

UNIVERSITY OF EDUCATION, WINNEBA

CREDIT RISK MANAGEMENT PRACTICES AND ITS IMPACT ON LOAN  
REPAYMENT AT ST PETER'S COOPERATIVE CREDIT UNION, KUMASI.



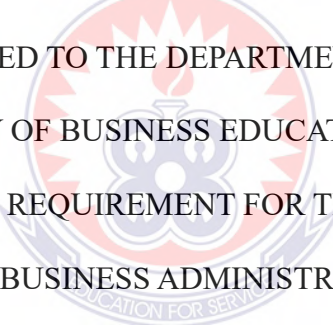
AUGUST, 2017.

UNIVERSITY OF EDUCATION WINNEBA,  
COLLEGE OF TECHNOLOGY EDUCATION, KUMASI

CREDIT RISK MANAGEMENT PRACTICES AND ITS IMPACT ON LOAN  
REPAYMENT AT ST PETER'S COOPERATIVE CREDIT UNION, KUMASI.

SARA AMADU SEY

A THESIS PRESENTED TO THE DEPARTMENT OF ACCOUNTING AND  
FINANCE, FACULTY OF BUSINESS EDUCATION, WINNEBA IN PARTIAL  
FULFILLMENT OF THE REQUIREMENT FOR THE AWARDS OF MASTERS OF  
BUSINESS ADMINISTRATION  
DEGREE IN FINANCE

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## DECLARATION

I, SARA AMADU SEY, declare that this dissertation, with the exception of quotations and references contained in published works which have all been identified and acknowledged, is entirely my own original work, and it has not been submitted, either in part or whole for another degree elsewhere.

Signature .....

Date.....

## SUPERVISOR'S DECLARATION

I hereby declare that the preparation and presentation of this work was supervised in accordance with the guidelines for supervision of thesis as laid down by the University of Education, Winneba.

Mr. Alfred Bassaw Morrison

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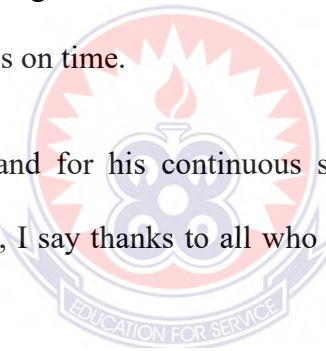
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Special thanks go to the management and staff of St. Peters co-operative credit union for answering the questionnaires on time.

Many thanks to my Husband for his continuous support and prayers throughout the period of the study. Finally, I say thanks to all who have contributed in diverse ways to make this project a reality.



## **DEDICATION**

I would like to dedicate this research work to the Almighty God who has protected, guided and sustained my life in making it possible for me to reach this height on the educational ladder. Secondly, my beloved Husband Thomas K. Nyame, Parents, Siblings for their priceless encouragement, advice and support in diverse ways during the period of my study and not forgetting my little boy.



## TABLE OF CONTENTS

| <b>Content</b>   | <b>Pages</b> |
|--|--------------|
| DECLARATION .....  | ii           |
| DEDICATION .....   | iv           |
| ACKNOWLEDGEMENTS .....   | iii          |
| TABLE OF CONTENTS .....  | v            |
| LIST OF TABLES .....   | ix           |
| LIST OF FIGURES .....  | x            |
| ABSTRACT .....   | xi           |
| <br>   |              |
| <b>CHAPTER ONE: INTRODUCTION .....</b>                           | <b>1</b>     |
| 1.1 BACKGROUND TO THE STUDY .....                                | 1            |
| 1.2 STATEMENT OF THE PROBLEM .....                               | 3            |
| 1.3 OBJECTIVE OF THE STUDY .....                                 | 3            |
| 1.4 RESEARCH QUESTION .....                                      | 4            |
| 1.5 SIGNIFICANCE OF THE STUDY .....                              | 4            |
| 1.6 SCOPE OF THE STUDY .....                                     | 7            |
| 1.7 LIMITATION OF THE STUDY .....                                | 7            |
| 1.8 SUMMARY OF THE CHAPTERS .....                                | 7            |
| <br>   |              |
| <b>CHAPTER TWO: LITERATURE REVIEW .....</b>                      | <b>9</b>     |
| 2.0 INTRODUCTION .....   | 9            |
| 2.1 THE EMERGENCE OF COOPERATIVE CREDIT UNION IN THE WORLD ..... | 9            |

|   |    |
|---|----|
| 2.2 EMERGENCE OF COOPERATIVE CREDIT UNION IN GHANA .....                | 10 |
| 2.3 CREDIT UNION OPERATIONS IN GHANA.....                               | 14 |
| 2.4 THEORIES ON COOPERATIVE CREDIT UNION .....                          | 16 |
| 2.4.1 The Social Capital Theory .....                                   | 16 |
| 2.4.2 Group Formation Theory .....                                      | 17 |
| 2.5 THEORIES ON CREDIT RISK.....  | 18 |
| 2.5.1 Portfolio Theory.....   | 18 |
| 2.5.2 Arbitrage Pricing Theory (APT).....                               | 19 |
| 2.5.3 Information Theory .....  | 19 |
| 2.5.4 Risk-Adjusted Return on Capital (RAROC) Model .....               | 20 |
| 2.5.5 Liquidity Theory of Credit.....                                   | 20 |
| 2.5.6 Tax Theory of Credit .....  | 21 |
| 2.5.7 Credit Risk Theory.....   | 22 |
| 2.6 CREDIT RISK MANAGEMENT PRACTICES.....                               | 22 |
| 2.6.1 Loan Portfolio .....  | 22 |
| 2.6.2 Credit Risk Management .....                                      | 23 |
| 2.6.3 Risk Identification.....  | 23 |
| 2.6.4 Risk Analysis .....   | 24 |
| 2.6.5 Credit Risk Assessment .....                                      | 24 |
| 2.6.6 Credit Risk Monitoring.....                                       | 25 |
| 2.6.7 Credit Risk Management Procedures.....                            | 25 |
| 2.7 CREDIT POLICY AND PERFORMANCE OF COOPERATIVE CREDIT UNIONS<br>..... | 26 |
| 2.8 CAUSES OF LOAN DELINQUENCY .....                                    | 28 |

|   |           |
|---|-----------|
| <b>CHAPTER THREE: METHODOLOGY OF THE STUDY .....</b>                | <b>33</b> |
| 3.0 INTRODUCTION .....  | 33        |
| 3.1 RESEARCH DESIGN .....   | 33        |
| 3.2 STUDY POPULATION .....  | 34        |
| 3.3 SAMPLE SIZE AND SAMPLING TECHNIQUE .....                        | 34        |
| 3.4 SOURCE OF DATA.....   | 35        |
| 3.5 DATA COLLECTION TECHNIQUES .....                                | 35        |
| 3.6 VALIDITY AND RELIABILITY OF THE INSTRUMENT .....                | 36        |
| 3.6.1 Validity .....  | 36        |
| 3.6.2 Reliability.....  | 36        |
| 3.7 DATA ANALYSIS TECHNIQUES.....                                   | 37        |
| 3.8 PROFILE OF ST. PETER’S COOPERATIVE CREDIT UNION.....            | 38        |
| 3.8.1 Background.....   | 38        |
| 3.8.2 Vision.....   | 38        |
| 3.8.3 Mission.....  | 39        |
| 3.8.4 Ownership.....  | 39        |
| 3.8.5 Membership .....  | 39        |
| <br>  |           |
| <b>CHAPTER FOUR: DATA ANALYSIS, PRESENTATION AND DISCUSSION ...</b> | <b>40</b> |
| .....   | 40        |
| 4.0 INTRODUCTION .....  | 40        |
| DEMOGRAPHICS OF RESPONDENTS.....                                    | 40        |



|  |           |
|--|-----------|
| 4.2 CREDIT RISK MANAGEMENT PRACTICES OF ST. PETER’S COOPERATIVE CREDIT UNION .....                         | 44        |
| 4.3 LOAN PERFORMANCE OF ST. PETER’S COOPERATIVE CREDIT UNION ...   | 49        |
| 4.4 EFFECTS OF CREDIT RISK MANAGEMENT AND LOAN PERFORMANCE OF ST. PETER’S COOPERATIVE CREDIT UNION .....   | 53        |
| 4.5 CHALLENGES FACING LOAN PERFORMANCE AT ST. PETER’S COOPERATIVE CREDIT UNION .....                       | 55        |
| <br>   |           |
| <b>CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS ..</b>  | <b>59</b> |
| 5.0 INTRODUCTION .....   | 59        |
| 5.1 SUMMARY OF FININGS .....   | 59        |
| 5.1.1 Credit Risk Management Practices of St. Peter’s Cooperative Credit Union.....                        | 59        |
| 5.1.2 Loan Performance of St. Peter’s Cooperative Credit Union.....  | 59        |
| 5.1.3 Effects of Credit Risk Management and Loan Performance of St. Peter’s Cooperative Credit Union ..... | 60        |
| 5.1.4 Challenges Facing Loan Performance at St. Peter’s Cooperative Credit Union .....                     | 60        |
| 5.2 CONCLUSIONS.....   | 60        |
| 5.3 RECOMMENDATIONS OF THE STUDY.....  | 61        |
| 5.4 RECOMMENDATION FOR FURTHER STUDIES.....  | 62        |
| REFERENCES .....   | 63        |
| APPENDIX.....  | 70        |

## LIST OF TABLES

| <b>Table</b>  | <b>Page</b> |
|---|-------------|
| 3.1 Reliability Analysis.....   | 34          |
| 4.1 Demographics of Respondents .....   | 38          |
| 4.2 Other Demographics of Union Members.....                                  | 41          |
| 4.3 Credit Risk Management Practices .....                                    | 42          |
| 4.4 Loan Performance .....  | 47          |
| 4.5 Effect of Credit Risk Management and Loan Performance.....                | 51          |
| 4.6 Challenges of Effective Credit Risk Management (Staff's Perspective)..... | 52          |



## LIST OF FIGURES

| <b>Figures</b>                          | <b>Page</b> |
|---|-------------|
| 4.1 Loan Issued (2011 to 2016) .....    | 49          |
| 4.2 Loan Defaulted (2011 to 2016).....  | 50          |
| 4.3 Debt/Loan Ratio (2011 to 2016)..... | 50          |



## ABSTRACT

The study of credit risk has become even more important in the wake of the recent near bankruptcy of two indigenous banks (UT Bank and Capital Bank), more especially among Credit Cooperatives where studies are limit in Ghana. A Credit Cooperative is a financial institution that is owned and controlled by its members and operated for the purposes of promoting thrift, providing credit at low interest rates and providing other financial services to its members. The primary objective of the study was to examine credit risk management practices and its impact on loan performance at St. Peter's Cooperative Credit Union. The research was a case study, and adopted a quantitative technique. The population comprised of staff, management and members of the credit union. The study sampled 30 staff and management, and 140 members using convenience sampling technique. Mean scores, standard deviations, frequencies, percentages, line graphs and simple linear regression were used in the analysis of the primary and secondary data. The study concluded that, St. Peter's had an effective credit risk management policy, which reflected in their loan performance. The study found a moderate correlation between credit risk management practices and the loan performance of the union. Holding all other things constant, a 100% improvement in the credit risk management practices, will lead to an increase in the loan performance (repayment) of St. Peters by 33.1%, and vice versa. This was statistically significant at 0.05. The union faced less challenge in the implementation of their credit risk management policy, and members also faced less challenge in the repayment of loan facility. It was recommended that, the union's management must consider assessing the cost and benefits of their risk management approaches, and how to maximize returns for members (owners). Secondly, management must therefore invest in staff training to get them more equipped for their tasks.

## CHAPTER ONE

### INTRODUCTION

#### 1.1 BACKGROUND TO THE STUDY

The emergence of formal and informal segments in the financial sector fragmentation implies that different segments approached p

problems such as high transactions costs, risk management, mobilization of funds, grants and capitalization. A savings and credit society also known as a credit union is a cooperative financial institution that is owned and controlled by its members and operated for the purposes of promoting thrift, providing credit at low interest rates and providing other financial services to its members. Hence there is the need to critically see credit management as an instrument for improving growth and sustainability of both the formal and the informal sector in an economy. Steel(1998), also pointed out that adequately managing credit risk in financial institutions including cooperative credit union is critical for the survival and growth of the financial institutions. In Ghana, cooperatives credit union's remained the most important players in provision of financial services and has deeper and extensive outreach than any other type of financial institute (ICA, 2002). They provided savings, credit and insurance services to a large portion of the population. In the case of cooperative credit union, the issue of credit risk is of even greater concern because of the higher levels of perceived risks resulting from some of the characteristics of clients and business conditions that they find themselves in. Cooperative credit unions are in the business of safeguarding money and other valuables for their members besides providing loans and offering investment financial services

(Boateng, 2008). However, credit creation is the main income generating activity for the cooperative credit unions. But this activity involves huge risks to both the lender and the borrower. The risk of a member not fulfilling his or her obligation as per the contract on due date or anytime thereafter can greatly jeopardize the smooth functioning of a cooperative credit union's business (Saunders & Cornett, 2005). On the other hand, a cooperative union with high credit risk has high bankruptcy risk that puts the members' funds in jeopardy. Credit risk was defined as the potential that a borrower or counterparty will fail to meet its obligations in accordance with agreed terms. According to Chijoriga (1997) credit risk is the most expensive risk in both the performance of firms and the financial institutions and its effect is more significant as compared to other risks as it directly threatens the solvency of firm performance. While both credit unions and other financial institutions have faced difficulties over the years for a multitude of reasons, the major cause of credit unions and problems managing financial institutions largely continue to be directly related to tax credit standards for borrowers and counterparties, poor credit risk management, or lack of attention to changes in economic or other circumstances that lead to deterioration in the credit standing of financial institution's counterparties (Basel, 1999). Hence how well credit unions or organizations put in measures in managing credit risk will obviously leads in determining firm's performance as a result of the credit risk management practices. The provision of credit facilities was the core function of every savings and credit co-operative society. The credit management function will facilitate efficient management and administration of the credit union loans in order to ensure equitable distribution of funds and will encourage liquidity planning (Ogilo, 2012). Basically Savings and credit co-operative has three operational

aspects namely; the savings, the credit and channeling external funds to members. In order to achieve prudence and accepted best practice, credit management will always be guided by clearly spelt out policies and procedures, strategic plan, by- laws , the co-operative act, the credit union regulatory act and rules and regulations.

