THE RELATIONSHIP BETWEEN WORKING CAPITAL MANAGEMENT AND THE PERFORMANCE OF RURAL BANKS IN GHANA- EVIDENCE FROM JUABEN RURAL BANK LIMITED

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(ACCOUNTING OPTION)

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STATEMENT OF AUTHENTICITY

We have read the university regulations relating to plagiarism and certify that this report is all our own work and do not contain any unacknowledged work from any other source. We also declare that we have been under supervision for this report herein submitted.

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SUPERVISOR'S DECLATION

I hereby declare that the preparation and presentation of the dissertation were supervised in accordance with the guidelines on supervision of dissertation laid down by Christian Service University.

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ABSTRACT

The study investigated and established the relationship between WCM and the performance of rural banks in Ghana. The purpose of the study was to investigate the extent to which a firm's performance may differ and how the value of the firm changes as a result of efficient management of its working capital.

Primary and secondary data were used for the study.Using the descriptive statistics models 1, 2 and 3, multiple regression analysis and Pearson Correlation, the results showed how working capital management would impact on the profitability of rural banks; hence effective management of working capital would have very significant implications on rural banking business. The study investigated the association between working capital management and profitability. Using secondary data and with Juaben rural bank as evidence, it was noted that liquidity is negatively related with profitability. Current ratio and total cash ratio are positively related with performance.

The results and findings were also found to be consistent with earlier research or studies conducted by Lazardidis, Loannis, Tryfondis, Dimitrois (2006), Nazir and Afza (2009), Zubairi (2010), Nobanee, Abdollafi and Alhajar (2010), Chartreji (2010) and Hassanpoor (2007).

Policy makers should have the interest in promoting efficient management if working capital is to facilitate performance management.

It should therefore be the burning desire of top management of every firm to make prudent working capital financial decision in order to remain profitable and competitive. Hence, managers should know how and what working capital structure will influence their performance.

DEDICATION

This work is dedicated to the Almighty God for his guidance and support throughout this work, and to our various families and well-wishers for their support for us in one way or the other, to make this study a success.

ACKNOWLEDGEMENT

Glory to the Almighty God for the immense strength granted us during the study. Our next appreciation goes to our able supervisor, for being there for us when it mattered most. Last but not least, our sincere gratitude goes to Juaben Rural Bank for their support. We do appreciate the efforts of all who made this study a success.

TABLE OF CONTENT

CHAPTER ONE

INTRODUCTION

1.0 Background of the study

Working Capital Management (WCM) is the regulation, adjustment and control of current assets and current liabilities of a firm such that maturing obligations are met and the fixed assets are properly serviced. In order to manage Working Capital (WC), there is the need for financial managers to be able to plan and control current assets as well as current liabilities in a manner that eliminates the risks of inability to meet due short-term obligations (Chakraborty K., 2008).

The way WC is managed has a significant impact on the profitability and cash holdings of firms, (Deloof, 2003). Efficient WC is known to have many favourable effects; it speeds payments of short term commitments on firms (Peel, 2000). It reduces the tendency of WC becoming a source of failure among small businesses (Berryman, 1983). It ensures a sound liquidity for assurance of long term growth and attainment of profit generating process (Wignaraja and O'Neil, 1999). It ensures acceptable relationship between the components of firms' WC for efficient mix which guarantees capital adequacy (Osisioma, 1997).

Pervious literatures have it that inefficient WCM induces small firms' failure (Berryman, 1983; Appuhami, 2008). Inefficient WCM induces inability of firms' to propel their liquidity and profitability (Peel and Wilson, 1996; Shin and Soenen, 1998).

Inadequate working capital leads the company to bankruptcy. Too much working capital on the other hand, results in wasting cash and ultimately decreasing profitability (Chakraborty, 2008).

Working capital strategies results from the combination of current assets and current liabilities that play significant role in the existence and growth of an entity. WCM includes the selection of an appropriate strategy in coordination with the entity's financial needs and in line with increasing the entity yield (Nazir and Afza, 2007).

Working capital strategies include conservative, bold and moderate strategies. In the conservative strategy, companies retain a high level of current asset with a low level of returns; and a low level of current assets that leads to the increase of liquidity and decrease in risk. In the bold strategy, the company uses minimum assets to utilize the highest level of its current liabilities. The moderate strategy retains the optimum level of current assets and liabilities.

Companies must retain an appropriate level of working capital to maximize their value. In other words, retention of high inventory levels and too much utilization of credit policies increase sales. High levels of inventory reduces risk of depletion whiles credit policies initiate sales; mainly due to the fact that they allow the customer to evaluate the product prior to purchase (Petersen and Rajan, 2007). It is against this background that the study was initiated to promote its application in the rural banking industry to facilitate and promote the growth of their earnings.

1.1 Statement of the Problem

WCM has been considered on its theoretical level for quite too long. Hitherto, there is no much empirical evidence on this concept let alone its impact on performance in Ghana. Lazardidis and Tryfonidis (2006) have investigated the relationship between profitability and working capital management in the stock exchange Market of Athens throughout 2001-2004. The objective of their research was to study the relationship between profitability and the cycle of cash transformation and its components. Results indicate that a significant relationship exists between gross operational profit and the cash transformation cycle. Moreover, managers can generate a good profit for the company using the right management techniques for the cash transformation cycle its components.

Nazir and Afza (2009) have studied the relationship between profitability and working capital management policies in 208 companies listed in Tehran Stock Exchange throughout the years 1998-2005. Results have shown that managers using conservative strategies have been able to increase the value of their stock. Findings indicate that in selecting a portfolio, investors choose companies that apply short-term credit policies and retain a low level of current liabilities.

Zubiri (2010) studied the impact of working capital management on company profitability in a research performed on the automobile production industry in Pakistan from 2000 to 2008. The researcher has used current ratio as an indicator for working capital management policies and financial leverage as the indicator for capital structure.

Variables in this research were tested using the correlation coefficient and multi variable regression. The results of the research indicate that companies must increase current assets and decrease current liabilities for maximizing profitability.

Findings reflect that the increase in cash flow would result in an increase in profitability. Moreover, a positive relationship exists between profitability and the financial leverage.

Nobani, Abdollatif and Alhajjar (2010) studied the relationship between the cash transformation cycle and profitability, they used data gathered from Japanese companies between the years 1990-2004. Results indicated that a negative relationship existed between profitability and the cash transformation cycle. The result was the same in all sample companies except service providers and commercial companies.

Chatreji(2010) studied the impact of working capital management on profitability in companies listed in London stock exchange throughout the years 2006-2008. The researcher has used Pearson correlation coefficient to evaluate the impact of cash transformation cycle, the period of collection of receivables, inventory retention period, liability statement period, the current to quick ratio, to net operational profit. Results indicated that a negative relationship existed between WCM and profitability. This means that an increase in cash transformation cycle would result in a reduction in profitability. Moreover, results have also stated that a negative relationship existed between liquidity and profitability as well.

Hassanpoor (2007) has also studied the impact of working capital strategies on stock return throughout 2001 to 2005. He selected 62 companies from 459 companies active in 34 industries listed in Tehran stock exchange and subsequently classified them in 9 industries. In this research, the significance of working capital was emphasized such that when considering the situation of the business entity, the best working capital strategies are employed to maximize the interest of the entity and its investors. Moreover, the impact of the type of strategy on the average stock return was evaluated and results

indicated that a significant difference existed among these averages in various strategies, and that bold strategies generate the highest stock return among the industry as a whole.

