AGRICULTURE MARKETING LOAN AND PERFORMANCE OF COOPERATIVES IN RWANDA
CASE OF UBUMWE MAIZE GROSSE COOPERATIVE (2015-2018)

A Thesis submitted in partial fulfillment of the Requirements for the Degree of Master of Business Administration (Finance Option)

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ABSTRACT

Agriculture is the science and practice of activities relating to production, processing, marketing, distribution, utilization, and trade off food, feed and fiber. The research entitles agriculture marketing loan and performance of cooperatives in Rwanda and was guided by the following objectives: To analyse the agriculture marketing loan on the performance of the member of Ubumwe Maize Grosse Cooperative, to examine the challenges facing by Ubumwe Maize Grosse Cooperative on its performance of agriculture marketing loan in Ngoma District of Rwanda. This study is proposed to provide a contribution that can help youth to think big about designing projects with regard to the agriculture sector development. Furthermore, it contributed to help agriculture cooperatives to better understand different lending mechanisms appropriate to performance of agriculture investment. The population under this study included 35 members of Ubumwe Maize Grosse Cooperative in Ngoma who received agricultural loan from the Kenya Commercial Bank (KCB) for the period of 2015 to 2018. All the relevant data was analyzed and evaluated by using primary and secondary data and the results was interpreted accordingly. The frequency and percentage distribution were used to determine the demographic characteristics of the respondents. The mean and correlation was applied. The analyzed data was presented in the form of tables, descriptive were also used. The instrument of the study was self made (questionnaire) and a set of questions was formulated. The findings indicate that Ubumwe Maize Grosse Cooperative before agriculture loan and trainings of how to use seeds, the products was in very low level and they use it as families’ facilitation. But after the use of seeds and after gating trainings of how to use them, they have reached in high level of products and a good market of it. The findings show that Ubumwe Maize Grosse Cooperative is facing some challenges regarding lack of accountant and ability to pay him, having a bank near them so that they can operate easily, lack of ironing (Hangari) place which help them to make good quality products and lastly having access on long term agriculture loan that help them to design a long term project. On the basis of statistics, the researcher may conclude by saying that the coefficient of the loan on agriculture loan is very low on 1.5% which can assure Ubumwe Maize Grosse Cooperative that the long term project can be viable.

Key words: Agriculture, Cooperatives, Loan Marketing, Performance
DEDICATION

I would like to dedicate this study to God who gave me life until now
DECLARATION

This Thesis is my original work and has never been presented for a Degree or any other academic award in any University or Institution of Learning.

____________________________
Name and signature of the candidate

____________________________
Date
APPROVAL SHEET

This thesis entitled *Agriculture Marketing Loan And Performance Of Cooperatives In Rwanda Case Of Ubumwe Maize Grosse Cooperative (2015-2018)* written and submitted by UMUTONI Bonnette in partial fulfillment of the requirements for the degree of Master of Business Administration, Finance is hereby accepted and approved.

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Supervisor:

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Date

The thesis is accepted in partial fulfillment of the requirements for the degree of Master of Business Administration.

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Member of the Jury

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Coordinator of Postgraduate Studies

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Date
ACKNOWLEDGEMENTS

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<td>AMS</td>
<td>Agriculture Marketing Service</td>
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<td>APMC_s</td>
<td>Agriculture Produce Marketing Committees</td>
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<td>BDF</td>
<td>Business development Fund</td>
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<td>GDP</td>
<td>Gross Domestic Product</td>
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<td>GF</td>
<td>Guaranty Fund</td>
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<td>HYV</td>
<td>High Yielding Variety</td>
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<td>KCB</td>
<td>Kenya Commercial Bank</td>
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<td>MFI_s</td>
<td>Microfinance Finance institutions</td>
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<td>MINICOFIN</td>
<td>Ministry of Finance and Economics</td>
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<td>NAMC</td>
<td>National Award for Manufacturing Competitiveness</td>
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<td>NEP</td>
<td>National Employment Program</td>
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<td>NPD</td>
<td>National Development Police</td>
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<td>PAC</td>
<td>Primary Agriculture Cooperative</td>
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<td>PASP</td>
<td>Pulmonary artery systolic pressure</td>
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<td>RFIs</td>
<td>Rural Finance Institutions</td>
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<td>SME</td>
<td>Small and Medium Enterprises</td>
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<td>SPSS</td>
<td>Statistical Package of Social Sciences</td>
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CHAPTER ONE
INTRODUCTION

Strengthening agriculture is critical for facing the challenges of rural poverty, food insecurity, unemployment, and sustainability of natural resources. Agriculture is the science and practice of activities relating to production, processing, marketing, distribution, utilization, and tradeoff food, feed and fiber. The issues and concerns in marketing relate mainly to the performance (efficiency) of the marketing system, which depends on the structure and conduct of the market. Inefficient marketing system helps in the optimization of resource use, output management, increase in farm incomes, widening of markets, growth of agro-based industry, addition to national income through value addition, and employment creation (Acharya, 2004). Starting from different theories of the firm that define the main concepts of the organizations and their objectives, the measures of performance seem to be many and varied (Koenig, 1998). Actually, although many researchers have focused on defining it precisely for several decades, the firm's performance has always been an ambiguous concept that has rarely been explicitly defined. This chapter aims at describing the background of the study, the problem statement, and objectives of the study, research questions, scope and significances of study, limitation of study.

1.1 Background to the study

About 90 percent of the world’s 570 million farms are small. Most are found in the rural areas of the developing world, and are owned and operated by families. Many of these smallholder family farmers are poor and food insecure and have limited access to markets and services. Their choices are constrained, but they farm their land and produce food for a substantial proportion of the world’s population. Besides farming they take on multiple (often informal) economic activities, to contribute towards their small incomes. Today, in order to tackle the triple challenge of producing more food, creating more jobs and enhancing the natural resource base, there is a need for competitive and sustainably productive farm and small family farmers lie at the heart of the solution (Vogel, 2013).

In this world, agriculture plays a critical role in the entire life of the economy. It remains the backbone of economic system of developing countries. Efficient market information can be shown to have positive benefits for farmers and traders. Up-to-date information on prices and other market
factors enables farmers to negotiate with traders and also facilitates spatial distribution of products from rural areas to towns and between markets. Most governments in developing countries especially African countries have tried to provide market information services to farmers, but these have tended to experience problems of sustainability. Moreover, even when they function, the service provided is often insufficient to allow commercial decisions to be made because of time lags between data collection and dissemination. Modern communications technologies open up the possibility for market information services to improve information delivery through SMS on cell phones and the rapid growth of FM radio stations in many developing countries offers the possibility of more localised information services (Vogel, 2013).

In the longer run, the internet may become an effective way of delivering information to farmers. However, problems associated with the cost and accuracy of data collection still remain to be addressed. Even when they have access to market information, farmers often require assistance in interpreting that information. For example, the market price quoted on the radio may refer to a wholesale selling price and farmers may have difficulty in translating this into a realistic price at their local assembly market. Various attempts have been made in developing countries to introduce commercial market information services but these have largely been targeted at traders, commercial farmers or exporters. It is not easy to see how small, poor farmers can generate sufficient income for a commercial service to be profitable although in India a new service introduced by Thomson Reuters was reportedly used by over 100,000 farmers in its first year of operation. Esoko in West Africa attempts to subsidize the cost of such services to farmers by charging access to a more advanced feature set of mobile-based tools to businesses (Mateev & Anastasov, 2010).

In Europe as long ago as 1848, Strictly speaking, they were mutual guarantee associations: groups of entrepreneurs contributed their own funds to provide credit guarantees for each other. Such mutual guarantee associations are still an important vehicle for small enterprise finance in Europe. In the 1970s and 1980s, a new wave of guarantee fund experiments was tried in developing countries. Many of them were donor-driven initiatives. Some were set up to overcome weaknesses in the banking system or weaknesses amongst small entrepreneurs. Because this was unknown territory, there were many failures. Many development agencies became reluctant to experiment with guarantee funds again. In the 1990s, however, interest in credit guarantee funds revived. In
particular, guarantee funds were created in the transitional economies of Eastern Europe and the former Soviet Union. Many of these have been quite successful (Deelen & Molenaar, 2004).

In the United Kingdom, support for marketing of some commodities was provided before and after the Second World War by boards such as the Milk Marketing Board and the Egg Marketing Board. These boards were closed down in the 1970s. As a colonial power, Britain established marketing boards in many countries, particularly in Africa. Some continue to exist although many were closed at the time of the introduction of structural adjustment measures in the 1990s. Several developing countries have established government-sponsored marketing or agribusiness units. South Africa, for example, started the National Agricultural Marketing Council (NAMC) as a response to the deregulation of the agriculture industry and closure of marketing boards in the country. India has the long-established National Institute of Agricultural Marketing. These are primarily research and policy organizations, but other agencies provide facilitating services for marketing channels, such as the provision of infrastructure, market information and documentation support (Andrew, 2000).

Saharan Africa countries and will continue to be so in the foreseeable future. The key role of agriculture in Africa’s economy life is apparent - agriculture accounts for 35 per cent of the continent’s Gross Domestic Product, 40 per cent of its export, 70 per cent of its employment, and more than 70 per cent of the population depend for their livelihoods on agriculture and agribusiness (Kijne, 2000). Agriculture being the major employer, largest sector of the economy and the top export earner in most developing countries, the link between spending on agricultural development, and economic growth and poverty has become increasingly clear. In recent years, a strong correlation has emerged between greater levels of spending on agriculture and progress towards achieving the Millennium Development Goals. However, there has been failure of Northern (developed countries) and Southern (developing) countries and global multilateral institutions in the provision of appropriate investment in agriculture. Though 75% of Africa’s poor live in rural areas and are dependent on the agricultural sector, bilateral and multilateral aid to agriculture accounts for less than four per cent of total development assistance. This decline shifted from 5.2% in 2000 to 3.4% in 2006 (Barr, 2004).

