profit.

Operating cycles of firms are basically based on receivables and inventory turnover. As a result, to give a realistic view of the liquidity position of a firm, there is the need to consider the receivable and inventory turnover of the firm.

In spite of the relevance of the Operating Cycle theory as a measure of cash flow for a firm, it is criticized for not considering the current liability obligations of the firm in relation to the firm's liquidity.

2.2.5 Miller and Orr's Cash Management Model

This model is of the view that the cash balances of a firm operates within two limits. These limits are the upper and lower limits. The decision by a firm to buy or sell their marketable securities is dependent on whether or not their cash position has reached one of the limits they operate within. This model further aids in determining the optimal cash balance. This as result helps in determining the point at which firms will be willing to sell their marketable securities to raise cash as well as the point at which firms will be willing to invest excess cash through the purchase of marketable securities.

2.2.6 Baumol Model of Cash Management

According to the Baumol Model of Cash Management, optimum cash balances of firms are considered to be held on the basis of certainty.

This implies that firms have the ability to predict with certainty the level of cash needed to be held to take care of recurring liabilities as well as the receipt of specific cash amount at regular periods.

This model makes the assumption that the opportunity cost of holding capital is known with certainty. Also, cash payments are received in a uniform manner over a period of time. It is further assumed that in a situation where there is a rise in the returns on securities investment, managers of cash tend to hold less cash by investing in such high yielding investment securities due to an increase in the opportunity cost of holding capital. On the other hand, in a situation where the liquidation of securities attracts high transaction costs, managers of cash tend to hold higher cash balances.

2.2.7 Trade-Off Theory

According to this theory, the activities of firms are financed through the use of debt and equity. It indicates that there exists an advantage in financing the activities of a firm using debt. This arises from the tax benefit associated with debt financing. However, it suggests that the marginal benefit associated with debt financing decreases when there is a further increase in the contraction of debt. According to Kraus and Litzenberger (1973), there exists a tradeoff between the advantage associated with the tax shield from debt financing and the cost associated with debt financing; thus debt financing cannot be used to finance the activities of a firm indeterminately.

2.2.8 Perking Order Theory

According to this theory, there exists an order for the sources of funds for the financing of a firm's activities. It suggests that firms will consider sourcing funds from their retained earnings first, before considering a riskless debt. In a situation where they are unable to raise funds from their riskless debt, then they consider sourcing funds from risky debt sources; before considering the issuance of new equity to raise the required funds. An alternative source of funds for the financing of a firm's activities is the use of working capital.

According to Fama and French (1988), the assumption made by the pecking order theory that debt is only issued when internal funds are insufficient to finance new investment can be supported. This is because according to the empirical research conducted by them, it was discovered that leverage is negatively related to profitability.

2.3 Empirical Literature

Many studies have been conducted by researchers to gain more insight on whether or not working capital management does have any impact on a firm's profitability. Given the fact that these researches are conducted in different countries and across different industries, it has led to varying conclusions been drawn on what the impact of working capital management is in relation to a firm's profitability. A few of these findings have been discussed below.

A study organized by Peel and Wilson (1996) in trying to establish whether there was any form of correlation between the failure of businesses and the lack of short term financing or inefficient working capital management in the United Kingdom small firm sector, discovered that in the case of smaller firms, an efficient working capital management strategy was vital for the sustainability of profit and liquidity necessary for a firm's success and continuity. They employed the use of quantitative research method.

Vida et al (2011) carried out a research on the "relationship between working capital management and corporate profitability of firms". After employing a "multivariate Regression and Pearson Correlation, it was discovered that the cash conversion cycle of a business was the most essential measure of a firm's working capital management practice; and thus had a link with the profitability of a firm".

Whereas Sharma (2011) after employing the ordinary least square regression technique in his study of the effect of working capital management on the profitability of Indian firms concluded that there existed a positive link between working capital management and profitability. Meryem (2011) pointed out that “corporate profitability and the different working capital components were negatively correlated after employing the Pearson’s correlation method in his analysis of gathered data”. He recommended that “small and medium sized Tunisian enterprises in the exports sector should endeavor to curtail their cash conversion cycle by reducing the number of days of receivables in order to increase profitability”.

After using the “cash conversion cycle as a determinant of working capital management efficiency and gross operating profitability for Finnish and Swedish public companies”, Erik (2012) concluded that there existed a negative correlation between long cash conversion cycles and a firm’s profitability; with shorter cash conversion cycles leading to increased profitability. He employed the use of regression models and Pearson correlation for his analysis.

The conclusion that “there existed no significant relationship between the components of working capital and profitability of a firm” drawn by Senthilmani (2013) was based on a research conducted on “the impact of working capital management on profitability in UK manufacturing industries while employing the Pearson’s correlation technique as a method of data analysis”.

“The effect of working capital management on company profitability” was a research work done by Ntui et al (2014). After using “the Pearson’s correlation and Ordinary least square regression for their data analysis, it was discovered that a positive relationship existed between the cash conversion cycle of a firm and its profitability”. Whereas, a negative relationship existed between liquidity and a firm’s profitability.

Ahmed (2015) on delving into “the effect of working capital management on profitability of selected manufacturing companies in Nigeria”, suggested that based on his analysis of the data gathered after employing the panel data least square method of regression, concluded that “there existed a significant relationship between working capital and profitability of a firm”.

“After using correlation and regression analysis to determine whether or not there exist a relationship between working capital and corporate profitability”, Deloof (2003) concluded that there was a significant negative link between a Belgian firm’s gross operating income and its Cash Conversion Cycle.

“The relationship between working capital management and corporate profitability of listed company in the Athens Stock Exchange” was a research organized by Lazaridis and Tryfonidis (2006). They discovered that there was statistically significant relationship between profitability of a firm and its cash conversion cycle. The method of data analysis employed was the use of regression.