From the above empirical evidence, the significance of the relationship is in conclusive. Moreover, all these were conducted in more advanced countries using data from that part of the world. The questions that are often evidenced are whether these studies are applicable to the Ghanaian context, taking into account that Ghana operates in a different, more fragile business environment. There is therefore the need to conduct a study on WCM and its impact on the performance of rural banks using data from Ghana, an emerging economy. Hence this study was initiated to contribute to the dearth of knowledge in this area of academic performance which has not received enough attention in Ghana.

1.2 Objectives of the Study

The objectives of the study are:

1. To investigate if there is any significant relationship between working capital management and the performance of Juaben Rural Bank.
2. To examine the extent to which the level of working capital management affect the profitability of Juaben Rural Bank.

1.3 Research Questions

The objectives of the study would be achieved by looking for answers to the following questions;

1. Is there any significant relationship between working capital management and the performance of Juaben Rural Bank?

2. To what extent does the level of working capital management affect the profitability of Juaben Rural Bank?

1.4 Research Hypothesis

To answer the research questions, two main hypotheses are designed;

H_{01}: There is no significant relationship between working capital management and performance as measured by Return on Assets (ROA), Return on Equity (ROE), and Net Profit margin.

H_{A1}: There is a significant relationship betweenworking capital managementas measured by Return on Assets (ROA), Return on Equity (ROE), and Net Profit margin.

H_{02}: The level of working capital management does not affect the profitability of Juaben Rural Bank.

H_{A2}: The level of working capital management affects the profitability of Juaben Rural Bank.

1.5 Scope of the Study

The study is designed to analyze the financial statement of Juaben Rural bank for the period 2007 to 2011. Hence, findings of this study may not be necessarily applicable to companies outside the rural banking industry.

1.6 Significance of the Study

To the researcher, it marks the beginning of efforts to add to existing knowledge.

For the academic world, this study would shed some more light on the WCM which has received prominence in the recent global credit crunch.

For practitioners, this study would be of much relevance to financial controllers, managers, and directors in the rural banking industry.

Lastly, to the government of Ghana and policy makers, it is expected that the findings of this study would have important policy implications.

1.7 Limitations of the study

The findings of this study may be limited from the following aspects:

This study included only Juaben Rural Bank. Hence its findings may not significantly apply to other firms that are not in the rural banking industry.

There were also restraints with respect to the quantum of data that was needed to enhance the study as it is not so easy to access financial data ofJuaben Rural Bank.

The team encountered a lot of constraints in relation to finance and access to data. There was also the problem blending study, work and field work to complete the study

1.8 Organization of the Study

The study is organized into five(5) chapters. Chapter one whichsignificantly highlights the background to the study, problem statement, objectives of the study, scope, significance and limitations of the studycontains the introductory aspect of the entire study.

Chapter two contains review of related literature as well as the conceptual framework of the study.

Chapter four contains the analysis of data collected.Finally, chapter five contains the key findings of the study, recommendations and conclusions.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter discusses the conceptual framework of the study. The chapter considered some leading empirical studies that have polarized the concept of working capital management; it goes further to analyze some theoretical issues pertaining to working capital management.

2.2 A Brief History of Juaben Rural Bank

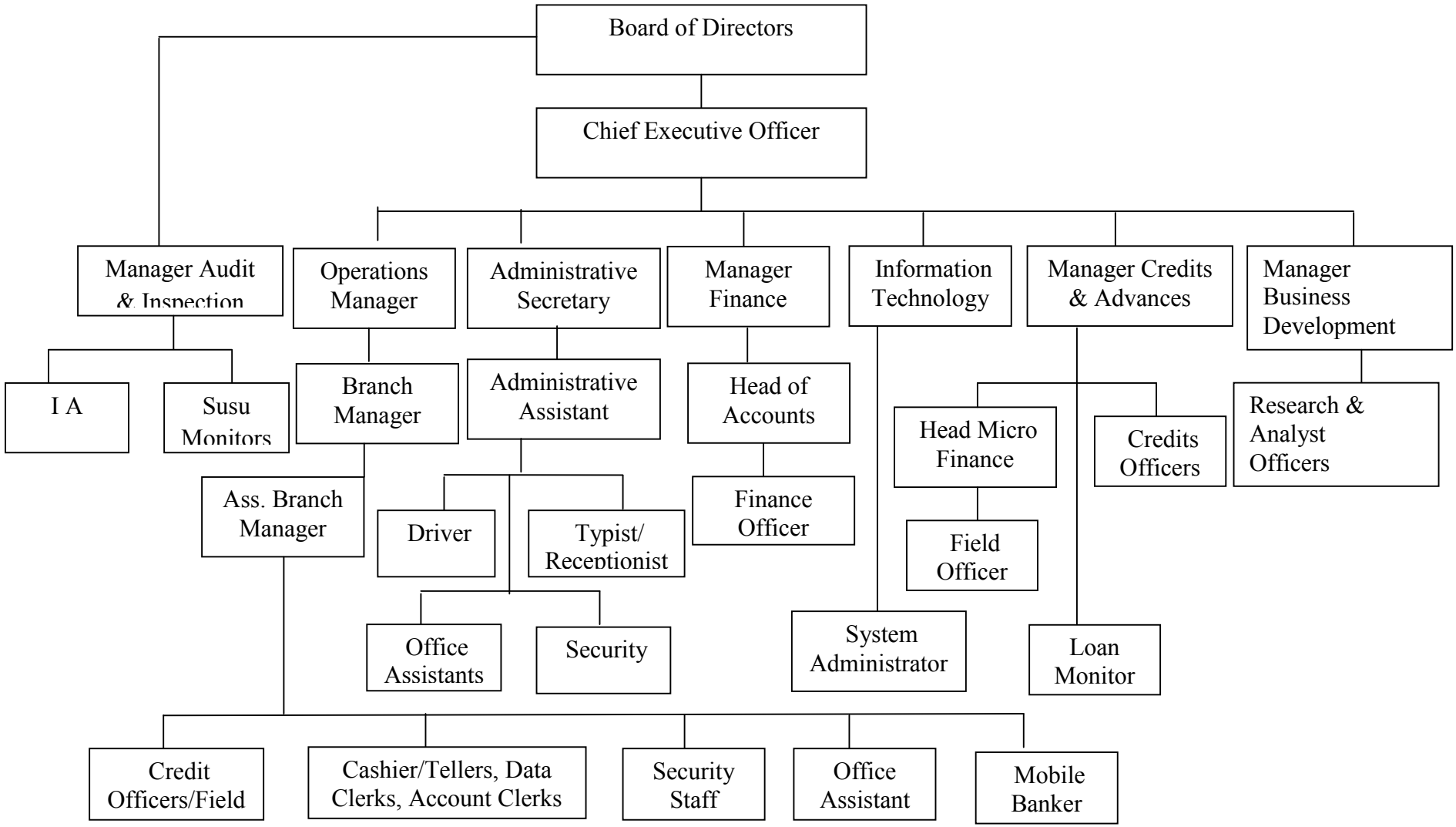
The idea of establishing The Juaben Rural bank was conceived by the Omanhene of Juaben, Nana Otuo Serebour in the year 1984. Juaben Rural Bank Limited was incorporation on 24th October 1984 as a Rural Bank. Since then, it has built a reputation as one of the leading Rural Banks in Ghana.

Very little did the Omanhene of Juaben, Nana Otuo Serebour, know that the Juaben Rural Bank, which started with an initial equity capital of GH¢2,213.98 and a total deposit of GH¢539,035.80 would within a matter of about three decades, grow to become a fortress to contend with in the rural / community banking industry. The bank began its operations from about 30 kilometers away from Kumasi in a town called Ejisu - Juaben in the Ashanti region where the Head Office is located.