Southern (African) governments spend only 4-5% of their budget on agriculture. The African Union (AU) in July 2003 in Maputo, African Heads of States and Government endorsed the
“Maputo Declaration on Agriculture and Food Security in Africa” of allocating 10% of budgetary finances to agriculture. This is based on the rationale that when governments invest in agriculture, small scale farmers can increase productivity and gain better access to markets. As productivity rises, demand grows for seeds, irrigation, fertilizer, tools, processing and transportation, leading to increased employment by the rural non-farm sector. As the farming and rural non-farm sectors become stronger, they help sustain the whole economy (Barr, 2004).

The Kenyan Economy is largely agricultural-based. The agricultural sector accounts for 25% of Gross Domestic Product (GDP) and 57% of national income both directly and indirectly. However, the predominant reliance on climatic conditions makes it vulnerable to the effects of climate changes. Of agricultural output, 75% is from small scale rain fed farming or pastoral production, and has been highly susceptible to both annual and season rainfall variability (Republic of Kenya, 2001). Over the years, realization of agriculture’s full potential in Kenya has been hampered by decreasing farm sizes with an increasing number of farm holdings as a result of land demarcations.

In Rwanda, the government has a good governance and political to develop the agricultural sector as it is being the economic backbone of the country by employing about 87% of the working population, producing around 46% of GDP and generating about 80% of the total export revenues (Quick Scan Rwanda - Netherlands Space Office). Agriculture contributes immensely to Rwandan economy in many ways, such as, in the provision of food to the population; supply of raw materials and provision of markets to the industrial sector; a major source of employment generation, foreign exchange earnings, etc. Many adopt the use of savings and credit cooperatives as an easy way to develop and reduce the poverty especially in rural areas. This is done through financing the various activities done by their members. The Rwandan financial sector, as in most developing countries, has not traditionally served the lower end of the market very well. Credit financing remains concentrated in Kigali and to a limited number of sectors, particularly trade and manufacturing, agriculture, which is the largest economic sector. Minister for Trade and Industry Francois Kanimba said the government is counting on the fund as a key stakeholder that will help Rwanda to achieve its national employment programme targets by facilitating small-and-medium enterprises (SMEs) development (Amir, 2006).

According to George, (2004), described how rice is the major crop in Thailand and it will remain so as long as it continues to be the major export crop and the staple food of the Thai population.
However, the fact is that, although Thailand is the main rice-exporting country in the world, its rice yields are among the lowest in Asia. This might imply low productivity and high technical inefficiency in major rice production. In an attempt to resolve this problem, the Thai government has promoted the use of inputs in rice production, such as chemical fertiliser, high yielding varieties and chemicals, to increase the yields.

In Rwanda, as part of the financial infrastructure to promote SMEs, Business Development Fund (BDF) was established in 2011 as a wholly owned subsidiary of the Development Bank of Rwanda (BRD), with the objective of assisting SMEs to access finance, particularly those without sufficient collateral to obtain credit from traditional financial institutions at reasonable rates. Given the privatization of BRD, a new ownership structure and strategic plan has been formalized for BDF to deliver on its mandate of supporting SMEs development. It is one of the institutions implementing the National Development Policy (NDP) of small and medium enterprise (SME) and has been mandated to implement the “Access to Finance” objective with the high lights of serves as the voice for small business, Facilitates SMEs with Access to Finance, Helping small businesses to start, grow & succeed. Moreover, with the introduction of the National Employment Program (NEP), BDF has been designated as the key implementing agency for NEP Pillar 2 (Entrepreneurship and Business Development), and its functions need to be aligned with this role (BDF, 2011).

Ubumwe Maize Grosse Cooperative have started in 2011 as a small group and got license in 2014 as a cooperative of agriculture. Through RWARI Ubumwe maize grosse Cooperative got integration in FATIMA group where assemble RWARI, ARADIO, INGABOYOZE and PAMU where they got training related to agriculture and how to use seeds. Before that Ubumwe maize grosse cooperative start using funds, it has started using loans. The first loan they got was 1,360,000frw, the second loan was 5,200,000frw. From 2016 the Ubumwe maize grosse Cooperative got funds from PASP by paying 50% of funds, and from 2018 Ubumwe maize grosse Cooperative started with BDF by paying 30% of funds. This cooperative came to help farmers to gate the market for their products by buying them and they take it to the market them self in gross (Ubumwe maize grosse Cooperative Report 2018).
1.2 Statement of the Problem
In the 21st century, agriculture continues to be a fundamental instrument for sustainable development and poverty reduction. Three of every four poor people in developing countries live in rural areas; 2.1 billion are living on less than $2 a day, 880 million on less than $1 a day and most depend on agriculture for their livelihoods. To unlock the potential for sustainable job creation, the government has made innovative entrepreneurship, access to finance and business development a priority (George, 2004). This is to ensure that bankable projects can easily be implemented. Business in rural finance is extremely important in the rural development so agriculture loans should be initiated by the Government with the enthusiasm. Therefore lack of banks in the rural areas and low disbursement of loan to the agricultural sector by the private commercial banks have led to the inadequacy agriculture market for the small and marginal farmers in Ngoma District which affects Ubumwe Maize Gross Coperative to increase its performance. This study intended to assess the agriculture marketing loan in Ngoma District especially for Ubumwe Maize Gross Coperative.

1.3 Research Objectives
This study aims is to identify the main problems in agricultural marketing and rural market loan systems and performance of cooperatives in Rwanda suggest policy strategies that can be implemented for strengthening Rwandan agriculture.

The study was be guided by the following objectives:

i. To identify the effects of agriculture marketing loan on the performance of the member of Ubumwe Maize Grosse Cooperative.

ii. To examine the challenges facing by Ubumwe Maize Grosse Cooperative on its performance of agriculture marketing loan in Ngoma District of Rwanda.

1.4 Research Questions

i. What are the effects of agriculture marketing loan on the performance of the member of Ubumwe Maize Grosse Cooperative?

ii. What are the challenges facing by Ubumwe Maize Grosse Cooperative on its performance of agriculture marketing loan in Ngoma District of Rwanda?

Hypothesis

H₀₁: Amount of money received has no significance effect on increase of agriculture in put.
\( H_02: \) Amount harvested of money received has no significance effect on increase of amount of harvested.

\( H_03: \) Amount of money received has no significance effect on increase of sales volumes.

\( H_04: \) Amount of money received has no significance effect on increase of assets.

1.5 Significant of the Study

This study is proposed to provide a contribution that can help youth to think big about designing projects with regard to the agriculture sector development. Furthermore, it contributed to help agriculture cooperatives to better understand different lending mechanisms appropriate to performance of agriculture investment. Personally, in my position of researcher, the study was enriched my practical and theoretical experience.

To the Researcher

After conducting this research, the researcher has been having enough knowledge about how agricultural based small holder farming and its development.

To the Government of Rwanda

This research will help the government to provide an adequate regulations and policies to the agriculture cooperatives operating in Rwanda.

The government should encourage the formation, development of associations and network of entrepreneurs. Government should remove barriers faced by cooperatives to acquire loans.

1.6 Limitation of the Study

This study was depending on having access to people, organizations or documents and if whatever reason access is denied or otherwise limited then the collection of data may be hindered. Organizations or people may fail to provide me with information or refuse to give their ideas about this matter. I was have to meet the leaders of organization before engaging into the collection of data and explain them well the objectives of my study to win their consent.

Human beings are different in terms of values, cultures, behaviors and perceptions. They may not respond in similar way and in this sense the explicable may not be neat. This may bring a
challenge to this study. Being an outsider may limit the communication with respondent and what is to be revealed to me. I may have to learn the governing my population to avoid confrontation.

1.7 Brief Description
This chapter aims at describing the background of the study, problem statement, and objectives of the study, research questions, hypothesis, Limitation of the study and brief description. This study intends to conduct a qualitative research on the potential of the role of KCB’s in development based small holders farming in Ngoma District.
CHAPTER TWO

REVIEW OF LITERATURE

This chapter discusses the theories related to the topic understudy. The aim of this chapter is the review of the available literature, both published and unpublished related to the topic. It attempts to define, explain and illustrate the issue related to the topic of research and relate it to within findings for interpretation later on.

In order to get the general understanding of the work frame, the literature review for the secondary data analysis brought light to the work shape. It is quite true that many previous works carried out in the domain of cooperatives and development still prove the relevance of the present research direction. In this section therefore, some key concepts should be well defined and well understood in line with the topic itself. Likewise, there are very important connected issues that should undoubtedly enlighten our reader’s vis-à-vis the central end of this research.

2.1 Conceptual Review

Financial intermediaries exist because they can reduce information and transaction costs that arise from an information asymmetry between borrowers and lenders. Financial intermediaries thus assist the efficient functioning of markets, and any factors that affect the amount of credit channeled through financial intermediaries can have significant macroeconomic effects. There are two strands explain the existence of financial intermediaries. The first strand emphasizes financial intermediaries’ provision of liquidity. The second strand focuses on financial intermediaries’ ability to transform the risk characteristics of assets. In both cases, financial intermediation can reduce the cost of channeling funds between borrowers and lenders, leading to more efficient allocation of resources. Financial intermediaries are able to transform the risk characteristics of assets because they can overcome a market failure and resolve an information asymmetry problem. Information asymmetry in credit markets arises because borrowers generally know more about their investment projects than lenders do. Therefore, financial intermediaries play an important role in credit markets because they reduce cost of channeling funds between relatively uninformed depositors to uses that are information-intensive and difficult to evaluate, leading to a more efficient allocation of resources.
Intermediaries specialize in collecting information, evaluating projects, monitoring borrowers’ performance and risk sharing. Despite this specialization, the existence of financial intermediaries does not replicate the credit market outcomes that would occur under a full information environment. The existence of imperfect, asymmetrically-held information causes frictions in the credit market. Changes to the information structure and to variables which may be used to overcome credit frictions (such as firm collateral and equity) will in turn cause the nature and degree of credit imperfections to alter (Claus & Grimes, 2003). Banks and other intermediaries (including BDF) are “special” where they provide credit to borrowers on terms which those borrowers would not otherwise be able to obtain. Because of the existence of economies of scale in loan markets, small firms in particular may have difficulties obtaining funding from non-bank sources and so are more reliant on bank lending than are other firms. Adverse shocks to the information structure, or to these firms collateral or equity levels, or to banks’ ability to lend, may all impact on firms’ access to credit and hence to investment and output (Claus & Grimes, 2003).

