FACTORS INFLUENCING BANKS’ FINANCING DECISIONS TO SMALL AND MEDIUM ENTERPRISES (SMES) IN THE AGRICULTURE SECTOR

(CASE STUDY OF AGRIBANK, 2009 -2012)

BY

Samapenda Freddie (R014357K)

Dissertation submitted in partial fulfillment of the requirements for the degree of master in business administration

AUGUST 2013

GRADUATE SCHOOL OF MANAGEMENT

UNIVERSITY OF ZIMBABWE

SUPERVISOR: MR. J. KUHUDZAYI
DECLARATION

I, Samapenda Freddie, do hereby declare that this dissertation is the result of my own investigation and research, except to the extent indicated in the Acknowledgements, References and by comments included in the body of the report, and that it has not been submitted in part or in full for any other degree to any other university.

Student signature __________ Date __________

Supervisor’s Signature __________ Date: __________
DEDICATION

I wish to dedicate this to my wife Shuvai and daughters Faith R. and Nadia T.
ACKNOWLEDGEMENTS

Firstly, I would like to thank my supervisor Mr. Jacob Kuhudzayi for his guidance throughout this study. Sincere gratitude also goes to Dr. D. Madzikanda for the assistance provided on data analysis and presentation of the findings. I would like to thank my family for encouragement throughout my MBA studies.

A special thank you goes to all members of my MBA study group for the collaboration we had throughout the studies.

I would like to thank all respondents who participated in the study.
ABSTRACT

A study was carried out to investigate factors that influence banks’ financing decisions to SMEs operation in the agriculture sector. The objective was to assess factors that influence credit rationing behaviour of banks involved in financing of SMEs in the agricultural sector since there is a ‘financial gap’ between banks and these SMEs.

Literature was reviewed on factors that influence SME finance by banks that resulted in formulation of research hypotheses. The objective of literature review was to establish literature gaps on factors influencing bank financing decisions to SMEs and relate them to financing of agriculture SMEs. From literature it was found that there is much information that relate to challenges and motives of financing SMEs in the agriculture sector. A quantitative research was carried out using a case study of Agribank, a registered commercial bank that is involved in financing of agriculture. A self administered questionnaire was distributed to a sample drawn from relationship officers and branch manager within the bank’s northern region to collect data.

Relationships between research variable were tested using various techniques that include Mann Whitney test, Kruskal – Wallis test, correlation and regression analysis. The results showed that there were statistically insignificant relationships between demographic characteristics of loan granting officers within the bank and loan approval decisions. There were also no statistically significant relationships between the independent variable (age of the SME, quality of information and administration costs) and the dependent variable (loan approval decisions by the bank).

It was concluded that most of the identified factors had no statistically significant relationships with the loan approval decisions. The regression model was also fairly a poor one with an $r^2$ value of 0.08. It was concluded that the model might be influenced to a larger extend by external factors that are specific to the Agribank and the country that include political interference and macroeconomic factors.

It was recommended to consider the external factors into the model so as to improve its effectiveness in future studies.
# TABLE OF CONTENTS

Table of Contents

DECLARATION..................................................................................................................i

DEDICATION..................................................................................................................ii

ACKNOWLEDGEMENTS................................................................................................iii

ABSTRACT.......................................................................................................................iv

TABLE OF CONTENTS...................................................................................................v

LIST OF TABLES............................................................................................................x

LIST OF FIGURES.........................................................................................................xi

LIST OF CRONYMS......................................................................................................xii

CHAPTER ONE: INTRODUCTION.........................................................................................1

1.1 INTRODUCTION TO THE STUDY..............................................................................1

1.2 BACKGROUND..........................................................................................................2

1.2.1 Environmental Analysis.........................................................................................2

1.2.1.1 Political Environment.......................................................................................2

1.2.1.2 Economic situation............................................................................................3

1.2.1.3 Social Factors...................................................................................................4

1.2.1.4 Technological Factors.......................................................................................4

1.2.1.5 Environmental Factors......................................................................................5

1.2.1.6 Legal environment............................................................................................5

1.2.2 SMEs: The Zimbabwean Perspective......................................................................7

1.2.3 The banking sector in Zimbabwe............................................................................7

1.2.3.1 Composition of credit to private sector.............................................................8

1.2.3.2 Bank deposits level............................................................................................9

1.2.4 Background of Agribank.......................................................................................11

1.2.4.1 Agribank financial performance.......................................................................12

1.2.4.2 Internal environment analysis of Agribank.......................................................14

1.3 STATEMENT OF THE PROBLEM..............................................................................15

1.4 RESEARCH OBJECTIVES.........................................................................................16
1.5 RESEARCH QUESTIONS .............................................................................................................. 17
1.6 RESEARCH HYPOTHESIS ........................................................................................................ 17
1.7 JUSTIFICATION OF RESEARCH .............................................................................................. 17
1.8 SCOPE OF RESEARCH .............................................................................................................. 18
1.9 LIMITATIONS OF THE STUDY ................................................................................................. 19
1.10 DISSERTATION OUTLINE ....................................................................................................... 19
1.11 CHAPTER SUMMARY .............................................................................................................. 19

CHAPTER 2: LITERATURE REVIEW .......................................................................................... 20
2.1 INTRODUCTION ....................................................................................................................... 20
2.2 DEFINITION OF TERMS ........................................................................................................... 20
2.2.1 Small and medium enterprise (SME)................................................................................. 20
2.2.2 Financing ............................................................................................................................. 21
2.3 THEORETICAL FRAMEWORK ................................................................................................ 23
2.2.1 Pecking Order Theory ........................................................................................................ 23
2.2.2 The Credit Rationing Theory ............................................................................................. 23
2.2.4 Determinants of bank rationing behaviour ....................................................................... 25
2.2.5 Stages of credit rationing ................................................................................................... 26
2.2.5.1 The screening stage ....................................................................................................... 26
2.2.5.2 The evaluation stage ....................................................................................................... 26
2.2.5.3 The quantity rationing stage ......................................................................................... 26
2.3 SME FINANCE OVERVIEW .................................................................................................... 28
2.4 VARIABLES IN BANK FINANCE FOR SMES ..................................................................... 29
2.5 SME SPECIFIC FACTORS THAT INFLUENCE BANK FINANCING ........................................ 30
2.5.1 Transparency of Business Information ............................................................................. 30
2.5.2 Level of Business Formality .............................................................................................. 31
2.5.3 Entrepreneur Characteristics .............................................................................................. 32
2.5.3.1 Wealth of the entrepreneur .......................................................................................... 32
2.5.3.2 Gender of entrepreneur .............................................................................................. 33
2.5.4 Financial Structure of SME projects .................................................................................. 33
2.5.5 Capacity of the SME to service loan .................................................................................. 34
2.5.5.1 Quality and length of relationship between bank and SME ....................................... 34
2.5.5.2 Age of firm .................................................................................................................. 34
3.4.3 Research Strategy .................................................................................................55
3.4.3.1 Case study ........................................................................................................55
3.4.4 Unit of Analysis .....................................................................................................57
3.4.5 Research Instruments ..........................................................................................57
   3.4.6.1 Population ........................................................................................................59
   3.4.6.2 Sample size and sampling techniques ............................................................59
3.4.7 Administering of Questionnaires .........................................................................60
3.5 DATA ANALYSIS .....................................................................................................60
3.6 VALIDITY AND RELIABILITY ..................................................................................61
   3.6.1 Validity ................................................................................................................61
   3.6.2 Reliability ............................................................................................................62
3.7 ETHICS AND VALUES ..............................................................................................62
3.8 CHAPTER SUMMARY ...............................................................................................62
CHAPTER 4: RESULTS PRESENTATION, ANALYSIS AND DISCUSSION....................64
4.1 INTRODUCTION ........................................................................................................64
4.2 RESPONSE RATE .....................................................................................................64
4.3 DESCRIPTIVE ANALYSIS .......................................................................................64
   4.3.1 Job Position .........................................................................................................65
   4.3.2 Level of education ...............................................................................................65
   4.3.3 Age of respondents ............................................................................................66
4.4 NORMALITY TEST ...................................................................................................67
4.5 RELIABILITY TEST ..................................................................................................68
4.6 MANN- WHITNEY TEST ..........................................................................................69
   4.6.1 Loan approval decisions by gender ......................................................................69
   4.6.2 Loan approval decisions by job position ............................................................70
4.7 KRUSKAL – WALLIS TEST ......................................................................................71
   4.7.1 Loan approval decisions by age .........................................................................71
   4.7.2 Loan approval decisions by level of education ....................................................72
4.8 CORRELATION ANALYSIS .....................................................................................73
4.9 REGRESSION ANALYSIS .........................................................................................74
4.10 CHAPTER SUMMARY .............................................................................................77
5.1 INTRODUCTION ........................................................................................................78
### LIST OF TABLES

<table>
<thead>
<tr>
<th>Table No.</th>
<th>Table Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>RBZ definition of SME</td>
<td>7</td>
</tr>
<tr>
<td>1.2</td>
<td>Agribank Financial Performance 2012</td>
<td>12</td>
</tr>
<tr>
<td>2.1</td>
<td>Thresholds for SMEs</td>
<td>21</td>
</tr>
<tr>
<td>2.2</td>
<td>Credit rationing types</td>
<td>25</td>
</tr>
<tr>
<td>3.1</td>
<td>Research philosophies</td>
<td>52</td>
</tr>
<tr>
<td>4.1</td>
<td>Respondents job positions</td>
<td>66</td>
</tr>
<tr>
<td>4.2</td>
<td>Age of respondents</td>
<td>67</td>
</tr>
<tr>
<td>4.3</td>
<td>Level of work experience of respondents</td>
<td>68</td>
</tr>
<tr>
<td>4.4</td>
<td>Normality test results</td>
<td>68</td>
</tr>
<tr>
<td>4.5</td>
<td>Reliability test results</td>
<td>70</td>
</tr>
<tr>
<td>4.6</td>
<td>Mean Ranks for gender comparisons</td>
<td>70</td>
</tr>
<tr>
<td>4.7</td>
<td>Test Statistics for gender comparison</td>
<td>71</td>
</tr>
<tr>
<td>4.8</td>
<td>Mean Ranks for job position comparison</td>
<td>71</td>
</tr>
<tr>
<td>4.9</td>
<td>Test Statistics for job position comparison</td>
<td>72</td>
</tr>
<tr>
<td>4.10</td>
<td>Mean Ranks for age comparison</td>
<td>72</td>
</tr>
<tr>
<td>4.11</td>
<td>Test Statistics for age comparison</td>
<td>73</td>
</tr>
<tr>
<td>4.12</td>
<td>Mean Ranks for education level comparison</td>
<td>73</td>
</tr>
<tr>
<td>4.13</td>
<td>Test Statistics for education level comparison</td>
<td>73</td>
</tr>
<tr>
<td>4.14</td>
<td>Correlations</td>
<td>74</td>
</tr>
<tr>
<td>4.15</td>
<td>Regression model summary</td>
<td>76</td>
</tr>
<tr>
<td>4.16</td>
<td>ANOVA table</td>
<td>76</td>
</tr>
<tr>
<td>4.17</td>
<td>Beta co efficiencies</td>
<td>77</td>
</tr>
</tbody>
</table>
LIST OF FIGURES