The bank now has on its profile of activities, a host of products and services available to its existing and potential customers and has since seen a tremendous improvements infrastructure and has to its credit a great reputation that is very rare to most rural banks in the country. After nearly three (3) decades of operation the bank is ranked among the only five (5) strong rural / community banks in Ghana out of the one hundred and thirty two (132) rural banks based on these indicators; capital adequacy, asset quality, earnings

and liquidity (Source: ARB Apex bank's 1st quarter report for 2011). The seven branches set up in the country are enough to justify the credible reputation that the bank has built over the past three decades. (www.juaben rural bank.com).

TABLE 2.2: ORGANIZATIONALSTRUCTURE OF JUABEN RURAL BANK



(Source: researcher's analysis based on the organizational structures of the respondent banks).

2.3 The Nature of Rural Banks

Rural banks are unit banks owned by the members of the rural community through purchase of shares and are licensed to provide financial intermediation in the rural areas. They were first initiated in 1975 to expand savings mobilizations and credit services in rural areas not served by commercial and development banks. According to the Association of Rural Banks, the aims of rural banks are:

- To stimulate banking habits among rural duelers;
- To mobilize resources locked up in rural areas into the banking system to facilitate development;
- To identify viable industries in their respective catchment areas for investment and development.

2.3.1 Governance Structure

The governance structure of the rural bank comprises of a board of directors that represent shareholders within the bank and supervises the management of the bank. The Board of directors is elected by shareholders from the community where the banks are located. The election of board members takes place during annual general meetings (AGM). Directors are elected on the basis of their reputation in the community and professional qualifications.The individuals nominated by the shareholders are validated by the bank of Ghana before assignment is effective. The board elects a chair person and a vice chairperson from among the directors. In most cases, the CEO of the bank serves as the secretary of the board. A board member is elected for a three year term but can be

elected for an unlimited number of terms by the shareholders. At every AGM, one-third of the board members need to retire but are eligible for re-election, in accordance with the companies code of Ghana, 1963 (Act 179). The minimum size of the BOD is five with the maximum being eleven. The board of a rural bank has supervisory committees covering the main aspects of managing and operating the bank. Members of the supervisory sub-committee are elected from the board based on specialization and interest. The following are the main sub-committees and their respective responsibilities;

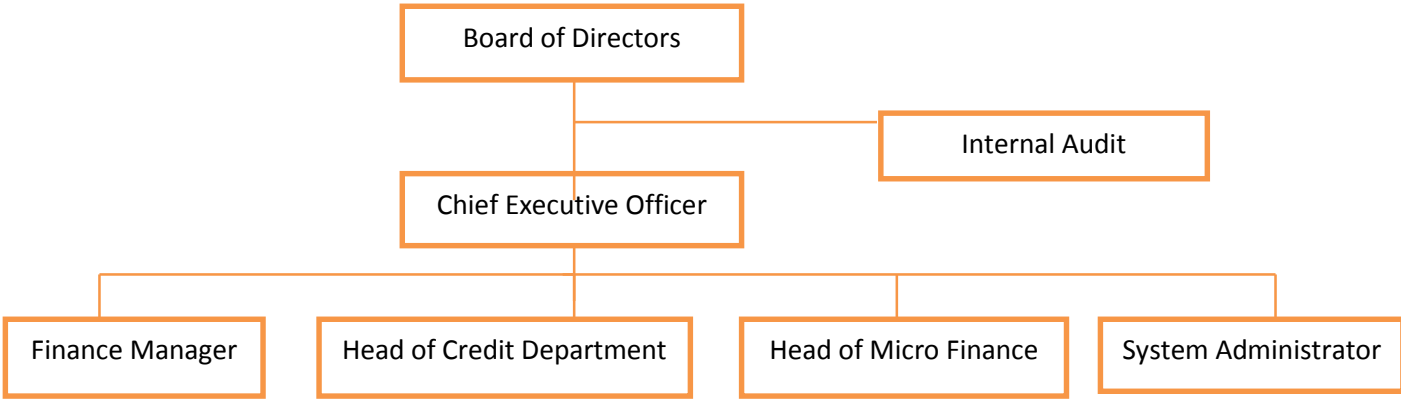
- The loans sub-committee: it ensures that loan approvals are in accordance with the operating policies of the bank and that loans disbursed are recovered; reviews and approves loan applications; and follows up with delinquent clients and legal cases.
- The finance and audit sub-committee: it monitors the financial performance of the bank; assesses the liquidity position of the bank and makes decisions on advances; monitors the banks investments; reviews the operational budget; ensures that accounts are prepared for audit; ensures that prudential returns are prepared and submitted; ensures provision for bad and doubtful loans; and ensures that policies and manuals are updated and implemented.
- The human resource and administrative sub-committee: it reviews, reports to the board on the bank's human resource needs, general administrative issues and compliance with optimum ethical consideration.

2.3.2 Staffing

Figure 1.0 below shows the typical organizational structure of a rural bank. The management is headed by the CEO (typically called a supervising manager or general manager), who reports to the BOD. The core management staff include the an internal

auditor, finance manager supported by assistants, head of credit department, project officer in charge of micro finance portfolio, and a system administrator.

Figure 2.1: The organizational structure of rural bank



(Source: researcher's analysis based on the organizational structures of the respondent banks).

2.3.3 Regulation.

Under the banking Act 2004(Act 673), the bank of Ghana has overall supervisory authority in all matters related to banking institutions in Ghana. Rural banks are incorporated as limited liability companies and licensed by Bank of Ghana within the framework of the Banking Act.(Act 673)

There are 127 rural banks licensed and supervised by Bank of Ghana. The capital requirement for all financial institutions in Ghana was increased in 2007. The minimum capital level of rural banks is ¢60 million (US$116,135). Rural banks whose capital falls below the stipulated minimum are not allowed to pay dividends or open new branches or agencies until they attain the minimum level of capitalization.

Rural banks must maintain primary and secondary liquidity reserve requirements to mitigate liquidity risks. As a primary liquidity reserve ratio, rural banks are required to maintain 8% of their deposits with the Bank of Ghana and 5% of their deposit with the

ARB Apex Bank. As a secondary liquidity reserve, rural banks are required to maintain 30% of their deposits as liquid investments such as Bank of Ghana bonds, certificate of deposits and treasury bills. New rural banks have a 10-year tax holiday. During this period, they are not allowed to pay dividendsand are expected to use the tax savings to strengthen their capital position.

2.3.4 Supervision

The BOG supervises rural banks through its Banking Supervision Department (BSD). The BSD supervises operations of rural banks through on-site and off-site inspection, issuance of administrative directives and attendance to rural banks AGM. Rural banks are required to submit monthly, quarterly and annual returns on a variety of financial and non-financial indicators. The key returns filed by rural banks according to the ARB Apex Bank include the following weekly liquidity reserve reports, monthly, quarterly, semi-annual, and annual returns.

2.3.5 Ownership

Rural banks are fully owned by individual shareholders who are residents of the communities in which they operate. The minimum shares that a shareholder can purchase 500 shares and they are of no par value. Since the rural banks are not listed companies, their shares are not traded on the Ghana stock exchange.

2.3.6 Products and Services

The main products and services offered by the rural banks consist of savings mobilization, granting of loans, money transfers and social investments. Rural banks offer all the general savings products such as current accounts, savings accounts and time

deposits. Unlike most commercial banks, rural banks do not require high minimum balances to maintain a savings account and do not charge high ledger fees.