“After sampling 5,843 from the Turkish listed manufacturing companies and gathering data on them for the period of 1998 to 2007; and with the use of a multiple regression model”, Samiloglu and Demirgunes (2008) concluded that “accounts receivables period, inventory period and leverage had a significantly negative effect on the profitability of Turkish manufacturing firms form their research work regarding the investigation of the effect of working capital management on firm profitability”.

Whereas, a study involving the analysis of Jordanian manufacturing firms by determining the impact of working capital efficiency on profitability conducted by Hayajneh and Yassine (2011) discovered that average payment period had a strong negative link with profitability of these firms;

Vijayakumar (2011) on the other hand, discovered that a positive link existed between accounts payable period and profitability in selected Indian automobile firms.

Solomons (2014) on assessing the “impact of working capital management on the profitability of small and medium enterprise in South Africa”, discovered accounts payable period positively influenced profitability.

Ponsian, Chrispina, Tago and Mkiibi (2014) examined the “statistical significance between firm’s working capital management and profitability among manufacturing firms listed in Dares Salaam Stock Exchange”. After using data from a ten-year period from 2002 to 2012, they discovered that “there was a highly positive and significant link between average payment period and profitability”.

“A study of 30 listed firms on the Nairobi Securities Exchange for the period 1993 to 2008” by Mathuva (2010) revealed that “the average payment period of these firms highly and positively determined the profitability of these firms”. Whiles a research conducted by Mwangi (2013) on the “working capital management and financial performance of private hospitals in Kenya”; discovered that “average payment period of these hospitals had a negative relationship with profitability”.

In order for organizations to achieve improved levels of profitability, they would have to “administer their working capital effectively and efficiently”.

This was a discovery made by “Iqbal, Ahmad and Riaz (2014) in their study of the relationship between working capital management and profitability of firms listed in Karachi Stock Exchange”.

Ching, Novazzi and Gerab (2011) from their research into the “association between working capital management and profitability in Brazilian listed firms”, found that “efficient administration of inventory and cash conversion cycle to optimal levels in working capital of intensive firms led to an increase in return on sales as a profitability measure”. This assertion was supported by Alipour (2011). He also discovered that profitability in organizations was precisely determined by how working capital was managed.

In order to prove his assertion that “corporate profitability is attained through optimal management of working capital”, Mavutha (2010) conducted a research on “working capital management in relation to corporate profitability among Kenyan listed firms”. He concluded based on his findings that “by shortening the collection period and stretching the payment period would boost corporate profitability”.

Owele and Makokeyo (2015) in their research paper on “working capital management approaches and financial performance of agricultural firms listed in Nairobi Securities Exchange”, discovered that “the most profitable organizations used a conservative working capital management approach; whereas, organizations that used aggressive capital management approaches were less profitable”.

Waithaka (2012) based on his findings argued that efficient management of cash, receivables and inventory led to an increase in sales, an improvement in total assets and an improvement in the organization’s profitability.

“Through the use of descriptive statistics, regression and Pearson’s correlation coefficients in the analysis of data gathered” by Umoren and Udo (2015) in their quest to “examine the effects of working capital management on the profitability and liquidity of selected deposit money banks”; it

was discovered from the research a compelling negative link between profitability and cash conversion cycle. This assertion was supported by the findings of Yeboah and Yeboah (2014).

On examining the “effect of working capital adequacy and organization performance of First Bank Nigeria Plc and Guaranty Trust Bank Plc by using ordinary least square (OLS) as its estimation technique”, Ogodor and Mukolu (2015) found that “working capital management had a significant impact on bank performance”.

Mandiefe (2016) carried out a research on the “effect of working capital management on the profitability of Afriland First Bank of Cameroon”. After using correlation and ordinary least square for the analysis of data spanning from 2002 to 2013, he concluded that working capital management influenced Afriland First Bank of Cameroon profitability.

While examining “the effect of working capital management on the financial performance of firms in emerging markets listed on the Cyprus Stock Exchange for the period 1998–2007”, “Charitou et al. (2010) discovered cash conversion cycle and creditors payment period were associated with the profitability of these firms”.

From the empirical literature studied and the various conclusions drawn by the researchers, it is quite clear that a “positive correlation exists between working capital management and firms’ profitability”.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter presents the methodology of the study. It includes the various methods that the researcher used to obtain the data for the project work, research design, population and sample size, sampling technique, justification for sample, data source, data type and the method of data analysis.

3.1 Research Approach/Design

The research further adopted the explanatory approach in the analysis of the data gathered. This is because the study brought about the establishment of relationships between dependent and independent variables, making it an explanatory research.

3.2 Population

There existed a total of twenty – three (23) banks in Ghana as at the time of conducting this research. Out of the total number of banks licensed by the Bank of Ghana as the time, six (6) were selected and used as sample for this study.

3.3 Sample Size

A total of six (6) banks were selected for this study out of the total population of twenty – three (23) banks. The banks selected are “Fidelity Bank, GCB Bank, Cal Bank, FBN Bank, Guaranty Trust Bank and Zenith Bank”. Below are the profiles of the banks used for the study:

3.3.1 FBN Bank

According to FBN Bank Ghana website, FBN Bank Ghana Limited is a subsidiary of First Bank of Nigeria. In 2013 First Bank of Nigeria acquired 100% equity stake in the West African Operations of International Commercial Bank and after approval by Bank of Ghana, the name of the bank was changed to FBN Bank Ghana Limited.

The vision of the Bank is to be “a clear leader and Ghana’s Bank of first choice”. The mission of the bank is to “maximize shareholder value through sustainable growth, superior customer service and innovation”. FBN Bank Ghana Limited has 19 branches and 2 agencies throughout Ghana.