2.2 Theoretical Review
Shahjahan, (1980), has been done a study on "Involvement of Banking Sector in Rural Development". It is predominantly an agricultural country with 92.8 percent rural area and 93.7 percent rural people became independent in 1971. Again 85 percent of the total populations are maintaining their livelihood by agricultural activities which are the main vocation and source of income of these rural people and contributing 60 percent to 70 percent of the GDP and 80 percent to the export earnings. As ours is a rural based economy, and rural development should be emphasized on possible extent. By development we mean the economic well-being of the people, increase in the per capita income, proper utilization of all factors of production like land, manpower, capital etc. Rural development encompasses the development of: (a) agriculture consisting of crops, fisheries, forest livestock, etc. (b) household or cottage and small industries in rural areas, (c) rural export, (d) rural housing, (e) rural employment etc. If all the above sectors and sub-sectors of rural areas can be developed, rural development and ultimately economic development is possible. This calls for adequate financing which could possibly be ensured through proper banking activities in the rural areas. The aim of this study was at focusing attention to identify how agriculture loans and banking loans activities have played and still are playing their role in the rural development of this country. In the above discussion an endeavor has been made to find out the role being played "by different banking institutions in different fields of rural
development of our country by mobilizing rural deposits, extending rural credit for different purposes, rendering advisory services, creating employment opportunity etc. But their activities are being disturbed by some reasons. Among those reasons institutional set up problems, reluctance of the official to work in rural areas, lack of knowledge of the bank officials about documents and papers relating to land, defective allocation of unions to bank branches, inadequacy of staff, their knowledge and experience of participating banks, lack of follow-up of the projects by bankers, etc. are very much dominant. Other constraints of rural development by banking sector come from the rural people, like reluctance to repay loan, complicated land tenure system, misutilization of credit due to extreme poverty of rural people etc. Differential and higher interest rate on credit, difficulties in getting agricultural inputs by farmers from agricultural office, little access of the farmers to credit institutions, lack of co-ordination among bank branches, agricultural offices, fertilizer dealers, seed suppliers, local government etc., corruption and nepotism in sanctioning and disbursement of loan, exploitation of the farmers by village touts etc. are also creating problems for the purpose.

Khan, (1985) found that some of the sample rural branches did not start any loaning operation even after two years of operation. Further, 25 percent of those who were involved in loaning operations were found not to have disbursed any loan till then for farm activities. It is also observed that despite Government emphasis, only 3 percent of the farm loan was disbursed for dairy, poultry, fisheries etc. It is further noticed that a lion's share of the non-farm credit was disbursed for trade. Of the disbursed amount of loan, the proportion of term loan was around 0.1 only and the major portion of which went to non-farm sector. It is ascertained from the survey that while per branch deposit performance was better in the case of large and older branches; per branch credit performance was better in the case of medium sized and middle aged branches. It is further ascertained that Dhaka division though mobilized lowest proportion of deposit but grabbed the highest proportion of credit. On the other hand, a sizeable portion of credit disbursed in Dhaka division has gone to farm activities while in the Chittagong division they received a very small proportion. This suggests that a realistic credit policy should be formulated and followed in order to determine both the structure of credit disbursed among the different sectors and its regional distribution in a planned way.

Jaim and Rahman, (1990), identified that from both credit institutions and farmers, there are some important factors which are responsible for failing to achieve disbursement targets as well as
satisfactory recovery performance of agricultural credit over the past years, it is suggested that disbursement targets should be fixed after consultation with Bangladesh Bank and the credit agencies. The manpower in relation to volume of credit to be disbursed within a specific time and also effective demand of the borrowers should be considered in fixing disbursement targets." For improving repayment performance, supervision of the use-of credit should be strengthened and at the more qualified and trained credit personnel should be employed particularly in the rural bank branches. The bank officers should also have administrative power to take legal action against defaulters, particularly against the willful defaulters. The volume of agricultural credit supplied over the years although seems to be substantial in monetary terms it is not really so considering it in real terms. Over the years, the prices of agricultural inputs have been increased by many times. Further, a considerable portion of agricultural credit is allotted for agro-business, tea-estates, etc. which ultimately help the large farmers. Even access to the credit allocated for crop and irrigation is also limited for the small/marginal farmers due to cumbersome administrative procedures of loan disbursement. Almost every year the Government has failed to achieve disbursement targets although higher targets were fixed.

The credit targets should be fixed after discussion with Bangladesh Bank and other credit institutions considering the manpower of the credit institutions in relation to volume of credit to be disbursed in a specific year and also effective demand of the borrowers. Credit terms and conditions of the same type of loan should be maintained by the different lending agencies. The credit institutions are largely dependent on refinance from Bangladesh Bank and the volume of outstanding borrowing from Bangladesh Bank has increased substantially over the years. The credit institutions should depend largely on own fund rather than on refinance. They showed that over the years, loan recovery performance of all the credit institutions has decreased. Further, they found that loan recovery percentage of medium and long-term credit is much less than that of short-term credit. Since medium and large farmers mainly receive medium and long-term loan they are the main defaulters of loan. Further effective measure should be taken in the case of wilful default by the influential borrowers. The Bank officers should have power to take administrative action against defaulters. However, they should have good training and educational background regarding agricultural credit operation Banker's efficiency should be judged on the basis of both the amount deposited and the amount recovered by them. Further, the Government should not
circulate contradictory loan recovery policies which have long-term damaging effect on recovery of loan by the credit institutions.

2.3 Theoretical Framework
Agriculture in many parts of the world is the major source of income to the households. Many scholars consider agriculture an important factor for development. Agricultural growth benefits the rural poor as well as urban poor through reduced prices of agricultural food products and has a trickledown effect (Mellor, 1999). Agricultural growth has an enormous effect on the industrial growth because this sector is providing raw material. Theodore Schultz was an American economist who was awarded Nobel Prize in Economic Sciences in 1979 has commented about the importance of agriculture and poverty at the Nobel Prize ceremony in the following words; “Most of the people in the world are poor, so if we knew the economics of being poor we would know much of the economics that really matters. Most of the world’s poor people earn their living from agriculture, so if we knew the economics of agriculture we would know much of the economics of being poor (Thirtle, 2001).

Rahman, (1987) judging the nature of objectives and loan operation procedure, there is hardly any credit programme now in operation in Bangladesh which can be termed strictly as supervised credit programme. The various credit programmes designed for the small farmers and landless poor, however, contain some of the elements of supervised credit, although these programmes cannot be treated strictly as supervised credit programmes. Therefore, at least a few supervised credit programmes should be launched in some areas for the overall upliftment of the rural people most of who live in abject poverty. Rural credit supervision has become synonymous to loan recovery activity offending institutions. Results of different studies, as shown earlier, suggest that credit supervisors are more concerned for the recovery of loans, rather than supervising the credit utilization process by the borrowers. This is not only true in the case of normal credit operations carried out by rural bank branches, but also in the case of the special rural credit programmes for the landless poor and disadvantaged groups. Most of the rural bank branches are poorly staffed with supervisory personnel who are not adequately trained. This has resulted in poor performance in terms of credit utilization by the borrowers and rate of recovery of overdue loans by the bank. The integrated approach, implicit in credit supervision, requires that field officers have some competence in a number of spheres, the most important of which are the dispensing of credit, the
techniques of agriculture, the preparation of production plans and farm budgets, and extension work in agriculture. The high officials of banks should give due consideration to this point. This is more important in case of special credit programmes designed for the landless and rural poor. The strict banking principle of cost-benefit ratio has to be sacrificed to some extent for greater social objective. The farmers of our country perceive great risk in agricultural activity. Average losses for paddy were 2.7 percent and for jute 2.3 percent of production. These represent average losses at a national level for major disasters, and exclude the frequent local losses. Loan utilization and consequent recovery are certainly influenced by the environmental risks faced by the farmers. With many households at or below the margin of subsistence and facing constant threat of one type of natural disaster or another, it is understandable that loan repayment is a constant worry to many borrower households. However, with 70 percent of farmer borrowers repaying their loans within five years, it may be concluded that farmers are generally willing to repay, but often cannot, due to the high risk of dropping below subsistence. For any amount of success, a credit supervisory programme must recognize these environmental risk factors and should be able to deal with these cases more energetically and humanly (Rahman, 1987).

Ziauddin, (1987) says that Credit plays an important role for accelerating economic growth in any developing country. But for achieving this economic growth, credit money has to be utilized in a process which repays it in scheduled time. On the other hand repayment process in any credit operation depends upon wide varieties of factors the social situation, income level of people, mode of living, chopping patterns, communication, marketing opportunity etc. Unless these factors are properly identified and appropriate credit programme is undertaking, desired result in economic growth cannot be achieved. Rather, credit operation in such cases leads to various undesirable problems and ultimately, the whole purpose of credit programme becomes frustrated. In Bangladesh, about 85-87 percent of the total population lives in rural area, they are mostly illiterate and agriculture is considered the main source of livelihood. Out of these rural populations, about 40 percent are landless and more 18-20 percent are marginal farmers having lend 0.5-2.5 acre. The remaining population have lends beyond 2.5-8.5 acre where they produce various agricultural crops in different seasons and can have some surplus annual income after meeting their daily food requirements.