The credit products offered by the rural banks include micro finance, personal loans, overdrafts and salary loans. The Bank of Ghana has developed an Operational Menu for rural banks. The BOG has developed a mandatory sectorial allocation for rural bank loans. The allocation ensures that the bulk of the resources go to agriculture, the priority sector in rural bank lending.

The rural banks also offer both domestic and international money transfer payments. Both of these services are managed across the network by the ARB Apex Bank. Domestic transfers payments are offered through Apex link, a domestic transfer system set in place in 2003. International money transfers are offered through partnership agreement between ARB Apex Bank and several major international money transfer companies such as Western Union, Vigo and Money Gram.

Many rural banks support social development activities in the communities where they operate as part of their social responsibilities. Most of the resources go to support projects such as school buildings, community libraries as well as providing scholarships for brilliant but needy students in their localities and wards of shareholder in the second cycle schools.

2.4 Theoretical Basis of the Study

WCM is the regulation, adjustment and control of current assets and current liabilities of a firm such that maturing obligations are met and the fixed assets are properly serviced. In order to manage WC, there is the need for financial managers to plan and control current assets as well as current liabilities in a manner that eliminates the risks of inability to meet

due short-term obligations (Smith, 1993). The way WC is managed has a significant impact on the profitability and cash holdings of firms, (Deloof, 2003). Efficient WC is known to have many favourable effects; it speeds payments of short term /commitments on firms (Peel, 2000). It reduces the tendency of WC becoming a source of failure among small businesses (Berryman, 1983). It ensures a sound liquidity for assurance of long term growth and attainment of profit generating process (Wignaraja and O'Neil, 1999). Inadequate working capital leads the company to bankruptcy. Too much working capital on the other hand, results in wasting cash and ultimately decreasing profitability (Chakraborty, 2008)

2.5 Working Capital Management and Its Effects on Performance

Earlier studies by Lazardidis and Tryfonidis (2006) have investigated the relationship between profitability and working capital management in the stock exchange Market of Athens throughout 2001-2004. The objective of their research was to study the relationship between profitability and the cycle of cash transformation and its components. Results indicate that a significant relationship exists between gross operational profit and the cash transformation cycle. Moreover, managers can generate a good profit for the company using the right management techniques for the cash transformation cycle and its components.

Following closely was Nazir and Afza (2009), who have studied the relationship between profitability and working capital management policies in 208 companies listed in Tehran Stock Exchange throughout the years 1998-2005. Results have shown that managers using conservative strategies have been able to increase the value of their stock. Findings indicate that in selecting a portfolio, investors choose companies that apply short-term

credit policies and retain a low level of current liabilities. Furthermore, Zubiri (2010) studied the impact of working capital management on company profitability in a research performed on the automobile production industry in Pakistan from 2000 to 2008. The researcher has used current ratio as an indicator for working capital management policies and financial leverage as the indicator for capital structure.

Variables in this research were tested using the correlation coefficient and multi variable regression. The results of the research indicate that companies must increase current assets and decrease current liabilities for maximizing profitability.

Findings reflect that the increase in cash flow would result in an increase in profitability. Moreover, a positive relationship exists between profitability and the financial leverage.
In addition, Haitam Nobani, Abdollatif and Alhajjar (2010) studied the relationship between the cash transformation cycle and profitability, using data gathered from Japanese companies between the years 1990-2004. Results indicated that a negative relationship existed between profitability and the cash transformation cycle. The result was the same in all sample companies except service providers and commercial companies.

Moreover, Chatreji(2010) studied the impact of working capital management on profitability in companies listed in London stock exchange throughout the years 2006-2008. The researcher has used Pearson correlation coefficient to evaluate the impact of cash transformation cycle, the period of collection of receivables, inventory retention period, liability statement period, the current to quick ratio, to net operational profit. Results indicated that a negative relationship existed between WCM and profitability.

This means that an increase in cash transformation cycle would result in a reduction in profitability. Moreover, results have also stated that a negative relationship existed between liquidity and profitability as well.

Also, Hassanpour (2007) has studied the impact of working capital strategies on stock return throughout 2001 to 2005. He selected 62 companies from 459 companies active in 34 industries listed in Tehran stock exchange and subsequently classified them in 9 industries. In this research, the significance of working capital was emphasized such that when considering the situation of the business entity, the best working capital strategies are employed to maximize the interest of the entity and its investors. Moreover, the impact of the type of strategy on the average stock return was evaluated and results indicated that a significant difference existed among these averages in various strategies, and that bold strategies generate the highest stock return among the industry as a whole.
From the above empirical evidence, the significance of the relationship is inconclusive. Moreover, doubts also remain as to whether the findings from these studies can straight away be applied in Ghana given the fact that they were all conducted in more advanced countries where the economic environment are more stable as compared to Ghana.

2.6 Objectives of Working Capital Management

For a working capital management to be effective, a vivid specification of the objective is to be achieved. Liquidity needs of the company should be sufficient enough to be able to meet short term obligations as, and when they fall due. There is need to seek to increment in profitability of the company and avoiding costly interruptions.Profitability is related to the goal of shareholders wealth maximization, so investment in current assets should be made only if an acceptable return would be obtained. On the other hand, liquidity is

needed for a company to be in business. A company may choose to hold more cash than is needed for operational or transactional needs- Ross, Westerfiled and Jordan et al, (2008).

2.7 Working Capital Policies

Since working capital management is so important, a company would need to formulate policies concerning the various components of working capital. Key policy areas relate to: the level of investment in working capital for a given level of operation and the extent to which working capital is financed from short-term funds such as bank overdrafts.

A company should have working capital policies on the management of inventories, debtors, cash and short-term investments in order to minimize the possibility of managers making decisions which are not in the best interest of the company.

Working capital policies would also need to reflect the working policies of the company's close competitors since it would be unfair to lose business because of an unfavourable comparison of terms of trade-Ross, Westerfield and Jordan et al, (2008).

2.8 Level of Working Capital

An aggressivepolicy with regards to investment in working capital means that a company chooses to work with lower level of inventory, debtors and cash for a given level of activity or sales. An aggressive policy would increase profitability since less cash would be tied up in current assets, but would also increase risk since the possibility of cash shortages or running out of inventories is increased.

A conservative and more flexible working capital policy for given level of turnover would be associated with maintaining a larger cash balance, perhaps even investing in short-term securities offering a more generous credit terms to customers and holding

higher levels of inventory, such a policy would give rise to a lower risk of financial problems or inventory problems but at the expense of reducing profitability.

Finally, a moderate policy would tread a little path between the aggressive and conservative approaches. It should be noted that the working capital policies of a company can be characterized as aggressive, moderate or conservative by comparing them with the working capital policies of similar companies. There are no absolute benchmarks for what may be regarded as aggressive for analyzing the ways in which individual companies approach the operational problem of working capital management.

Some ideas on the topic of discussion have been expressed by writers like Ross, Westerfield & Jordan, (2008) and Brealey &Meyres, (2003). In their book "Essentials of corporate finance"Ross, Westerfield & Jordan explain working capital management as the firm's holdings of current assets and current liabilities which deal with the measurement of liquidity through the analysis of firms financial statements, as well as with short term financing decisions.

Brealey, et al (2006) explained that, company can be endowed with assets but short of liquidity if its assets cannot be really converted into cash. They proposed that positive working capital is required to ensure that a firm is able to continue its rations and that it has sufficient funds to both maturing short term debt and; owing operational expenses. The management of working capital therefore involves aging inventories, cash, and account receivable and payable. Dike Ross, Waterfield and Jordan, Brealey, Meyres, and Marcus, Kofi Osei A workshop on working capital management" (2000) defined working capital as current assets and current liabilities.