Figure 1.1: Composition of credit to private sector as at 31 December 2012.............. 9
Figure 1.2: Commercial bank deposits market share as at 31 December 2012........... 10
Figure 2.1: Firm growth stages and sources of finance........................................ 35
Figure 2.2: SME development stages and sources of finance............................... 41
Figure 2.3: Identification of research variables...................................................... 44
Figure 3.1: Research variables............................................................................. 50
Figure 4.1: Academic qualifications of respondents............................................. 65
LIST OF ACRONYMS

AFC: Agricultural Finance Corporation
Agribank: Agricultural Development Bank of Zimbabwe
ASPEF: Agricultural Support Enhancement Facility
CBZ: Commercial Bank of Zimbabwe
FAO: Food and Agricultural Organization
GDP: Gross Domestic Product
GNU: Government of National Unity
GPA: Global Political Agreement
HIV: Human Immunodeficiency Virus
IFC: International Finance Corporation
LAB: Land and Agricultural Bank
NGO: Non Governmental Organization
OCED: Organization for Economic Cooperation and Development
PSIP: Public Sector Investment Program
RBZ: Reserve Bank of Zimbabwe
SEDCO: Small and Medium Development Corporation
SME: Small and Medium Enterprises
SPSS: Statistical Package for Social Sciences
SWOT: Strength, Weakness, Opportunities, Threat
CHAPTER ONE: INTRODUCTION

1.1 INTRODUCTION TO THE STUDY

Access to external finance is very critical for the development and sustainability of the small and medium enterprises (SMEs) sector, while on the other hand, lending to private SMEs in the developing economies is a challenging task for most banks (OCED, 2006; Nguyen, Le and Freeman, 2006). This means that there is a missing link between access to finance and development of SMEs. There is a significant number of SMEs that are involved in agricultural activities in the developing world that are very important to socio-economic development. In Zimbabwe, agriculture plays a significant role in economic development because it contributes 16 to 20% GDP according to FAO – Zimbabwe Country Program Framework 2012-2015. This framework also acknowledges that much of the agricultural activity is driven by small holder farmers.

The small-scale agriculture sector’s potential to contribute significantly to the national economy but it continues to suffer from underfunding (FAO - Zimbabwe, 2012) due to competition for financial resources from retail trade sectors where short term loan facilities are highly competitive. In Africa, this sector is deprived of finance as the continent has often been cited as having a mere 1% finance share to Agriculture (IFC, 2013). Despite their economic potential, SMEs in the agriculture sector continue to face challenges in accessing finance. Studies on SME finance will remain critical because SMEs all over the world play a crucial role in promoting economic development as well as industrial production (Arkeruijman, 2010).

This research intends to investigate the critical factors determining bank financing decisions to SMEs in the agriculture sector. The study is motivated by the fact that agriculture remains the major driver of the economy yet there is little activity from commercial banks to support this sector at grassroots level. A case study of Agribank, a registered commercial bank in Zimbabwe that has been involved in agriculture finance was used for this study.
1.2 BACKGROUND
In order to appreciate the context of the study, it is important to understand the broader operational environment under which this research was conducted.

1.2.1 Environmental Analysis
An environmental analysis is a situational analysis tool used to analyze the conditions in which the business is operating. This enables businesses to develop effective ways on how strategy can be developed and implemented. A PESTEL analysis tool that involves an analysis of the political situation, economic situation, social factors, technological factors, environment and legal factors was used to understand the external environment in which commercial banks and agricultural SMEs are operating in Zimbabwe.

1.2.1.1 Political Environment
Political risk analysis focuses on how political instability and nationalization would affect business profitability and investment. In Zimbabwe, the prevailing political environment presents the most prominent risk to the economic outlook (Business Monitor International, 2013). The Zimbabwean political landscape has undergone significant transformation over the last decade that has culminated into the country being administered by a negotiated government under the Global Political Agreement (GPA). The finalization of the political negotiations in 2009 culminated into the formation of a Government of National Unity (GNU). Items in the GPA included formation of a new constitution that has already been supported in a referendum and awaits parliamentary endorsement. The nation is currently preparing for harmonized elections in 2013 after completion of the constitution making process.

The finalization of all the outstanding issues and establishment of a central government is very critical for economic stability. Stability will stabilize the economic environment and open up capital flows into the country to support economic activities. Financial institutions would thus require systems in place to participate in the revival of the agriculture sector through provision of financial support to small scale players in this sector.
1.2.1.2 Economic situation
The Zimbabwean financial sector currently operates under a multiple currency framework with the United States Dollar, Rand, Pula, Pound and Euro being the most active currencies. The United States Dollar being the reporting currency.

There has been a stable growth in the economy from the lowest base experienced in 2008 mostly as a result of combined effects of political and economic stability. The economic stability was brought about by the adoption of the multiple currencies in 2009. The economy has continued on a recovery path that has seen growth rates of 9.3% and 4.4% being recorded in 2011 and 2012 respectively. According to the African Economic Outlook on Zimbabwe (2012), this growth trajectory has been driven by recoveries in the agricultural and mining sectors. Growth in agriculture has been attributed to increased output on tobacco and cotton while that of the mining sector has been as a result of improvements on the international commodity prices (mostly gold and platinum).

On the other hand, activity in the manufacturing sector has remained subdued mostly as a result of multiple constraints that include limited and high cost of capital, unpredictable water and power supply, dilapidated and outdated infrastructure. These factors have made prices of locally manufactured goods to remain very uncompetitive when compared to the region, mostly South Africa.

On the inflation front, there has been significant stability that has been recorded with year-on-year annual inflation rate at the close of 2012 standing at 2.91% (Gono, 2013). Inflationary pressures have remained subdued on the back of depressed aggregate demand, stable international food and oil prices (Gono, 2013). According to Zimbabwe Business Forecast Report of 2013, inflation is expected to remain subdued throughout 2013 mostly as a result of depressed demand and a weakening South African Rand that will keep imported inflation low.

Lending rates by financial institutions remained very high at the close of 2012 as a result of very tight liquidity conditions on the market (Gono, 2013). The Reserve Bank of Zimbabwe was quoted in the African Economic Outlook report (2012) reporting that lending rates being offered by banks range from 8% to 32%. The negative balance of
payment and limited access to external lines of credit has been adversely contributing to the low liquidity on the market, (Gono, 2013), thus putting pressure on the cost of money on the local market. Availability for funds to financial institutions for onward lending has thus remained subdued.

1.2.1.3 Social Factors
The Zimbabwean economy still suffers from a skills gap resulting from the brain drain that was experienced during the periods of economic meltdown. Crushing of the Zimbabwean dollar in 2008 eroded much of local investments that were held by financial institutions resulting in customer having very low confidence with the banking sector. Cultural factors have also resulted in most of the liquidity being locked out in the informal sector. There is thus a need for banks to innovate ways of bringing the money into the formal sector.

There is currently no official data on unemployment levels as the last estimate of 9.3% was done in 2004 according to the African economic outlook report of 2012. However estimates are that the rate of formal unemployment has been increasing over the years. Despite the increase in formal unemployment levels, the SME sector continues to grow steadily.

1.2.1.4 Technological Factors
Most of the banks in Zimbabwe have begun embracing information technology to enhance their service delivery and also as a way of diversifying revenue streams. The country has seen investment in the broadband facility to enhance internet connectivity across the entire country. Bank regulatory authorities are working on reviving the central depository system as well of improving credit scoring systems for banks. Major businesses in the country continue failing to buy business software and continue outsourcing banking technologies. There has been the launch of mobile money technology that is with customer base increasing appreciably (Gono, 2013). The banks can take advantage of such technological advancements to reach the SME sector through product development or strategic alliances.
1.2.1.5 Environmental Factors
Climate change and variability have resulted in a shift of rainfall patterns the world over and Zimbabwe has not been spared (Manyeruke, Hamauswa and Mhandara, 2013). This has caused serious threat on food security in most developing countries including Zimbabwe.

The recurrences of drought have been threatening agricultural output as prediction of the weather patterns is becoming very difficult. Mid season droughts have become prominent in threatening agricultural output. It is becoming more risky for any bank to remain anchored on agriculture as the main source of deposits hence the need to capture the much diversified SME sector.

The country has many underutilized small to medium sized dams and a lot of dilapidated small irrigation schemes (Vitoria, Mudimu and Moyo, 2012). There is potential for small scale farmers to revive such facilities to increase agricultural productivity as well as production of high value commodities. Financial support in the form of short term to medium term loans would be required from banks to complement some donor activities in this sector.

1.2.1.6 Legal Environment
The Zimbabwean indigenization and economic empowerment Act was enacted into law as a deliberate economic drive intended to expand the economy through allowing Zimbabweans to control 51% stake in business entities with a net asset value of $500 000 and above. This policy has been perceived as also contributing to creating a bad investment climate that is scaring away foreign direct investment.

The banking sector is a highly regulated industry because of the need to protect the interests of the banking public. The Reserve bank increased minimum capital requirements for the banking sector with commercial banks expected to have achieved capitalization of $25 million as at December 2012. As at 31 December 2012, a total of fourteen institutions had managed to meet the minimum capital threshold with five institutions having recorded significant progress towards compliance and two with capitalization plans that are not credible according to the monetary authorities (Gono,
2013). Inadequacy of capital banking institutions makes them unable to underwrite business for profit and sustainability.