Chowdhury and Nurul, (1987) review and evaluate the performance of both the credit programmes on the basis of the findings from various empirical studies. Considering the nature of purposes of
credit and categories of beneficiaries, rural credit programmes may broadly be divided into two
groups—one for agricultural sector and the other for activities in the non-farm sector for the rural
poor. Agricultural credit is provided to the farmers for increasing agricultural production. Credit
for the rural poor is aimed at increasing income, savings and generating self-employsments. While
credit for agriculture is without supervision, credit for the non-farm activities is, on the other hand,
closely supervised by the field workers and group members. As such productive utilization of loans
and timely recovery under the programme are highly satisfactory as against the non-supervised
agricultural credit programme. It is, therefore, felt that adequate and timely credit should be
associated with supervision. Without proper supervision, credit in the rural sector is not likely to
be properly utilized and the recovery of credit will not be satisfactory.

Ali, (1989) recommended that sanctioning of loan to the large farmers be restricted up to a certain
limit, and more loan be sanctioned to the poor as one of the objectives of the BKB is to sanction
more loans to the rural poor. Here only 40.92 percent credit need of the loan could be supplied by
the institutional source. The author, therefore, strongly feels that the quantum of rural credit be
increased many times to satisfy the needs of the rural poor. They have been observed that the
Branch Managers and the supervisors have been given responsibility without appropriate authority
and as such they cannot function well. It is the considered opinion of the author that they should
be given some definite administrative power under check and balance to compel the unscrupulous
and shrewd loaners to repay the loan in time. If all these suggestions are accepted and implemented,
it is expected that the rural credit operation will run smoothly and rural output will ultimately
increase.

Mafizul, (1993), says that on the available historical and empirical evidence lends credence to the
thesis that no country could have developed and reached its current state of economic development
without a sound agricultural development. Thus agricultural development is a must for economic
development. The fact is that the agricultural development in recent years requires HYV seed-
fertilizer-modern irrigation technology which calls for a considerable amount of investment. As
the farmers in an underdeveloped country like Bangladesh are poor and they have no surplus farm
families use three-fourth of their volume of credit for consumption purpose. We should re-think
about the credit delivery and effective use of credit to promote agricultural development. The
supply of credit to agriculture must be substantially stepped up. Moreover, credit should be made
available adequately, timely and on the security of productive capacity of land, or the farmer, rather than that of the size, or value of land. Provision of consumption credit can be justified as credit to labor input particularly for the small farmers. To protect the interest of the small farmers, they should be specially favored, so that in the shortest possible time, they become credit-worthy in terms of their commercial operations.

To implement the policy objectives in respect of raising the supply of funds, and their proper allocation to agriculture, as also to enforce the conditions of loans, and to ensure their productive use, a suitable alternative set-up in the banking sector is needed. Bangladesh is overwhelmingly an agricultural economy. The predominance of agriculture becomes obvious from its contribution to the GDP and overall employment it supports. In 1990, for example, industrial sector accounted for about 10 percent of the GDP and 20 percent of employment, and trade and services sector provided about 40 percentage to GDP and around 18 percent of total employment, Agriculture’s corresponding shares were 51 percentage of the GDP and 61 percentage overall employment. Agriculture has also to provide food and is the major supplier of some basic raw materials for the domestic industry while at the same time it makes substantial contribution to the nation’s trade balance particularly through export earnings. The other side of the picture is that during the fifties the rate of growth of agricultural output in Bangladesh was very low, but there was enough to feed the people and meet their other needs. From the sixties, the situation changed, Bangladesh began importing food grains and the import of food grains rose progressively over time. Many programmes have been adopted during the last quarter century to accelerate the production of agricultural crops. In spite of all such efforts the growth of output in this sector has not kept pace with the growth of population. This has become a matter of concern for the government and the people of the country. There is no denying the fact that the growth rate of the agricultural sector decelerated during the eighties. Given the limited opportunity for expanding net cropped land, the sources of growth in production have to be increased yields and cropping intensities, which call for more investment in the agricultural sector. The principal potential source of increased productivity per acre is switching from local variety to HYV. This would require not only development of water resources but also a credit policy which would offer more incentive and extend more investable resources to the farmers. Let us now see what has been happening to the rural credit, particularly credit availability to farmers in Bangladesh (Mafizul, 1993).
2.3. Cooperatives and Development in Rwanda
According to Mukarugwiza (2010), the role of cooperatives in development is twofold: economic and social. The economic role involves provision of opportunities for improved incomes to members. Besides playing an important role in the economies of countries, as evidenced by their market share of the GDP, cooperatives are used as a tool to help alleviate poverty. According to the National Policy of Microfinance in Rwanda (MINECOFIN, 2006), Microfinance in Rwanda is a relatively young sector. Although informal mutual help organizations have existed since years, the microfinance sector was formalized in 1975 with the establishment of the first Banque Populaire (Mutual Saving Bank). After the 1994 genocide, thanks to supports from international humanitarian organizations the sector extended dramatically. Not only, these organizations provided the population with material support but also had microcredit on their agenda. At times, there was no clear-cut differentiation between different types of loans, subsidies and donations and this confused the population. Thus, the culture of non-repayment developed, causing nonperforming loans exceeding 45% of total outstanding credit, and therefore had adverse consequences on MFIs’ performance (AMIR, 2010).

2.3.2 Agricultural Growth Options with Balanced Foreign Inflows
Agriculture continues to be one of the most important growth pillars for Rwanda, and a much higher growth target is set for agriculture under the new development strategy (Rwanda, MINECOFIN 2013) and investment plan for the next five years. For Rwanda to achieve a double-digit annual growth rate and become a lower-middle-income country by 2020, the goal set in the strategy document (Rwanda, MINECOFIN 2013), an annual growth rate for agriculture is set at 8.5 percent per year from 2014 to 2018. In this section, we first address what achieving this growth goal will imply for the different agricultural subsectors and how these subsectors will contribute to total agricultural and overall economic growth and poverty reduction. With the forward-looking nature of these questions, a simulation tool for analysis is an appropriate tool to apply, and thus, we have developed a highly disaggregated dynamic CGE model for Rwanda.

2.4 Empirical Review
Guarantee Funds (GF) are typically targeted toward a specific group of potential borrowers that are seen as being underserved by the formal credit markets, but whose success is deemed to be important to the development of a group of people, an industry or a region (Honohan, 2008). A
review of over 50,000 Italian loans found that smaller firms are typically required to post more collateral than larger firms. Unless they can overcome the missing requirements, the borrower must find financing elsewhere, often at an extremely higher cost, if it is available at all. A guarantee fund helps borrowers to overcome this credit gap by providing to the bank a loan guarantee as a substitute, or in some cases, in addition to, any collateral required by the bank (Pozzolo, 2004).

Banks seem to certainly recognize the potential value of serving the SME market; however, the potential profit is offset by the increased costs that come with serving this market, and, therefore, banks find it necessary to develop new mechanisms and structures to work with SMEs, as well as to adapt their business and risk models to reduce the risks and costs of serving SMEs. The most commonly cited problems for banks are the additional bureaucratic tasks, such as applications, and oversight, as well as difficulties in getting paid through the guarantee in the event of a default. Smaller banks seem to have the most trouble with repayments (Torre, 2008).

On the other hand, the mechanism allows borrowers to utilize the formal banking sector, which not only lowers their costs, but as the bank and Guarantee Fund require more extensive reporting, it typically helps move the company toward more professional practices. Furthermore, the borrowers begin building a formal credit history which makes gaining future loans more likely. From the banks side, they gain new customers, as well as experience in lending to new sectors (Honohan, 2008).

2.4.1 Performance of Agriculture Cooperative

Empirical work using macro level data on cooperatives is conspicuous by their absence. Whatever little empirical work concerning cooperatives is available is based on case studies. While some case studies employ primary data obtained through surveys others make use of balance sheet information. Kulandaiswamy & Murugesan (2005) made an attempt to evaluate the performance of Primary Agriculture Cooperative (PAC) in its various dimensions using a comprehensive yardstick of performance. Kulandaiswamy & Murugesan employ scoring procedure validated by parametric (Analysis of Variance - one way) and Non-parametric (Kruskalwalli) tests to classify into three performance categories viz, poor, moderate and good. Their study found working capital, total loans outstanding, total business turnover, overdues, net worth and loans to weaker sections as relevant and valid performance indicators for Primary Agriculture Cooperative. Based on their study, they have advocated measures such as re-capitalization, amalgamation, bringing down overdues and improving the overall efficiency of Primary Agriculture Cooperative. Based on the
available literature, eight broad categories of indicators have been developed namely organizational (structural), functional, self-reliance, profitability, cost, democratic, participation and social efficiency to evaluate and quantify the performance of Primary Agriculture Cooperative Primary Agriculture Cooperative. Instead of identifying drivers of performance.

Harper & Roy (1997) employed a two-step procedure to identify the some critical factors, which seem to be generally associated with the success of cooperatives. In the first step, a questionnaire with eleven pairs of contrasting statements was sent to a number of individuals and institutions in Indian and United Kingdom to develop a set of hypothesis describing factors key to success of the cooperatives. The first stage analysis brought out a set of views such as ‘groups should avoid being linked to any particular group’, ‘Group should focus on one activity only to ensure manageability’, ‘Group should have members with different skills and abilities’ etc. on which there was more unanimity in their influencing the success of cooperatives. In the second stage, a sample of eighteen successful cooperatives and other group enterprises were selected to test the hypothesis obtained in the first stage and draw inferences. Though this study employed a novel approach, given its narrow scope in terms of coverage, the inferences has to be taken with due care.