They went further to divide working capital into two types- permanent and temporal working capital. Permanent working capital is the working capital that persists over time despite fluctuations in sales. He further stated that temporal is the additional assets needed to meet variations in sales above the permanent working capital level.

This section considers the ideas of some writers relevant to the study and in my opinion two views were discussed with respect to the split between current and fixed assets as well as fixed long-term liabilities and the need to ensure effective working capital management. Both views apparently agree that effective working capital management can free significant instant liquidity, a valuable tool at a time when liquidity is a scarce commodity. It must however be stressed that this study shall convert the general working capital management and its impact on organization and it is not limited to any particular type of business organization.

2.9 Components of Working Capital

Working capital is made up of short-term or current assets and current liabilities.

Current Assets

One important component of current assets is account receivable, Brealy & Myers et al, (2003). Accounts receivable arise because companies do not usually expect customers to pay for their purchases immediately. These unpaid bills are valuable assets that companies expect to be able to turn into cash in the near future. The bulk of the accounts receivable consistof unpaid bills from sales to other companies, and are known as trade credit. The remainder arises from the sale of goods to the final consumer. These are known as consumer credit. Another important current asset is inventory. Inventories may consist of raw materials, work in progress, or finished goods awaiting shipment.

Banks also lend on the security of inventory, but they are careful about the inventory they will accept. They want to make sure that they can identify and sell it if you default. Automobiles and other standardizednon-perishable commodities are good security for a loan.-Ross, Westerfield and Jordan et al, (2008).

Banks need to be sure they don't sell their assets and run off with the money. To protect against this sort of risk, lenders often insist on field warehousing. An independent warehousing company hired by the bank supervises the inventory pledged as collateral for the loan. As the firm sells its products and uses the revenue to pay back the loan, the banks directs the warehouse company to release the inventory to the firm. If the firm defaults on the loan, the bank keeps the inventory and sells it to recover the debt.

The remaining current assets are cash and marketable securities. The cash consists of partly cedi bills, but most of the cash is in the form of bank deposits. These may be demand deposits (money in current account that the firm can pay out immediately) and fine deposits (money in savings account that can be paid out only with a delay). The principal marketable security is commercial paper (short-term unsecured debts sold by other firms). Other securities include Treasury bill and others which are short-term debts sold by the Government of Ghana and state and other local security agencies. -Ross, Westerfield and Jordan et al, (2008).

In managing their cash, companies always enjoy the advantages to holding large amounts of ready cash; they reduce the risk of running out of cash and having to borrow more on short term notice. On the other hand, there is a cost to holding idle cash balances rather than putting the money to work, earning interest- Ross, Westerfield and Jordan et al, (2008).

Current Liabilities

Current liabilities are obligations that must be paid within one year or within the operating cycle, whichever is longer. Another requirement for classification as a current liability is the expectation that the debt will be paid from current assets (or through the rendering of services). Liabilities that do not meet these conditions are classified as long-term liabilities. The time period used in defining current liabilities parallels that used in defining current assets. The amount of working capital (current assets less current liabilities) and the current ratio (current assets divide by current liabilities) are valuable indicators of a company's ability to pay its debts in the near future (Meigs & Meigs, Bettner & Whittington, 1998).

2.10 Working Capital and Cash Conversion Cycle

To obtain the net working capital, a difference between current assets and current liabilities is struck. Financial managers however, simply refer to the difference as working capital. Firm usually have positive net working capital (i.e. current assets exceed current liabilities).

If a firm's balance sheet is prepared at the beginning, one would see cash (a current asset). A delay in the preparation of a firm's balance sheet would result in cash being replaced first by inventories of raw materials and then an inventory of finished goods (also current asset). An account receivable is realized from the sale of inventory. The difference between the bills paid by customers and the firms' profit replenishes the cash balance.

Working capital is a useful summary measure of current assets or liabilities because, although the amount of working capital is fixed, the components of working capital vary persistently with the cycle of operations. The following are four key dates in the production cycle that influence the firms' investment in working capital. The firm starts the cycle by purchasing raw materials, but it does not necessarily pay for them immediately. The raw materials are processed and then sold as finished goods. The delay period within which the initial investment inventories are sold is the inventory period. Customers sometime pay their bills after the firm has sold the goods to them.

The delay period within which the customers pay their bills after the goods have been sold to them is the account receivable period. A longer production period means that the firm would have to keep more cash must keep up in inventories. On the other hand, the longer it takes the customers to pay their bills, the higher the value of accounts receivable increases with increase in the account receivable period. The firm may reduce the amount of cash if need be.

2.11 Managing Cash Flows

Managing cash flow and cash conversion cycle is a critical component of overall financial management for all firms, especially those who are capital constrained and more reliant on short-term sources of finance- Walker and Petty, (1978). To be efficient in managing cash, debts should be collected in line with agreed credit terms whiles banking cash as promptly as possible. This would either reduce the interest on an outstanding overdraft or increase the interest earned on cash deposits. Benefits in the form of discounts for early payment should be compared with benefit that comes with late payment to make better decision on working capital. Again, credit offered by suppliers should be used to the

fullest. The period of time between initiating of payment and receiving cash in a company's bank account is called the float period. This can vary between four and nine days and consists of;

Lodgment delay: delay in banking any payment received.

Clearance delay: time taken by a bank to clear a presented instruction to pay.

Transmission on delay: time taken for a payment to pass from payer to payee.

A good cash management would normally seek to manage and keep the float to a minimum possible. This can be done by minimizing lodgment delay and by simplifying and speeding up cash handling-Ross, Westerfield and Jordan, et al (2008).

2.11.1 Investing Surplus Cash

Cash may be held in liquid or near-liquid forms by different companies for several reasons. Cash

Deemed to be surplus to immediate need should be invested on short-term basis to earn returns. The risk of capital loss must as much as possible be avoided. Since funds are required to support a company's continuing working capital needs, to reduce the risk of loss, it is important for large companies to set limits on the amount they deposit with individual banks as banks can, and do fail. In choosing an appropriate investment for short-term cash surpluses, it is worthwhile considering the factors below;

- the size of the surplus, as some investment methods have minimum amounts
- the ease with which an investment can be realized
- when the investment is expected to mature
- the risk and yield of the investment
- any penalties which may be incurred for early liquidation

Short-term methods such as money market deposit, treasury bills, commercial paper and guilt edged government securities on hands can be of use in managing corporate liquidity-Ross, Westerfield and Jordan, et al (2008).

2.11.2 Cash and Short-term Security Management

With the opportunity cost of holding cash balances raised by a relatively higher level of interest rates on short-term investment, management of cash has now become much of a necessity in recent years. Plausibly, financial managers develop refunds to reduce the interest cost of raising funds from outside. Corporate managers ensure that inflows and outflows of cash are properly managed for transaction purposes to seek to keep his assets to a minimum while bearing in mind the need to keep adequate cash. Interest paying marketable securities held for precautionary motives should only be transferred into cash when there is the scheduled need for disbursement.-Ross, Westerfield and Jordan, et al (2008).

Cash Budgeting

The cash budget is a primary tool in short-run financial planning. It allows the financial manager to identify short-term financial needs and opportunities. Most importantly, the cash budget helps the financial manager to explore the need for short-term borrowing. The idea of cash budget is to record estimates of cash receipts (cash in) and disbursements (cash out) - resulting in an estimate of cash surplus or deficits (Ross, Westerfield & Jordan, et al 2008.)