3.3.2 Zenith Bank

According to Zenith Bank website Zenith Bank is a subsidiary of Zenith Bank Plc. In 2005, Zenith Bank began operations in Ghana after receiving its universal banking license.

The vision of the Bank is to be “a reference point in the provision of prompt, flawless and innovative banking products and services in the Ghanaian banking industry”. The mission of the bank is to “continue to invest in the best people, technology and environment to underscore our commitment to achieving customer enthusiasm”. Zenith Bank has 34 branches throughout Ghana.

3.3.3 Guaranty Trust Bank

According to GTB Ghana website, Guaranty Trust Bank began banking operation in 2006. It is a wholly owned subsidiary of Guaranty Trust Bank Plc, one of the foremost banks in Nigeria with a Triple A rating and the first indigenously owned sub-Saharan bank to be quoted on the London Stock Exchange.

The vision of the Bank is to be “build an enduring Proudly African and Truly International Institution that plays a fundamental role as a platform for enriching lives by building strong, value adding relationships with our customers, stakeholders and the communities in which we operate”.

The mission of the bank is to “be high quality financial services provider with the urge to be the best at all times whilst adding value to all stakeholders”.

Guaranty Trust Bank has 34 branches throughout Ghana.

3.3.4 Fidelity Bank

According to Fidelity Bank website, Fidelity Bank in October 1998 started operations in Ghana as a discount house. The bank obtained “its universal banking license in June 2006 and began its banking operations with the aim of becoming a world-class financial institution that provides superior returns for all stakeholders”.

The vision of the Bank is to be “a world-class financial institution that provides superior returns for all stakeholders”. The mission of the bank is to “become an established top 3 bank in Ghana by 2021 based on all key performance indicators: Quality of Deposits; Operating Income; Quality of Loan Book; Return on Equity; Cost to Income Ratio”.

Fidelity Bank has 75 branches throughout Ghana.

3.3.5 Cal Bank

According to Cal Bank website, Cal Bank was formerly known as Continental Acceptance Limited and Cal Merchant bank. In July 1990 Cal bank commenced operations in Ghana with the aim of providing world class financial solutions to the Ghanaian populace. In 2004, Cal Bank revised its universal banking license and began operations in specialized retail banking business.

The vision of the Bank is to be “a leading financial services group creating sustainable value for our stakeholders”.

The mission of the bank is to “aspire to be a financial institution of preference through delivery of quality service, using innovative technology and skilled personnel to achieve sustainable growth and enhanced stakeholder value”.

Cal Bank has 29 branches throughout Ghana.

3.3.6 GCB Bank

According to GCB Bank website, GCB Bank began operation in Ghana in 1953 as the Bank of the Gold Coast. This was with the aim of providing banking services to the emerging nation for socio-economic development.

The vision of the Bank is to be “the leading bank in all our markets”. The mission of the bank is to “provide first class banking solutions for our customers and value for all stakeholders”.

GCB Bank has 150 branches and 11 agencies throughout Ghana.

3.4 Sampling Technique

The sampling technique employed in the selection of the sample was a purposive sampling method. This was because the researcher wanted to find out how effective locally owned and foreign owned banks in Ghana managed their working capital.

3.5 Justification for Sample

These samples were selected on the basis of the ownership structure of these banks. That is, whether the bank was owned by foreigners or indigenes. This was to ensure that there was fairness in the findings and to avoid a bias conclusion. Based on that, three (3) locally owned banks and three (3) foreign owned banks were selected.

3.6 Data Source

This study adopted the use of secondary data for its data gathering. The financial statements of the selected banks were used in gathering the relevant data needed for the study. The following are the selected banks from whose financial statements, the necessary data was gathered: “Fidelity Bank, GCB Bank, Cal Bank, FBN Bank, Guaranty Trust Bank and Zenith Bank”.

3.7 Data Type

The type of data that was used in this study was secondary in nature. This was because all the relevant and needed information were available in the published financial statements of the selected banks. As a result, there was no need for primary data to be gathered. The researcher therefore, did not distribute questionnaires nor conduct interviews with the stakeholders of the selected institutions to obtain information.

3.8 Data Analysis

The analysis of the data gathered from the financial statements of the selected banks was done with the use of the analytical tool called STATA Statistical Software 13.0. This analytical tool was used by the researcher to run Regression Analysis, Pearson Correlation Coefficient and Descriptive Statistics.

The researcher ran Regression Analysis in order to estimate how the independent variables influence the dependent variable. Again, the researcher constructed a Pearson Correlation Coefficient to establish the level of correlation between the dependent and independent variables.

Lastly, the Descriptive Statistics employed by the researcher helped to describe the pattern of behavior between the dependent and independent variables.

3.8.1 Descriptive Statistics

The Descriptive Statistics results of the study was based on the derived ratios which provided information on the number of observations, the mean, standard deviation, the minimum and the maximum values.

The Mean used for the descriptive statistics of the study is represented by the formula below:

$$\text{Mean} = \frac{\sum(x)}{n}$$

The Standard Deviation used for the descriptive statistics of the study is represented by the formula below:

$$\text{SD} = \frac{\sqrt{\sum(x - x_i)^2}}{n}$$

3.8.2 Pearson Correlation Coefficient

The Pearson Correlation Coefficient is calculated by dividing the covariance of the two variables (that is, X and Y) by the product of their sample standard deviations. “The model below was used to derive the Pearson Correlation Coefficients between the variables used in the study”:

$$r = \frac{n\sum xy - (\sum x)(\sum y)}{\sqrt{[n\sum x^2 - (\sum x)^2][n\sum y^2 - (\sum y)^2]}}$$

The above formula was used to test how significant the correlation was between the variables used in the study.