A broad overview of performance indicators for cooperatives is provided in Murugesan (2007). Performance under each broad indicator category is evaluated using ratio analysis. Cahalam and Prasad (2007) have used a number of ratios under four broad groups viz, liquidity, operational, productivity and profitability ratios to study the financial performance of nine select Primary Agriculture Cooperative (PAC) in West Godavari District of Andhra Pradesh. Some studies have used financial viability analysis comprising analysis of income and expenditure pattern, profit and loss pattern and break-even analysis of business (advances plus deposits) and also for its assets and liabilities to comment on the viability of cooperatives in the specific context of Maharashtra (Shah, 2002).

Case studies though have their own merits; the findings can’t be generalised across a broad spectrum. However, it is difficult to trace any attempt at the individual researcher level to examine the performance of Primary Agriculture Cooperative on a broad canvas i.e., across the states. State level ratio analysis of the comparative performance of Primary Agriculture Cooperative has been attempted by a number of Committees and Commissions that were set to look into different
dimensions of the problem concerning cooperatives. However, parametric estimate of the different factors governing the performance of Primary Agriculture Cooperative is one area, which has not been explored. This study attempts to build an empirical model to draw certain inferences about the performance of Primary Agriculture Cooperative over time. Before we develop the empirical model, what follows is a discussion on certain stylised facts on the performance of the Primary Agriculture Cooperative (Shah, 2002).

2.4.2 Constraints Faced by Smallholder Farmers
Smallholder farmers face various challenges that impede their growth and ability to effectively contribute to food security relative to the commercial farmers. Some of the constraints they face relate to lack of ironing place (Hangari), poor physical and institutional infrastructure. Most smallholder farmers are located in rural areas and mostly in the former homelands where lack of both physical and institutional infrastructure limits their expansions. Lack of access to proper roads, for example, limit the ability of a farmer to transport inputs, produce and also access information. Infrastructure is very poor, markets for agricultural inputs and outputs are often missing and unreliable for smallholder farmers. This means that the acquisition of agricultural resources becomes different and the supply of market services also becomes limited. Lack of assets, information and access to services hinders smallholder participation in potentially lucrative markets. High transaction cost is also one of the major factors constraining growth of smallholder farmers and this is largely attributed to poor infrastructure. A poor road network, for example, and unreliable distribution will force farmers to grow their own food and less of perishable commodities causing a lower productivity. Increased cost of transport will also affect inputs used and the market strategies followed by the farmers. In most cases high transaction costs are caused by among others poor infrastructure and communication services in remote rural areas. It can also result from information inefficiencies and institutional problems such as the absence of formal markets. Lack of reliable markets has also been found to be one of the main constraints faced by smallholder farmers. Many of these farmers receive low prices for their products by selling them at their farm gate or local markets (Shah, 2002).

However, these smallholder farmers could receive much higher prices by selling their goods in marketing knowledge and selling skills as well as little recognition of opportunities for product diversification or the limits between market research and product development. Lack of human
capital has also been found to be a serious constraint for smallholder farmers. They are often illiterate with poor technological skills, which can be serious obstacles in accessing useful formal institutions that disseminate technological knowledge. The majority of smallholder farmers are not capacitated with financial and marketing skills and are unable to meet the quality standards set by fresh produce markets and food processors. Lack of production knowledge leads to lower quality in production. As a result of low endowment in production factors, such as land, water and capital assets, the majority of smallholder farmers produce low quantities of products that are equally of poor quality, which leads to their products being neglected by output markets. Increasing concentration in the food value chain is a global trend, caused by increasingly demanding consumers and concerns about food safety, which tend to make it very difficult for smallholder farmers to enter high-value markets in light of the low quantity and poor quality of their products. Inconsistency in production coupled with lack of bargaining power is also a major challenge faced by smallholder farmers. On the one hand most smallholder farmers are not consistent in terms of producing products and supplying them to fresh produce markets and agro-processing industries. On the other hand their bargaining power is very low owing to poor access to market information and limited information and limited access to financial markets, which prevents them from selling their products at the most profitable time. As highlighted above, smallholder agricultural growth will not be achieved without access to support services. Increasing agricultural productivity requires addressing all problems simultaneously. Cooperative development has been found to be one of the most effective interventions through which growth in small-holder farming could be enhanced thereby creating long term food security, job opportunities and income (Fao, 2011).

2.4.3 Regulation of Agricultural Produce Markets
Various studies on the impact of regulated markets (Acharya, 1985,1988; Agarwal & Meena, 1997; Suryawanshi 1995) have highlighted several positive features of the regulation program. These include a visibly open process of price discovery, more accurate and reliable weighing, standardized market charges, payment of cash to farmers without undue deductions, dispute settlement mechanism, timing and sequencing of auctions, reduction in physical losses of produce, and availability of several amenities in market yards. In the emerging scenario, however, the relevance of the market regulation program seems to have declined. A comprehensive study of the agricultural marketing system during the last fifty years by Acharya (2004) identifies several problems associated with regulated markets. For example, since the agricultural produce marketing
committees (APMCs) do not allow the traders to buy from the farmers outside the specified market yards or sub-yards, the cost of marketing increases. Also, the area served per market yard is high, the national average being 459 sq. km., and considerably higher in states like Assam, Himachal Pradesh, Orissa, Madhya Pradesh, and Rajasthan. The long travel distance involved to reach a marketplace is a disincentive for most farmers, with small surplus to sell. Several markets are also poorly equipped. Apart from the primary assembling markets, there are 27,294 rural periodic markets, where small and marginal farmers and livestock owners come in contact with the market economy. Most of these (85%) have not been developed, which hinders the market orientation of rural areas. In several states, since elections of APMCs are not regularly held, they are superseded by the government and administered by bureaucrats, depriving them of the characteristic of being farmer-dominated managerial bodies. The staff remains overly occupied with the collection of market fees and construction work rather than market development. Congestion in the market yards delays the disposal of the farmers’ produce, frustrating the farmers. In several markets, malpractices by traders persist, such as late payment, deduction for cash or spot payment, and nonissue of sale slips. In some markets market functionaries (traders, commission agents, and labourers) have formed strong associations, barricading the entry of new functionaries. A considerable part of the market fee, which by definition is the charge for the services provided to market functionaries, is not pillowed back. In some states, this has even become a source of revenue for the government. By and large, APMCs have emerged as some sort of government-sponsored monopolies in the supply of marketing services/facilities, with all the drawbacks and inefficiency associated with public sector monopolies (Acharya, et al., 1985).

2.4.4 Working Capital Agriculture Marketing Loan

There is considerable unmet demand for rural credit. Local money-lenders continue to provide credit to the rural families, as the reach of institutional agencies to weaker sections has remained poor. Meeting the credit needs of 25 million nonfarm informal sector enterprises continues to be a challenge to the rural financial institutions (RFIs). Though the coverage of micro-finance scheme has expanded, still around 70% of the poor are out of this network. The micro-finance sub-sector of institutional credit has not explicitly targeted the agricultural sector. RFIs have by passed tenants and sharecroppers. More than 60% of the farm families are yet to receive the Kisan Credit Cards. In Rwanda BDF provides a 60% total risk coverage on working capital loans limited to Rwf 5 million for individual entrepreneurs while it provides 60% total risk cover on working capital loans for associations limited to Rwf 10 million. The loan for which the cover is applied for, should be
a loan limited to a maturity of 3 years. The maturity of the guarantee is likewise limited to 3 years. BDF also provides a 30% total risk coverage on working capital loans for short term agricultural campaigns limited to Rwf 500 million. The loan for which the cover is applied for, should be a loan limited to a maturity of less than 1 year. This is under the agricultural Guarantee fund (Gulati, 2004).

2.5 Gap in Literature
This chapter has reviewed existing literature on cooperatives and their roles on socio economic development of low-income people. The indicators of socio economic development were looked into. The chapter also presents a conceptual framework reflecting the relationship between the independent variable and dependent variable. The gap in this study is about the Lack of banks in the rural areas and low disbursement of loan to the agricultural sector by the private commercial banks have led to the inadequacy agriculture market for the small and marginal farmers in the rural areas as well us Bankable projects can easily be implemented. Therefore Business in rural finance is extremely important in the rural development so, agriculture bank loans should be initiated by the Government in order to increase the performance of rural cooperatives.

2.6 Conceptual Frame Work
A conceptual review is a tool researchers use to guide their inquiry; it is a set of ideas used to structure the research, a sort of a map (Kothari, 2012). It is the researcher’s own position on the problem and gives direction to the study. It may be an adaptation of a model used in a previous study, with modifications to suit the inquiry. Aside from showing the direction of the study, through the conceptual review, the researcher can be able to show the relationships of the different constructs that he wants to investigate.
Table 1 Conceptual framework

Independent variable

Agriculture loan

Amount of money received

Dependent variable

Performance

Increase of agriculture input

Increase of amount of harvested

Increase of sales volume

Increase of assets

Source: Research, 2019
CHAPTER THREE

METHODOLOGY

This chapter seeks to define and explain the tools and procedures used for the data collection, how the research is designed, population, sample, and method of analysis. According to Red Man and Mary (1990), research is a systematic effort to gain new knowledge and as an art of scientific investigation and inquiring specially through search for new facts in any branch of knowledge according to advanced learning dictionary of current English. It explains in details the scientific approaches and instruments used in the research that is, the research design, the population, sampling techniques, source of primary data and documentary analysis, data collection instrument, data processing, presentation of research finding analysis, interpretation and limitations faced in conducting this research and how to manage it. To research is to carry out a diligent inquiry or a critical examination of a given phenomenon. It implies exhaustive study, investigation or experimentation following some logical sequence. Methodology refers to a set of methods and principles that are used when a particular subject or doing a particular kind of work. This chapter presents therefore, the methodology that was used.