Credit Agreement

Credit agreements are legal documents that details the terms and conditions of the business relationship that exist between a lender and a client. (www.which.co.uk/consumer - rights/reg.) Credit agreement is extended to both co-operate and individual for the purpose of allowing them to use goods and services while paying them off. Credit agreement address specifics such as terms of repayment, and the amount and type of interest applied to the outstanding balance. Again credit agreement provides information regarding the steps of each party may take in the event that the other party fails to meet the commitments identified in the text of the document. Since a credit agreement is a legally binding document, consumers should read the terms and provisions carefully before making any type of commitment to the lender. This involves looking beyond the competitive interest rate, prices and the apparently equitable terms of repayment. Reading the document thoroughly and asking questions about anything that is not readily understood will help to avoid misunderstandings that could have a negative impact on the relationship at some later date. (www.wiseqeek.com 29/4/13)

Credit agreement is a legal contract entered into by financial institution and a debtor when he/she accepts a loan. The contract spells out all the conditions of the loan including repayment terms, corresponding interest rates, and other relevant information for the debtor. A credit agreement only holds the parties listed on the contract responsible for the loan unless otherwise stated in the terms and conditions. Depending on the type of loan, the credit agreement may be very extensive. For instance, a mortgage loan credit agreement is more detailed than one for a credit card. (www.investorwords.com/8558/credit Date accessed: 29/04/2013).

Credit agreement is the trust which allows one party to provide resources to another party where that second party does not reimburse the first party immediately (there by generating a debt), but instead arranges either to pay or return those resources (or other materials of equal value) at a later date. The resources provided may be financial (e.g. granting a loan) or they may consist of goods and services (e.g. consumer credit) credit encompasses any form of deferred payment. The credit concept can be applied in barter economies as well, based on the direct exchange of goods and services (Ingham 2004 p. 12-19). Credit is in turn dependent on the reputation or credit worthiness of entity or individual which takes responsibility for the funds.

2.12.1 Financing Current Assets

Current Assets require financing by use of either current funds or long term funds. There are three major approaches to financing current assets. These are:

Matching Approach

This approach is sometimes referred to as the hedging approach. Under this approach, the firm adopts a financial plan which involves the matching of the expected life of assets with the expected life of the source of funds raised to finance assets. The firm, therefore, uses long term funds to finance permanent assets and short-term funds to finance temporary assets. Permanent assets refer to fixed assets and permanent current assets. This approach can be shown by the following diagram.

Conservative Approach

An exact matching of asset life with the life of the funds used to finance the asset may not be possible. A firm that follows the conservative approach depends more on long-term

funds for financing needs. The firm, therefore, finances its permanent assets and a part of its temporary assets with long-term funds. This approach is illustrated by the following diagram.

Risk-Return trade-off of the three approaches:

It should be noted that short-term funds are cheaper than long-term funds. (Some sources of short-term funds such as accruals are cost-free). However, short-term funds must be repaid within the year and therefore they are highly risky. With this in mind, we can consider the risk-return trade off of the three approaches.

The conservative approach is a low return-low risk approach. This is because the approach uses more of long-term funds which are now more expensive than short-term funds. These funds however, are not to be repaid within the year and are therefore less risky.

The aggressive approach on the other hand is a highly risky approach. However it is also a high return approach the reason being that it relies more on short-term funds that are less costly but riskier. The matching approach is in between because it matches the life of the asset and the life of the funds financing the assets.

2.12.2 Short-Term Financing

The main sources of short-term financing are trade credit, commercial bank loans, commercial paper, a specific type of promissory note, and secured loans.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter deals with the methodology adopted in conducting the study. The chapter is organized as follows; research design, research area, population and sampling, research instrument (data collection technique), administration of instrument (data collection proceedings) and analysis of data.

3.2 Research design and framework

Research design is the actual techniques or steps taken to collect relevant data to answer the research questions- that is the actual activities the researchers / investigators employ to collect relevant data for the study. It ensures that the researcher gathers the appropriate Information to solve the research problem. (Saunders, 2007). According to Colins 2007, there are three types so research designs; exploratory, descriptive and explanatory (Casual). Exploratory research is conducted to get better understanding of issues being studied. Colin et al indicated that exploratory research is an important tool for finding out what is going on, seek new ideas, and to assess and question phenomenon. An exploratory research may involve may involve the use of many methods- interviews, observations, documentations etc, (ibid).

Descriptive research tries to describe the characteristic of population or phenomenon. It aims at giving out accurate information of a person, event or situation (Yin, 2003). Explanatory research is employed to identify cause-effect relationship between variables. A research work that seeks to establish the relationship between two or more variables is referred to as explanatory research (Yin et al, 2003). Such studies emphasizes on

explaining relationship. As our objective is to establish the relationship between working capital management and performance, the research adopted the explanatory research method.

3.3 Data Analysis Procedure

In analyzing data and describing the central tendency of the variables and variability within the values, descriptive analysis was used. Pearson correlation analysis was used to determine whether there was a relationship between the variables. Correlation analysis is a statistical tool used in this study to describe the degree to which one variable is linearly related to the other. Through conducting correlation analysis, the study was able to identify the degree of association among the variables. The standard for the rejection of the null hypotheses was a determination of statistical significance at the $P < 0.05$ level of probability. Multiple regression analysis was used to analyze the linear relationship between the dependent variable and the independent variables. Maddala, (1988) defines multiple regression as a model in which the dependent variables depend on two or more variables. The main strength of using multiple regression analysis is its ability to measure the joint effect of any number of independent variables upon one dependent variable. The Saleem and Rehman (2011) model was used to determine the relationship between working capital and performance of Juaben Rural Bank Limited. Ordinary test square is used to estimate the model. F-test is used to test the model.

For empirical purposes, the following operationalization equations were used. Previous study conducted by Saleem and Rehman et al, (2011) estimated the model in the linear form.

This study also estimated the model in linear form. The full model used for testing firm's performance in relation to its working capital was as follows:

$Y1, i, t = \alpha 1 + \beta 1X1,i,t + \beta 2X2,i,t + \beta 3\ X3,i,t + ui$

This was then modified as follows:

$ROA1,i,t = \alpha 1 + \beta 1TCR,i,t + \beta 2LR,i,t + \beta 3CR,i,t + ui$ …eqn.1

Where; TCR = total cash ratio

LR = liquidity ratio

CR = current ratio

ROA = return on assets

ui = error term

$ROE2,i,t = \alpha 1 + \beta 1TCR,i,t + \beta 2LR,i,t + \beta 3CR,i,t + ui$…eqn.2

To investigate the extent to which changes in working capital affects firms' ROE, equation 2 was developed; In equation 3, the same variables as in equations 1 and 2 except that tah dependent variable was changed to NPM (Net Profit Margin).

$NPM2,I,t = \alpha 1 + \beta 1TCR,i,t + \beta 2LR,i,t + \beta 3CR,i,t + ui$…eqn.

3.4 Description and Explanation of Variables

Dependent Variables

Three dependent variables are used in this study. The data for the dependent variable-Return on Asset (ROA), Return on Equity (ROE) and Net Profit Margin (NPM) comes from the annual balance sheets and income statements.

The ROA is defined as the profit before tax divided by total assets. The ROE is defined as the ratio of pre-tax profit to total equity capital. This is a common and widely accepted measure of return in the accounting and finance literature. NPM is also defined as the

ratio of pre-tax to total sales. These dependent variables are measured in new Ghana Cedis.