## 1.2 STATEMENT OF THE PROBLEM

Mvula (2013) presented a report on common issues affecting performance of Credit Unions in Ghana and pointed out that the issues affecting performance of Credit Unions or cooperative societies are inadequate capital, poor asset quality, poor governance, poor profitability, poor liquidity and noncompliance. Mudibo (2005) also added that, weak regulation, limited product and services, low marketing and poor image, were the factors effecting the growth of cooperative credit unions. The main focus of these cooperative credit unions is to provide financial assistance to members of the group. And as with much credit provision institution, there is bound to be default along the way. Bearing this in mind, these credit institutions have laid those policies in managing these credits risks. There is however, little empirical study on how these credit risk management policies affects the performance of cooperative credit unions specifically. This study therefore seeks to meet this gap.

## 1.3 OBJECTIVE OF THE STUDY

The general objective of this study is to examine credit risk management practices and its impact on loan performance at St. Peter's Cooperative Credit Union. In pursuance of this, the following specific objectives are considered;

1. To determine the credit risk management practices of St Peter's Cooperative Credit Union.
2. To assess the performance of loans issued by St. Peter's Cooperative Credit Union.
3. To ascertain the relationship between credit risk management and the loan performance of St. Peter's Cooperative Credit Union.
4. To assess the challenges facing loan performance of St. Peter's Cooperative Credit Union.

#### 1.4 RESEARCH QUESTION

1. What credit risk management practices are undertaken by St. Peter's Cooperative Credit Union?
2. What is the performance of loans issued by St. Peter's Cooperative Credit Union?
3. What is the relationship between credit risk management and the loan repayment of St. Peter's Cooperative Credit Union?
4. What are the challenges facing loan performance of St. Peter's Cooperative Credit Union?

#### 1.5 SIGNIFICANCE OF THE STUDY

This study is important as it will contribute to both theory and practice. The study is significant to the management of cooperative credit unions in Ghana, as it will determine



the credit risk management practices that improve the performance. The findings and recommendations of the study would also be of importance to the national institutions like the Bank of Ghana, who are in charge of the welfare of these financial institutions. Since they regulate the operations of credit unions and other financial institutions, the finding will be used to make policies to help the growth of the sector. Hence the growth of the credit union cooperation will significantly inure to the benefit of the economy as well as its members as the institutions and its members honor their task obligation to the state agencies that are in charge of collecting revenue to the country.

Secondly the study would also be significant to the members of the credit union because it improved credit risk practices imply more returns on their investments. Members will also benefit from a more appropriate credit risk management policies that will be recommended from the study, thereby improving and enhancing smooth running and utilization of the credit facilities. Likewise, both the credit union and its members will effectively administer the loan to the beneficiaries judiciously with the view to reducing the default rate of loans that were given out to the beneficiaries. Significantly, the study will be more beneficial to the management of the credit union as it will assist them in identifying the segment of people that the union can assist with credit, so as to reduce the level of default rate. This is because credit cooperatives most often than not finance people of low income and unreliable employments hence the chances of default rate are very high. Hence effective administration of credit risk management by the credit cooperatives will lead to increase in its profit margin which will in turn have a positive impact on the performance of the economy.

Again, the study will serve as a guide for potential entrepreneurs and organizations that want to enter into credit cooperative so as to know the value of effective credit risk management and its impact on the performance of firms. As such the study will be beneficial to both the management and the firm itself as a result of effective implementation and management of the credit risk.

The credit management function will facilitate efficient management and administration of the credit cooperative loans in order to ensure equitable distribution of funds and will encourage liquidity planning. The study will also be useful to the management and administrators of credit cooperative in achieving prudence and best practices.

Moreover, the beneficiaries of the loan are the private individuals and the businesses in and around the community where the credit unions are established and may need the credit to finance their operations. As a result, the beneficiaries in the community will be save from any possible loss of capital or deposit as a result of default of loans granted to customers which are likely to become bad debt.

The study will serve as a base for further research for students, consultants, teachers and others who are interested in studying similar topic. It will also serve as an academic reference in management disciplines.

Last but not the least; the study will lead to effective credit risk management practices by the credit unions which will result in sound economic growth and excellence performance.

## 1.6 SCOPE OF THE STUDY

The conceptual scope of the study covered the credit risk management policies of financial institutions as well the impact on their performance. The contextual scope covers the staff and members of St. Peter's Cooperative Credit Union in Kumasi.

## 1.7 LIMITATION OF THE STUDY

There was difficulty in getting complete information from the management of credit unions because finance matters are quite sensitive to any organization. Secondly most of the credit unions have not fully computerized their accounting information and therefore it was difficult to get complete information. The researcher however tried overcoming the challenge of accessibility and release of information by providing the union with an introductory letter from the university.

Time as a resource for the study was also a challenge. The researcher was a fulltime employee, had to seat for thought courses and as well conduct the research within a relatively short period of time. The researcher had to fall on the weekends to do most of the write-ups for the study.

## 1.8 SUMMARY OF THE CHAPTERS

The study is organized into five chapters. Chapter one represents the general introduction, the problem statement, the objectives, the research questions, justification, the scope and limitations of the study. The second chapter reviews existing literature that primarily deals with discussions and review of literature related to the concepts of the research. The conceptual and regulatory framework of management practices on firm performance

criteria is also known in this chapter. Chapter three presents the research methodology. It contains research method selection, case study design, discussion of validity and reliability issues and the method of data analysis. This chapter also presents the profile of the case study areas. The fourth chapter comprises data analysis, presentation and discussion of results. Chapter five presents the summary and concise highlight of the various findings of the study and the conclusions of the researchers. Appropriate recommendations on credit risk management practices on loan repayment are also made in this chapter based on the research findings.



## CHAPTER TWO

### LITERATURE REVIEW

#### 2.0 INTRODUCTION

This chapter review literature relevant to the study. The areas considered include meaning of credit risk management, Historical Framework on Lending by credit cooperatives, Credit risk management of cooperatives and credit unions, Theoretical review, empirical review, credit risk theory and portfolio theory.

#### 2.1 THE EMERGENCE OF COOPERATIVE CREDIT UNION IN THE WORLD

The underlying principle of the historical framework is the fact that over the years, lending from financial institutions has been the most principal business transaction by Savings and Credit Cooperatives societies, commercial banks and other financial institutions. The loan portfolio is not just the predominant source of revenue and largest asset by financial institutions, but also the greatest source of risk to financial institutions (Amos et al, 2014). Historically, gaps created due to poor portfolio risk management, lax credit standards, weakness in the economy and poor risk management makes loan portfolio a major cause of banks and Cooperative Credit Unions losses and failures (Amos et al, 2014).

For a bank to be profitable given an interest margin of 2%, the default of a loan has to be less than 1 % (Sheppard, 1991). The idea of bank lending is link far back in history and was well acknowledge after the Second World War in Europe and later in Africa (Kiiru, 2004). Before the Economic boom in USA in 1885, most borrowers were discouraged in

borrowing due to its high lending rate by bank; this continued until the banks had adequate liquidity and was ready to lend the excess cash at a lower rate (Ditcher, 2003). The concept of credit in Africa was largely appreciated in the 50's at a period when financial institutions created a credit section and department in bid to lend to white settlers.

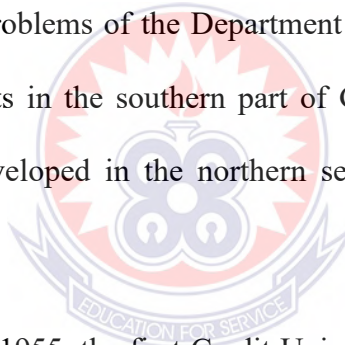
In the 1990s there was an intervention in loans being given to customers due to non-performance as loan defaults continued (Modurch, 1999). This drills to the concept of credit management as the ability to efficiently and intelligently manage a customer credit line, in order to curb bad debt, bankruptcies and over-reserving with banks having a greater insight to customer's financial strength, changing payment patterns and credit score (Haron et al, 2012). The failure of 162 banks in USA reported by office of the controller of currency in the 1979's, revealed 98% of such financial institution failure was due to asset quality issues and loan policy (Spadaford, 1988). Brice (1992) stipulated that, successful banks in the 1990's were built on innovative structure, systems and process that could manage risk in a more pro-active way.

## 2.2 EMERGENCE OF COOPERATIVE CREDIT UNION IN GHANA

Credit Unions are not new or emerging non-banking financial institutions in Africa. However, Ghana was the first country to operate a Credit Union on the entire African continent (WOCCU, 2009). In the 1920's, the Department of Co-operative realizing the need for popular Credit and savings facilities in Ghana, introduced Thrift and Loan Societies in the southern sector among government workers and some Cocoa farmers. They were poorly managed and soon became unpopular and therefore made little impact

on the lives of the people. The organizers of the thrift and loan societies travelled the length and breadth of the country to inaugurate Thrift and Loan Societies. These ushered in a lot of such societies but were short lived because most of them were organized purely for political reasons.

In 1961, the Convention Peoples Party (CPP) government dissolved the Department of Co-operatives including Co-operative Banks, because the societies were not towing the political line of the then ruling party. Just, after the 1966 coup, the Department of Co-operatives was re-organized. By then, there were not more than five Thrift and Loans Societies in existence. Efforts to reorganize them were seriously hampered by poor staffing and governance problems of the Department of Co-operatives (Zaato, 1998). In 1965, parallel to the events in the southern part of Ghana, a new type of Savings and Credit movement was developed in the northern sector of Ghana which had been in operation for ten years.



As a result, in September, 1955, the first Credit Union in Africa was formed at Jirapa in the North-West part of Ghana by Rev. Father John McNulty, a Catholic Missionary, and an Irish Canadian. The idea came as a result of his catchiest loosing (£6) notes which were destroyed by termites (Appiah, 2012). He buried these notes in the ground in a cigarette tin for safe keeping. An attempt was made by Father McNulty to change the torn notes at the Bank of West Africa in Accra. The only Bank in the North – West (now Upper West Region) was the Bank of West Africa. Wa is 41 miles away from Jirapa, 72 miles from Nandom and 84 miles from Hamile and Tumu. Banking services was therefore alien to the people. The idea of forming a Credit Union came into the Father's

mind to save more pound notes from being destroyed by termites. The Father's initial objectives in establishing the Credit Union in Africa and for that matter Ghana were:

- To mobilize local savings for development,
- To change the traditional methods of saving,
- To help the people in the area and elsewhere to develop themselves economically and to be self-sustainable.
- To instill the spirit of co-operation among the people (CUA News Letter, 1998).

Wa Catholic Diocese was created with the elevation of Bishop Derry as the first Bishop to be trained in International Institute of Canada, Nova Scotia between 1958 and 1959, and this exposed Bishop Derry to many aspects of Credit Union operations. After, the training in Coady, Bishop Derry encouraged the formation and promotion of Credit Unions in all parishes at various towns including Jirapa, Nandom, Kaleo, Ko, Daffiama, Wa, Lawra, Tumu among others. According to Zaato, in 1964, a Canadian Credit Union technician by name, Mr. Gary Churchill, from the province of Saskatchewan, was hired by the Catholic Diocese of Wa for two years to assist in the promotion and training of book keepers and leaders for the established Credit Unions in the North – West (Appiah, 2012). Mr. Churchill extended his services to some notable southern Credit Unions that were being organized. Among these were the Railway and Harbor Employees Credit Union at Sekondi-Takoradi, Akim Swedru community Credit Union in the Central Region, Our Lady of Fatima Credit Union at Sampa in the Brong Ahafo Region, among others.



By 1967, the total numbers of established Credit Unions were 18 with a total membership of 6,300 and \$400,000 as savings. In the year 1968, the idea of forming a national association was muted by some members of the then existing Credit Unions following a meeting sponsored by CUNA an International body based in Lesotho that used to assist Credit Unions in Africa. A follow- up conference was held in 1968 in Tamale that gave birth to the Ghana National Union and Thrift Association (GNACUTA) which became the fore-runner of the Ghana Co-operative Credit Unions Association (CUA) Limited. Raffeissen Movement in Holland, now Rabobank, Catholic Relief Services and Konrad Adenauer Foundation (KAF) were the first organizations to support CUA. By 1970, KAF became the sole donor to CUA (CUA News Letter, 1998).