3.8.3 Regression Analysis

The study adopted the following regression model suggested by Raheman and Nasr (2007):

$$ROCE_{it} = \beta_0 + \sum_{i=1}^n \beta_1 X_{it} + \varepsilon \dots\dots\dots (1)$$

$ROCE_{it}$ = Return on Capital Employed by Bank (i) at time (t); $i = 1, 2 \dots n$

β_0 = the intercept of equation

β_1 = coefficient of X_{it} variables

X_{it} = the different independent variables for working capital management of firm i at time t

T = number of years from 1, 2 N

ε = error term

Due to the fact that liquidity is a major determinant of how effective a firm's working capital management practices are, the study sought to use some liquidity and other relevant ratios to establish a relationship between the components of working capital management and profitability.

The researcher used the following ratios to represent the independent variables:

- **Acid Ratio (AR):** This ratio is used to measure a company's ability to meet its financial obligations as they fall due.

$$AR = \frac{\text{Current Assets} - \text{Inventory}}{\text{Current Liabilities}}$$

- **Loan to Deposit Ratio (LDR):** This ratio measures the proportion of customer deposits given out as loans to customers.

$$LDR = \frac{\text{Total Loans}}{\text{Total Deposit}}$$

- **Cash Conversion Cycle (CCC):** This ratio measures the “period of time between Debtors Collection Period and Creditors Payment Period”.

$CCC = \text{Debtors collection period} - \text{Creditors payment period}$

The dependent variable which was the profitability of the banks was represented by the Return on Capital Employed (ROCE). **Return on Capital Employed (ROCE)** measures the overall profitability made from the total capital employed by the bank.

ROCE = $\frac{\text{Profit before Interest and Tax}}{\text{Capital Employed}}$

Capital Employed

According to Nuamah–Owusu (2015) the model above, could be converted into the model below in order to reflect our specified variables:

$$ROCE_{it} = \beta_0 + \beta_1 AR + \beta_2 LDR + \beta_3 CCC + \varepsilon + \dots \quad (2)$$

$ROCE_{it}$ = Return on Capital Employed by Bank (i) at time (t); $i = 1, 2, \dots, n$

β_0 = Intercept of Equation

β_1 = Coefficient of Acid Ratio (AR)

β_2 = Coefficient of Loan to Deposit ratio (LDR)

β_3 = Coefficient of Cash Conversion Cycle (CCC)

ε = Error term

CHAPTER FOUR

DISCUSSION OF ANALYSIS

4.0 Introduction

This chapter presents the analysis and interpretation of the data collected. The information was gathered from “the financial statements of FBN Bank, Zenith Bank, Guaranty Trust Bank, GCB Bank, Cal Bank and Fidelity Bank”.

4.1 Financial Ratios of Selected Banks

The “annual financial reports of FBN Bank, Zenith Bank, Guaranty Trust bank, GCB Bank, Cal Bank and Fidelity Bank were used to in deriving the financial ratios needed for analysis”. This was made up of “FBN Bank, Zenith Bank, Guaranty Trust Bank, GCB Bank, Cal Bank and Fidelity Bank” financial statement for the period 2015 to 2017.

The financial ratios derived from the financial statements of these banks were to aid in the analysis of the data in order to determine “whether or not there exists a relationship between working capital management and the profitability of banks in Ghana”.

Table 4.1 below shows the financial ratios derived from the financial statement of “FBN Bank, Zenith Bank, Guaranty Trust Bank, GCB Bank, Cal Bank and Fidelity Bank” for the periods under study:

Table 4.1: Financial Ratios derived from Financial Statements (2015-2017) of selected banks

Bank	Years	ROCE	AR	LDR	CCC
FBN Bank	2015	27.52	91.20	59.39	(4,810.98)
FBN Bank	2016	3.97	99.37	33.51	(4,845.50)
FBN Bank	2017	15.34	108.41	22.75	(3,572.09)
Zenith Bank	2015	29.28	68.94	48.91	(3,370.77)
Zenith Bank	2016	40.14	79.71	38.37	(3,369.13)
Zenith Bank	2017	37.90	93.86	23.17	(3,365.55)
Guaranty Trust Bank	2015	40.39	61.97	66.88	(3,878.57)
Guaranty Trust Bank	2016	41.01	70.57	56.39	(3,553.65)
Guaranty Trust Bank	2017	41.23	94.29	27.02	(3,366.23)
Fidelity Bank	2015	46.44	69.57	49.61	(2,557.15)
Fidelity Bank	2016	3.73	74.75	42.40	(2,893.93)
Fidelity Bank	2017	26.35	86.87	26.72	(4,378.50)
CAL Bank	2015	47.47	47.36	116.94	(2,062.64)
CAL Bank	2016	2.40	42.67	85.04	(1,794.55)
CAL Bank	2017	36.23	57.32	76.34	(2,166.82)
GCB Bank	2015	47.45	75.85	44.31	(10,034.27)
GCB Bank	2016	48.78	86.51	33.02	(9,937.29)
GCB Bank	2017	29.03	83.15	30.18	(6,138.32)

Source: Researcher's Calculations, 2019.

- ROCE implies Return on Capital Employed
- AR implies Acid Ratio
- LDR implies Loan to Deposit Ratio
- CCC implies Cash Conversion Cycle

4.2 Discussion of Results

The analysis of the derived financial ratios was done by the use of Stata 13.0 software to derive the descriptive statistics, Person Correlation Coefficient and the Regression results based on the financial ratios in Table 4.1 above.

Table 4.2 below shows the Descriptive Statistics results based on the derived ratios, provides information on the number of observations, the mean, standard deviation, the minimum and the maximum values.