Independent Variables

The independent variables for the study were; Total Cash Ratio (TCR) which is the ratio of total cash balance to current liabilities, Liquidity Ratio (LR) which is the ratio of all cash holdings plus all short term investments to current liabilities and finally, the Current Ratio (CR) which is the ratio of current assets to current liabilities.

3.5 Research Strategy

Considering the fact that the study involves an empirical investigation on the relationship between working capital management and the performance of Juaben Rural Bank, the research strategy that was adopted is the case study.This is to help in studying the order of events as they occur or to concentrate on identifying the relationship between WCM and performance of the entity under study (in this case, Juaben rural Bank Limited).

3.6 Study Area

The study was conducted on Juaben Rural bank in the Ashanti region of Ghanato further understand its working capital management practices. The management and customers of the bank constituted the population, also taking into account, activities that go on in all the seven branch areas of the bank.

3.7 Data Sources

Secondary sources of data (in this study, analyzed statement of financial position(balance sheet) and statement of comprehensive income (income statement)of Juaben Rural Bank

for the period 2007 to 2011) were used tostudy the impact of working capital management on the value of firms.

3.8 Data Coding

The data, which were collected from the balance sheets and income statements of Juaben Rural Bank Limited were computed and coded into variables using definitions given in section 3.4 of this chapter. The variables were sorted based on the researcher's calculations and were tabulated and later converted to an "R" statistical data file for statistical analysis.

CHAPTER FOUR

DATA ANALYSIS AND DISCUSSION OF FINDINGS

4.1 Introduction

This chapter presents the results and discussion of the various indicators of performance of Juaben Rural Bank and their respective working capital variables. The study selected Net profit margin (NPM), Return on equity (ROE) and Return on assets (ROA) as the measure of the bank's performance. On the other hand Total cash ratio (TC), Current ratio (CR) and Acid test ratio was used as the measure of working capital (or working capital variables) for the study. Correlation analysis as well as regression analysis was used as the study main statistical tool.

Table 4.1: Correlations matrix of the ratio of the performance and working capital variables recorded from 2007-2011

		NPM	ROE	ROA	TC	CR	LR
NPM	Pearson Correlation	1	.399	-.857	**.400**	**-.493**	**-.570**
	N	5	5	5	5	5	5
ROE	Pearson Correlation	.399	1	.127	**-.277**	**-.485**	**-.605**
	N	5	5	5	5	5	5
ROA	Pearson Correlation	-.857	.127	1	**-.546**	**.226**	**.246**
	N	5	5	5	5	5	5

TC	Pearson Correlation	**.400**	**-.277**	**-.546**	1	-.023	-.137
	N	5	5	5	5	5	5
CR	Pearson Correlation	**-.493**	**-.485**	**.226**	-.023	1	.187
	N	5	5	5	5	5	5
LR	Pearson Correlation	**-.570**	**-.605**	**.246**	-.137	.187	1
	N	5	5	5	5	5	5

Source: Field Analysis

4.2 Establishing the relationship between the working capital and performance of Juaben Rural Bank

This section establishes the effect of the working capital variables (TC, CR and LR) on the performance variables (NPM, ROE, and ROA). Table 4.1 presents the correlation matrix for the establishment of relationship among the said variables. From Table 4.1, it was released that, Net profit margin increases as Total cash ratio increases. This was as a result of the Pearson correlation coefficient recorded as 0.400. However the strength of the relationship between the total cash ratio and the net profit margin was positively related, the magnitude of their relationship was a little below average indicating a mild relationship. This means that to some extent, the total cash ratio of the bank recorded from 2007 to 2011 does not hugely increases the profit margin of the bank.

Also the correlation coefficients between NPM and both CR, LR were recorded from the table 4.1 as -0.493 and -0.570 respectively. This result shows that there exist generally a negative average relationship between the NPM and CR. Similarly-0.570 correlation coefficient indicates quiet strong relationship between the NPM and LR. In furtherance to the above results, decreasing the banks current ratio and acid test ratio increases the banks net profit margin. This results attest to the fact that, over the past five years (i.e from 2007 to 2011), the bank's performance has not been based hugely on their current ratio as well as their *liquidity.* The result also means that, the more the bank decreases their CR and LR, the higher the profit earnings of the bank. Hence over the years the banks performance based on NPM has increased tremendously due to the lowering trend of their current ratio and the acid test variables.

Secondly, the researcher wanted to find out the effect of the three working capital variables on the performance variable (ROE). From Table 4.1 below, it is clearly indicated that, the correlation coefficient between the three variables namely; TC, CR and LR with respect to ROE are all showing negative relationship. This indicates that, as the TC, CR and LR variables decreases, the ROE variable increases. The effect of the TC and CR on ROE showed a weak relationship meaning that as the bank's TC and CR decreases, the banks return on assets increases. Hence TC and CR are not the main determining factor of the bank's performance in terms of their ROE generated from 2007 to 2011.

The strong negative relationship indicated as -0.605 between ROE and LR means that, decreasing the LR hugely increases the banks ROE.

Finally the effect of ROA and the three variables TC, CR and LR were also assessed as presented in Table 4.1 below. The correlation coefficient between the ROA and that of CR and LR recorded a weak positive relationship between them. This means that banks performance explained by ROA is partly determined by CR and LR. The weak relationship recorded was as results of the limited data at hand. It also means that the two variables' (CR and LR) effect on the banks ROA for the years has not been much.

4.3 Regression Analysis between the performance and the working capital management variables

This section focuses on explaining the established relationship between performance variables and the working capital management variables.

First and foremost the researcher analyzed the effect of TC, CR and LR variables on NPM. Based on the parameter estimates (regression coefficient) from Table 4.2, the following regression equation was derived.

NPM = 1.622 +1.16TC+2.98CR-4.76LR---eq(1)

From the above model, increasing the total cash (TC) variable whilst holding the remaining predictors constant, increases the net profit margin (NPM) of the bank. Similarly the model has shown the profit margin has increased due to the increasing nature of the *current cash ratio* of the bank. The model further shows that, LR is not a predictive variable of NPM. Hence a decrease the *Liquidity ratio* variable decreases the *NPM* whilst holding the remaining variables constant. The R-q value of 0.974 indicates that approximately 97% of the total variation in NPM is explained by the three variables namely TC, CR and LR. This means that the model is of good fit and hence appropriate for establishing the relationship between the performance variables and the working capital management variables.

Table 4.2: Regression analysis between NPM and TC,CR, LR

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.622	.873		1.859	.314
	TC	1.166	1.061	.801	1.099	.470
	CR	2.985	2.104	5.443	1.419	.391
	LR	-4.758	3.087	-5.513	-1.541	.366

a. *Dependent Variable: NPM*

Table 4.3aModel Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.987[a]	.974	.897	.04128

a. Predictors: (Constant), LR,TC,CR

Table 4.4 below also presents the relationship between ROE and the three predictor variables of the working capital management. The derived model from Table 4.3 is given by;

ROE=4.85-2.39TC+4.34CR-9.12LR----eqn(2)

The result from table 4.3b shows that, there exist positive relationship between the banks current ratio (CR) and that of ROE variable. The result further reveals that as the current cash ratio of the bank increases the banks return on assets increases. This attest to the fact

that, current cash ratio over the years has been one of the determining factor of performance in terms of the banks ROE.

Therefore, decreasing the TC and LR lead to decreases the banks return on assets variable. The 0.781 R-sq value recorded shows that the model is of good fit and hence adequate in explaining the relationship among the variables. This means also that 78.1% of the total variation or total banks ROE recorded figures are explained hugely by TC, CR and LR.