Also the Basel II framework is being adopted by the banking industry the world over as initiatives to insure convergence of supervisory standards with international best practices (Reserve Bank of Zimbabwe, 2011). The objective of the framework is to promote adoption of stronger risk management practices by banks. The Reserve bank has adopted this risk based framework to assess a banking institution’s capital adequacy.

The Basel II framework seems to be making bank procedures more stringent when lending to the SMEs (Altaman and Sabato, 2005). This is because the Basel II accord sets capital requirements that are risk sensitive thereby increasing the risk premium that is charged by banks to SMEs. This also increases the transaction costs of financing SMEs.

The land acquisition and redistribution program has not satisfactorily been resolved as the issue of land tenure continues to make it difficult for small scale resettled farmers to access financial service from commercial banks as they cannot use the land as collateral.
1.2.2 SMEs: The Zimbabwean Perspective
There are various institutional definitions of SMEs in Zimbabwe as it is equally difficult to find a universal definition of SMEs internationally. The Small and Medium Enterprise Development Cooperation (SEDCO) (2011) defines an SME as a business with not more than 100 permanent employees. The use of balance sheet position and annual turnover was abandoned by SEDCO after the adoption of multiple-currency system in 2009 pending finalization of valuation challenges.

The RBZ defined an SME in its January 2013 monetary policy statement as,

Table 1.1 RBZ definitions of SMEs

<table>
<thead>
<tr>
<th></th>
<th>Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Small and Medium Enterprises</strong></td>
<td><strong>Number of Employees</strong></td>
</tr>
<tr>
<td></td>
<td>5 to 20 people</td>
</tr>
</tbody>
</table>

Source: RBZ monetary policy statement (January 2013)

This study adopted the RBZ definition as it is the one that is used to regulate and develop financial products for SMEs for commercial banks.

1.2.3 The banking sector in Zimbabwe
The Zimbabwe banking industry is regulated by the Reserve Bank Act 22:15. According to the RBZ, there is a total of twenty two banking institutions in Zimbabwe which are commercial banks (16); building societies (3); merchant banks (2) and one savings bank (Gono, 2013). This industry is a highly oligopolistic market system that is dominated by a few players who enjoy the greater market share in terms of asset value and deposit. The dominant players in the commercial banking industry are CBZ, Standard Chartered, Stanbic, BancABC and Barclays who jointly enjoy 63% asset market share as at December 2012. Since the adoption of the multicurrency system in 2009, the sector has
been experiencing liquidity challenges that have affected operations of banks resulting in loans and advances remaining short term in nature.

The operational environment for the banking sector has been very difficult since the adoption of the multiple currency system in 2009. According to the RBZ’s monetary policy statement of 2013, liquidity challenges together with inactivity of the interbank market, limited access to lines of credit and the absence of lender of last resort has been adversely affecting operational environment for banks.

1.2.3.1 Composition of credit to private sector
Low liquidity continues to hamper availability of funds and ability of commercial banks in Zimbabwe to fully participate in the economy (Gono, 2013). According to Vitoria et al (2012), in 2010, there was a total of USD646 million worth of loans and advances from commercial bank loans with 22% allocated to manufacturing, 29% distribution, 19% agriculture, 15% services and 22% other sectors. Even though, the allocation to agriculture is comparable to other sectors, it is not fairly distributed as the bulk of the funds are accessed by larger corporate as well as contracting companies.

In 2011, the sectoral allocation of loans and advances to agriculture declined by a margin of 3% as shown in the figure below.
Although the trend seems to reveal that agriculture is getting a greater proportion of credit allocation from banks, very little of it is in the hands of agricultural SMEs. There is a need to beef up financial support to this sector to enhance its performance.

1.2.3.2 Bank deposits level
Total deposits have been growing steadily from $500 million in 2009 to US$3.61 million as at December 2012. In this case, the dominance of the major banks by market share; CBZ, BancABC, Standard Chartered, Stanbic and Barclays remains evident.
The greater proportion of deposits available in the market remains short term demand deposits accounting for 52% of total banking sector deposits as at November 2012 (Agribank Quarterly Economic Review, 2013). Long term deposits remain very low mostly as a result of unattractive long term interest rates. Unavailability of long term deposits affect ability of commercial banks to underwrite long term loans.
1.2.4 Background of Agribank

This study was carried out on Agribank, a commercial bank that is registered in terms of the banking Act (Chapter 24.30). The bank is wholly owned by the government of Zimbabwe with 50% each shareholding between ministries of Agriculture, Mechanisation and Irrigation Development and Ministry of Finance. The reporting structure of the bank is through the Ministry of Agriculture Mechanisation and Irrigation Development.

Its legal mandate is that of a development finance institution with both loan granting and deposit acceptance functions under the supervision of the RBZ. Agribank has evolved through various operational systems since its formation during the last century. Its roots are traced back to 1924 when the Land and Agricultural Bank (LAB) was founded to cater for financing of commercial farmers. The role of the LAB was to finance agricultural development.

In 1971, the LAB and the Agricultural Assistance Board were amalgamated in the Agricultural Finance Corporation (AFC) through an Act of Parliament. The mandate of the AFC was to render financial assistance to persons engaged in agricultural activities. The persons included small and large scale farmers as well as agro processing operators.

The ACF was incorporated as the Agricultural Development Bank of Zimbabwe and was granted a commercial banking license in 1999 and commercial banking operations begun in January 2000.

Since the inception of the land reform program, Agribank has been concentrating on the provision of finance to the agricultural sector. It has been disbursing agricultural funds under Agricultural Support Enhancement Facility (ASPEF) to commercial farmers and Public Sector Investment Program (PSIP) for small scale farmers. Most of these loans were government guaranteed making the issue of collateral less important and the loans were easily accessible by most farmers and agro dealers.

The RBZ quasi-fiscal activities for agricultural support were stopped in 2009 and Agribank had to start financing agricultural activities without government support.
Despite the liquidity challenges, the bank has been evolving from the quasi fiscal era to grow its agricultural finance book amid numerous challenges (Agribank Annual Report 2010).

The vision of Agribank is:

“to be a leading provider of financial services in Zimbabwe and beyond” and the scope of its operations is defined in the mission statement which reads,

“to provide competitive financial services for the prosperity of the bank, customers and other stakeholders through a committed, motivated and well resourced work force.”

This means that the bank strives to derive value through provision on superior financial services to its customers. Since agricultural financing is one of the mandates of the bank it is critical to understand the dynamics of dealing with the agricultural sector that is now dominated by small players.

The bank currently boost of the largest branch network in the country as it has a total of 46 branches that are doted across the whole country and is represented at major cities and growth points.

1.2.4.1 Agribank financial performance

The financial performance of Agribank, in terms of profitability has been below industry average since adoption of the multiple currencies in 2009. The table below shows the summary of the bank’s financial performance over the past four years.

<table>
<thead>
<tr>
<th>Year</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net Profit/(Loss)</td>
<td>(4 757 757.00)</td>
<td>(8 155 315.00)</td>
<td>(358 951.00)</td>
<td>(5 570 000.00)</td>
</tr>
<tr>
<td>Return on Equity</td>
<td>-110%</td>
<td>-55%</td>
<td>-2.27%</td>
<td>-23.21%</td>
</tr>
<tr>
<td>Return on Assets</td>
<td>-21%</td>
<td>-31%</td>
<td>-0.32%</td>
<td>-4.36%</td>
</tr>
</tbody>
</table>

Source: Agribank Annual 2010 and 201, Agribank financial statement 2012

The bank has been operating on a loss since the adoption of the multiple currencies in 2009. It has been sustained by capital injection by the shareholder. Poor performance of
the corporate sector has also resulted in the ability to create enough assets for the bank’s sustenance. The agricultural sector has been underperforming as a result of high operational costs.
1.2.4.2 Internal environment analysis of Agribank

The analytical tool used for this analysis is the SWOT analysis. SWOT analysis was defined by Naryanan and Nath (1993) as the process that enables decision makers to develop an awareness of organisational environments so as to influence current and future performance. In this regard organisation can understand its operating environment and it becomes possible to establish necessary preparations before any threats affect their businesses. A SWOT analysis of Agribank is thus presented below,

1.2.4.2.1 Strength

Agribank is the only bank with the highest geophysical distribution in Zimbabwe. It has a total of 46 branches that are located in the major cities and growth points for easier accessibility. The issue of high transaction costs associate with dealing with large numbers of SMEs can be managed through engaging in relationship banking as small distances between its branches make relationship banking possible.

The bank has well established operational structures for loan administration that starts with the relationship officer at the branches that is used to manage agriculture finance.

1.2.4.2.2 Weaknesses

The major challenge of Agribank is that it is perceived by the market as a predominantly agricultural loan granting institution. After the transition from AFC into Agribank the market still perceive the bank as a land bank which make is difficult for the bank to compete on deposit mobilisation. The market still perceives the bank as an entirely agricultural finance institution.

The bank has also been struggling financially since the dollarization of the economy with a negative return on equity, (Agribank Annual Report, 2012). This has been caused by impairment charges resulting from the non performing mostly agricultural loan book.

Operational costs, mostly staff related costs have also been affecting the performance of the bank with a cost to income ratio of 138% as at December 2012 (Agribank Annual Report, 2012). The market share for deposit of Agribank is very low at only 2.6% as at December 2012.
The bank has also experienced shrinkages in deposits as the bank loses its dominants in Agricultural finance to other players such as CBZ.

Poor customer loyalty has also been attributed to the effects of economic sanctions imposed on the institution that affects its ability to provide international banking products. This also weakened that bank’s ability to attract foreign capital flow and as such the bank is struggling to meet its statutory capital requirements.

**1.2.4.2.3 Opportunities**
The bank has a very good geophysical distribution of branches as it is represented at all major economic hubs of the country including growth points where informal SME activities are concentrated.

**1.2.4.2.4 Threats**
The unavailability of credit lines is likely to affect the capitalisation of the bank. The bank would need enough capital to underwrite loans and advances but the liquidity in the market remains low due to limited flows of foreign investments.

The issue of changing weather patterns that has witnessed radical changes in the rainfall patterns is also likely to increase the credit risk of agricultural sector. This would increase tightness of loan evaluation processes to the disadvantage of the SME players in this sector as compared to other sectors such as distribution.

Delays in the implementation of the GPA and subsequent formation of a central government would maintain the macroeconomic environment unstable for investment. Stability would open up inflows of various forms capital to stimulate economic growth.