Table 4.2: Descriptive Statistics

Variable	Obs.	Mean	Std. Dev.	Min	Max
ROCE	18	31.36893	15.57516	2.396317	48.78252
AR	18	77.35308	17.72483	42.66643	108.4112
LDR	18	48.94074	24.86189	22.75351	116.9368
CCC	18	-4227.552	2352.701	-10034.27	-1794.546

Source: Researcher's Calculations, 2019.

Based on Table 4.2 above, it can be observed that Return on Capital Employed (ROCE) was made up of a minimum and maximum value of 2.396317 and 48.78252 respectively. By this, “it implies that the average Return on Capital Employed (ROCE) by the banks under study fell within a range as low as 2.396317 to as high as 48.78252”. A mean of 31.36893 and a standard deviation of 15.57516 were recorded.

Acid Ratio (AR) on the other hand witnessed a minimum value of 42.66643 and maximum value of 108.4112. By this, the average Acid ratio (AR) of the banks under study fell within a range as low as 42.66643 to as high as 108.4112. A mean of 77.35308 and a standard deviation of 17.72483 were also recorded.

Furthermore, Loan to Deposit Ratio (LDR) was also made up of a minimum and maximum value of 22.75351 and 116.9368 respectively. By this, it implies that the average Loan to Deposit (LDR)

by the banks under study fell within a range as low as 22.75351 to as high as 116.9368. “A mean of 48.94074 and a standard deviation of 24.86189 were also recorded”.

Lastly, Cash Conversion Cycle (CCC) witnessed a minimum value of -10034.27 and maximum value of -1794.546. By this, the average Cash Conversion Cycle (CCC) of the banks under study fell within a range as low as -10034.27 to as high as -1794.546. A mean of -4227.552 and a standard deviation of 2352.701 were also recorded.

Table 4.3 below shows the Person Correlation Coefficient results in relation to the dependent variables; that are Return on Capital Employed (ROCE) and the independent variables such as the Acid Ratio (AR), Loan to Deposit Ratio (LDR) and Cash Conversion Cycle (CCC).

Table 4.3: Pearson Correlation Coefficient Results

Variable	ROCE	AR	LDR	CCC
ROCE	1.0000			
AR	-0.1261	1.0000		
LDR	0.1117	-0.8602	1.0000	
CCC	-0.2997	-0.3538	0.3905	1.0000

Source: Researcher's Calculations, 2019.

Based on Table 4.3 above, “it can be observed that there exists a weak negative correlation between Return on Capital Employed (ROCE), Acid Ratio (AR) and Cash Conversion Cycle (CCC) represented by -0.1261 and -0.2997 respectively”. A weak positive correlation also exists between Return on Capital Employed (ROCE) and Loan to Deposit Ratio (LDR) represented by 0.1117.

Acid Ratio (AR) on the hand witnessed a strong negative correlation with Loan to Deposit Ratio (LDR) and a weak negative correlation with Cash Conversion Cycle (CCC) represented by -0.8602 and -0.3538 respectively. In addition, Loan to Deposit Ratio (LDR) observed a weak positive correlation with Cash Conversion Cycle (CCC) represented by 0.3905.

Table 4.4 below shows the “Regression Analysis results in relation to the dependent variable; that is Return on Capital Employed (ROCE) and the independent variables such as the Acid Ratio (AR), Loan to Deposit Ratio (LDR) and Cash Conversion Cycle (CCC)”. The parameters of the regression model were estimated using linear regression analysis. The model was used to measure the impact of working capital management on the profitability of banks in Ghana. The dependent variable of this model was Return on Capital Employed (ROCE); while the independent variables were the Acid Ratio (AR), Loan to Deposit Ratio (LDR) and Cash Conversion Cycle (CCC).

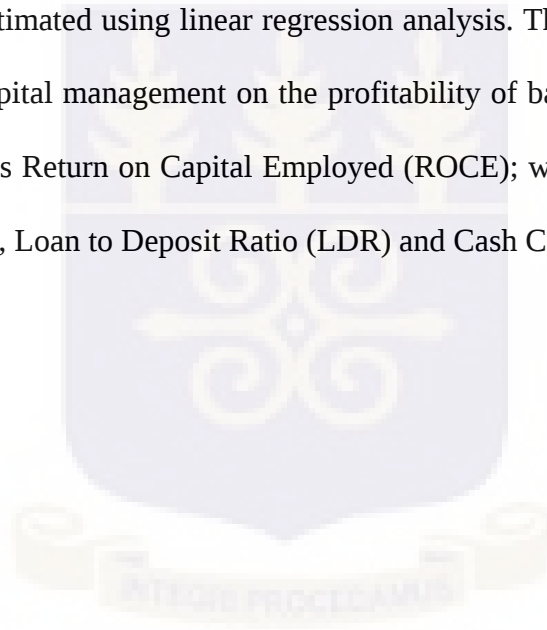


Table 4.4: Regression Analysis Result

ROCE	Coefficient (β)	T-stat	P-Value
Intercept	25.18516	0.54	0.601
AR	-0.1261796	-0.30	0.770
LDR	0.0924271	0.30	0.767
CCC	-0.0027015	-1.53	0.148

Number of observations	= 18
F-stat	= 0.87
Prob. of F-stat	= 0.4806
R-squared	= 0.1569
Adj. R-squared	= -0.0238

Source: Researcher's Calculations, 2019

Based on Table 4.4 above, “it can be observed that there exists a negative relationship between Return on Capital Employed (ROCE), Acid Ratio (AR) and Cash Conversion Cycle (CCC) represented by -0.1261796 and -0.0027015 respectively”. This implies that a change in Acid Ratio (AR) and Cash Conversion Cycle (CCC) will lead to a decrease in Return on Capital Employed (ROCE) by 0.1261796 and 0.0027015 respectively.