KAF sponsored the appointment of Field Staff in all the regions and even pre-financed the purchase of a leased house that presently houses CUA until 1983. The world economic recession in 1983 had serious impact on Credit Unions operations in Ghana. CUA as an apex body was looking down to societies for financial support whereas primary societies on the other hand were also soliciting help from CUA. In October 1987, the Canadian Co-operative Association (CCA) mission to Ghana selected CUA as a most appropriate apex body and a partner organization for the advancement of the Credit Union movement and had been a successive donor and partner up to date with the sole aim of helping CUA and its primary societies to attain self-sufficiency and viability (Zaato, 1998).

### 2.3 CREDIT UNION OPERATIONS IN GHANA

Credit union members elect the volunteer Board of Directors with fixed terms. The terms may be staggered such that only a part of the board is up for election annually. The board in turn selects salaried management. Together, the Board and management are responsible for determining rates and making investment and reserve decisions. The ultimate aim of credit union operation is unclear because credit union members are not a homogeneous group. Some primarily borrow, while others are net savers (Bauer, 2008). Taylor (1971), Flannery (1974), and Walker and Chandler (1977) examine the conflict between borrowers and savers. PatinandMcNiel (1991) and Leggett and Stewart (1999) among others provide empirical evidence. The interests of these two groups often conflict, leaving management without a clear mandate for operation. Without a clear directive, credit union managers cannot optimally serve their members.

A starting point for studies of credit union optimization is identifying different credit union factions. Most authors' partition credit union membership into current borrowers, current savers, and future members as peroxide by equity (Taylor 1971; Flannery 1974; Walker and Chandler 1977, and Smith et al. 1981; Smith 1984, 1986, 1988). Bauer (2008) adopts a member benefit objective function in dissecting abnormal performance. Potential overlap between groups—current borrowers may be future savers—complicates this concept. Coordinating allocations to each group is the fundamental task of credit union management. Performance criteria account for the borrower-saver-equity conflict. *Benefit* denotes the gains each group receives from the credit union. Although there is not yet a universal expression for member benefits, meaningful models of credit union preference have been produced.

Bauer (2008, p. 573) recently noted that, “all owners are borrowers and/or depositors. Members with large deposits would want high interest/dividend rates; while members with large loans would want lower lending rates. These objectives lead to a natural margin squeeze. “Although credit unions try to minimize their costs in an effort to maximize the objectives of their owners, cost minimization is not the objective of those owners. Commercial banks also attempt to minimize costs in an attempt to maximize return to the shareholder, but that does not mean that the objective of the bank is to minimize costs.

The vast majority of the literature over the past two decades has focused on improved efficiency, with a definite cost minimization orientation even though largely implicit with regard to the overall literature. Bauer’s important development of an empirical test of abnormal performance based on Smith’s joint group net benefit represents an important certification for member return oriented studies and, hence, the need to model inter-temporality (Bauer 2008; Bauer et al. 2009). Benefit specification models quantify the gains received by credit union members. The Smith et al. (1981) model, which defines borrower (saver) benefit as the difference between credit union and market rates on loans (shares) times the volume of those loans (shares), seems most consistent with the credit union principles of providing low-cost loans and high-yield deposits to the membership. This definition is especially appealing because it accounts for the “value (of member) transactions with the Credit Union”. Smith (1984) later added neutrality constraints on his do not model such that neither borrowers nor savers are favored relative to the other group.

## 2.4 THEORIES ON COOPERATIVE CREDIT UNION

This section reviewed two theories applicable to Cooperative Credit Unions, namely, Social Capital Theory and Group Formation Theory.

### *2.4.1 The Social Capital Theory*

The social capital theory emanates from social capital which is the institutions, the relationships, the attitudes and values that govern interactions among people and contribute to economic and social development. According to Basargekar (2010), social capital is “the abilities of people to work together towards resolving community/social issue and promote equitable access to benefits of development”. Social capital can therefore be considered as a tool of economic development among people which also affects their environment and community (Rankin, 2002) either positively or negatively based on their collective action for mutual benefit of a group of people or a community.

Rankin (2002) advances that individuals do not generate social capital and are not the primary unit of analysis in the use of social capital theory to measure a phenomenon. Although, it can be argued that the developmental progress of a community or a group, cannot be accomplished without the individuals that made up the group and the community. Social capital is the effect of people’s relations in social groups that often unknowingly results in fulfillment of their goals. It also relates to the promotion of cooperation and unity among members of the same association leading to trust. The social capital theory covers various aspects of social capital which include the type of social networking, relationship and interaction which comprises the rules, regulations and norms that govern social actions and the trust among members including the benefits that

accrue to them (Anderson, Locker and Nugent, 2002). The theory focuses also on collective responsibility that enhances better loan repayment (Basargekar, 2010).

#### ***2.4.2 Group Formation Theory***

Komives (1998) identified six stages in group formation that are relevant to process through which Cooperative Credit Unions operate. Cooperative Credit Unions are examples of groups and the processes they go through are assessed using the group formation theory. This theory draws on the movement known as group dynamics, which is concerned with why groups behave in particular ways. This offers various suggestions for how groups are formed and how they develop over time. These stages may be longer or shorter for each group, or for individual members of the group, but all groups will need to experience them. They are forming, storming, and norming, performing, mourning and retiring.

Forming is the initial stage where a group comes together; members start developing relationships with one another and learn what the group expects from them. Storming stage sees an increase in interpersonal conflicts and differences in opinions about the group and its goals will surface. The group needs clear goal at this stage or else it will collapse. Once the conflicts are resolved the group enters norming, where patterns of how to get work done are established, and finally group enters performing where by the group gets focused on the task and works intentionally to accomplish its goals (Tuckman, 1977). According to Bartle (2008) groups are needed (a) to organize and guide the action, (b) for promoting and encouraging savings and investment, (c) for training members in necessary skills, and (d) for channeling the finance needed for the individual micro

enterprises. Cooperative Credit Unions are organized by members themselves with a hope of strengthening benefits associated with groups.

## 2.5 THEORIES ON CREDIT RISK

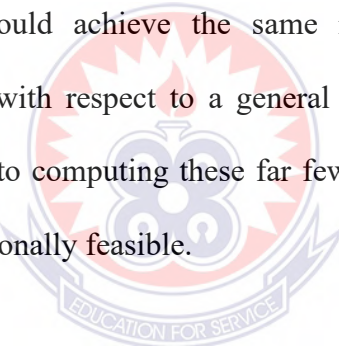
This section reviewed theories relating to credit risk, namely, Portfolio theory, Arbitrage Pricing Theory, Information Theory, and Risk-Adjusted Return on Capital Model, Liquidity Theory of Credit, Tax Theory of Credit and Credit Risk Theory.

### ***2.5.1 Portfolio Theory***

Since the 1980s, companies have successfully applied modern portfolio theory to market risk. Many companies are now using value at risk models to manage their interest rate and market risk exposures. Unfortunately, however, even though credit risk remains the largest risk facing most companies, the practice of applying modern portfolio theory to credit risk has lagged (Margrabe, 2007). Companies recognize how credit concentrations can adversely impact financial performance. As a result, a number of institutions are actively pursuing quantitative approaches to credit risk measurement. The banking industry is also making significant progress toward developing tools that measure credit risk in a portfolio context. They are also using credit derivatives to transfer risk efficiently while preserving customer relationships. Portfolio quality ratios and productivity indicators have been adapted (Kairu, 2009). The combination of these developments has vastly accelerated progress in managing credit risk in a portfolio context.

### ***2.5.2 Arbitrage Pricing Theory (APT)***

The Arbitrage Pricing Theory (APT) was propounded by Ross in 1976. Stephen Ross's APT approach moved away from the risk vs. return logic of the CAPM, and exploited the notion of pricing by arbitrage to its fullest possible extent. As Ross himself has noted, arbitrage-theoretic reasoning is not unique to his particular theory but is in fact the underlying logic and methodology of virtually all of finance theory. This theory subscribes to the fact that an estimate of the benefits of diversification would require that practitioners calculate the covariance of returns between every pair of assets. In their Capital Asset Pricing Model (CAPM), Morris (2001) solved this practical difficulty by demonstrating that one could achieve the same result merely by calculating the covariance of every asset with respect to a general market index. With the necessary calculating power reduced to computing these far fewer terms (betas), optimal portfolio selection became computationally feasible.



### ***2.5.3 Information Theory***

Derban et al. (2005) recommended that borrowers should be screened especially by banking institutions, in form of credit assessment. Collection of reliable information from prospective borrowers becomes critical in accomplishing effective screening as indicated by symmetric information theory. Qualitative and quantitative techniques can be used in assessing the borrowers although one major challenge of using qualitative models is their subjective nature. However according to Derban et al. (2005), borrowers' attributes assessed through qualitative models can be assigned numbers with the sum of the values compared to a threshold. This technique minimizes processing costs, reduces subjective

judgments and possible biases. The rating systems will be important if it indicates changes in expected level of credit loan loss. Bridge (1998) also stated that, explaining default risk, evaluating the relative degree of importance of the factors, improving the pricing of default risk, screening out bad loan applicants and calculating any reserve are needed to meet expected future loan losses.

#### ***2.5.4 Risk-Adjusted Return on Capital (RAROC) Model***

An increasingly popular model used to evaluate the return on a loan to a large customer is the Risk- Adjusted Return on Capital (RAROC) Model. This model, originally pioneered by Bankers Trust (acquired by Deutsche Bank in 1998) is now adopted by virtually all the large banks in Europe and the US, although with some differences among them (Saunders and Cornett, 2007). The essential idea behind RAROC is that rather than evaluating the actual promised annual cash flow on a loan as a percentage of the amount lent or (ROA), the lenders balance the loan's expected income against the loan's expected risk.

#### ***2.5.5 Liquidity Theory of Credit***

This theory, first suggested by Emery (1984), proposes that credit rationed firms use more trade credit than those with normal access to financial institutions. The central point of this idea is that when a firm is financially constrained the offer of trade credit can make up for the reduction of the credit offer from financial institutions. In accordance with this view, those firms presenting good liquidity or better access to capital markets can finance those that are credit rationed. Several approaches have tried to obtain empirical evidence in order to support this assumption. For example, Nielsen (2002),



using small firms as a proxy for credit rationed firms, finds that when there is a monetary contraction, small firms react by increasing the amount of trade credit accepted. As financially unconstrained firms are less likely to demand trade credit and more prone to offer it, a negative relation between a buyer's access to other sources of financing and trade credit use is expected. Petersen and Rajan (1997) obtained evidence supporting this negative relation.

### ***2.5.6 Tax Theory of Credit***

The decision whether or not to accept a trade credit depends on the ability to access other sources of funds. A buyer should compare different financing alternatives to find out which choice is the best. In trade between a seller and a buyer a post payment may be offered, but it is not free, there is an implicit interest rate which is included in the final price. Therefore, to find the best source of financing, the buyer should check out the real borrowing cost in other sources of funds. Brick and Fung (1984) suggest that the tax effect should be considered in order to compare the cost of trade credit with the cost of other financing alternatives. The main reason for this is that if buyers and sellers are in different tax brackets, they have different borrowing costs, since interests are tax deductible. The authors' hypothesis is that firms in a high tax bracket tend to offer more trade credit than those in low tax brackets. Consequently, only buyers in a lower tax bracket than the seller will accept credit, since those in a higher tax bracket could borrow more cheaply directly from a financial institution. Another conclusion is that firms allocated to a given industry and placed in a tax bracket below the industry average cannot profit from offering trade credit. Therefore, Brick and Fung (1984) suggest that firms cannot both use and offer trade credit.

### **2.5.7 Credit Risk Theory**

Although people have been facing credit risk since early ages, credit risk has not been widely studied until recent 30 years. Early literature (before 1974) on credit uses traditional actuarial methods of credit risk, whose major difficulty lies in their complete dependence on historical data. There are three quantitative approaches of analyzing credit risk: structural approach, reduced form appraisal and incomplete information approach (Crosbie et al. 2003). Melton (1974) introduced the credit risk theory otherwise called the structural theory which is the default event derived from a firm's asset evolution modeled by a diffusion process with constant parameters. Such models are commonly defined "structural model" and based on variables related to a specific issuer. An evolution of this category is represented by asset of models where the loss condition on default is exogenously specific. In these models, the default can happen throughout the life of a corporate bond and not only in maturity (Long staff and Schwartz, 1995).

## **2.6 CREDIT RISK MANAGEMENT PRACTICES**

### **2.6.1 Loan Portfolio**

Loan Portfolio constitutes loans that have been made or bought and are being held for repayment. Loan portfolios are the major asset of Cooperative Credit Unions and other lending institutions. The value of a loan portfolio depends not only on the interest rates earned on the loans, but also on the quality or likelihood that interest and principal will be paid (Jansson, 2002). Effective management of the loan portfolio and the credit function is fundamental to a Cooperative Credit Union's safety and soundness. Loan portfolio management (LPM) is the process by which risks that are inherent in the credit process

are managed and controlled. Because review of the LPM process is so important, it is a primary supervisory activity. Assessing LPM involves evaluating the steps the management takes to identify and control risk throughout the credit process (Richardson, 2002).

### ***2.6.2 Credit Risk Management***

When a Cooperative Credit Union grants credit to its customers it incurs the risk of non-payment. Credit management, or more precisely credit risk management, refers to the systems, procedures and controls which a Cooperative Credit Union has in place to ensure the efficient collection of customer payments minimize the risk of non-payment (Naceur and Goaid. 2003). Credit risk management forms a key part of a company's overall risk management strategy. Weak credit risk management is a primary cause of many business failures. Many small businesses, for example, have neither the resources nor the expertise to operate a sound credit management system (Richardson, 2002).