**1.3 STATEMENT OF THE PROBLEM**
SMEs and entrepreneurship are recognized worldwide as important sources of dynamism, innovation and flexibility as well as in promoting efficient use of resources (OCED, 2006, Abor and Biekpe, 2006). Access to external finance is thus important for the growth and development of the SME sector because every business requires some form of external finance to invest in business expansion as well as acquiring technologies for sustenance of competitive advantage.
Despite agricultural SMEs’ economic dominance and contribution in reducing unemployment, the sector continues to face serious difficulties when trying to obtain loans especially from the formal financial institutions. A number of studies have identified challenges faced by SMEs in accessing finance from formal financial institutions and the agricultural sector is no exception. In Zimbabwe, financing for the small scale farmers and agricultural SMEs has been a function of government (grants), NGOs and other development agents (Vitoria et al, 2012).

There is thus a need to establish formal financing systems that embrace the entire agricultural sector including the SMEs in the agricultural sector that occupies a central role in the agricultural value chain. This study performed an analysis of the critical factors that are considered by commercial banks in Zimbabwe in providing financial assistance to agricultural SMEs. This would assist in developing mechanisms that enable effective espousing of agricultural SME financial requirements.

1.4 RESEARCH OBJECTIVES
This study intends to analyse factors that influence the credit rationing behaviour of banks involved in financing of SMEs in the agricultural sector. The major objective of the study to analyze the factors that influence bank decisions on financing SMEs in the agricultural sector in Zimbabwe. Specifically, the study intends,

1. To assess the impact of loan administration costs on agricultural SME financing decisions by Agribank.
2. To analyze the relationship between the age of agricultural SMEs and financing decisions within Agribank.
3. To evaluate how the availability of required information from SMEs influences financing decisions to agricultural SMEs by Agribank.
4. To evaluate whether length of banking relationship and the provision collateral by SMEs on financing decisions by Agribank.
5. To evaluate whether demographic characteristics of loan approving authorities affect loan approval decision within Agribank.
1.5 RESEARCH QUESTIONS
The major research question is, “What are the most important factors that determine loan financing decisions to agricultural SMEs by Agribank?”

1. What is the effect of loan administration costs on bank financing decisions to finance agricultural SMEs?
2. What is the impact of the age of SME firm on Agribank financing decisions?
3. What is the effect of information availability from SMEs on financing decisions by Agribank to agricultural SMEs?
4. What is the impact of duration of banking relation and availability of collateral to financing decisions to agricultural SMEs by Agribank?
5. What is the effect of demographic characteristics of approving authorities on loan approval decisions within Agribank?

1.6 RESEARCH HYPOTHESIS
The research hypotheses are;

H₁: Costs of administering loans determine Agribank decisions on financing of agricultural SME loans.

H₂: Age of an agricultural SME firm does not affect financing decisions by Agribank

H₃: Adequacy of information submitted by agricultural SMEs is positively related to bank’s financing decisions.

H₄: Length of bank relationship and the ability of agricultural SME to meet bank collateral requirements influence financing decisions by the bank.

H₅: Employee demographic characteristics moderate loan approval decisions within Agribank.

1.7 JUSTIFICATION OF RESEARCH
This research is expected to assist the management of financial institutions, academia and the researcher as well as policy markets in various ways.
This research is expected to generate more knowledge and add on to the existing board of knowledge on financing for SMEs. It will also provide future researchers with a source of reference when further studying this area. It will also form the basis of generating more research areas for further exploitation by various researchers in SME finance. It will also assist in building a knowledge base for financing of SMEs in the agriculture sector.

The findings and recommendations from this study will be beneficial to management and staff at Agribank as will enable development business models for profitable finance the SME sector. In addition, it will be helpful in developing operational policies and procedures manuals for handling agricultural SME finance. It will also assist the bank to design proper financial products for SMEs as well as operational policies and procedures to use for finance of SMEs as current policies and procedures in the bank are designed for finance of corporate customers.

Finally, this study will enable the researcher to fulfill academic study while at the same time gaining an understanding of performing business research.

1.8 SCOPE OF RESEARCH
The research organization was Agribank. This study was done on selected branches that in the Northern region of Agribank. The reason being agriculture activities in their diverse forms are concentrated in the northern region of Zimbabwe. The study area includes Manicaland, Eastern Masvingo, Midlands and Mashonaland provinces. Samples were selected from branches that are located in these provinces. Also information was gathered mostly from frontline staff members who are involved in evaluation and approval of loans within Agribank. The target population consisted only of branch managers and relationship (loans) officers within the Northern region of Agribank. The reason was that these are people who are involved in the screening process of loans applications submitted to the bank.
1.9 LIMITATIONS OF THE STUDY
The approach to this study was a case study based on an individual commercial bank (Agribank). It involved analyzing the situation within a particular organization’s context, therefore, the findings from this study cannot be generalized to the entire banking sector in Zimbabwe but rather would be placed in the context of the organization under study. Consequently the findings from this study will only be applicable to the Agribank situation due to variations in operational modalities of commercial banks in Zimbabwe including ownership structures.

1.10 DISSERTATION OUTLINE
The dissertation write up is divided into five chapters.

Chapter one is the general introduction of the research area. It covers the background to the study, the objectives of the study and the statement problem. This chapter also covers the research questions, scope and limitations to the study. Chapter two is the about literature review where theoretical and empirical literature will be reviewed in line with the research questions that were used for the study. Chapter three provides details on the methodology used in the study. It provides explanations on research design, population, samples and sampling procedures for the study will be done. The data is presented, analysed and discussed in Chapter four while Chapter five presents the summary, conclusions and recommendations generated from the study.

1.11 CHAPTER SUMMARY
This chapter presented the background to the study, an outline to the research problem and a justification to the need to perform such research. It gives the platform to identity the relevant literature that is required to answer research questions identified. The relevant literature is thus discussed in the following chapter.
CHAPTER 2: LITERATURE REVIEW

2.1 INTRODUCTION
In this chapter, literature on SME finance and particularly problems that SMEs encounter in accessing finance from banks was reviewed. This research is focusing on performing an analysis critical factors that influence bank decisions in SME financing with a particular emphasis on the SMEs in the agricultural sector. The theoretical framework developed is based on review of literature on SME financing and problems banks encounter in serving the SME sector and how market forces assist in solving such problems. From literature it is expected that factors influencing bank finance decisions to SMEs such as unavailability of quality of information, structures of SME firms and entrepreneur characteristics, capacity of the SMEs to pay, quality of management, internal bank risk policies, and government regulations will be discussed.

2.2 DEFINITION OF TERMS

2.2.1 Small and medium enterprise (SME)
There is no a universally applicable definition for an SME despite the dominance of SME debate among academia and policy makers. This is mostly as a result of the fact that SMEs are a very heterogeneous group (OCED, 2006) as SME players are found in a multiplicity of business activities. Heterogeneity is exhibited on owner’s characteristics, market segments, levels of skill, capital as well as growth orientation. Varying and situational definitions are thus determined by numerous factors that relates to the socio-economic environmental conditions of a particular country and as such the definition varies from country to country depending on level of economic development. The OECD (2006) noted that there are varying statistical definitions across different countries but they are all usually based on number of employees, and value of sales and/or value of assets. Various institutional definitions from literature include;

The European Commission (2003) defines an SME as an enterprise that employs fewer than 250 people and has an annual turnover of EUR50 million or a balance sheet total
that does not exceed EUR43 million. The definition of SME in the European Commission is thus shown in the table below,

**Table 2.1: Thresholds for SMEs**

<table>
<thead>
<tr>
<th>Enterprise category</th>
<th>Head Count</th>
<th>Turnover</th>
<th>Balance sheet total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medium-Sized</td>
<td>&lt;250</td>
<td>≤ €50 million</td>
<td>≤ €43 million</td>
</tr>
<tr>
<td>Small</td>
<td>&lt;50</td>
<td>≤ €10 million</td>
<td>≤ €10 million</td>
</tr>
<tr>
<td>Micro</td>
<td>&lt;10</td>
<td>≤ €2 million</td>
<td>≤ €2 million</td>
</tr>
</tbody>
</table>


The International Finance Corporation defines an SME as a firm that employs less than 300 people and has a total asset base of less than USD15 million. They acknowledge the difference on economic sizes by having a definition of a firm with less than 20 employees being recognised as an SME in smaller economies.

It can thus be concluded that the identifying parameters for an SME are the number of people it employs and its size in terms of annual turnover or financial position (Beck, Demirgue-Kunt and Leveni, 2005). An entity will thus be identified as an SME if it meets either a specified number of employees and specified balance sheet or level of annual sales depending on the institutional objectives of defining the SME entity.

As noted by Chasala (2008), there should be an appropriate definition that reflects a real situation on the ground in line with the purpose of the definition. The challenge is that some SMEs might fail to benefit from facilities like finance meant for them if they do not fall in the defined bracket while on the other hand mature firms might continue be defined as SMEs yet in actual fact they would have established themselves as big corporates.

### 2.2.2 Financing

Financing is defined as the act or process of providing funds to a business venture. SME financing is the provision of financial services to SME firms. Therefore, agricultural SME finance which is the subject of this research is defined as provision of financial services for SMEs that are involved in agricultural production and agricultural related
activities (Hoellinger, 2011). These activities may include marketing, transportation, farming, trading of agricultural goods and services.
2.3 THEORETICAL FRAMEWORK

The theoretical framework adopted for this study are the pecking order theory and the credit rationing behaviour based on an agency framework that are discussed below.

2.2.1 Pecking Order Theory

The pecking order theory was proposed by Myers and Majluf (1984) and is based on the fact that inside management of a particular business is better informed about the true value of the firm than outsiders (Geert and Tom, 2009). The pecking order theory attempts to explain that business firms of various sizes select their financial structure in view of the cost, nature and availability of financial alternatives (Petit and Singer, 1985). Firms prefer sources of funds that are least susceptible to undervaluation as a result of information asymmetry. As such, firms usually prefer internal sources (internal cash flows) over all other sources of finance.

In some cases internally generated cash flows may not be sufficient to sustain the required rate of investment and business growth. Firms are thus forced to opt for external sources of finance. Firms would thus prefer to use debt first followed by hybrid securities and finally resorting to equity. In summary, this theory attempts to explain that businesses pursue a hierarchy of financing sources utilisation such that, where internal sources are insufficient, external finance is required but debt would be preferred over equity. Bank finance has been found to be the major source of external (debt) for SMEs hence the need to establish the challenges encountered by finance provider in meeting the need of SMEs.