The negative relationship that exists between Cash Conversion Cycle (CCC) and Return on Capital Employed (ROCE) implies that it takes these financial institutions a shorter period to receive cash

in the form of loan repayments as compared to the paying out of cash in the form of deposit withdrawals to customers. This implies that “Return on Capital Employed (ROCE) is adversely affected by the shorter it takes to recover loans from borrowing customers”.

The results indicate further that there exists a negative relationship between Acid Ratio (AR) and Return on Capital Employed (ROCE). This negative relationship implies that “when banks are able to meet their financial obligations falling due, it adversely affects their profitability”. This is because the longer it takes these banks to fulfill their financial obligations, the more avenues they can exploit with these funds to generate more profit. On the other hand, if these banks are not able to hold on to these funds for a longer period, they will miss business opportunities which will eventually lead to a fall in their profitability.

“Loan to Deposit (LDR) on the other hand recorded a positive relationship with Return on Capital Employed (ROCE) represented by 0.0924271”. This implies that a change in Loan to Deposit (LDR) will lead to an increase in Return on Capital Employed (ROCE) by

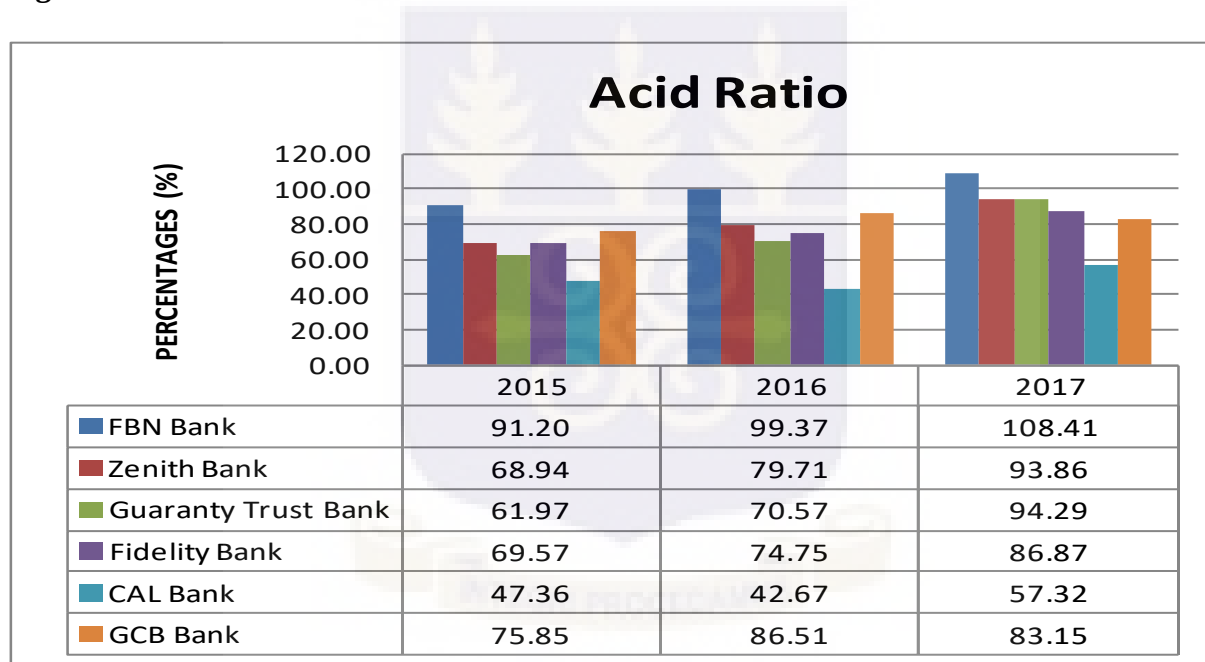
0.0924271. The positive relationship that exists between Loan to Deposit (LDR) and Return on Capital Employed (ROCE) implies that the more loans banks give out to borrowing customers from their deposits, the more profit these banks generate through increased interest income. Interest income is one of the revenue streams of banks. Therefore, the more interest income a bank can generate the more profit it can make. Interest income is generated from the loans given to borrowing customers; as a result, if these banks want to increase their profitability, they will have to give out more loans.

The predictive power of the model as captured by the Adjusted R-Squared was -0.0238 or -2.38%. This implies that about 2.38% of the variations in the profitability of the banks under study are explained by the independent variables. The F-Statistic was 0.87 at a 5% level of significance.

4.3 Management of Working Capital Components by selected Banks

The analysis below takes a look at which of the selected banks have managed the components of its working efficiently:

Figure 4.1: Acid Ratio



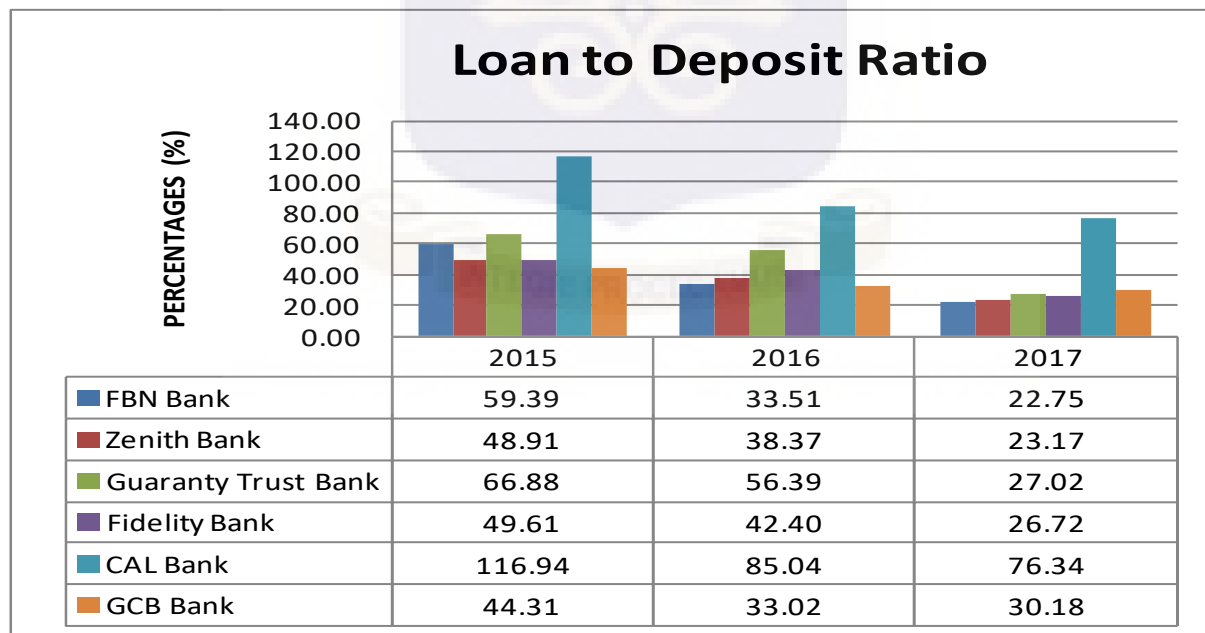
Source: Researcher's Calculations, 2019.

Based on Figure 4.1 above, it can be observed that in 2015 FBN Bank recorded the highest Acid Ratio of 91.20% whereas Cal Bank recorded the least Acid Ratio of 47.36%. This implies that amongst the six banks selected, FBN Bank managed its Acid Ratio efficiently compared to the remaining five banks; while Cal Bank did not manage its Acid Ratio efficiently compared with the other five banks for the year 2015.

In 2016, FBN Bank recorded the highest Acid Ratio of 99.37% whereas Cal Bank recorded the least Acid Ratio of 42.67%. This implies that amongst the six banks selected, FBN Bank managed its Acid Ratio efficiently compared to the remaining five banks; while Cal Bank did not manage its Acid Ratio efficiently compared with the other five banks for the year 2016, though it is an improvement on the previous year 2015.

Lastly, in 2017 FBN Bank recorded the highest Acid Ratio of 108.41% whereas Cal Bank recorded the least Acid Ratio of 57.32%. This implies that amongst the six banks selected, FBN Bank managed its Acid Ratio efficiently compared to the remaining five banks; while Cal Bank did not manage its Acid Ratio efficiently compared with the other five banks for the year 2017, though it is an improvement on the previous years of 2016 and 2015.

Figure 4.2: Loan to Deposit Ratio

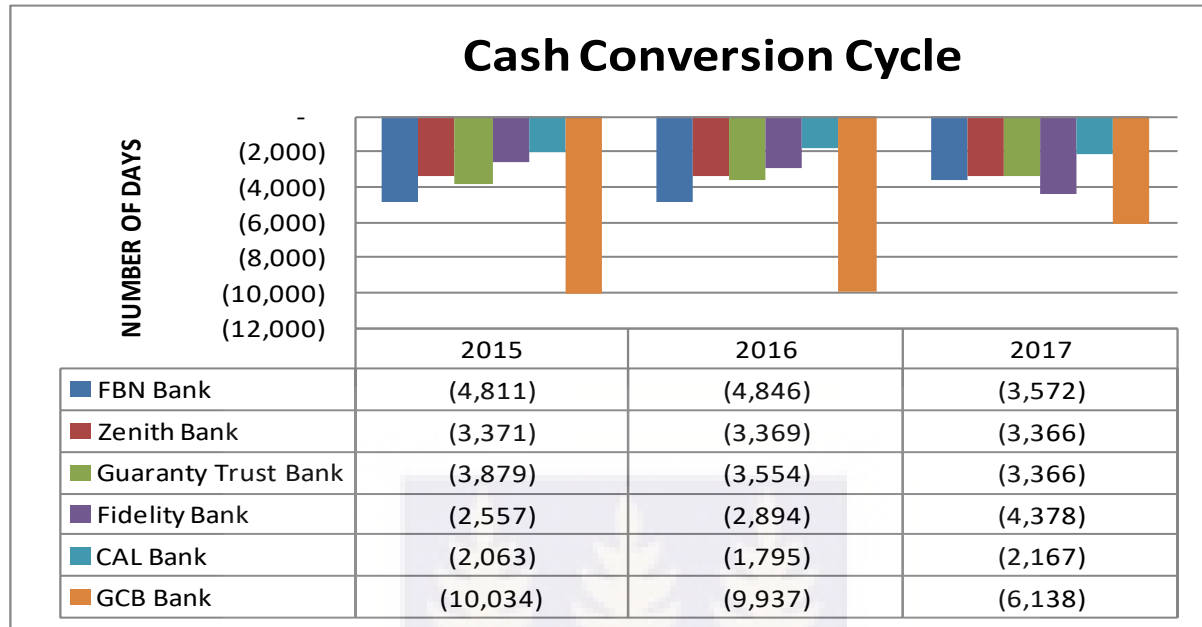


Source: Researcher's Calculations, 2019.

Based on Figure 2 above, it can be observed that in 2015 Cal Bank recorded the highest Loan to Deposit Ratio of 116.94% whereas GCB Bank recorded the least Loan to Deposit Ratio of 44.31%. This implies that amongst the six banks selected, Cal Bank did not manage its Loan to Deposit Ratio efficiently compared to the remaining five banks; while GCB Bank managed its Loan to Deposit Ratio efficiently compared with the other five banks for the year 2015.