### ***2.6.3 Risk Identification***

Risk identification is a process that reveals and determines the possible organizational risks as well as conditions, arising risks. By risk identification the organization is able to study activities and places where its resources are exposed to risks (Williams et al., 1998). Risk identification is the first stage of risk management. It develops the basis for the next steps: analysis and control of risk management. Correct risk identification ensures risk management effectiveness. If risk managers do not succeed in identifying all possible losses or gains that challenge the organization, then these non-identified risks will become non-manageable (Greene and Trieschmann, 1984). Risk identification can be

described by the following basic elements: sources of risks; hazard factors; perils and exposures to risk.

#### ***2.6.4 Risk Analysis***

The condition under which there is a possibility of an adverse deviation from a desired outcome that is expected or hoped for is termed risk (Vaughn, 1997). Risk analysis is the analysis of the anticipated cost that will be incurred if a contingency takes place. This analysis is done before any contingency occurs. There are two elements included within this definition: future uncertainties and impact of outcomes (Haimes, 1998). An institution should have a policy to develop, review and implement an internal risk rating system where appropriate. Such a system should be able to assign a credit risk rating to obligors that accurately reflects the obligors' risk profile and likelihood of loss. It should also assign risk ratings in a consistent manner to enable the institution to classify obligors by risk ratings and have a clearer understanding of the overall risk profile of its portfolio. The institution's credit policy should define the various risk grades of its rating system. It should also set the criteria for assigning risk grades and the circumstances under which deviations from criteria are permitted. The credit policy should also define the roles of different parties involved in the rating process (Strutt 1993).

#### ***2.6.5 Credit Risk Assessment***

These constitute the process that a financial institution uses to determine the credit worthiness of a borrower. An institution should conduct comprehensive assessments of the creditworthiness of its obligors. These should include, where pertinent, analysis of the obligor's financial position as reflected in various financial and cash flow statements,

past repayment record, management quality and integrity, as well as relevant industry and macroeconomic data (Baldoni, 1998). For corporate obligors, adequate checks on the shareholders and company directors should be conducted. The institution should group related obligors where appropriate, and conduct credit assessment on a group basis.

#### ***2.6.6 Credit Risk Monitoring***

A Cooperative Credit Union should have in place a system for monitoring the condition of individual credits. Key indicators of credit condition should be specified and monitored to identify and report potential problem credits. These would include indicators from the following areas: Financial Position and Business Conditions; Conduct of Accounts. Loan Covenants External Rating and Market Price. In addition to monitoring the above risk indicators, an institution should also monitor the use of funds to determine whether credit facilities are drawn down for their intended purposes (Al-Tamimi and Al-Mazrooei, 2007).

#### ***2.6.7 Credit Risk Management Procedures***

These are procedures followed by an organization in order to implement its credit policy. An institution should establish appropriate procedures and processes; these should be documented and set out in sufficient detail to provide operational guidance to staff. Procedures should be established for the implementation of various controls and check within the credit process, such as completion of credit and legal documents, verification of loan disbursement, implementation of facility limits and follow up on credit exceptions (Fallon, 1996). The operational procedures should be periodically reviewed and updated

to take into account new activities and products, as well as new lending approaches and changes in systems.

## 2.7 CREDIT POLICY AND PERFORMANCE OF COOPERATIVE CREDIT UNIONS

The loaning policy of credit unions and cooperatives is a statement of its philosophy, standards, and guidelines that its employees must observe in granting or refusing a loan request. These policies determine which retail or corporate clients the credit unions approved for loans and which was avoided, and must be based on the loaning laws and regulations. The industry plays a major role in economic growth and development through provision of credit to execute economic activities. However, the major concern of any lender while advancing credit is how they will get their money back. Credit risk emanates from the probability that borrowers will default on terms of debt, subsequently loaning to high levels of non-performing loans. This concern has resulted into several attempts to manage the in-Loaning Policies in Cooperative Credit Unions.

A study by Baliwen (2009) on loan delinquency control practices of primary cooperatives in Nigeria, it was established that almost all of the cooperatives had written policies which they implemented strictly to their members. Each cooperative had a credit committee; however, only few staff engaged in loans. The requirements of the Cooperatives for borrowing loans were share capital, guarantors, collaterals, and savings deposit and business plan. Most of the cooperatives conducted credit investigation and monitored the projects of their borrowers to ensure that the loans were used properly. The cooperatives forced the borrowers to pay or return immediately their loans or they would not be granted loans once the cooperative found out that the loan was not being used for

the intended purpose. Gaitho (2010) surveyed on credit risk management practices by Cooperative Credit Unions in Nairobi, findings revealed that majority of Cooperative Credit Unions used credit risk management practices to mitigate risks as a basis for objective credit risk appraisal. She also found out that majority of Cooperative Credit Unions relied heavily on the discretion and ability of portfolio managers for effective credit risk management practices as opposed to a system that standardizes credit and credit risk decisions.

Kithinji (2010) assessed the effect of credit risk management on the profitability of financial institutions. The findings revealed that the bulk of the profits of commercial banks are not influenced by the amount of credit and non-performing loans, therefore suggesting that other variables other than credit and non-performing loans impact on profits. Laker (2006) argues that greater complexity of banking activity and increasing dependence on technology and specialist skills has made credit risk as one of the most important risk facing financial institutions. The formulation of the firm's credit and collection policies will also be influenced by the competing demands of the financial, marketing and operational managers (Schmidt and Piumelli, 1998).

The credit management units' primary concern will be to minimize the firm's investment in debtors in order to minimize opportunity costs and the risk of default (Ming et al., 1992). The risk of having a wrong policy in place can considerably reduce company profits through wrong procedures being followed hence leakage or loopholes in operations. For every credit or loan issued by Cooperative Credit Unions, there is a perceived risk involved. This risk refers to the possibility of non-payment of the obligation when it falls due. The credit risk may be minimized by a careful examination

of the 5Cs of credit which is defined as character, capacity, capital, collateral of the borrower and the prevailing conditions surrounding the business, this is more of an operational issue and if not carefully examined will led to operational risks in the credit process. In determining credit risk, it is advised that banks to assess the Cs of loan applicant in order to guide them in their day to day business and have the assurance that the applicant will comply in the agreement (Epstein, 2009) because this can have a great impact on company profitability.

Agu (1998) stated that loan default reduces the resource base of a bank for further lending, weakens staff morale and affects the borrower's confidence. The cost of managing overdue loans tends to be very high and this can reduce banks' profitability levels. In some cases, the costs on unpaid loans are shifted to other customers or borrowers in the form of higher interest margin charged on loans. The financial discipline of provisioning for loan losses has not been part of the Cooperative Credit Unions development since they have relied on the check-off system for decades (Silikhe, 2008).

## 2.8 CAUSES OF LOAN DELINQUENCY

According to Ahmad, (1997), causes of loan default include; lack of willingness to pay loans coupled with diversion of funds by borrowers, willful negligence and improper appraisal by credit officers. In addition, Hurt and Fesolvalyi (1998), cited by Kwakwa, (2009) found that, corporate loan default increases as real gross domestic product decline, and that the exchange rate depreciation directly affects the repayment ability of borrowers. Balogun and Alimi (1988) also identified the major causes of loan default as



loan shortages, delay in time of loan delivery, small farm size, high interest rate, age of farmers, poor supervision, non-profitability of farm enterprises and undue government intervention with the operations of government sponsored credit programmes. Moreover, Akinwumi and Ajayi (1990) found out that farm size, family size, scale of operation, family living expenses and exposure to sound management techniques were some of the factors that can influence the repayment capacity of farmers.

According to Olomola (1999), loan disbursement lag and high interest rate can significantly increase borrowing transaction cost and can also adversely affect repayment performance. Berger and De Young (1995) identified the main causes of default of loans from industrial sector as improper selection of an entrepreneur, deficient analysis of project viability, inadequacy of collateral security/equitable mortgage against loans, unrealistic terms and schedule of repayment, lack of follow up measures and default due to natural calamities. The study conducted by Okorie (1986) revealed that the nature, time of disbursement, supervision and profitability of enterprises, contributed to the repayment ability and consequently high default rates. Other critical factors associated with loan delinquencies are: type of the loan; term of the loan; interest rate on the loan; poor credit history; borrowers' income and transaction cost of the loans.

Okpugie (2009) also indicated that, high interest charged by the microfinance banks has been discovered to be the reason behind the alarming default. This was also confirmed by Vandel (1993), who also found that high interest rates charged by banks tend to facilitate default by borrowers. According to Gorterand Bloem (2002) non-performing loans are mainly caused by an inevitable number of wrong economic decisions by individuals and plain bad luck (bad weather, unexpected price changes for certain products, etc.). Under

such circumstances, the holders of loans can make an allowance for a normal share of non-performance in the form of bad loan provisions, or they may spread the risk by taking out insurance.

According to Nishimura et al. (2001), one of the underlying causes of Japan's prolonged economic stagnation is the non-performing or bad loan problem. They explained that some of the loans made to companies and industries by financial institutions during the bubble era became non-performing when the bubble burst. This delayed structural reforms and prevented the financial intermediary system from functioning properly. Most of the defaults arose from poor management procedures, loan diversion and unwillingness to repay loans (Kohansal and Mansoori, 2009). According to them a number of factors can cause loan defaults some of which are: Interest rate ceilings usually imposed by the government, monopoly power in credit markets often exercised by informal lenders, large transaction costs incurred by borrowers in applying for loans, moral hazard problems and many more.

From the findings of the study conducted by Warue (2012), most cases of loan delinquency are caused by microfinance institutions and self-help groups' management failure to efficiently manage specific factors which are considered to be within the direct control of the MFIs' and Cooperative Credit Unions' management. The external factors outside the direct control of the MFIs' and Cooperatives' management seem to contribute little to the levels of delinquent loans. Therefore, for effective management of delinquency, it is critical for MFIs to understand and focus more on the internal causes of delinquency which they have more control over and seek practical and achievable solutions to redress these problems.

The upheaval that hit mainstream financial markets and the effects that continue to be felt across the globe from the resulting economic crisis impacted MFIs and their clients. The early stages of the downturn saw MFIs experience significant liquidity shortages, but as the capital markets recovered, concerns turned from funding to asset quality (CGAP, 1999). This scenario points to links between external factors and loan delinquency. The relationship between the macroeconomic environment and loan quality has been investigated in the literature linking the phase of the business cycle with lending institutions stability. For instance, Fofack (2005) studied causal analyses and macroeconomic implication on loan default in Sub-Saharan countries. Fofack showed that, macroeconomic stability and economic growth are associated with a declining level of default; whereas adverse macroeconomic shocks coupled with higher cost of capital and lower interest margins are associated with a rising scope of non-performing loans.

The findings of Waweru and Kalani (2009) indicated that some of the causes of non-performing loans were national economic downturn, reduced consumer buying ability and legal issues. The study appreciates that the non-performing loan and loan delinquency concepts are similar. Inadequate financial analysis according to Sheila (2011) is another cause of loan default. This is when in the loans department the officers do not take a careful study of the applicants to ensure that he/she has a sound financial base such that the risk of loss is mitigated in case of default. Sheila (2011) also points out that, the issues of inadequate loan support is another cause of loan default. Sheila says that it is very important that the loan personnel collectively ascertain the position in which the loanee finds himself/herself so that in case he needs support, it's availed to him or her.

Unfortunately, that is not the case even when the support is given it is not adequate which leaves the business crumbling and hence leading to default. Illiteracy and inadequate skills was another cause of default. Majority of the clients are engaged in traditional, low paying businesses and rarely diversify their businesses and skills. This implies that they do not have enough knowledge about alternative marketable skills that can benefit them when their businesses do not function properly (Bichangerand Aseya, 2013). Secondly, most of them do not know how to read, write and make simple calculations. As a result, they do not know how to account for their businesses even when the lender makes an error, the borrowers are held liable to the loan (Nguta and Guya, 2013). Again, disappearance of loan clients was seen as another cause.



## CHAPTER THREE

### METHODOLOGY OF THE STUDY

#### 3.0 INTRODUCTION

This chapter explains the research design, research strategy, population, sample size, sampling technique, source of data, data collection techniques, validity and reliability, data analysis techniques and organizational profile.

#### 3.1 RESEARCH DESIGN

In every research, the researcher has the option in choosing between a survey, an experiment, history, an analysis of archival records and a case study (Yin, 2003). This study was a case study, by studying St. Peter's Cooperative Credit Union. Robson (2002, p. 178) defines case study as "a strategy for doing research which involves an empirical investigation of a particular contemporary phenomenon within its real-life context using multiple sources of evidence". This study adopted the 'single case' approach. A single case may be selected because it is typical or because it provides an opportunity to observe and analyze a phenomenon that few have considered before (Yin, 2003).

As opined by Creswell (2009) and Saunders et al. (2009), there are three forms of research strategy, namely, quantitative, qualitative, and mixed approach. In a quantitative study, variables are measured numerically, and data obtained analyzed using statistical procedures (Saunders et al., 2009). According to Creswell (2009, p. 4), "qualitative research is a means of exploring and understanding the meaning individuals or groups ascribe to a social or human problem". One way of distinguishing between the two is the

focus on numeric (numbers) or nonnumeric (words) data. Studies conducted using a structured questionnaire are mostly quantitative, while studies conducted using observation or interview are mostly qualitative in nature (Creswell, 2009). The mixed method combines the qualitative and quantitative approaches in a single study. The objectives of this study however warrant the use of a quantitative approach as structured questionnaires were used in data collection.