Table 4.3b: Regression analysis between ROE and TC,CR, LR

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	4.848	.922		5.259	.120
	TC	-2.385	1.121	-.531	-2.129	.280
	CR	4.342	2.222	2.565	1.954	.301
	LR	-9.119	3.261	-3.422	-2.796	.219

a. Dependent Variable: ROE

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.781[a]	.610	-.559	.20861

Table 4.6 below explains the relationship between one of the bank's performance variable ROA and that of TC, CR and LR. The derived model from Table 4.4 is:

$$ROA=-1.68-6.65TC-10CR+14.27LR$$

The model above explains the relationship between the banks recorded ratio of ROA and that of TC, CR and LR. The result shows that, increasing the LR decreases the banks ROA. This further means that the recorded LR over the years has been one of the main determining variables for the banks ROA.

The ROA decreases as the TC and CR variables decreases whilst holding all other variables constant, taking each variable at a time.

Table 4.4: Regression analysis between ROA and TC,CR, LR

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	-1.680	4.659		-.361	.780
	TC	-6.656	5.663	-1.141	-1.175	.449
	CR	-10.003	11.230	-4.550	-.891	.537
	LR	14.271	16.480	4.124	.866	.546

a. Dependent Variable: ROA

CHAPTER FIVE

FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter considers the key findings of the study and their implications, followed by conclusions and then, recommendations.

5.2 Summary of Key Findings

5.2.1 Descriptive Statistics

From the regression analysis, it is noted that the mean current ratio (CR) in relation to NPM was -0.493 (or -49.3%). This showed that the bank could not keep its current ratio in line with best practice, which financial reporting requires a 2:1 as the benchmark. The implication is that current liabilities outweighedcurrent assets hence when short –term debts were due for payment, the bank could not meet those short-term commitments. In much the same way, a total cash ratio (TCR) in relation to NPM was 0.400:1 (or 40%) was maintained by the bank. Thus, for every cedi short-term liability, the total cash available to meet the commitment was 40pesewas. This was also not encouraging. This trend was consistently observed over the period 2007 to 2011.

Furthermore, liquidity ratio of -0.57 (or -57%)was maintained by the bank. Thus, for every cedi short-term liability, the total liquid assets available to meet the commitment was -0.57pesewas. This was also not encouraging. This trend was consistently observed over the period 2007 to 2011. Liquidity refers to a firm's ability to meet its short-term obligations as, and when they fall due.

The study made some increasing revelations resulting from the Pearson correlation analysis. It was found that NPM and ROE are negatively correlated with CR and LR. Again, ROE is also negatively correlated with TC whiles NPM is positively correlated with TC. ROA is positively correlated with CR and LR whiles it is negatively correlated with TC.

Furthermore, liquidity is negatively correlated with profitability. The negative correlation between working capital and profitability variables indicates that if working capital increases, it would have a negative impact on the profitability and vice versa. From the regression equations (1), (2) and (3), it was observed that, on the average, 88.4% of the variation in the dependent variables (i.e. NPM, ROE and ROA) is explained by the variations in the independent variables (i.e. CR, TCR and LR).

The study also showed that only liquidity is negatively related to performance. Hence, as the bank kept its liquid assets high, its profit levels fell and vice versa. This was consistently observed in the period 2007 to 2011. The above results have shown how working capital management would impact on the profitability of rural banks; hence effective management of working capital would have very significant implications on rural banking business.

The above results and findings were also found to be consistent with earlier research or studies conducted by Lazardidis, Loannis, Tryfondis, Dimitrois (2006), Nazir and Afza (2009), Zubairi (2010), Nobanee, Abdollafi and Alhajar (2010), Chartreji (2010) and Hassanpoor (2007).

5.3 Conclusions

The study investigated the relationship between working capital management and profitability.Using secondary data from Juaben rural bank as evidence, it was noted that liquidity is negatively related with profitability. Current ratio and total cash ratio are positively related with performance measured by NPM, ROA and ROE. The study was observed to be consistent with other studies conducted by Lazardidis, Loannis, Tryfondis, Dimitrois (2006), Nazir and Afza (2009), Zubairi (2010), Nobani, Abdollatifa and Alhajar (2010), Chartreji (2010) and Hassanpoor (2007).

5.4 Recommendations

Policy makers should have the interest in promoting efficient management if working capital isto facilitate performance management. It should therefore be the burning desire of top management of every firm to make prudent working capital management and financial decision in order to remain profitable and competitive. Hence, managers should know how and what working capital structure would influence their performance.

REFERENCES

Appuhami R., (2008). The impact of firms' capital expenditure on working capital management

ARB Apex bank's 1st quarter report, (2011).

Banking Act, (Act 673)

Berryman, (1983). Failure and assistance of small firms

Brealey &Meyres, (2003). Essentials of corporate finance

Chakraborty K. (2008) Working Capital and Profitability: An Empirical Analysis of Their Relationship with Reference ToSelected Companies in the Indian Pharmaceutical Industry

Colin F, Buglear J, Lowry D, Mutch A, Tansley C. (2007). Researching and uniting a dissertation: A guide book for students, 2nd edn Prentice Hall, London.

H. Jamal Zubairi, (2010)

Impact of Working Capital Management and Capital Structure on Profitability of Automobile Firms in Pakistan

Haitham N. &Maryam A., (2009)A Note on Working Capital Management and Corporate Profitability of Japanese Firms

Haitham N., Modar A. & Maryam A., (2010)Cash Conversion Cycle and Firm's Performance of Japanese Firms.

Haitham N., Wasim K. A. & Ayman E. H., (2009) Optimizing Working Capital Management

Hassanpour, Shiva. (2007)Impact of Working Strategies on Stock Return

Ingham (2004). The nature of money

Lazardidis, Loannis, Tryfondis, Dimitrois. (2006)
Relationship between Working Capital Management and Profitability of Listed Companies in Athens Stock Exchange

Long, M. S., I.B. Malitz & S.A. Ravid. (1993)
Trade Credit, Quality Guarantees, and Product Marketability

Maddala, (1988). Introduction to econometrics

Marc, Deloof. (2000) Does Working Capital Management Affect the Profitability of Belgian Firms.

Meigs & Meigs, Bettner & Whittington, 1998). Financial accounting

Nazir, Main Sajid and Afza, Talat. (2007)
Is It Better to Be Aggressive or Conservative in Managing Working Capital?

Nazir, Main Sajid and Afza, Talat. (2009)
Is It Better to Be Aggressive or Conservative in Managing Working Capital?

Peel & Wilson, (1996). Financial management of trade credits in SMEs

Peel, (2000). Size matters: the late payment problem

Petersen, M.A and R. G. Rajan. (1997) Trade Credit Theories and Evidence; Review of Financial Studies

Ross, Westerfiled & Jordan, (2008). Essentials of corporate finance

Saleem & Rehman, (2011). Impact of working capital management on profitability of Indian Firms

Saswata Chatterjee (2009)

Saunders, (2007). Research Methods for business students

Shin & Soenen, 1998). Determinants of working capital management

The Impact of Working Capital On the profitability of Listed companies in the London Stock Exchange

Wignaraja & O'Neil, (1999). Firm size, technological capabilities and market oriented policies in Mauritius

www.investorwords.com/8558/credit, Date accessed: 29/04/2013.

www.juaben rural bank.com

www.wiseqeek.com, Date assessed; 29/4/13

Yin-Rik (2003). Case study research and design and method, 4th edn London Sage.