2.2.2 The Credit Rationing Theory

The study is also based on the credit rationing model that follows the work of Stiglitz and Weiss (1981). In this model, it is argued that when interest rates are controlled, the behaviour of banks is to ration credit through non price mechanisms. The model is based on imperfect credit markets where interest rates are not controlled and markets are characterised by information symmetry, hence a risky credit market. The market imperfectness makes it costly for banks to obtain accurate information about the borrowers as well as to monitor their actions. The theory is premised on the assumption of a market with competing banks and many borrowers where both banks and borrower
want to maximise profits (Stiglitz and Weiss, 1981). The objective of banks is to maximise profits through the proper choice of interest and collateral that enable reduction in default rates while borrowers seek to maximise profits through proper choices of projects.

The success probability of a project is better known by the borrower than the bank due to information asymmetry (Abor and Biekpe, 2006). Also when borrowers access funds, they may choose to shift from safe projects with normal returns into high risk high return projects that have low success probability.

Established literature is available to support that imperfections in the SME credit market stem from the presumed high risk due to higher relative probability of failure, information asymmetry and moral hazard, transaction costs of evaluation applications and other institutional and market characteristics (Ennew and Binks cited in Mutezo, 2013). It is argued that credit rationing to SMEs is mostly as a result of agency problem and information asymmetry (Stiglitz and Weiss, 1981). This is because SMEs have better quality information pertaining to their real financial structure, strength of projects and their effective intention to pay that banks do not have control over. Bank decision is usually made after evaluating available information such that failure by SMEs to provide such information means that banks cannot make informed decisions on SME loan applications (Hutchinson and Xavier, 2006). In addition, it has been noted that SMEs gather unfavourable information required by lenders thus presenting a decision risk on the part of lenders such that in order for the lender to avoid or reduce the risk, the application is rejected or the value is rationed (Mutezo, 2013).

In addition, there are possibilities that a borrower can misappropriate borrowed funds by utilising the funds in activities that are not expected or known by the lender that can also lead to failure to repay the loan. The problem of moral hazard has also been noted to be the main reason for rationing of loan values by lenders (Baas and Schrooten, 2006)
In an uncontrolled market, banks compete on interest rates and they also use it for screening bad from good risk. However, under conditions of adverse selection and moral hazard there is a tendency for high risk borrowers to be willing to pay high interest rates on loans, but continuous increase of interest by banks can lead to reduction in profits through deterioration in the quality of loans (Hall cited in Mutezo, 2013). This means that adverse selection can change the lender’s beliefs and cost of funds thus leading to credit rationing behaviour by banks and other lending institutions. The effects of adverse selection and moral hazard have been noted by Zambaidi, Aranha, Lopes and Politi, (2009) to be inversely related to firm age and size such that credit ration is prevalent is small firms when compared to established corporate.

Under normal conditions, equilibrium with credit rationing is attained when interest rates charged maximises bank profits. In an imperfect market extreme information asymmetry, interest rates fail to regulate the market by equating demand of loans to supply and demand exceed supply at the prevailing interest rate such that allocation of would be based on other mechanism not price (Stiglitz and Weiss (1981) cited in Gama and Geraldes, 2012). There are two types of credit rationing.

Table 2.2 Credit Rationing Types

<table>
<thead>
<tr>
<th>Type I</th>
<th>Type II</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demand rationing which means that the borrower does no receive the full amount of credit requested</td>
<td>Some borrowers would simply be refused credit by banks</td>
</tr>
</tbody>
</table>

Adopted from Stiglitz and Weiss, 1981

2.2.4 Determinants of bank rationing behaviour

There are a number of factors that influence credit rationing yet evidence suggest that banks are the principal source of debt finance for SMEs through offering a range of services that include overdrafts, term loans, factoring, lease finance, trade finance (export and import), as well as government guarantee schemes (Coleman and Cohn, 2000). Banks rely on availability of hard information to avail these facilities to SMEs and information asymmetry makes access to these facilities very difficult.
Banks’ credit rationing behaviour is influenced by factors that include those specific to the borrower’s observable characteristic (age, gender, wealth, experience and credit history), firm characteristic (business experience, income, risk profile) as well as loan characteristics (size, maturity, interest rates and collateral) according to (Mutezo, 2013).

2.2.5 Stages of credit rationing
Credit rationing behaviour by banks occurs at three stages in the loan administration process namely: the screening stage, the evaluation stage and the quantity rationing stage.

2.2.5.1 The screening stage
At this stage, the banker engages the borrower and a decision on whether the applicant qualifies for a loan basing on creditworthiness is made. Request for mandatory documentary evidence on the ability of the SMEs to generate sufficient cash flows is done in form of documents such as financial statements or deposit security. SMEs are cleared through credit bureau for sound credit history or they pledge to provide collateral or guarantor to the bank. Failure of the SME applicant to provide all the required information of the expected quality means that the loan can be rationed (rejected or reduced). It is thus at this stage of screening that lenders would rely on the availability of sufficient and correct information for proper decision making.

2.2.5.2 The evaluation stage
The purpose of the bank to advance loans to its customers is to generate income for its profitability hence the purpose of this stage is to evaluate whether it will be profitable for the bank to grant the loan (Mutezo, 2012). The decision is usually based on the assessment of information provided by the SME applicant to the bank. SMEs that are deemed to be not credit worthy according to the bank’s evaluation criteria are denied loans (rationed out).

2.2.5.3 The quantity rationing stage
At this stage the bank would determine the optimal quantity of loans that can be granted to a qualifying SME. The bank considers factors such as ability to pay the loan, the costs associated with granting the loan against expected income, as well as collateral being offered (Baas and Schrotten, 2006). The risk profile of the firm also determines
whether or not the bank will extend credit such that those firms with low certainty to pay loans are perceived to be high risk and are likely not to access loans. In addition bank can also consider issues to do with the loan size and tenure when rationing credit where the longer the maturity period, the greater the risks of loan recovery.

The credit rationing behaviour of banks is thus mostly influenced by an array of factors; some of which are peculiar to the SMEs, the financial institution as well as the operating environment. These factors have been identified to affect bank financing decisions to SMEs in general but there is no evidence on how these factors affect financing for SMEs involved in agricultural activities. It would be ideal to evaluate the impact of some these factors on bank financing decisions for agricultural SMEs
2.3 SME FINANCE OVERVIEW

The OECD (2006) stated that SMEs and entrepreneurship are recognized worldwide as importance sources of dynamism, innovation and flexibility. In addition, Abor and Biekpe (2006) also acknowledged the growing recognition of the importance of SMEs to economic development. In many countries, SME constitute the majority of businesses and they are an important contributor to employment creation. For example, in the OECD countries SMEs were found to be accountable for between 60% and 70% net job creation (OECD, 2006) and as such their importance to national economies cannot be over emphasized.

Access to finance is very important for the growth and development of the SME sector because having access to sufficient external sources of finance has been noted as one of the critical success factors for entrepreneurial firms (Alhstrom and Bruton, 2006; Beck, Demirguc-Kunt, Laeven and Maksimovic, 2006). Access to finance determines growth and survival of business because finance allows for investment in business expansion as well as acquiring technologies for sustenance of competitive advantage (ACCA, 2009; Beck et al 2006: OECD, 2006).

Despite SMEs' economic dominance and contribution in reducing unemployment the sector continue to face difficulties in accessing formal credit facilities (Olomi, Mori, Mduma, and Urassa, 2008). The common external sources of finance available for SMEs are informal sources such as family, friends, credit groups and customer advance, (Beck and Demirguc, 2006). This is typically true in the developing countries where financial resources constrains is mostly as a result of modest activity in the capital markets, unavailability of venture capitalist and angle investors as these players are still in the budding stages of development (Le and Nguyen, 2009).

Lending to private SMEs in the transitional economies has been found to be a challenging task for all banks (Nguyen, Le and Freeman, 2006). Inability to raise sufficient funds has consequently been a major cause of SME business failure especially in Sub Saharan Africa (Biekpe, 2004) where it has been noted that most
business fail in the initial year mostly as a result of limited support from government and traditional banks. This is because private SMEs tend to be high risk borrowers and their business information is inadequate for proper risk calculation by banks (Nguyen, Le and Freeman, 2006).

The OECD (2006) also noted that unavailability of complete range of financial products and services in most domestic markets present difficulties in raising external sources of finance for the SME sector. There are also limited financing mechanism to SMEs as a result of regulatory rigidities and difficulties of managing the agency problem and information asymmetry between suppliers of finance and borrowers. This lead to prevalence of credit rationing that puts SMEs on a severe disadvantage relative to large and well established firms.

This overview forms the basis of this research, which seeks to analyse how challenges faced by banks in financing of SMEs are specifically impacting on financing decision for SME involved in agricultural activities. The agricultural sector has been labelled to be risk because of its susceptibility to environmental catastrophes but this research would like to find how other variables noted from literature affect bank provision of credit to agricultural SMEs.

2.4 VARIABLES IN BANK FINANCE FOR SMES
The dependent variables indentified for this study were the bank’s decisions on financing of agricultural SMEs that were represented by the financing decisions which was either a approval or disapproval and the decisions on loan amount decisions to agricultural SMEs financed by the bank.

Two sets of independent variables that were assessed in this study were:

a) **SME specific variables**: quality of information provided, age of the SME firm, availability of collateral (wealth of entrepreneur) and level of formality

b) **Bank specific variables**: Length of relationship with SME and cost of administering the loans (as determined by internal risk management processes).
The control variables identified are: gender of entrepreneur as well as availability of alternative sources of finance outside the banking system. In addition another control variable being the demographic characteristics of the personnel involved in loan approval was also included.

Research variables identified for this research form the basis of discussion of factors that influence banks financing decisions on agricultural SMEs. In this research the impact of these variables on financing decisions for SMEs in general was discussed.

2.5 SME SPECIFIC FACTORS THAT INFLUENCE BANK FINANCING
Factors that constrain SME finance by banks included those related to the SMEs include information transparency, age of SME, availability of collateral.

2.5.1 Transparency of Business Information
According to Abor and Biekpe (2006), the main reason why small businesses find it difficult to obtain finance from commercial banks is their inability to provide sufficient certainty that the money borrowed will be repaid. Information asymmetry was explained by Stiglitz and Weiss (1981) as the disparity between information available to the businesses seeking capital and the suppliers of capital. This is because capital suppliers are naturally assumed to be disadvantaged in terms of information than the insiders of the business as insiders tend to conceal critical information required for proper credit evaluation.