### 3.2 STUDY POPULATION

A population is the total of all the individuals who have certain characteristics and are of interest to a researcher. Polit and Hungler (1999) refer to the population as an aggregate or totality of all the objects, subjects or members that conform to a set of specifications. The population of the study comprised the staff and management numbering 64, and members of St. Peter's Cooperative Credit Union also numbering 5025.

### 3.3 SAMPLE SIZE AND SAMPLING TECHNIQUE

The process of selecting a portion of the population to represent the entire population is known as sampling (LoBiondo-Wood & Haber 1998; Polit & Hungler 1999). In certain studies, it is possible and prudent to conduct study on the entire population. However, due to time limitation, access to respondents and other factors, the sample size is 170. This is made up of 10 management and 20 staff, and 140 members of the credit union, sampled from all the 4 branches (Bompata, Bantama, Suame Magazine, and Tafo Nhyiaso).

Convenience sampling technique was used in selecting staff, management and members of the credit union. Convenience sampling involves selecting haphazardly those cases that are easiest to obtain from the population (Saunders et al., 2009).

### 3.4 SOURCE OF DATA

The study made use of both primary and secondary data. Questionnaires were used as the research instrument to gather primary data on credit risk management practices, loan performance and the challenges facing the loan repayment of St. Peter's Cooperative Credit Union.

Secondary data was gathered by analyzing the documented records of the credit union to ascertain the actual loan issued, actual loan debt, and debt to loan percentage over the period of 2011 to 2016.

### 3.5 DATA COLLECTION TECHNIQUES

The study made use of questionnaires as the research instrument. As opined by Saunders et al. (2009), data collected using questionnaires can be stable, constant and has uniform measure without variation. It also reduces bias caused by the researcher's presentation of issues. Same questionnaire was used for collecting data from staff and management, however, separate one was designed for the union members.

The questionnaire for staff and management had four sections. Part I addressed the respondents demographics, Part II addressed the credit risk management practices, Part III addressed the loan performance of the union, and Part IV addressed the challenges hindering the smooth implementation of credit risk management policies.

The questionnaire for members also had four sections. Part I addressed members' demographics, Part II addressed the services patronized by members of the union, Part III addressed the credit risk management practices of the union, and Part IV addressed the causes of loan default (challenges of loan repayment).

### 3.6 VALIDITY AND RELIABILITY OF THE INSTRUMENT

This section addressed the validity and reliability of the study.

#### ***3.6.1 Validity***

Validity is defined as the extent to which data collection method or methods accurately measure what they were intended to measure (Saunders et al., 2009). A number of different steps were taken to ensure the validity of the study. Firstly, the research instruments were developed based on empirical literature. Secondly, the research instruments were also pilot tested, which enabled the researcher to make the necessary adjustments for the final questions. The improved questionnaire was used to gather data from reliable sources. Finally, the data was collected within 3 weeks, and within this short period of time, no major event has been changed with related topic.

#### ***3.6.2 Reliability***

According to Saunders et al. (2009), reliability refers to the degree to which data collection method or methods will yield consistent findings, similar observations would be made or conclusions reached by other researchers or there is transparency in how sense was made from the raw data. Cronbach's alpha was used to measure the internal consistency. That is, how closely related a set of items are as a group. In social science



research like this study, a reliability coefficient of 0.70 or higher is considered “acceptable”. And from the results presented in Table 3.1, the alpha values for all various items were larger than 0.70, indicating all the variables are reliable for further analysis.

Table 3.1 Reliability Analysis

| <b>Variables</b>                                       | <b>Cronbach's Alpha</b> | <b>No. of Items</b> |
|--|-------------------------|---------------------|
| Credit Risk Management Practices (Staff)               | 0.715                   | 14                  |
| Credit Risk Management Practices (Members)             | 0.893                   | 14                  |
| Loan Performance (Staff)                               | 0.811                   | 5                   |
| Loan Performance (Members)                             | 0.942                   | 5                   |
| Challenges of Effective Credit Risk Management (Staff) | 0.760                   | 10                  |
| Challenges of Loan Repayment (Members)                 | 0.882                   | 12                  |

Source: Field Work (2017).

### 3.7 DATA ANALYSIS TECHNIQUES

According to Bernard (1998), data analysis consists of systematically looking for patterns in recorded observations and formulating ideas that account for those patterns. The quantitative data was analyzed with the Statistical Package for Social Science (SPSS) v.20. The analysis was organized in five sections. The first section presented the demographics of the respondents using frequencies and percentages.

The second section presented analysis and discussions on the credit risk management practices of the union, using mean scores and standard deviations. The third section presented analysis and discussions on the loan performance using mean, standard deviation and line graph. The fourth section presented analysis and discussions on the relationship between credit risk management and the loan performance, using simple linear regression model. The final section assessed the challenges hindering the smooth implementation of credit risk management policies, and the causes of loan default among members.

### 3.8 PROFILE OF ST. PETER'S COOPERATIVE CREDIT UNION

#### ***3.8.1 Background***

St. Peter's Co-Operative Credit Union is one of the leading Credit Unions in Ghana. It was established in 1969 by the Roman Catholic Church Cathedral Branch Kumasi,

St. Peter's Credit Union (Speccu) is a member owned; member managed financial institution formed under the Co-operative Law of Ghana. It has a solid financial and highly experience BOD and Management structure with enviable track record in financial Management.

#### ***3.8.2 Vision***

We are committed in being trusted financial resources for our members by providing them with the best solutions for their financial needs. We will deliver a full range of affordable financial products and services to the diverse economic and social fabric of our members and prospective ones.

### **3.8.3 Mission**

Our Core Vision is to provide the highest level of personal financial service in a friendly manner; To encourage thrift saving and the wise use of credit; to increase the knowledge and ability of our members to manage and control their financial well-being; to provide sound financial management in order to maintain higher earnings to our shareholders.

### **3.8.4 Ownership**

SPECCU is a financial co-operative registered by the Department of Co-operative to carry out financial services to its members under the NLCD 252 of 1968. It is owned and controlled by the members through an experience Board of Directors who have appointed a solid Management Team.

### **3.8.5 Membership**

We have over 13,000 members under our operations and we are the biggest Credit Union in the Ashanti region in terms of Assets Size, Membership and Profitability.

Per our 2015/2016 Audited Financial report, our total membership was 13,239 and this has increased as a result of aggressive marketing and membership drive taken during the year. We intend to grow beyond this since the market size is unlimited and the potentials are there. We continue to be ranked Class “A” under the Credit Union rankings in Ghana.



## CHAPTER FOUR

### DATA ANALYSIS, PRESENTATION AND DISCUSSION

#### 4.0 INTRODUCTION

This chapter entails the analysis of data, the presentation and discussion of results. The primary objective of the study was to examine credit risk management practices and its impact on loan performance at St. Peter's Cooperative Credit Union. To achieve the said goal, primary data was collected from 30 staff of the union, as well as 140 members of the union. The results were supported by a financial statement analysis, to ascertain the actual loan issued, actual loan debt, and debt to loan percentage over the period of 2011 to 2016. This chapter presented the analysis and discussion of results in accordance to the four specific objectives used in the study. However, the demographics of the respondents were first presented.

#### DEMOGRAPHICS OF RESPONDENTS

- **Management and Staff**

The demographic characteristic of the respondents used in this study is presented in Table 4.1 and Table 4.2. The demographics of staff of St. Peter's Cooperative Credit Union were gender, age, years of service, level of education, and position in the organization.

- **Union Members**

The demographics of the union members considered in this study were gender, age, years of membership, and level of education (as presented in Table 4.1). Other demographics of members considered were their household size, nature of business or

occupation, and whether or not they had taken a loan facility from the union since joining them (as presented in Table 4.2).

**Table 4.1 Demographics of Respondents**

| Demographics                                   | Responses                | Staff     |         | Members   |         |
|--|--------------------------|-----------|---------|-----------|---------|
|  |                          | Frequency | Percent | Frequency | Percent |
| Gender   | Male                     | 18        | 60.0    | 77        | 55.0    |
|  | Female                   | 12        | 40.0    | 63        | 45.0    |
| Age of Respondent                              | 18-25 years              | 4         | 13.3    | 28        | 20.0    |
|  | 26-35 years              | 16        | 53.3    | 42        | 30.0    |
|  | 36-45 years              | 10        | 33.3    | 21        | 15.0    |
|  | 46-55 years              | -         | -       | 35        | 25.0    |
|  | Above 55 years           | -         | -       | 14        | 10.0    |
| How long have you been working with St. Peters | Less than 1 year         | 2         | 6.7     | 7         | 5.0     |
|  | 1-5 year                 | 8         | 26.7    | 63        | 45.0    |
|  | 6-10 year                | 20        | 66.7    | 49        | 35.0    |
|  | 11 – 15yrs               | -         | -       | 14        | 10.0    |
|  | 16yrs and above          | -         | -       | 7         | 5.0     |
| Educational Level                              | No formal education      | -         | -       | 7         | 5.0     |
|  | Basic education          | -         | -       | 14        | 10.0    |
|  | Secondary                | -         | -       | 35        | 25.0    |
|  | Diploma                  | 12        | 40.0    | 14        | 10.0    |
|  | 1st Degree               | 10        | 33.3    | 56        | 40.0    |
|  | 2nd Degree               | 4         | 13.3    | 7         | 5.0     |
|  | Professional certificate | 4         | 13.3    | 7         | 5.0     |
| Current Position                               | Junior staff             | 10        | 33.3    | -         | -       |
|  | Senior staff             | 8         | 26.7    | -         | -       |
|  | Middle-level management  | 6         | 20.0    | -         | -       |
|  | Senior management        | 6         | 20.0    | -         | -       |
|  |                          |           |         |           |         |

Source: Field Work (2017).

From Table 4.1, male staff outweighed the female staff sampled for the study. From the 30 respondents 18 (60%) were males whiles 12 (40%) were females. It was so with the gender distribution of the union member. Male respondents were 77 (55%) whiles the

female respondents were also 63 (45%). The male dominated on both sides because there were actually more male staff than female staff, and the union's membership has more males than females.

The age distribution indicates that, staff aged 18-25 years were 4 (13.3%), those aged 26-35 years were 16 (53.3%) and those aged 36-45 years were 10 (33.3%). The study was therefore dominated by personnel aged 26 years and above (about 87%), and this was a true reflection of the population. Regarding the age distribution of the union members, those aged 18-25 years were 28 (20%), those aged 26-35 years were 42 (30%), those aged 36-45 years were 21 (15%), those aged 46-55 years were 35 (25%), and those aged above 55 years were 14 (10%).

From the analysis presented, only 2 (6.7%) of staff had spent less than a year with the union, 8 (26.7%) had spent 1-5 years, and 20 (66.7%) had spent 6-10 years. Staff years of experience will have a great influence on the credibility of the information the grant the researcher regarding the credit risk management practices and performance of the union. The analysis indicates that the majority (about 66.7%) of the staff sampled for the study have had some substantial years of experience with the union (over 5 years), and are deemed to be much knowledgeable to provide a more reliable information towards the study. The distribution on the union members also indicated that, 7 (5%) of union members had spent less than a year with the union, 63 (45%) had spent 1-5 years, and 49 (35%) had spent 6-10 years, 14 (10%) had spent 11-15 years, and 7 (5%) had spent above 16 years.

The educational distribution indicated that, 12 (40%) of the staff had a Diploma qualification, 10 (33.3%) had a Bachelor Degree, 4 (13.3%) had a Master's Degree, and 4 (13.3%) had a Professional qualification like ACCA and ICA. The distribution on members' education indicated that, 7 (5%) had no formal education, 14 (10%) had a basic education (primary to JHS), 35 (25%) had a Secondary education, 14 (10%) had a Diploma qualification, 56 (40%) had a Bachelor Degree, 7 (5%) had a Master's Degree, and 7 (5%) had a Professional qualification.

Amongst the staff sampled for the study, 10 (33.3%) were junior staff, 8 (26.7%) were senior staff, 6 (20%) were in middle level management, and 6 (20%) were senior management members.

**Table 4.2 Other Demographics of Union Members**

| Other Demographics                | Responses   | Frequency | Percent |
|-----------------------------------|-------------|-----------|---------|
| Household size                    | Less than 5 | 91        | 65.0    |
|                                   | 5-10        | 42        | 30.0    |
|                                   | 11-15       | 7         | 5.0     |
| Nature of business/<br>occupation | Teaching    | 63        | 45.0    |
|                                   | Trading     | 21        | 15.0    |
|                                   | Farming     | 35        | 25.0    |
|                                   | Driving     | 21        | 15.0    |
| Accessing loan facility           | No          | 35        | 25.0    |
|                                   | Yes         | 105       | 75.0    |

Source: Field Work (2017).

Table 4.2 also presented additional demographics of the union members. From the analysis presented, 91 (65%) had a household of less than 5, 42 (30%) had a household of 5-10, and 7 (5%) had a household of 11-15.

Most of the union members were teachers. Sixty-three (45%) of the union members sampled for the study were teachers, 21 (15%) were traders, 35 (25%) were farmers, and 21 (15%) were commercial drivers.

Out the members sampled, 35 (25%) had never taken a loan facility since joining the union. However, the majority 105 (75%) had ever accessed loan facility from the union. This indicates that, the majority of the respondents would have a first-hand experience regarding the credit risk management practices of the union, and how that affects loan repayment.