It explains in details the sampling methods, the methods used to collect data related to the research topic, and the methods used to process, analyze and interpret the collected data as well as limitations encountered by the researcher when carrying out the study. According to (Kothari, 1990), Research Methodology refers to a way to systematically solve the research problem. It is a studying how research is done scientifically. Kothari went further to explain the difference between research methodology and research methods. He said methods refer to those methods or techniques researchers use in performing research operations. Therefore, the difference between research methodology and research methods lies in their respective scopes. The scope of research methodology is very wide and research methods to constitute a part of the research methodology.
3.1 Research Design
This study employed both explanatory and descriptive survey design. Exploratory approach was needed in order to gain an understanding of how the cooperative operates and the challenges facing members whereas descriptive studies were applied to describe the effects of independent variable to dependent variable.

3.2 Study Population Identification
According to Ary, (1972), a population consists of all the subjects you want to study. A population comprises all the possible cases (persons, objects, events) that constitute a known whole. Ary, (1972) continues saying that the population of interest is usually too large or too scattered geographically to study directly. By correctly drawing a sample from a specific population, a researcher can analyze the sample and make inferences about population characteristics. In this case the population under this study is 35 members of Ubumwe Maize Grosse Cooperative in Ngoma who received agricultural loan from the Kenya Commercial Bank (KCB) for the period of 2015 to 2018.

Table 2 Stratum of Respondents

<table>
<thead>
<tr>
<th>Stratum</th>
<th>Population Associates</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ubumwe Maize Grosse Cooperative Leaders</td>
<td>8</td>
<td>Ngoma District</td>
</tr>
<tr>
<td>Agriculture farming holders</td>
<td>27</td>
<td>Farmers Beneficiaries of Ubumwe Maize Grosse Cooperative</td>
</tr>
<tr>
<td>Total</td>
<td>35</td>
<td></td>
</tr>
</tbody>
</table>

Source: primary data, 2019
3. 3 Sampling Procedure and Sample Size

Due to unavailability of some members, convenience sampling was used to select 35 respondents. That is only members who were available and willing to participate in interview was included in the sample.

3.3.1 Research Instrument

To make this research successful, the research was developed to capture information relevant to the research objectives. Thus questions seeking to understand the process of loan acquisition and how that loan was spent, the type of inputs purchased and used, amount of crops harvested per year, and amount of crop sold, and whether or not members acquired new assets.

3.3.2 Validity and Reliability of the Instruments

Validity of the Instruments

Before a researcher analyzes data, he has first analyzed the validity of instrument to make sure that these instruments generated relevant information during the study. The validity interval is from 0 up to 1. 0 means full of errors whereas 1 means absence of errors. Validity of above 0.5 is assumed to be valid.

In this research, the content validity index was calculated from the formula below:

\[ CVI = \frac{n}{N} \]

Where

- CVI: Content Validity Index
- N: Total number of items in questionnaire
- n: Number of relevant items in the questionnaire

the questionnaire was contain 10 questions. Among them 7 questions were answered well. This mean that CVI: \(\frac{7}{10} = 0.7\) which is greater than 0.5 and it made a researcher to confirm that questionnaire is valid to be analysed.

Reliability of the Instruments

According to crombach alpha method (1999) reliability comes to the forefront when variables developed from summated scales are used as predictor components in objective models. Since summated scales are an assembly of interrelated items designed to measure underlying constructs,
it is very important to know whether the same set of items would elicit the same responses if the same questions are recast and re-administered to the same respondents. Variables derived from test instruments are declared to be reliable only when they provide stable and reliable responses over a repeated administration of the test.

The table above shows a test of a questionnaire tested by two supervisors as follow:

**Table 3 Questionnaire Test**

<table>
<thead>
<tr>
<th>N°</th>
<th>Code</th>
<th>Cooperative validation</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Section A respondent ID</td>
</tr>
<tr>
<td>1</td>
<td>A.1</td>
<td>General questions on respondent’s identification.</td>
<td>Questions related to the background of respondents in terms of Gender, Age, Level of education and marital status</td>
</tr>
<tr>
<td>2</td>
<td>A.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>A.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>A.4</td>
<td>Common to many surveys</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>A.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>A.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>A.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Section B. IV &amp;DV</td>
</tr>
<tr>
<td>8</td>
<td>B.1</td>
<td>Agriculture marketing loan</td>
<td>Agriculture marketing loan on agriculture activities</td>
</tr>
<tr>
<td>9</td>
<td>B.2</td>
<td>Effect before crop marketing</td>
<td>Crop marketing before marketing loan</td>
</tr>
<tr>
<td>10</td>
<td>B.3</td>
<td>Effect after crop marketing</td>
<td>Crop marketing after marketing loan</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Section C Challenges</td>
</tr>
<tr>
<td>11</td>
<td>C1</td>
<td>Challenges</td>
<td>Challenges that facing Ubumwe Maize Gross Cooperative</td>
</tr>
</tbody>
</table>
3.4 Operational Definition of Variables
This section aims at formulating the variables and their sub variables which are considered as measurements or proxies of the major variables under this study. This section shows the variables and their functional relationship.

Agriculture Marketing Loan
According to Andrew W. (1997) in his context inferred to cover the services involved in moving an agricultural product from the farm to the consumer. It is also the planning, organizing, directing and handling of agricultural produce in such a way as to satisfy the farmer, producer and the consumer. Numerous interconnected activities are involved in doing this, such as planning production, growing and harvesting, grading, packing and packaging, transport, storage, agro- and food processing, distribution, advertising and sale. Effectively, the term encompasses the entire range of supply chain operations. However, its key function is to help direct these services, by providing competent and able market information, thereby linking the other operations into an integrated service with targeted outcomes.

Performance of Cooperatives
It is the accomplishment or the achievement of stated goals under some prescribed standards and indicators in a particular activity or undertaking. In this study performance will be indicated by the number of meetings, resource base, level of member participation, management capacity and socio economic benefits.

X= Agriculture loan

X=f (x1) where
X1= (AMR) Amount of Money Received

Y= Performance

Y= f (y1, y2, y3, y4) where
Y1= (IUAI) Increase of use agriculture input
Y2= (IAH) Increase of amount of harvest
Y3= (ISV) Increase of sales volume
Y4= (IAO) Increase of assets ownership
IUAR = f (AMR) (f1)
IAH = f (AMR) (f2)
ISV = f (AMR) (f3)
IAO = f (AMR) (f4)

Where f1, f2, f3, f4 are the functional relationship of this study. The functions were used in testing the effect of Agriculture Marketing Loan on performance of Cooperatives in Ubumwe Maize Grosse Cooperative.

3.5 Methods of Data Analysis
Data analysis involves the transformation of the observations gathered from the fields into a system of categories and transformation of these categories into codes amenable to qualitative analysis. Relevant information to the objectives of the study was considered and transformed into meaningful information for easy interpretation and understanding. In processing collected data, the following techniques were employed: editing, and tabulating among other techniques. The frequency and percentage distribution were used to determine the demographic characteristics of the respondents. The mean and correlation was applied. The analyzed data was presented in the form of tables, descriptive and correlation was also used. The instrument of the study was self made (questionnaire) and a set of questions was formulated. The questionnaire was formulated to measure the effectiveness of the internal control system and cash flow (Amin, 2005).

The 35 questionnaire were coded, and then the data entered into the SPSS software vision 16.0 and therefore analyzed. To interpret the responses of the respondents, the mean interpretation and t-paired sample test and regression models were used.

3.6 Ethical Considerations
Social research should be ethical in collection of the data in the process of analysis. The data in dissemination of findings they are accepted to respect right dignity of those who are participating in the research project and avoid any harm to the participating in the arising from their involvement in the research and operate with honesty and integrity.
CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND INTERPRETATION

The previous chapter described different techniques used to collect data. This chapter aimed at presenting the collected data, analyze and interpret the findings, as the aim of this study was to analyze the effects of agriculture marketing loan on performance of cooperatives in Rwanda case of Ubumwe Maize Grosse Cooperative of Ngoma District.

4.1 Demographic characteristics of respondents

This section describes the background of respondents who are the associates of Ubumwe Maize Grosse Cooperative of Ngoma District by gender, Age, educational level and Marital status.

4.1.1 Distribution of respondents

The distribution of respondent was analyzed to assess the percentage' composition of different categories as well as the proportion of males and females in the sample. The assessment was also made to understand the sample age, structure, gender, qualification and nature of the respondents held. This helped the researcher to know the relevance of the information given in relation with the research.
## Table 4 Distribution of Respondents about Gender, Age, level of education and marital status

<table>
<thead>
<tr>
<th>Respondents’ age group</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between 21-28 years</td>
<td>5</td>
<td>14</td>
</tr>
<tr>
<td>Between 29-36 years</td>
<td>18</td>
<td>51</td>
</tr>
<tr>
<td>Between 37-44 years</td>
<td>9</td>
<td>26</td>
</tr>
<tr>
<td>45 years and above</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>35</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Respondents' level of education</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary school</td>
<td>16</td>
<td>46</td>
</tr>
<tr>
<td>Secondary school</td>
<td>12</td>
<td>34</td>
</tr>
<tr>
<td>Bachelors degree</td>
<td>6</td>
<td>17</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>35</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Respondents’ marital status</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Married</td>
<td>25</td>
<td>71</td>
</tr>
<tr>
<td>Single</td>
<td>8</td>
<td>23</td>
</tr>
<tr>
<td>widow</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>35</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Respondents’ Gender group</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>15</td>
<td>43</td>
</tr>
<tr>
<td>Female</td>
<td>20</td>
<td>57</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>35</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

**Source:** Primary data, 2019

The table shows that 15 respondents with 43% of total number of respondents are male and 20 respondents with 57% of total number of respondents are female which shows gender balance in this study.