Access to information is important from both the SME and financial provider perspectives. For the SMEs, it is important to have information that enables them to identify potential suppliers of finance as well as evaluate cost differentials on services being offered. The banks require information about the SMEs’ financial condition, earnings and earnings prospects in order to evaluate the risk profile of the applying SMEs and evaluate the ability of the SMEs to repay the loan and other commitments when they fall due.
The theory of asymmetric information argues that it is difficult to distinguish good and bad borrowers (Auronen, 2003) which normally results in adverse selection and moral hazard problems. Imperfect information of the credit risk of different borrowers (adverse selection) and the behaviour of the borrower towards paying off the loans (moral hazard) makes the market Pareto inefficient (Masuko and Marufu, 2003). The theoretical model of adverse selection assumes the entrepreneur to have private knowledge on the success probability of the business that he does not shared with financier such that suppliers of capital cannot distinguish high and low quality business, (Abor and Biekpe, 2006). On the other hand, moral hazard would result from the inability of providers of finance to fully control how the entrepreneur would utilise the funds provided.

It is very challenging to obtain reliable information from SMEs on competition of market players, market size, and growth rates (Abor and Biekpe, 2006). According to agency theory, the interest of the principal (lender) and those of the agent (borrower) diverge because both parties have different utility functions. This usually makes the principal and agent to prefer different actions because of different risk preferences. Failure by SMEs to provide reliable financial information required by banks for credit appraisal makes it very difficult for banks to evaluate risk.

Reliable financial information is very crucial for comparability in decision making by financiers and creditor. The income statement gives an indication of the income generated by the business over a period of time and how the income was used to sustain and grow the business while the balance sheet provide information on the financial state (net worth) of the business. Therefore, it can be conclude that the banks’ lending behaviour given the existence of agency problem as well as the fact that lenders are imperfectly informed about the characteristics of borrowers (Obamuyi, 2007) is always cautionary when dealing with SMEs.

2.5.2 Level of Business Formality
Dietmar et al cited Kari and He (2012) pointed out that firms that are incorporated have attributes for development than the informal ones. The prospects for growth are
exhibited in the ability to access finance for growth. In an incorporated firm, the separation of owner’s affairs from the affairs of the business increase managers’ commitment to the firm’s goals. In addition, most incorporated firms are legally mandated to produce and/or publish financial statements thus reducing the problem of information asymmetry. Incorporation was found out by Cassar (2004) as a good indicator for a firm’s trustworthiness and commitment to operate lawfully. Abor (2008) stated that the form of business has an effect on debt and equity decisions that are used in the management of SME operations. Formalising business activities improves accessibility of SME firms to external finance and this is supported by Fatoki and Asah (2011) in a study in Ghana where they found a positive association between debt finance and legal formation of business organisations.

2.5.3 Entrepreneur Characteristics
The characteristics of the owner manager were cited by Fenando et al in Pierre and Bahri (2011) as the most important factors used by banks in the loan granting decision making process. The characteristics of the entrepreneur determine how well positioned he is to manage the enterprise successfully, his risk premium as well as affinity for debt. These characteristics include,

2.5.3.1 Wealth of the entrepreneur
The wealth of an entrepreneur is determined by the number and value of assets that he has as well as the tangibility of the assets as given by the ratio of tangible assets to total assets (Abor and Biekpe, 2007). This ratio was suggested by Cassar and Holmes (2003) as an appropriate measure of asset structure and collateral value. This is because access to long term debt by SMEs is highly dependent on their ability to provide tangible assets as collateral. Investment in tangible assets by SMEs increases their probability to access debt finance because of the ability to provide collateral security needed by banks. Collateral was identified by Bebczuk (2003) as an asset belonging to the borrower that can automatically be transferred to the lender should the project fail to raise sufficient cash flows to repay the project in full. Provision of collateral by borrower would act as means to transmit a signal about the quality of project being
undertaken and the willingness of the borrower to honour the debt obligations (Abor and Biekpe, 2006).

Collateral consequently reduces the bank’s potential loss and decrease levels of moral hazard that is normally used in credit rationing.

2.5.3.2 Gender of entrepreneur
It has been noted that the capital structure of SME firms may be affected by the gender of the small business owner (Abor, 2008). Capital structure on the other hand is important in credit rationing by banks. Abor (2008) argued that women owned business in Ghana are less likely to use debt because of discrimination by debt suppliers as well as inherent risk aversion. Some of the reasons why women entrepreneurs do not apply for bank finance are simply that they believe that their applications will be rejected (Watson, Newby and Mahuka, 2009). There is thus no comprehensive evidence that banks discriminate loan applications on the basis of gender.

A study by Okurut, Olalekan and Mangadi (2011) on factors influencing the credit rationing behaviour of banks towards SMEs using informal sector survey in Botswana suggests that experience of SMEs increases their chances to access credit from banks. They used the Heckman Probit Model with sample selection method. It was noted that from the bank’s perspective, experience of an SME is exhibited in the ability to keep financial statements and run the business profitably. The findings suggest that firms with clear financial records were able to rely more on banks to finance their investments.

2.5.4 Financial Structure of SME projects
The major sources of business finance for SMEs are debt and equity. One of the important risk that determine bank lending to SMEs is the financial risk which is related to the firm’s financial structure as it directly determine its ability to meet its financial obligations. Banks use standard criteria of analysing financial statements to determine the credit worthiness of an applicant and these include use of financial ratios for assessing default risk of the borrower (Behr and Guttler, 2007). Usually, the capital structure which is determined by the presence of debt or loans increases financial risk.
to finance providers and this is a critical factor used by financial institutions in assessing a loan application.

Geert and Tom (2009) argued that the inability of lenders or investors to distinguish financially high and low quality firms due to information asymmetry is likely to raise the firm’s cost of funds and consequently small firms are rationed from using external funds especially from banks. However, heavily indebtedness cannot be literally translated into financial risk and inability to repay loans but rather debt load can be offset by the firm’s ability to repay the loan hence the managerial choice theory would be applied, (Norton, 1991).

2.5.5 Capacity of the SME to service loan
Banks usually rely on performing a credit worthiness assessment when making finance decisions. The capacity of a firm to service loans and related costs is usually affected by,

2.5.5.1 Quality and length of relationship between bank and SME
Frazer (2004) noted that information asymmetry makes it difficult to distinguish good and bad borrowers, but this problem can be minimised through building good business relationship between that bank and the SME firms. Relationships are built on the basis of ‘soft’ information such as reputation and personal contacts (Pierre and Bahri, 2011). These relationships have however been found to be between the bank and the entrepreneur not with the business. This is supported by Harhoff and Korting cited in Pierre and Bahr (2011) who found out on a study on SMEs in Germany that mutual trust between bankers and entrepreneur had a significant negative impact on credit interest rates. This phenomenon of relation building is usually applicable over a period of time which thus makes it difficult for start up SMEs to access funding from commercial banks.

2.5.5.2 Age of firm
Chandler (2009) argues that the longer a firm exists and the bigger it grows in size, it means that it is able to withstand economic conditions. The influence of SME’s age on finance sources is particularly crucial in countries where stock markets are under
developed such that the major sources of business finance would be retained earnings and bank credit finance (Serrasqueiro and Nunes, 2011). According to Kari (2013), conservative viewers say that banks would not provide funding to SMEs until they achieve a certain level of production such that the balance sheet position is sound and balance sheet items such as inventories, equipment and accounts receivable can be pledged as collateral. Funding sequence over the growth cycle can be viewed in the context of financial pecking order as shown below,

**Figure 2.1:** Firm growth stages and sources of finance
Source: Kari (2013)

At the initial stage, SMEs find it very difficult and expensive to access bank finance due large information asymmetry between them and banks (Le and Nguyen, 2009). This is also because at this stage they will be still very prone to failure which makes it riskier for banks to provide finance. The major sources of funds available at this stage would be own savings, angel finance and some minimum trade credit finance.

However, in the later stages of the life cycle, the SMEs would have established reputation, credibility and tangible business assets and this can considerably reduce the problem of information asymmetry making it possible to access bank finance. In addition, by staying longer in business the firm can show that it does not exhibit opportunistic behaviour.
2.5.5.3 Loan Size

Pierre and Bahr (2009) argued that there is a positive relationship between loan size and age of the firm. This is because small and newly created firms tend to have higher risk profiles and their loans are subject to higher rates of default. Large loans are generally exposed to rigorous screening procedures which thus reduce their credit risk profiles and also they are usually backed with collateral security. As noted by Voordeckers and Steijvers (2006) cited in Pierre and Bahri (2010), there is a positive relationship between loan size and pledge for business collateral. This explained why it is usually difficult for SMEs to access loan when compared to large firms who can pledge collateral security.

It is hypothesised that the SME firm’s age as well as length of relationship with the bank predicts loan approval decisions by the bank.

2.6 BANK FACTORS INFLUENCING SME FINANCE

2.6.1 Internal Risk Management Systems

Obtaining external finance from banks can be challenging for those firms operating in the SME sector mostly because banks do not tolerate risk where as risk is inherent in the SME sector (Darek, 2011). A study by Akterrujaman, (2010) in Bangladesh concluded that commercial banks were not interested in financing SMEs because of the risk and high monitoring costs associated with SME finance. However, some evidence from literature suggest that most banks do offer loans to all legal businesses in all sectors of the economy except those that are perceived as very high risky (Richard and Mori, 2012) and the SME sector falls in the highly perceived risk area. The main reason for small businesses’ difficulty in accessing finance from commercial banks is their inability to provide sufficient information that they will pay back the money (Barre, 2005), which thus increases their risk profile.

In terms of risk profiling, SMEs differ from large corporations particularly in terms of the agency problems they face because they cannot signal their quality to financial information unlike the listed companies whose financial quality is readily available in
form of audited financial statements (Darek, 2011). In addition, many small firms are unwilling to release financial information because is it regarded as being time consuming (Berger and Udell, 2006).

The risk profile is mostly assessed through the inability of the bank to establish the business’s cash flows due to complexity in the nature of the business or lack of reliable information concerning the business. Nature of management of a given SME can also be used to profile the risk of a particular business according to Richard and Mori (2012). As a risk management procedure, some banks can opt for group lending in order to spread the perceived risk over a group of individuals.ced with challenges (Richard and Mori, 2012).