#### 4.2 CREDIT RISK MANAGEMENT PRACTICES OF ST. PETER'S COOPERATIVE CREDIT UNION

The first specific objective of the study was to assess the credit risk management practices of St. Peter's Cooperative Credit Union. The respondents (both staff and management) were given 14 items relating to general credit risk management practices, and were asked to respond on a scale of *1-Not at all*, *2-Less often*, *3-Indifferent*, *4-Often*, and *5-Very often*. The responses of the staff were ranked in descending mean, as a greater mean score indicates more frequent use of the risk management. The responses of the union members were presented along with the ranked results of the staff.



Table 4.3 Credit Risk Management Practices

| Credit Risk Management Practices                      | Staff         |                | Members       |                |
|---|---------------|----------------|---------------|----------------|
|   | Mean          | Std. Deviation | Mean          | Std. Deviation |
| Careful examination of borrower's capacity to payback | 4.60          | .737           | 4.25          | .851           |
| Loans are awarded after signing of a binding contract | 4.53          | .640           | 3.85          | 1.268          |
| Careful examination of borrower's character           | 4.47          | .834           | 3.80          | 1.152          |
| Careful examination of borrower's capital or income   | 4.47          | .640           | 4.00          | 1.124          |
| Careful examination of borrower's contribution        | 4.40          | .986           | 4.35          | .745           |
| Careful examination of borrower's repayment history   | 4.40          | .632           | 4.30          | .923           |
| Careful examination of borrower's nature of business  | 4.20          | 1.014          | 3.85          | 1.137          |
| Keep track of borrower's compliance with credit terms | 4.20          | .775           | 3.30          | 1.174          |
| Careful examination of borrower's collateral security | 4.13          | 1.060          | 3.45          | 1.146          |
| Giving borrower financial counseling                  | 3.67          | 1.234          | 3.55          | .999           |
| An assessment of borrower's guarantors                | 3.67          | 1.047          | 3.40          | 1.392          |
| Imposing a loan size limit                            | 3.60          | 1.352          | 3.20          | 1.399          |
| Hefty penalties are charged on loan defaulters        | 3.40          | 1.352          | 2.60          | 1.142          |
| Periodic evaluation of borrower's collateral          | 3.27          | 1.163          | 3.05          | 1.146          |
| <b>Overall Mean</b>                                   | <b>4.0714</b> | <b>.56759</b>  | <b>3.6393</b> | <b>.66704</b>  |

Source: Field Work (2017).

From the analysis presented in Table 4.3, staff of the union indicated that, St. Peter's Cooperative Credit Union very often carefully examined borrower's capacity to payback loan applied before granting approval and disbursement. The mean score was 4.60, which was approximately 5 (very often). The union members also sided with the staff's response by indicating the union often examined their capacity to payback their loan before approval was granted. The mean score was 4.25, which was also approximately 4 (often).

The capacity to payback loan facility is an important element in the 5 Cs of credit postulated by Epstein (2009). Issuing loans beyond the capacity of the debtors' ability to pay will increase the firm's bad and doubtful debts.

Staff further indicated that, very often, the union awarded loans only after signing a binding contract (mean was 4.53, approximately 5). This was further supported by the members who indicated that, the union often signs a binding contract with them before issuing any loan facility (mean was 3.85, approximately 4). As Saunders and Cornett (2005) posted, the risk of a member not fulfilling his or her obligation on due date or anytime thereafter can greatly jeopardize the smooth functioning of a cooperative credit union's business. It is therefore very important to have a well-structured and binding contract, which will be to the detriment of the debtor when he or she fails to honor the loan repayment.

The union often carefully examined borrower's character before issuing the credit facility (mean was 4.47). This was supported by the members who also indicated their character was a consideration in the loan approval process (mean was 3.8). The International Cooperative Alliance reported in 2002 that, cooperative credit unions usually have greater credit risk concerns because of the higher levels of perceived risks due to the characteristics of their clients. This notwithstanding, they are in business to safeguard monies and improve lives of members, not just selected few. Making due diligence on the character of the loan applicant, such as his or her credit history become very important in minimizing the credit risk.

Relating to the borrower's capacity to payback loan granted is the capital or the income of the loan applicant. The staff indicated that the union often carefully examined borrower's capital or income prior to approving loan facility (mean was 4.47). This was supported by the members, who indicated that the union often examined their income flow before granting loan (mean was 4.). The weekly or monthly income flow of the loan applicant, to determine the amount of loan that could be given to the applicant and the amount of time (months) that should be given for the repayment.

As it is said in the "No Contribution No Chop", so members' loans are first and foremost assessed based on the amount contributed into the pool, the period of contribution, and the regularity in the contribution. The staff and members all indicated that, the union often careful examined borrower's contribution before approving loan (mean was 4.40 and 4.35 respectively). This helps the union not to get some members to unduly benefit from the system, to the detriment of the other faithful members. As the Social Capital explains, the essence of forming groups such as this, is to get people to work together towards resolving community/social issue and promote equitable access to the benefit of all (Basargekar, 2010).

The staff and members stated that, the union often carefully examined borrower's repayment history prior to loan approval (mean was 4.40 and 4.3 respectively). An assessment of applicants credit history is very crucial is averting a potential loan default. Assessment usually covers the viable reasons leading to the default, and whether or not those causes still linger. Derban et al. (2005) recommended that borrowers should be well-screened, as collection of reliable information from prospective borrowers becomes

critical in accomplishing effective screening as indicated by the symmetric information theory.

Prior study like De Young (1995) identified improper selection of an entrepreneur and deficient analysis of business (project) viability as amongst the major causes of loan default. Staff and members of St. Peter's Cooperative Credit Union however indicated that, the union carefully examined borrower's nature of business before disbursing loan facility (mean was 4.20 and 3.85 respectively). A proper assessment of the business or project for which the loan was applied, helps to know its viability and the ability to repay the loan.

Keeping track of borrower's compliance with credit terms was very important, as it will send an early signal of potential loan default. Staff stated they often did this (mean was 4.20), however, the union members were indifferent. For loans that are meant for business and projects, staff could even regularly follow up to make sure the loan was used for the intended purpose. These are all means of reducing the credit risks.

Staff once again agreed that they often carefully examined borrower's collateral security during the loan approval process (mean was 4.13), however, the union members were indifferent. An assessment of the borrower's collateral, which forms part of the 5Cs of credit, guides the financial institution (like the Credit Unions) in their day to day business and have the assurance that the applicant will comply in the agreement (Epstein, 2009; De Young, 1995). The borrower who provided some security are likely to default only when all means to repay proved futile, because he or she knows he will lose his asset when he defaults.

Both staff and union members agreed that, the union often gave borrowers some financial counseling prior to loan disbursement (mean was 3.67 and 3.55 respectively). This is to help the applicants use their loan judiciously, knowing very well it was not a grant. Staff cited that the union often assessed borrower's guarantors, but the union members were indifferent (mean was 3.67 and 3.40 respectively). As Baliwen (2009) also indicated, the provision of guarantors was a requirement for loan approval by Cooperative.

The imposition of loan size limit based on the characteristics of the loan applicant was very important in reducing credit risk. Loans must be issued based on applicants overall strengths and weakness such as nature of employment, reason for loan, income flow, etc. Fallon (1996) indicated that the implementation of loan facility limit represents an important credit control mechanism. The staff agreed the union had a policy on loan size limit, but the union members were indifferent (mean was 3.60 and 3.20). The union members were indifferent as they may not be privy to some of these policies.

Staff and union members were all indifferent that the union imposed hefty penalties loan defaulters (mean was 3.40 and 2.60 respectively), and that the union periodically evaluated borrower's collateral (mean was 3.27 and 3.05 respectively).

#### 4.3 LOAN PERFORMANCE OF ST. PETER'S COOPERATIVE CREDIT UNION

The second specific objective of this study was to assess the performance of loans issued by St. Peter's Cooperative Credit Union. This section was responded to by the staff of the union. They were asked to respond to the 5 items on a scale of *1-Strongly disagrees, 2-Disagree, 3-Indifferent, 4-Agree, and 5-Strongly agree*. The mean scores were ranked in descending order, as a greater mean score indicates more agreement to the statement. The

overall mean score for loan performance was 4.13, which indicates the respondents agreed that the performance of the union's loans granted performed well.

Table 4.4 Loan Performance

| <b>Loan Performance</b>   | <b>Mean</b>   | <b>Std. Deviation</b> |
|---|---------------|-----------------------|
| St. Peter's makes much returns for members through loan interest payment                              | 4.67          | .488                  |
| Documentation of credit facilities is effectively done at St. Peter's                                 | 4.40          | .507                  |
| There is timely control systems and recovery practices to manage the outstanding risks at St. Peter's | 4.13          | .640                  |
| Members of St. Peter's repay their loans on the agreed period of time                                 | 4.07          | .594                  |
| Accounts and revenue collection procedures at St. Peter's are cost effective                          | 3.40          | 1.183                 |
| <b>Overall Mean</b>   | <b>4.1333</b> | <b>.36775</b>         |

Source: Field Work (2017).

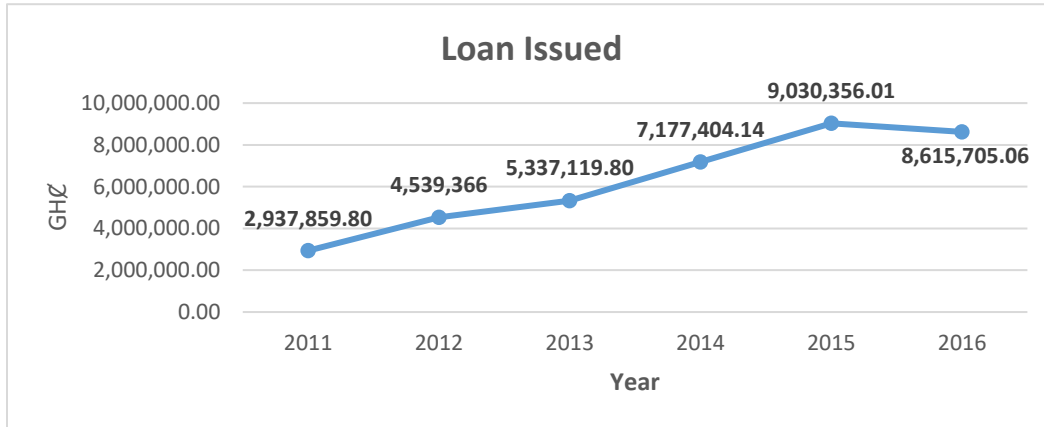
From the analysis presented in Table 4.4, it was strongly agreed that St. Peter's makes much returns for members through loan interest payment (mean was 4.67). Although the interest charged on union loans are less than that of commercial banks and other credit facilities, the union still generates some income to cater for the day-to-day operational expenses as well as have some leftover for the members.

It was agreed by the staff that documentation of credit facilities is effectively done at St. Peter's (mean was 4.40). Proper record keeping makes it easier to track contributions, investments, payment of benefits to members, loans issued, loan repayment, credit records of members, etc. All these information helps management in decision making in the best interest of the union.

The respondents also agreed there were timely control systems and recovery practices to manage the outstanding risks at St. Peter's (mean was 4.13). For the union to have enough funds to continue in operation, have members funds secured and funds the payment of members' benefits, loans issued out must be paid on the agreed terms. A number of financial institutions in Ghana (such as DKM, Noble Dream, UT Bank, Capital Bank, etc.) collapsed due to liquidity challenges, which was partly due to loan delinquencies. Having a control mechanism to help debtors' payback on the agreed terms therefore means the union performs well. It was further agreed that, members of St. Peter's repay their loans on the agreed period of time (mean was 4.07). The staff were however indifferent that the accounts and revenue collection procedures at St. Peter's were cost effective (mean was 3.40).

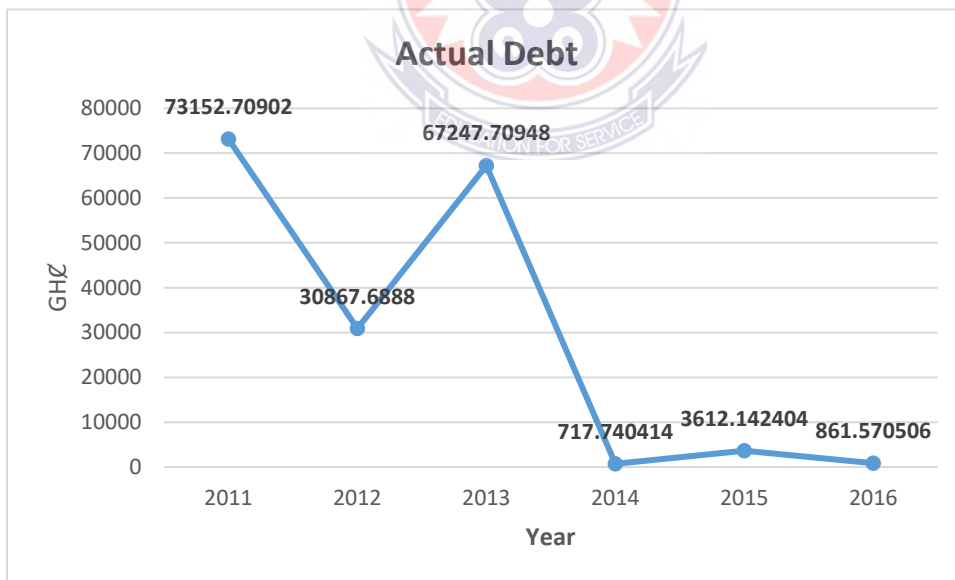
An analysis of the financial statement of the union over the period of 2011 to 2016 also indicates that St. Peter's had an encouraging loan repayment performance. From Figure 4.1, it is noticed that the union has had a continuous rise in the total volume of loan issued to members from 2011 to 2015. It had a slight drop in 2016, but the value from still greater than that of 2014. Figure 4.2 also showed that, actual loan defaulted has had a rise and fall trend. However, it had a steep drop from 2013 (GHC67, 247.71) to 2014 (GHC717.74). It further rose slightly in 2015 (GHC3, 612.14), and finally dropped in 2016 (GHC861.57). The years 2014 to 2016 have seen a relatively low volume of loan default, and the rise and fall is attributable to the rise in fall in the actual loans issued over those same period. Figure 4.3 (which represents the debt to loan percentage) also showed same trend as Figure 4.2. It had a steep drop from 2013 (1.26%) to 2014 (0.01%). It rose bit in 2015 (0.04%), and finally dropped in 2016 (0.01%).