The table above shows that 5 respondents with 14% of total number of respondents have between 21-28 years old, 18 respondents with 51% of total number of respondents have between 29-36 years old, 9 respondents with 265 of total number of respondents have between 37-44 years old, and 3 respondents with 9% of total number of respondents have 45 years old and above.

The above shows that 16 respondents with 46% of total number of respondents have primary school level, 12 respondents with 34% of total number of respondents have secondary school level and 6 respondents with 17% of total number of respondents have bachelor’s degree level.
The above shows that 25 respondents with 71% of total number of respondents are married, 8 respondents with 23% of total number of respondents are single and 2 respondents with 6% of total number of respondents are widow.

Table 5 Agriculture marketing loan to Ubumwe Maise Grosse Cooperative of Ngoma District of Rwanda (2015-2018)

<table>
<thead>
<tr>
<th>Type of the crop/ agri-business activity per Cooperative</th>
<th>Performance before the use of loan</th>
<th>Performance after the use of loan</th>
<th>Changes</th>
<th>Percentage in changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use of quality seeds/ production</td>
<td>800kg</td>
<td>70,000kg</td>
<td>40 H</td>
<td>20</td>
</tr>
<tr>
<td>Harvest in Kgs/Tons/ cooperative</td>
<td>70,000 kg</td>
<td>120,000kg</td>
<td>40H</td>
<td>30</td>
</tr>
<tr>
<td>Sales in Kgs/ Value/ cooperative</td>
<td>230 kg of sales</td>
<td>230frw/kg</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Number of employees</td>
<td>100</td>
<td>100</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Inputs (fertilizer, pesticides, etc)</td>
<td>0kg fertilizer, pesticides, etc</td>
<td>6,040 kg</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Kgs/Value in Rwfr/cooperative</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Storage facilities in square metres/cooperative</td>
<td>No storage facilities</td>
<td>No storage facilities</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Source: Secondary data, 2019

The table above indicates the t-paired test of Agriculture marketing loan to Ubumwe Maise Grosse Cooperative of Ngoma District of Rwanda (2015-2018) which will help a researcher to accept or to reject the hypothesis.
### Paired Samples Test

<table>
<thead>
<tr>
<th>Pair</th>
<th>Use of quality seeds/ production</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
<th>95% Confidence Interval of the Difference</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Harvest in Kgs/Tons/ cooperative</td>
<td>2.98025E4</td>
<td>35288.73321</td>
<td>17644.36661</td>
<td>26349.74931 - 85954.74931</td>
<td>3</td>
<td>.190</td>
</tr>
<tr>
<td>2</td>
<td>Value/ cooperative employees</td>
<td>6.50000E1</td>
<td>75.05553</td>
<td>37.52777</td>
<td>184.43011 - 54.43011</td>
<td>3</td>
<td>.182</td>
</tr>
<tr>
<td>3</td>
<td>Inputs (fertilizer, pesticides, etc) Kgs/Value in Rwfr/ cooperative</td>
<td>1.51000E3</td>
<td>3020.00000</td>
<td>1510.00000</td>
<td>6315.49392 - 3295.49392</td>
<td>3</td>
<td>.391</td>
</tr>
</tbody>
</table>

**Source:** Secondary data of t-test, 2019

The table of paired sample test above shows that Umumwe Maize Grosse Cooperative before agriculture lean and trainings of how to use seeds, the products was in very low level and they use it as families’ facilitation. But after the use of seeds and after gating trainings of how to use them, they have reached high level of products and a good market of it. The associates of Umumwe Maize Grosse Cooperative actually they have market of their products and agriculture loan through Umumwe Maize Grosse Cooperative. From 2015-2017 Umumwe Maize Grosse Cooperative have been working with RWARI, ARADIO, INGABOYOZE and PAMU. From 2018 they started working with BDF where they pay 30% of loan guaranteed by BDF.

The same table of paired sample test above shows the level of t-test and its significance, and indicates that t-test have significance which is less than 0.5 and this make a researcher to reject the hypothesis which is the agriculture marketing loan has not caused a significant impact on
number of Ubumwe Maise Grosse Cooperative and accept that agriculture marketing loan has caused a significant impact on number of Ubumwe Maise Grosse Cooperative.

Table 6 The roles of agriculture marketing loan in performance of Ubumwe maise gross cooperative in Ngoma District of Rwanda (2015-2018)

<table>
<thead>
<tr>
<th>Years</th>
<th>Before agriculture loan organise crop marketing</th>
<th>After agriculture loan organise crop marketing</th>
<th>Sales/Cooperative</th>
<th>Remaining after sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>800kg</td>
<td>-</td>
<td>-</td>
<td>Consumption 100%</td>
</tr>
<tr>
<td>2016</td>
<td>9600kg</td>
<td>70,000kgs</td>
<td>35,000kg</td>
<td>35,000kgs/Cooperative storage</td>
</tr>
<tr>
<td>2017</td>
<td>9,600kg</td>
<td>120,000kgs</td>
<td>63,163kgs</td>
<td>56,837kgs/Cooperative storage</td>
</tr>
<tr>
<td>2018</td>
<td>9,600kg</td>
<td>110,000kgs</td>
<td>57,182kgs</td>
<td>62,818kgs/Cooperative storage</td>
</tr>
</tbody>
</table>

*Source: Secondary data, 2019*

The table 7 below indicates the analysis of t- paired sample test of the roles of agriculture marketing loan in performance of Ubumwe maise gross cooperative in Ngoma District of Rwanda (2015-2018) that will help the researcher to accept or to reject Hypothesis.

<table>
<thead>
<tr>
<th>Paired Samples Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paired Differences</td>
</tr>
<tr>
<td>Mean</td>
</tr>
<tr>
<td>Pair Year 2017 - Year 2018</td>
</tr>
</tbody>
</table>

*Source: Secondary data, 2019*
The table of paired sample test above shows the evolution of Ubumwe Maize Grosse Cooperative from 2015 to 2018. In year 2015 the product was low in 800kgs where Ubumwe Maize Grosse Cooperative decided to use it as families consumption of Ubumwe Maize Grosse Cooperative associates, then in year 2016 after they use seeds, fertilizes and having trainings of how to use it, they increase the products from 800kgs to 70tones of products where they took 35 tonnes to the market, in year 2017 they increase the products from 70 tonnes to 120 tonnes, where they took to the market 63 tonnes and 163 kgs, in year 2018 they maintained products to120 tonnes and they took to the market 57 tonnes and 182 kgs. Form year 2016 after selling Ubumwe Maize Grosse Cooperative use to keep the remaining products in cooperative storage for selling them in details to associates and no associates. To the associate the price is less compare to no associates.

The same table above that showing t-test and significance it indicating that t- test has significance which is less that 0.5 and this make to the researcher to reject $H_0^1$, $H_0^2$, $H_0^3$, $H_0^4$ and confirm $H_0^1$: by saying that amount of money received has significance effect on increase of agriculture in put, $H_0^2$: by saying that amount harvested of money received has significance effect on increase of amount of harvested, $H_0^3$: by saying that amount of money received has significance effect on increase of sales volumes and $H_0^4$: by saying that amount of money received has significance effect on increase of assets.

<table>
<thead>
<tr>
<th>years</th>
<th>10% of Product</th>
<th>90% of product</th>
<th>Monthly consumption</th>
<th>Annually consumption</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>800 kg</td>
<td>-</td>
<td>133kg</td>
<td>1600kg</td>
</tr>
<tr>
<td>2016</td>
<td>70,000kg</td>
<td>630,000kg</td>
<td>52,500kg</td>
<td>630,000kg</td>
</tr>
<tr>
<td>2017</td>
<td>120,000kg</td>
<td>1,080,000kg</td>
<td>90,000kg</td>
<td>1,080,000kg</td>
</tr>
<tr>
<td>2018</td>
<td>120,000kg</td>
<td>1,080,000kg</td>
<td>90,000kg</td>
<td>1,080,000kg</td>
</tr>
</tbody>
</table>

*Source: Secondary data, 2019*

The table 8 above indicate the consumption of Ubumwe Maize Gross Cooperative members. In year 2015 the product was 800kg which was divided to cooperative members to be consumed or to be used for other needs. In year 2016, the product to be consumed was 90% of total product which was 630,000kg and 10% of total product was received by cooperative. In years 2017 the 90% of total product to be consumed was 1,080,000kg and 10% of total product which was
120,000kg was received by cooperative. In year 2018 the 90% of total product to be consumed was 1,080,000kg and 10% of total product was received by cooperative.

**Table 8 The effects of crop marketing before marketing loan on performance of the member of Ubumwe Maize Grosse Cooperative**

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use of Agriculture input</td>
<td>35</td>
<td>1.00</td>
<td>4.00</td>
<td>2.4857</td>
<td>1.06747</td>
</tr>
<tr>
<td>Amount of harvested</td>
<td>35</td>
<td>1.00</td>
<td>4.00</td>
<td>2.6000</td>
<td>1.03469</td>
</tr>
<tr>
<td>Sales volume</td>
<td>35</td>
<td>1.00</td>
<td>4.00</td>
<td>2.6286</td>
<td>1.19030</td>
</tr>
<tr>
<td>Assets ownership</td>
<td>35</td>
<td>1.00</td>
<td>4.00</td>
<td>2.6571</td>
<td>1.05560</td>
</tr>
<tr>
<td>Valid N</td>
<td>35</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Source: Primary data, 2019*

The table above indicates that crop marketing before marketing loan use of agriculture input is 2.4857 which is moderate and standard deviation of 1.06747 which is shows Respondents’ heterogeneity of perception, Amount of harvested was 2.6000 which is low and standard deviation of 1.03469 which shows Respondents’ heterogeneity of perception, Sales volume was 2.6286 which is low and standard deviation of 1.19030 and Assets ownership was 2.6571 which is low and standard deviation of 1.05560 which shows Respondents’ heterogeneity of perception.