When dealing with SMEs, banks usually face difficulties in performing credit scoring as a way of discriminating creditworthy and bad SMEs which may result in inefficient credit allocation. This is mostly because the data provided by SMEs to banks for review is usually of poor quality because of lack of management experience or insufficient personnel to produce useful reports (Wu et al cited in Dareki, 2011).

2.6.2 Transaction Cost in SME finance
One of the problems that have been identified as constraints to SME finance is a situation where the transaction costs involved in provision of finance exceed expected risk adjusted returns (Ganbold, 2008). The issue of transaction costs as well as information asymmetry in administering SMEs loans was noted by as the major contributors in the variation in access to finance across firms of various sizes (Beck, 2007). This is because transaction costs are directly related to profitability as higher costs processing a loan would dilute the return gained from a particular economic endeavour.

This occurs as financial intermediaries offered by banks fail to capture economies of scope and scale due to sizes and geo-spatial distribution of SME business operator. This is because there are fixed costs that financiers incur in credit assessment, processing and monitoring that are not related with the size of loan being processed. This situation of fixed costs affect SMEs in that SME finance become unprofitable to
banks as a result of high cost associated with financing and managing numerous small loans. Institutional deficiencies can also increase the cost of managing SME finance where market infrastructure make it expensive to gather information on projects, value of assets as well as monitor and enforce contracts.

Zambaldi et al (2009) in an investigation into the significance of transaction costs to the supply of credit to SMEs in Brazil found out that small firms face credit rationing such that low risk credit that is backed with tangible liquid collateral is their main sources of credit. They sampled 65,535 SME credit proposals that were submitted to a large bank in Brazil between January 2004 and September 2006 to analyse credit granting decisions. Variables used in the study were firm age, loan size, type of collateral and probability of loan approval. This study concluded that the bank faces difficulties in supplying credit to small firms mainly due to cost, collateral dependency and information asymmetry.

It is hypothesised that transaction costs are related to bank financing decisions to SMEs in the agriculture sector

2.7 FACTORS REGULATING BANK FINANCING OF SMEs

2.7.1 Bank Regulations

There is a new capital regulation for assessing bank capital under the Basel Accord. This regulation, according to Cardoone-Riportella, Trujillo-Ponce and Briozzo (2011) tries to ensure financial stability and strengthen the solvency of banks without reducing flow of money from credit market. The Basel accord aims to ensure that institutions should have high quality, sufficient capital that cushions them against market adversities. The primary role of the Basel accord is to improve the ability of banks to absorb losses from non performing assets without affecting the rest of the economy. Under the Basel III accord, Tier 1 capital which is mostly the bank’s core capital is constituted of equity stock and retained earnings should be sufficient to meet bank’s obligations.
According to Saidenberg and Schuermann (2003), there are two sets of reasons for capital regulation in financial institutions. The regulation intends to protect customers’ deposits from exploitation by financial institutions and also to protect economies from systemic risk. Customer need to be protected as they are usually having no access to information on performance of banks such that they cannot distinguish a good and bad bank. Systemic risk arises from banks when their failure affects downstream economy because of their central role in the payments system and allocation of financial resources. Bank regulators have thus long regarded prevention of systemic risk as the fundamental rational for imposing capital regulations as shareholders will not take account of social costs of systemic risk (Cardone-Riportella, Trujillo-Ponce and Briozzo, 2011).

Regulating bank capital is also a means of mitigation against adverse selection by ensuring that banks have adequate levels of financial resources to meet commitments to customers. On the banks’ side minimum capital requirements ensures that mitigation against moral hazard so that financial institutions are prevented from engaging into fraud and always conform to business rules to avoid charges and loss of equity value (Saidenberg and Schuermann, 2003).

2.7.2 Effects of the Basel Accord on SME finance

There are concerns among SME business operators that the Basel accord will change the way banks analyze credit, and would introduce more robust credit risk management techniques and thus reduce lending activity to SMEs (Altaman and Sabato, 2005). This is because banks naturally perceive SME sector to be inherently high risk sector for lending and as such lending to SME under the Basel accord would require more capital allocation for credit risk. In addition, Cardone-Riportella and Trujillo-Ponce (2007) states that the Basel accord sets capital requirements that are risk sensitive thereby increasing risk premium charged by banks on SMEs.

The use of collateral is however accepted as a risk mitigation measure under the accord which increases the amount of capital allocation to SME credit but most of the SMEs...
may fail to provide the required collateral hence could find it difficult to access loans from banks. The Basel accord has a dual effect on SME finance depending on approach chosen by a particular bank. The standardized approach requires banks to classify SMEs as either a retail or corporate client. Exposure risk is then estimated to establish weights of capital allocation based on credit rating given to SMEs by external institution (banks regulating institution). The other approach is based on bank’s internal estimations that are used to calculate capital requirements for the bank to estimate.

The major effect of the Basel accord is to increase credit rationing and makes it more difficult for SMEs to access bank loans.
2.8 SME FINANCING ALTERNATIVES

The European Commission (2009) noted that there are deferential financial requirements for various stages of SME development as the risk profile develops from being highly risk in the prestart up phase to low risk in the development stage. The development stage and associated form of finance are show in the figure below.

Figure 2.2: SME development stages and sources of finance

Source: European Commission (2009)

The figure shows the trend of revenue growth from the pre-seed phase through business growth and development. Revenue start growing negatively in the pre-seed phase and start picking up in the seed phase. At this stage, the major sources of funds would be own savings, friends and family. The business will be very risky and operating in the “valley of death” where negative revenues will be generated. In the start up phase, positive growth in revenue begin to be experienced and business risk profile start to fall such that it is able to attract external capital from business angels and some venture capitalists. Businesses start to qualify for loan finance at the emerging stage as
revenue growth increases. Major forms of finance would be bank loans, guarantees and formal venture capital as risk premium continue to decrease. At the development stage, the business is now enjoying increasing positive growth in revenue and the risk profile is low and it can attract capital in the form of equity.

2.8.1 Leasing
Leasing is defined as a form of transaction that involves a firm obtaining a fixed asset and would pay for through contractual periodic payments (International Trade Centre, 2009). This method of finance has been noted as becoming an important alternative to the traditional bank loans (Chlupacek, 2009). The lessee is obliged to pay periodic payments that are called rent to the lessor for the use the asset that remains owned by the lessor and would become the owner of the asset at the end of the leasing period. This type of finance is ideal for SMEs who lack resources to purchase business equipment. Though this type of finance is usually more expensive than loans, it has an advantage of flexibility and also it does not tie up capital (Chlupacek, 2009).

2.8.2 Grants and Subsidies
This is a type of financial support that is usually provided by governments to support specific ventures depending on policy objectives. This is the type of assistance that is availed to SMEs by governments in many developing countries usually in the form of cash, or expert technical assistance. However this type of assistance is usually not readily available as its availability depends on whether the type of business falls within the government priority sector. Also grants are usually tied up with conditions that applicants need to meet before accessing them. In addition the amounts are usually not sufficient to cover all costs of a business venture that are required by SME businesses.

2.8.3 Factoring
This is a modern form of short term financing that is based on selling of short term unsecured assets of a company to a specialised financial organisation at a fee (Ivanovic, Baresa, and Bogman, 2011). This is situation whereby a financial organisation purchases debts of a business in the form of financial instruments on the basis of future outstanding claims arising from trading of goods and services. These are purchased by a factor before expiry date of payment.
2.9 LITERATURE SYNTHESIS AND CONCEPTUAL FRAMEWORK

Review of literature has shown that banks are the most important sources of external finance for SMEs (Olokoyo, 2011). Access to finance has been noted as one of the critical success factors of entrepreneurial firms (Alhstrom and Bruton, 2006; Beck et al, 2006; ACCA, 2009). However SME firms find it difficult to access loans from banks because of the perceived high risk profile. Literature concur that banks find it difficult to evaluate the information that is provided by SMEs. The major problem acknowledged by most authors is on inability for banks to get sufficient information which normally results in adverse selection and moral hazard problems (Abor and Bieker, 2006: Stiglitz and Weiss, 1981 and Auronen, 2003).

Thus, credit rationing behaviour of banks is influenced by factors that include those specific to the borrower’s observable characteristic (age, gender, wealth, experience and credit history), firm characteristic (business experience, income, risk profile) as well as loan characteristics (size, maturity, interest rates and collateral) according to (Mutezo, 2013).

From available literature, these challenges has been generalised to all SME business operators across different economic sectors. There seems to be a gap in literature on the impact of these variables on financing decisions to SMEs in the agriculture sector (being small scale farmers and agro dealers). Firms in the farming sector are usually of sole proprietary in nature and banks lack standardised procedures on how to evaluate the information about the SME proprietorship. Assessment of information and financial statements that are used to evaluate small businesses in other sectors can be applied in farm business, but there is no standardised model that takes into consideration all factors influencing a successful investment in a farm business (Akhavein, Goldberg and White, 2004).

Most of the identified literature seems to acknowledge and rather generalise that there are bank specific and SME specific factors that influence approval decisions on SME loans. Most of these studies focused mostly on the whole SME sector in its diverse form with little literature on how such factors impact on loan granting decisions to SMEs in
the Agricultural sector. It is against this background that is very difficult to generalise the findings on challenges faced by banks in financing the SMEs.

The gap thus identified in literature is on the impact of the identified variables on bank financing decision to SMEs in the agriculture sector. There seems to be no much empirical evidence as to the effect of these variables in the determination of finance for agricultural SMEs by banks. Therefore the purpose of this research is to weigh up how these variable influence bank financing decisions on agricultural SME finance.