Comparing the results from both the primary and secondary data, it could be realized that, St. Peter's had a low loan default.



**Figure 4.1 Loan Issued (2011 to 2016)**

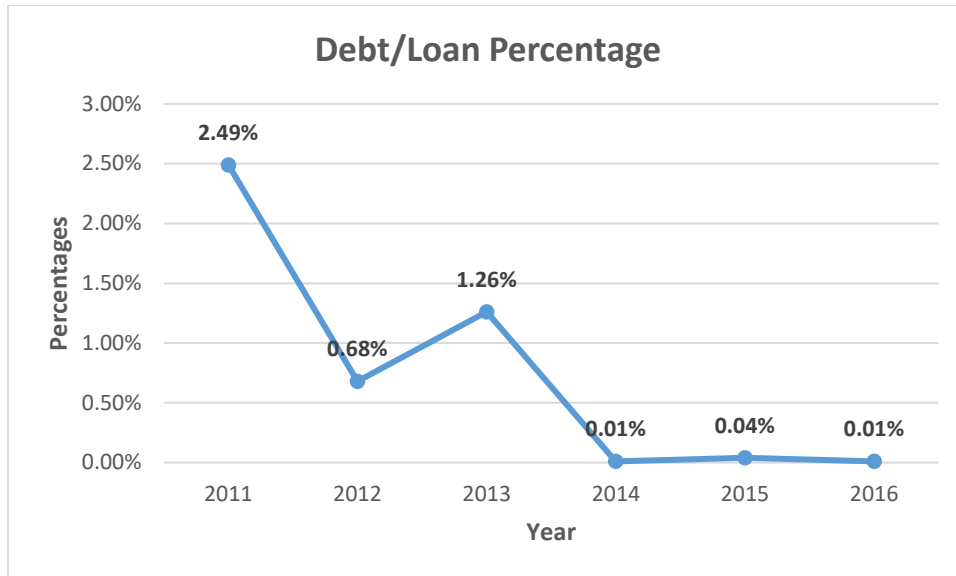
Source: Financial Report of St. Peter's Credit Cooperative Credit Union.



**Figure 4.2 Loan Defaulted (2011 to 2016)**

Source: Financial Report of St. Peter's Credit Cooperative Credit Union.





**Figure 4.3 Debt/Loan Ratios (2011 to 2016)**

Source: Financial Report of St. Peter's Credit Cooperative Credit Union.

#### 4.4 EFFECTS OF CREDIT RISK MANAGEMENT AND LOAN PERFORMANCE OF ST. PETER'S COOPERATIVE CREDIT UNION

The third specific objective which represents the main focus of this study was to ascertain the effects of credit risk management on loan performance of St. Peter's Cooperative Credit Union. The dependent variable here represented the loan performance and the independent variables represent the credit risk management. From the results presented in Table 4.5, the R-value of 0.448 indicates a moderate correlation between the dependent and the independent variables. The R-square value of 0.201 indicates that, risk management practices explain about 20.1% of the changes that occur in the performance of loans at St. Peter's. The estimated F-statistic was 4.532 with a p-value of 0.047, which was less than 0.05. This implies that, the R-square (20.1% change in loan performance) accountable to the current explanatory variable was statistically significant at 5%.

**Table 4.5 Effect of Credit Risk Management and Loan Performance**

| <b>Independent Variables</b> | <b>Coefficient</b> | <b>Std. Err.</b> | <b>t</b> | <b>P-value</b> |
|------------------------------|--------------------|------------------|----------|----------------|
| Intercept                    | 2.717              | .574             | 4.734    | .000           |
| Credit Risk Management       | .331               | .155             | 2.129    | .047           |
| F-statistics                 |                    |                  |          | 4.532          |
| P-values                     |                    |                  |          | 0.047          |
| R-value                      |                    |                  |          | 0.448          |
| R-squared                    |                    |                  |          | 0.201          |

Source: Field Work (2017).

The coefficient of determination for credit risk management practices as presented in Table 4.5 was 0.331. This shows a positive relationship between the variables, implying they all move in same direction. As one increase (improves), the other improves, and vice versa. Holding all other things constant, a 100% improvement in the credit risk management practices, will lead to an increase in the loan performance (repayment) of St. Peter's by 33.1%, and vice versa. This was statistically significant at 0.05 ( $t = 2.129$ ;  $Sig. = .047$ ), and was therefore accepted. This outcome confirms some past studies. A study by Baliwen (2009) in Nigeria found that cooperatives had written policies which they implemented strictly to their members, and this had a positive impact on their loan performance. In Nairobi, Gaitho (2010) found that cooperatives used credit risk management practices to mitigate risks as a basis for objective credit risk appraisal. Epstein (2009) also added that an effected implementation of the 5 Cs of credit helps in

ensuring applicant comply with the loan terms, thereby reducing the credit risks and increasing profitability.

#### 4.5 CHALLENGES FACING LOAN PERFORMANCE AT ST. PETER'S COOPERATIVE CREDIT UNION

The last specific objective of this study was to assess the challenges facing loan performance of St. Peter's Cooperative Credit Union. The staffs were asked to indicate the challenges that hinder the effective implementation of their credit risk management. The members were also asked to indicate the challenges that cause them to default on loan. Both were expected to respond to their items on a scale of *1-Strongly disagree, 2-Disagree, 3-Indifferent, 4-Agree, and 5-Strongly agree*. The mean scores were ranked and presented in descending order, as larger mean score indicates a greater agreement to that challenge.

**Table 4.6 Challenges of Effective Credit Risk Management (Staff's Perspective)**

| <b>Challenges of Loan Repayment</b>                                      | <b>Mean</b>         | <b>Std. Deviation</b> |
|--|---------------------|-----------------------|
| Inadequate training of Credit Officers                                   | 4.20                | 1.207                 |
| Weak Corporate Governance  | 4.07                | 1.223                 |
| Priority of loan guarantees at expense of customer capacity of repayment | 3.07                | 1.335                 |
| Absence of analysis of Customers' financial position                     | 3.00                | 1.363                 |
| Lack of Credit Diversification   | 2.93                | 1.223                 |
| Priority of Profit at Expense of Credit safety                           | 2.80                | 1.373                 |
| Absence of Risk Premium on Risky loans                                   | 2.73                | 1.223                 |
| Low quality of asset presented as collateral                             | 2.73                | 1.280                 |
| Granting high credit exceeding customer capacity of repayment            | 2.53                | 1.246                 |
| Corruption of a number of credit officers                                | 2.27                | 1.624                 |
| <b><i>Overall Mean</i></b>   | <b><i>3.033</i></b> | <b><i>1.01676</i></b> |

Source: Field Work (2017).

From the analysis presented in Table 4.6, only 2 of the items out of the 10 had a mean score indicating them as a challenge hindering the effective implementation of a proper credit risk management practices. This could be due to the fact that, as it stands now, St. Peter's had an effective credit risk management policy, which reflected in their loan performance.

The first major challenge identified was inadequate training of credit officers (mean was 4.20). St. Peter's could have the finest of credit risk management policy, but the success of its implementation could be hampered by inexperienced staff. Staff training and workshops would therefore be vital for the success of a credit risk management policy. As supported by Zaato (1998), poor staffing and governance problems of cooperatives could seriously hamper the smooth implementation of a good credit policy. This study also found weak corporate governance as a challenge to the smooth implementation of the credit risk management policies of the union (mean was 4.07).

The staff were indifferent that the union gave priority to loan guarantees at expense of customer capacity of repayment (mean was 3.07); that there was an absence of an analysis on customers' financial position (mean was 3.00); that there was a lack of credit diversification (mean was 2.93); that there was a priority of profit at expense of credit safety (mean was 2.80); that there was an absence of risk premium on risky loans (mean was 2.73); that there was a low quality of asset presented as collateral (mean was 2.73); and that the union grants high credit exceeding customer capacity of repayment (mean was 2.53). They however disagreed that there was corruption among the credit officers (mean was 2.27).

**Table 4.7 Challenges of Loan Repayment (Members' Perspective)**

| <b>Challenges of Loan Repayment</b>  | <b>Mean</b>  | <b>Std. Deviation</b> |
|--|--------------|-----------------------|
| Diversion of funds for purposes other than the purpose for which the loan was acquired | 4.70         | 1.218                 |
| Price fluctuation on the market due to inflation                                       | 4.15         | 1.137                 |
| Lack of adequate knowledge on the industry in which one operates                       | 2.90         | 1.252                 |
| Amount of loan approved are insufficient for fruitful business                         | 2.75         | .851                  |
| Loan processing fees are too high  | 2.65         | .988                  |
| Unfavorable repayment period   | 2.45         | 1.099                 |
| Unfavorable mode of repayment  | 2.40         | 1.095                 |
| Unfavorable repayment amount   | 2.40         | 1.046                 |
| Delays in loan disbursement  | 2.40         | 1.188                 |
| Lack of proper financial management practices  | 2.40         | 1.314                 |
| High interest charges  | 2.15         | 1.040                 |
| Poor loan supervision by the credit officers of St. Peter's'                           | 1.95         | .759                  |
| <b>Overall Mean</b>  | <b>2.775</b> | <b>.58120</b>         |

Source: Field Work (2017).

The analysis presented in Table 4.7 also had only 2 of the items out of the 12 with mean scores indicating them as a challenge hindering loan repayment by members of ST. Peter's. Once again, this could be due to the fact that, most of them honored their repayment schedule as and when they fall due.

The first major challenge identified was the diversion of funds for purposes other than the purpose for which the loan was acquired (mean was 4.70). Respondents strongly agreed

that that, diversifying funds loaned makes it difficult to repay. For example, using loan for household keeping instead of business. Ahmad (1997) cited diversion of funds by borrowers among others as the major cause of loan delinquency.

The union also cited price fluctuation on the market due to inflation as another cause of loan default (mean was 4.15). High inflations results in the inadequacy of the loan to purchase or cover the investment expenses for which loans are applied. This is worsened by delays in the disbursement of loan facility. The inadequacy of funds have a toll on the fruitfulness of the venture for loan is applied, which has a ripple effect on the ability to repay the loan.

The union members were however indifferent that the lack of adequate knowledge on the industry in which one operates affects loan repayment (mean was 2.90); that the amount of loan approved were insufficient for fruitful business (mean was 2.75); and that loan processing fees were too high (mean was 2.65).

Members however disagreed that they were given unfavorable repayment period (mean was 2.45); that they were given unfavorable mode of repayment (mean was 2.40); that they were given unfavorable repayment amount (mean was 2.40); that the union delays in loan disbursement (mean was 2.40), that there was a lack of proper financial management practices (mean was 2.40); that there was a high interest charges (mean was 2.15); and that there was poor loan supervision by the credit officers of St. Peter's' (mean was 1.95).

## CHAPTER FIVE

### SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

#### 5.0 INTRODUCTION

The final chapters of this study presented the summary of key findings from the previous chapter, make some conclusions, and presented some recommendations to management and the people in academia.

#### 5.1 SUMMARY OF FININGS

##### ***5.1.1 Credit Risk Management Practices of St. Peter's Cooperative Credit Union***

The study found that St. Peter's had an effective credit risk management policy. The union carefully examined borrower's capacity to payback loan, loans were awarded after signing a binding contract, careful examination of borrower's character, careful examination of borrower's capital or income, careful examination of borrower's contribution, careful examination of borrower's repayment history, careful examination of borrower's nature of business, and providing borrower financial counseling.

##### ***5.1.2 Loan Performance of St. Peter's Cooperative Credit Union***

St. Peters made much returns for members through loan interest payment, had an effective documentation of credit facilities, had a timely control system and recovery practices to manage the outstanding risks, and had members repaying their loans on the agreed period of time.

### ***5.1.3 Effects of Credit Risk Management and Loan Performance of St. Peter's Cooperative Credit Union***

The study found a moderate correlation between credit risk management practices and the loan performance of the union. Holding all other things constant, a 100% improvement in the credit risk management practices, will lead to an increase in the loan performance (repayment) of St. Peters by 33.1%, and vice versa. This was statistically significant at 0.05.

### ***5.1.4 Challenges Facing Loan Performance at St. Peter's Cooperative Credit Union***

Inadequate training of credit officers and weak corporate governance systems were found as the greatest challenges to the smooth implementation of a proper credit risk management policy. Diversions of funds for purposes other than the purpose for which the loan was acquired, and price fluctuation on the market due to inflation were also the major reasons why members default on loan.