**Table 9 The effects of crop marketing after marketing loan on performance of the member of Ubumwe Maize Grosse Cooperative**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.427a</td>
<td>.83</td>
<td>.074</td>
<td>3.53709</td>
</tr>
</tbody>
</table>

*a. Predictors: (Constant), Increase of assets ownership, Increase of use of agriculture input, Increase of amount of harvested, Increase of sales volume*

The table above shows the regression summary representing the proportion of variance of performance of Ubumwe Maize Grosse Cooperative. From this table, it is shown that 83 % of the total variance of the performance was accounted for by the studied agriculture marketing loan.
This means that performance of Agriculture marketing loan present 83% of performance of Ubumwe Maize Grosse Cooperative.

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>83.812</td>
<td>4</td>
<td>20.953</td>
<td>1.675</td>
<td>.182</td>
</tr>
<tr>
<td>Residual</td>
<td>375.331</td>
<td>30</td>
<td>12.511</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>459.143</td>
<td>34</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Increase of assets ownership, Increase of use of agriculture input, Increase of amount of harvested, Increase of sales volume

b. Dependent Variable: Crop Marketing after Marketing loan

The table above illustrates the analysis of variance to test hypothesis and by inspecting the significance level (which is .0182 and <.05), it is noted that the regression model is highly significant and this make to the researcher to reject \( H_01 \), \( H_02 \), \( H_03 \), \( H_04 \) and confirm \( H_01 \): by saying that amount of money received has significance effect on increase of agriculture in put, \( H_02 \): by saying that amount harvested of money received has significance effect on increase of amount of harvested, \( H_03 \): by saying that amount of money received has significance effect on increase of sales volumes and \( H_04 \): by saying that amount of money received has significance effect on increase of assets.

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>-.855</td>
<td>1.581</td>
<td>.541</td>
<td>.593</td>
</tr>
<tr>
<td>Increase of use of agriculture input</td>
<td>-.588</td>
<td>1.678</td>
<td>-.145</td>
<td>-.350</td>
</tr>
<tr>
<td>Increase of amount of harvested</td>
<td>.128</td>
<td>2.285</td>
<td>.034</td>
<td>.056</td>
</tr>
<tr>
<td>Increase of sales volume</td>
<td>.059</td>
<td>2.899</td>
<td>.015</td>
<td>.020</td>
</tr>
<tr>
<td>Increase of assets ownership</td>
<td>2.225</td>
<td>2.347</td>
<td>.505</td>
<td>.948</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Crop Marketing after Marketing loan
The table above shows that the standardized coefficients for each technology and it reports that the change of one standard unit on Increase of use of agriculture input will result in a change of -0.0145 standard unit on Increase of amount of harvested, the change of one standard unit on Increase of sales volume was resulted in a change of 0.015 standard unit on the performance Ubumwe Maize Grosse Cooperative of, the change of one standard unit on Increase of assets ownership was resulted in a change of 0.505 standard unit on performance of Ubumwe Maize Grosse Cooperative.

4.1.2 The challenges facing by Ubumwe Maize Grosse Cooperative in agriculture marketing loan of Ngoma District of Rwanda.

Ubumwe Maize Grosse Cooperative is facing some challenges regarding lack of accountant managerial and ability to pay him, having a bank near them so that they can operate easily, lack of ironing (Hangari) place which help them to make good quality products and lastly long term agriculture loan that help them to design a long term project.
CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

In this chapter, the conclusions from the study and the recommendations made are presented. The study used both qualitative and quantitative methods of analysis. The summary of findings, conclusion and recommendations are based on the objectives of the study: to identify the effects of agriculture marketing loan to smallholder farmers of Ngoma District of Rwanda, to establish the roles of agriculture marketing loan in creating employment for the youth of Ngoma District of Rwanda, to examine the challenges facing by Ubumwe Maize Grosse Cooperative in agriculture marketing loan of Ngoma District of Rwanda.

5.1 Summary of the findings

Different researches have been conducted in agriculture marketing loan. This study has been conducted on effect of agriculture marketing loan in Rwanda into consideration of Ubumwe Maize Grosse Cooperative.

5.1.1 Summary of the findings on agriculture marketing loan on performance of Ubumwe Maize Grosse Cooperative

The findings show that Ubumwe Maize Grosse Cooperative before agriculture loan and trainings of how to use seeds, the products was in very low level and they use it as families’ facilitation. But after the use of seeds and after gating trainings of how to use them, they have reached in high level of products and a good market of it. The associates of Ubumwe Maize Grosse Cooperative actually they have market of their products and agriculture loan through Ubumwe Maize Grosse Cooperative. From 2015-2017 Ubumwe Maize Grosse Cooperative have been working with RWARI, ARADIO, INGABOYOZE and PAMU. From 2018 they started working with BDF where they pay 30% of loan guaranteed by BDF.
5.1.2 Summary of respondents on the roles of agriculture marketing loan on performance of Ubumwe Maize Grosse Cooperative in Ngoma District of Rwanda

The findings show that the evolution of Ubumwe Maize Grosse Cooperative from 2015 to 2018. In year 2015-2016 the product was low in 800kgs where Ubumwe Maize Grosse Cooperative decided to use it as families facilitation of Ubumwe Maize Grosse Cooperative associates, then after they use seeds and having trainings of how to use it, they evaluate the products from 800kgs to 70tones of products where they took 35 tones to the market and the remaining as families facility, in year 2016-2017 they evaluate the products from 70 tonnes to 120 tones, where they took to the market 63 tonnes and 163 kgs, the remaining as families facility, in year 2017-2018 they maintained products of 120 tonnes and they took to the market 57 tonnes and 182 kgs and the remaining as families facility and year 2018-2019, they also maintained quantity of 120 tonnes and they took 56 tonnes to the market and the remaining as families facility.

5.1.3 Summary of respondents on challenges facing by Ubumwe Maize Grosse Cooperative in agriculture marketing loan of Ngoma District of Rwanda

The findings show that Ubumwe Maize Grosse Cooperative is facing some challenges regarding lack of accountant and ability to pay him, having a bank near them so that they can operate easily, lack of ironing (Hangari) place which help them to make good quality products and lastly having access on long term agriculture loan that help them to design a long term project.

5.2 Conclusion

Agriculture is the very potential to improve in Rwanda economy because its basis is rural base. Again, 80 percent of the total populations are maintaining their livelihood by agricultural activities which are the main vocation and source of income of these rural people (Mina Md. Shahjahan, 1980). The price of marketing of agricultural goods is comparatively lower than other products so the farmers do not show their interest undertaking this loan. On the basis of statistics, we may conclude that the coefficient of the loan on agriculture loan is very low on 1.5% which can assure Ubumwe Maize Grosse Cooperative that the long term project can be viable.
5.3 Recommendations

This study concludes by saying that in a way of improving agriculture market loan Ubumwe Maize Grosse Cooperative suggest that government help them to solve challenges faced by them as lack of accountant and ability to pay him, having a bank near them so that they can operate easily, lack of ironing (Hangari) place which help them to make good quality products and lastly having access on long term agriculture loan that help them to design a long term project.
REFERENCES


Andrew (2004). *Understanding the context for agriculture for nutrition research: Identifying country typologies of child-stunting determinants.*


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Prasad (2007). *Améliorer l’efficacité et l’efficience de la stratégie de stockage public au Mali*


APPENDICES
QUESTIONNAIRE

My name is UMUTONI Bonnette, Student of college of business and economics department of postgraduate studies masters in business administration (MBA) Finance, carrying out a study on Agriculture marketing loan and performance of cooperatives in Rwanda. Case of ubumwe maize Grosse cooperative. I request my kind respondents to answer the entire questionnaire by exhausting their opinions; therefore every answer is correct. Thank you very much for your assistance.

Please tick the appropriate box or explain where necessary.

SECTION A: Respondents background information

1) Gender
   ( ) Male
   ( ) Female

2) Age
   ( ) 21 – 28
   ( ) 29 – 36
   ( ) 37 – 44
   ( ) 45 – above

3) Level of education
   ( ) primary school
   ( ) Secondary school
   ( ) Bachelor’s Degree

4) Marital status
   ( ) Married
   ( ) Single
   ( ) Widow

5) Type of crop (s) grown/ agribusiness involved

6) Amount of agriculture loan

7) Amount of funding in frw

Section B
8) Agriculture market loan on agricultural activities

<table>
<thead>
<tr>
<th>Name of the crop/ agri-business activity</th>
<th>Before agriculture loan organise crop marketing</th>
<th>After agriculture loan organise crop marketing</th>
<th>Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use of quality seeds</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Harvest in Kgs/Tons</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sales in Kgs/ Value</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of employees</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inputs (fertilizer, pesticides, etc)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kgs/Value in Rwfr</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Storage facilities in square metres</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family facilities after saling</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

9) The effects of crop marketing before marketing loan on performance of the member of Ubumwe Maize Grosse Cooperative

<table>
<thead>
<tr>
<th>Use of Agriculture input</th>
<th>SA</th>
<th>A</th>
<th>D</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount of harvested</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sales volume</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assets ownership</td>
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</tbody>
</table>
10) The effects of crop marketing after marketing loan on performance of the member of Ubumwe Maize Grosse Cooperative

<table>
<thead>
<tr>
<th></th>
<th>SA</th>
<th>A</th>
<th>D</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increase of use of agriculture input</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increase of amount of harvested</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increase of sales volume</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Increase of assets ownership</td>
<td></td>
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</tr>
</tbody>
</table>

SECTION C: Challenges facing the business

1) What are the challenges that you have been facing?
   ______________________________
   ______________________________
   ______________________________
   ______________________________