In 2016, Cal Bank recorded the highest Loan to Deposit Ratio of 85.04% whereas GCB Bank recorded the least Loan to Deposit Ratio of 33.02%. This implies that amongst the six banks selected, Cal Bank did not manage its Loan to Deposit Ratio efficiently compared to the remaining five banks; while GCB Bank managed its Loan to Deposit Ratio efficiently compared with the other five banks for the year 2016, though it is an improvement on the previous year 2015.

Lastly, in 2017 Cal Bank recorded the highest Loan to Deposit Ratio of 76.34% whereas FBN Bank recorded the least Loan to Deposit Ratio of 22.75%. This implies that amongst the six banks selected, Cal Bank did not manage its Loan to Deposit Ratio efficiently compared to the remaining five banks; while FBN Bank managed its Loan to Deposit Ratio efficiently compared with the other five banks for the year 2017, though it is an improvement on the previous years of 2016 and 2015.

Figure 4.3: Cash Conversion Cycle

Source: Researcher's Calculations, 2019.

Based on Figure 4.3 above, it can be observed that in 2015 GCB Bank recorded the highest Cash Conversion Cycle of 10,034 days whereas Cal Bank recorded the least Cash Conversion Cycle of 2063 days. This implies that amongst the six banks selected, Cal Bank managed its Cash Conversion Cycle efficiently compared to the remaining five banks; while GCB Bank did not manage its Cash Conversion Cycle efficiently compared with the other five banks for the year 2015.

In 2016, GCB Bank recorded the highest Cash Conversion Cycle of 9,937 days whereas Cal Bank recorded the least Cash Conversion Cycle of 1,795 days. This implies that amongst the six banks selected, Cal Bank managed its Cash Conversion Cycle efficiently compared to the remaining five banks; while GCB Bank did not manage its Cash Conversion Cycle efficiently compared with the other five banks for the year 2016, though it is an improvement on the previous year 2015.

Lastly, in 2017 GCB Bank recorded the highest Cash Conversion Cycle of 6,138 days whereas Cal Bank recorded the least Cash Conversion Cycle of 2,167 days. This implies that amongst the six banks selected, Cal Bank managed its Cash Conversion Cycle efficiently compared to the remaining five banks; while GCB Bank did not manage its Cash Conversion Cycle efficiently compared with the other five banks for the year 2017, though it is an improvement on the previous years of 2016 and 2015.



CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

This chapter of the study covers the summary of the entire study from the beginning chapters of the research, through to conclusions drawn from the findings based on the data analyzed and recommendations to stakeholders.

5.1 Summary

The study was undertaken to access “the impact of working capital management on the profitability of banks in Ghana”. This was done through a study of “FBN Bank, Zenith Bank, Guaranty Trust Bank, GCB Bank, Cal Bank and Fidelity Bank”.

Basically, the objectives of the study was to

- ascertain the relationship between working capital management and profitability of banks in Ghana
- ascertain whether or not, the components of working capital are well managed by banks in Ghana

In reviewing the empirical literature about the study, various articles, magazines and publications in relation to the study were reviewed. The theoretical literature was based on the concept of working capital management and theories associated with it.

Purposive sampling was employed in gathering of data using the financial statements of these banks. The data was analyzed based on information gathered; and presented in the form of

descriptive statistics, person correlation coefficient, regression analysis as well as a narrative interpretation.

5.2 Conclusion

The following conclusions were drawn from the analyzed data which was gathered from the study. It was discovered that

- “A negative relationship existed between Return on Capital Employed (ROCE), Acid Ratio (AR) and Cash Conversion Cycle (CCC)”. This implied that the profitability of a bank is affected negatively by a shorter duration associated with its cash conversion cycle. Again, the more a bank is able to meet its financial obligations falling due, measured by the acid ratio, the level of profit it is capable of generating falls due to the fact that, the bank will be deprived of such funds which it could have deployed into productive ventures which would have generated profit.
- “A positive relationship existed between Loan to Deposit Ratio (LDR) and Return on Capital Employed (ROCE)”. This implied that the further loans a bank gives to borrowing customers, the more revenue it generates in the form of interest income which translates into profitability.
- In comparison to the selected banks for the study, Cal Bank did not manage its Acid Ratio efficiently for the periods under review whereas FBN Bank managed its Acid Ratio efficiently for the periods under review.
- In comparison to the selected banks for the study, Cal Bank did not manage its Loan to Deposit efficiently for the periods under review whereas GCB Bank managed its Loan to Deposit efficiently for the periods under review.

- In comparison to the selected banks for the study, GCB Bank did not manage its Cash Conversion Cycle efficiently for the periods under review whereas Cal Bank managed its Cash Conversion Cycle efficiently for the periods under review.

Lastly, based on the fact that the p-value associated with the F-Value was greater than the alpha level represented by 0.4806 and 0.05 respectively, the researcher fails to reject the null hypothesis; and concludes that “there is no significant relationship between components of working capital management and the profitability of Banks in Ghana”.

5.3 Recommendations

Based on the findings of the study, the following recommendations are made:

- “Due to the fact that there exists a negative relationship between Return on Capital Employed (ROCE), Acid Ratio (AR) and Cash Conversion Cycle (CCC), there will be the need for banks to increase their cash conversion cycle periods and prolong the settlement of their financial obligations falling due”. This is to ensure that they have enough liquidity to run the bank, thereby, increasing the level of profit generated.
- There will be the need for banks in Ghana to improve upon their Acid Ratio, Loan to Deposit Ratio as well as their Cash Conversion Cycles so as to ensure that they have enough liquidity to cater for their financial obligations falling due.
- “Finally, based on the fact that a positive relationship existed between Loan to Deposit Ratio (LDR) and Return on Capital Employed (ROCE), there will be the need for banks to increase the amount of loans in the portfolio by giving loans out to borrowing customers”. But there will be the need to monitor the repayment pattern of these borrowing customers in order to prevent such loans from turning into non-performing loans.

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