## **5.2 CONCLUSIONS**

The primary objective of the study was to examine credit risk management practices and its impact on loan performance at St. Peter's Cooperative Credit Union. To achieve the said goal, primary data was collected from 30 staff of the union, as well as 140 members of the union. The results were supported by a financial statement analysis, to ascertain the actual loan issued, actual loan debt, and debt to loan percentage over the period of 2011 to 2016. For a better appreciate of the concepts and variables, literature and theories were reviewed. A sound methodology was also adopted to enhance the overall reliability of the



results. The study concluded that, St. Peter's had an effective credit risk management policy, which reflected in their loan performance. The study found a moderate correlation between credit risk management practices and the loan performance of the union. Holding all other things constant, a 100% improvement in the credit risk management practices, will lead to an increase in the loan performance (repayment) of St. Peter's by 33.1%, and vice versa. This was statistically significant at 0.05. The union faced less challenge in the implementation of their credit risk management policy, and members also faced less challenge in the repayment of loan facility.

### 5.3 RECOMMENDATIONS OF THE STUDY

The study found that, although St. Peter's had an effective credit risk management policy, the cost associated with it was quite high. The union's management must consider assessing the cost and benefits of their risk management approaches, and how to maximize returns for members (owners).

Inadequate training of credit officers was found as a major hindrance to the smooth implementation of the credit risk management policies. Management must therefore invest in staff training to get them more equipped for their tasks.

Diversion of funds for purposes other than the purpose for which the loan was acquired was a major reason for the inability of members to repay their loans. The union must follow up on loans meant for projects and business, to ensure members use funds for the intended purpose. This will help reduce the loan delinquencies.

#### 5.4 RECOMMENDATION FOR FURTHER STUDIES

The study of credit risk has become even more important in the wake of the recent near bankruptcy of two indigenous banks (UT Bank and Capital Bank), although there were many other financial institutions which collapsed in the past. Secondly, this study on Credit Cooperatives is very limited, especially in Ghana. This study was however limited to just St. Peter's Credit Cooperative, which would make conclusions difficult to generalize to the entire sector. It is therefore recommended that further studies should consider a survey approach by studying multiple Cooperatives.



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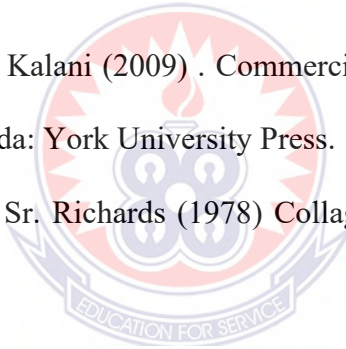
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## APPENDIX

### UNIVERSITY OF EDUCATION, WINNEBA

### COLLEGE OF TECHNOLOGY EDUCATION, KUMASI

### DEPARTMENT OF ACCOUNTING STUDIES EDUCATION

### QUESTIONNAIRE FOR MANAGEMENT AND STAFF

I am a postgraduate student from the University of Education, Winneba (Kumasi Campus), conducting a study on “**credit risk management practices and its impact on loan repayment at St Peter’s Cooperative Credit Union**”. The study is purely an academic exercise, and responses will be treated with utmost confidentiality.

Kindly respond to the following items.

#### PART I: PERSONAL DATA

Please tick [ ] as appropriate

1. Gender    Male [ ]        Female [ ]

2. Age of respondent: 18-25yrs [ ]    26-35yrs [ ]    36-45yrs [ ]    46-55yrs [ ]    above  
55yrs [ ]

3. Current position: Junior staff [ ] senior staff [ ]    Middle-level management [ ] senior  
management [ ]

4. How long have you been working with St. Peters?        Less than 1yr [ ]        1 –  
5yrs [ ] 6 – 10yrs [ ]    11 – 15yrs [ ]    16yrs and above [ ]

5. Educational level: 2<sup>nd</sup> Degree [ ] 1<sup>st</sup> Degree [ ] Professional certificate [ ] Diploma [ ]  
 ] Secondary [ ]

**PART II: CREDIT RISKS MANAGEMENT PRACTICES**

6. Kindly indicate the extent to which St. Peter’s uses the following credit risk management strategies.

Please respond using a scale of *1-Not at all, 2-Less often, 3-Indifferent, 4-Often, and 5-Very often.*

| <b>Credit Risk Management Practices</b>                | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> |
|--|----------|----------|----------|----------|----------|
| Careful examination of borrower’s character            |          |          |          |          |          |
| Careful examination of borrower’s capacity to pay back |          |          |          |          |          |
| Careful examination of borrower’s capital or income    |          |          |          |          |          |
| Careful examination of borrower’s nature of business   |          |          |          |          |          |
| Careful examination of borrower’s collateral security  |          |          |          |          |          |
| Periodic evaluation of borrower’s collateral           |          |          |          |          |          |
| Careful examination of borrower’s contribution         |          |          |          |          |          |

|   |  |  |  |  |  |
|---|--|--|--|--|--|
| Careful examination of borrower's repayment history   |  |  |  |  |  |
| Giving borrower financial counseling                  |  |  |  |  |  |
| An assessment of borrower's guarantors                |  |  |  |  |  |
| Hefty penalties are charged on loan defaulters        |  |  |  |  |  |
| Loans are awarded after signing of a binding contract |  |  |  |  |  |
| Keep track of borrower's compliance with credit terms |  |  |  |  |  |
| Imposing a loan size limit                            |  |  |  |  |  |



### **PART III: LOAN PERFORMANCE**

7. Kindly indicate the extent to which you agree with the following statement. Please respond using a scale of *1-Strongly disagree, 2-Disagree, 3-Indifferent, 4-Agree, and 5-Strongly agree.*

| <b>Loan Performance at St. Peters</b>                                       | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> |
|---|----------|----------|----------|----------|----------|
| Accounts and revenue collection procedures at St. Peters are cost effective |          |          |          |          |          |

|  |  |  |  |  |  |
|--|--|--|--|--|--|
| There is timely control systems and recovery practices to manage the outstanding risks at St. Peters |  |  |  |  |  |
| Members of St. Peters repay their loans on the agreed period of time                                 |  |  |  |  |  |
| Documentation of credit facilities is effectively done at St. Peters                                 |  |  |  |  |  |
| St. Peters makes much returns for members through loan interest payment                              |  |  |  |  |  |

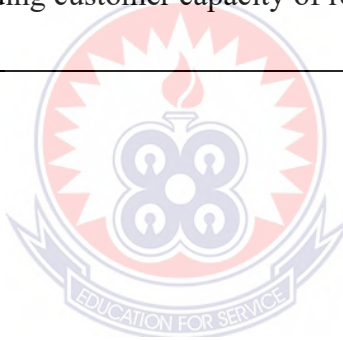
#### **PART IV: CHALLENGES OF EFFECTIVE CREDIT RISK MANAGEMENT**

8. Kindly indicate the extent to which you agree with the following statement. Please respond using a scale of *1-Strongly disagree, 2-Disagree, 3-Indifferent, 4-Agree, and 5-Strongly agree.*

| <b>Challenges of Effective Credit Risk Management</b> | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> |
|---|----------|----------|----------|----------|----------|
| Weak Corporate Governance                             |          |          |          |          |          |
| Low quality of asset presented as collateral          |          |          |          |          |          |
| Lack of Credit Diversification                        |          |          |          |          |          |
| Absence of analysis of Customers' financial position  |          |          |          |          |          |

|  |  |  |  |  |  |
|--|--|--|--|--|--|
| Absence of Risk Premium on Risky loans                                   |  |  |  |  |  |
| Corruption of a number of credit officers                                |  |  |  |  |  |
| Priority of Profit at Expense of Credit safety                           |  |  |  |  |  |
| Priority of loan guarantees at expense of customer capacity of repayment |  |  |  |  |  |
| Inadequate training of Credit Officers                                   |  |  |  |  |  |
| Granting high credit exceeding customer capacity of repayment            |  |  |  |  |  |

**THANK YOU...!**



UNIVERSITY OF EDUCATION, WINNEBA

COLLEGE OF TECHNOLOGY EDUCATION, KUMASI

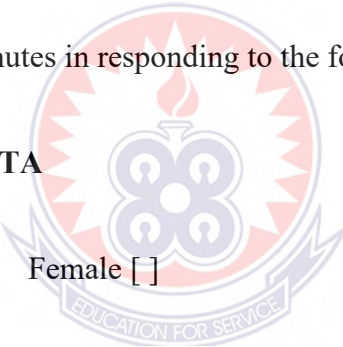
DEPARTMENT OF ACCOUNTING STUDIES EDUCATION

QUESTIONNAIRE - MEMBERS

I am a postgraduate student from the University of Education, Winneba (Kumasi Campus), conducting a study on “**credit risk management practices and its impact on loan repayment at St Peter’s Cooperative Credit Union**”. The study is purely an academic exercise, and responses from you will be treated with much confidentiality.

Kindly spend some few minutes in responding to the following items.

**PART I: PERSONAL DATA**

- 
1. Gender    Male     Female
2. Age of respondent: 18-25yrs     26-35yrs     36-45yrs     46-55yrs     above 55yrs
3. Educational level: No formal education     Basic education     Secondary   
Diploma     1st Degree     2nd Degree     Professional certificate
4. Household size:    Less than 5     5-10     11-15     above 15
5. Nature of business/ occupation:
- Teaching     Trading     Farming     Driving     Others-  
specified.....

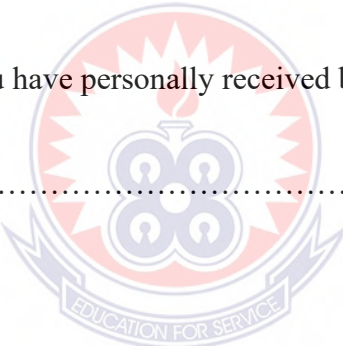
**PART II: SERVICES WITH ST. PETER’S**

6. How long have you been a member of St. Peter’s?      Less than 1yr [ ]      1 – 5yrs [ ]      6 – 10yrs [ ]      11 – 15yrs [ ]      16yrs and above [ ]

7. Have you ever taken a loan from St. Peter’s?      No [ ]      Yes [ ]

8. If yes, what was/ were the purpose(s) of the loan acquired?  
.....  
.....  
.....

9. What are the benefits you have personally received by joining St. Peter’s?  
.....  
.....  
.....  
.....  
.....  
.....



**PART III: CREDIT RISKS MANAGEMENT PRACTICES**

10. Kindly indicate the extent to which St. Peter’s uses the following credit risk management strategies.



Please respond using a scale of *1-Not at all, 2-Less often, 3-Indifferent, 4-Often, and 5-Very often.*

| <b>Credit Risk Management Practices</b>                | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> |
|--|----------|----------|----------|----------|----------|
| Careful examination of borrower's character            |          |          |          |          |          |
| Careful examination of borrower's capacity to pay back |          |          |          |          |          |
| Careful examination of borrower's capital or income    |          |          |          |          |          |
| Careful examination of borrower's nature of business   |          |          |          |          |          |
| Careful examination of borrower's collateral security  |          |          |          |          |          |
| Periodic evaluation of borrower's collateral           |          |          |          |          |          |
| Careful examination of borrower's contribution         |          |          |          |          |          |
| Careful examination of borrower's repayment history    |          |          |          |          |          |
| Giving borrower financial counseling                   |          |          |          |          |          |
| An assessment of borrower's guarantors                 |          |          |          |          |          |
| Hefty penalties are charged on loan defaulters         |          |          |          |          |          |

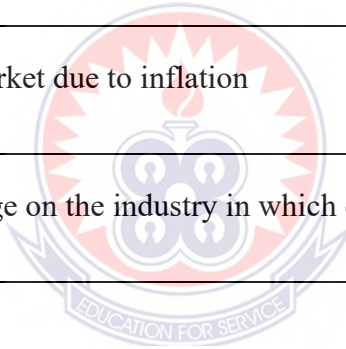
|   |  |  |  |  |  |
|---|--|--|--|--|--|
| Loans are awarded after signing of a binding contract |  |  |  |  |  |
| Keep track of borrower's compliance with credit terms |  |  |  |  |  |
| Imposing a loan size limit                            |  |  |  |  |  |

#### **PART IV: CHALLENGES OF LOAN REPAYMENT**

11. Kindly indicate the extent to which you agree with the following statement. Please respond using a scale of *1-Strongly disagree, 2-Disagree, 3-Indifferent, 4-Agree, and 5-Strongly agree.*

| <b>Challenges of Loan Repayment (Causes of Loan Default)</b> | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> |
|--|----------|----------|----------|----------|----------|
| Unfavorable repayment period                                 |          |          |          |          |          |
| Unfavorable mode of repayment                                |          |          |          |          |          |
| Unfavorable repayment amount                                 |          |          |          |          |          |
| Poor loan supervision by the credit officers of St. Peters'  |          |          |          |          |          |
| High interest charges  |          |          |          |          |          |

|  |  |  |  |  |  |
|--|--|--|--|--|--|
| Delays in loan disbursement  |  |  |  |  |  |
| Diversion of funds for purposes other than the purpose for which the loan was acquired |  |  |  |  |  |
| Loan processing fees are too high  |  |  |  |  |  |
| Lack of proper financial management practices  |  |  |  |  |  |
| Amount of loan approved are insufficient for fruitful business                         |  |  |  |  |  |
| Price fluctuation on the market due to inflation                                       |  |  |  |  |  |
| Lack of adequate knowledge on the industry in which one operates                       |  |  |  |  |  |



**THANK YOU...!**