The research variables that were identified for this study are as follows,

<table>
<thead>
<tr>
<th>INDEPENDENT VARIABLE</th>
<th>DEPENDENT VARIABLE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bank Specific Factors</strong></td>
<td><strong>Provision of finance to agricultural SMEs</strong></td>
</tr>
<tr>
<td>Costs of executing credit contracts</td>
<td></td>
</tr>
<tr>
<td>Length of relationship</td>
<td></td>
</tr>
<tr>
<td><strong>SME Specific Factors</strong></td>
<td></td>
</tr>
<tr>
<td>Quality of information submitted</td>
<td></td>
</tr>
<tr>
<td>Age of SME firm</td>
<td></td>
</tr>
<tr>
<td>Availability of collateral</td>
<td></td>
</tr>
<tr>
<td><strong>CONTROL VARIABLES</strong></td>
<td></td>
</tr>
<tr>
<td>Gender of entrepreneur</td>
<td></td>
</tr>
<tr>
<td>Availability of alternative finance sources</td>
<td></td>
</tr>
<tr>
<td>Demographic of loan granting officers</td>
<td></td>
</tr>
<tr>
<td><strong>DEP Variable</strong></td>
<td></td>
</tr>
<tr>
<td>Number of agricultural SME loans approved</td>
<td></td>
</tr>
<tr>
<td>Size of loans approved</td>
<td></td>
</tr>
</tbody>
</table>

**Figure 2.3: Identification of research variables**

An analysis of the factors that influence credit provision decisions and availability of credit to SMEs in agriculture is important to enable development of effective credit and financing policies to solve challenges of financing this sector of the economy.

It is against this background that this research intends to evaluate how the identified variables affect or impact on loan granting decisions (credit rationing) by banks dealing with the SME in the agricultural sector. This is against the fact that external sources of
finance are critical for the growth of such SMEs as acknowledged by the Pecking order theory (Petit and Singer, 1985).

**2.9.1 Crystallisation of research questions**

From the literature review, the following research questions on the impact of specific variable on financing decisions for SMEs in the agricultural sector have been developed. The major research question is ‘What are the most important factors that determine loan financing decisions to agricultural SMEs by Agribank?’ The specific research questions are,

1. What is the effect of loan administration costs on bank financing decisions to finance agricultural SMEs?
2. What is the impact of the age of SME firm on Agribank financing decisions?
3. What is the effect of information availability from SMEs on financing decisions by Agribank to agricultural SMEs?
4. What is the impact of duration of banking relation and availability of collateral to financing decisions to agricultural SMEs by Agribank?
5. What is the effect of demographic characteristics of approving authorities on loan approval decisions within Agribank?

**2.9.2 Summary of hypotheses**

The research is hypothesising that there is a relationship following hypotheses have been developed from the review of literature,

$H_1$: Costs of administering loans determine Agribank decisions on financing of agricultural SME loans.

$H_2$: Age of an agricultural SME firm does not affect financing decisions by Agribank

$H_3$: Adequacy of information submitted by agricultural SMEs is positively related to bank’s financing decisions.

$H_4$: Length of bank relationship and the ability of agricultural SME to meet bank collateral requirements influence financing decisions by the bank.
H₅: Employee demographic characteristics moderate loan approval decisions within Agribank.

2.10 CHAPTER SUMMARY
This chapter was about reviewing literature that was used in answering research questions. A brief overview of the research objectives was presented in order to highlight the subject on which relevant literature was reviewed. Literature was reviewed on the subject of SME finance with a focus to factors determining bank financing decisions to the SME sector. The chapter started by defining terms that are being used in the research and then present the theoretical frameworks being adopted as pecking order theory and the credit rationing theory. Research variables were indentified and discussed and relevant case studies were cited on the relationships of research variables that were identified from literature. Hypotheses and research questions were also developed from the review of literature. The research questions indentified were answered through a systematic data collection procedure that is outlined in the next chapter.
CHAPTER 3: RESEARCH METHODOLOGY

3.0 INTRODUCTION
Polit and Hunler (2004) refer to methodology as the ways used in obtaining, organizing and analyzing data used in a research project. Methodology can also be described as to be concerned with the design, setting, sample, methodological limitations and the data collection and analysis techniques in a particular study (Burns and Grove, 2003). Usually, the methodology selected will be influenced by the nature of research questions that need to be answered in the research.

This chapter presents the actual procedures that were followed by the researcher in gathering relevant information to answer the research questions. Therefore the overall purpose of this chapter is to present the research philosophy, approach, strategy, design and methods adopted in answering research questions highlighted in Chapter 1.

3.1 RESEARCH PROBLEM STATEMENT
SMEs and entrepreneurship are recognized worldwide as importance sources of dynamism, innovation and flexibility as well is importance in promoting efficient use of resources (OCED, 2006, Abor and Biekpe, 2006). Access to external finance is thus important for growth and development of the SME sector because every business requires some form of external finance to invest in business expansion as well as acquiring technologies for sustenance of competitive advantage.

However, despite agricultural SMEs’ economic dominance and contribution in reducing unemployment, the sector continues to face serious difficulties when trying to obtain loans especially from the formal financial institutions. A number of studies have identified challenges faced by SMEs in accessing finance from formal financial institutions and the agricultural sector is no exception. In Zimbabwe, financing for the small scale farmers and agricultural SMEs has been a function of government (grants), NGOs and other development agents (Vitoria etal, 2012).
There is thus a need to establish formal financing systems that embrace the entire agricultural sector including the SMEs in agricultural sector that occupies a central role in the agricultural value chain. This research performed an analysis into the critical factors that are considered by commercial banks in Zimbabwe in providing financial assistance to agricultural SMEs. This would assist in developing mechanisms that enable effective espousing of agricultural SME financial requirements.

3.2 RESEARCH OBJECTIVES
This study intends to analyse factors that influence credit rationing behaviour of banks that deal with financing of the SMEs in the agricultural sector. The major objective of the study to analyze the factors that affect bank’s ability to avail credit to SMEs in the agricultural sector in Zimbabwe. Specifically, the study intends,

1. To assess the impact of loan administration costs on agricultural SME financing decisions by Agribank.
2. To analyze the relationship between the age of agricultural SMEs and financing decisions within Agribank.
3. To evaluate how the availability of required information from SMEs influences financing decisions to agricultural SMEs by Agribank.
4. To evaluate whether length of banking relationship and the provision collateral by SMEs on financing decisions by Agribank.
5. To evaluate whether demographic characteristics of loan approving authorities affect loan approval decision within Agribank.

3.3 METHODOLOGICAL FRAMEWORK
This study adopted a positivist philosophy and a deductive approach to research. A case study and survey strategy was used to collect quantitative data on impact of identified variable on financing decisions to agricultural SMES by Agribank. A self administered Likert-scale type questionnaire was used for data collection. Collected data was analyzed using the Statistical Package for Social Science (SPSS) version 15 tool to answer the research questions.
3.3.1 Major Research Question
The major research question is, “What are the most important factors that determine loan financing decisions to agricultural SMEs by Agribank?”

3.3.2 Research Hypotheses
The following hypotheses have been developed from the review of literature,

H₁: Costs of administering loans determine Agribank decisions on financing of agricultural SME loans.

H₂: Age of an agricultural SME firm does not affect financing decisions by Agribank.

H₃: Adequacy of information submitted by agricultural SMEs is positively related to bank’s financing decisions.

H₄: Length of bank relationship and the ability of agricultural SME to meet bank collateral requirements influence financing decisions by the bank.

H₅: Employee demographic characteristics moderate loan approval decisions within Agribank.
3.3.3 Research Variables
The research variables indentified for this study are summarized in the figure below.

![Research Variables Diagram]

**Figure 3.1**: Research variable

3.3.4 Research Assumptions
The selection of the research sample is based on the assumption that relationship officers and branch managers are the front people in the credit rationing decisions of banks. They are the people who are involved in the screening of loan applicants within the bank and it is assumed that they would provide best responses about loan granting decisions within the bank. The research also assumes that much of agriculture activity in Zimbabwe is concentrated in the northern region and as such response were obtained from branches in the northern region of Zimbabwe

3.3.5 Research Limitations
The study concentrated on a specific organization which is Agribank and as such it can be very difficult to generalize the findings to the entire banking sector. This is because
of a lot of variations between these financial institutions in terms of ownership, level of
capitalization as well as business models. The effect of external factors such as political
and other social influences on financing decisions in agriculture could also provide
opportunity for furthers study but were not comprehensively discussed in this study.

3.4 RESEARCH DESIGN

A research design is a mechanism or structures the enables or ensures that data
collected is accurate and good enough to answer research questions

3.4.1 Research Philosophy

A research philosophy is about how a researcher thinks about how knowledge is can be
developed (Saunders et al, 2009). There are generally three views on research philosophy
that are used in business research which are positivism, phenomenology and realism.

3.4.1.1 Positivism

This research adopted a positivist philosophy of research. Positivists argue that science
is not a quest for certain knowledge but an evolutionary process in which hypotheses
are imaginatively proposed and tested in order to explain facts or solve problems.
According to Greener, (2008), this approach is usually associated with natural sciences
research and involves experimental testing. The argument is that, only phenomenon
that can be known through human senses can produce knowledge. This philosophy
promotes the idea of experimentation for hypothesis testing to approve or disapprove
facts. Other philosophical approaches in research include,

3.4.1.2 Phenomenology

This is also known as interpretive philosophy and is concerned about the way human
beings attempt to make sense to the world around them, (Saunders et al, 2009). It is
concerned about understanding the fundamental means that is attached to an
organization through the way people relate to each other.

The key features of these approaches were identified by Easterby-Smith, Thorpe and
Lowe (1991) as follows,
Table 3.1: Research philosophies

<table>
<thead>
<tr>
<th></th>
<th>Positivist paradigm</th>
<th>Phenomenological Paradigm</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Basic Beliefs</strong></td>
<td>The world is external and objective</td>
<td>The world is socially constructed and subjective</td>
</tr>
<tr>
<td></td>
<td>Observer is independent</td>
<td>Observer is part of what is observed</td>
</tr>
<tr>
<td></td>
<td>Science is value free</td>
<td>Science is driven by human interests</td>
</tr>
<tr>
<td><strong>Researcher should</strong></td>
<td>Focus on facts</td>
<td>Focus on meanings</td>
</tr>
<tr>
<td></td>
<td>Look for causality and fundamental law</td>
<td>Try to understand what is happening</td>
</tr>
<tr>
<td></td>
<td>Reduce phenomenon to simplest elements</td>
<td>Look at the quality of each situation</td>
</tr>
<tr>
<td></td>
<td>Formulate and test hypotheses</td>
<td>Develop ideas through induction of data</td>
</tr>
<tr>
<td><strong>Preferred Methods include</strong></td>
<td>Operationalising concepts so that they can be measured</td>
<td>Use multiple methods to establish different views of phenomena</td>
</tr>
<tr>
<td></td>
<td>Taking Large samples</td>
<td>Small sample investigated in depth over time</td>
</tr>
</tbody>
</table>

(Source: Easterby-Smith et al., 1991)

For the research problem that was outlined in Chapter 1, the positivist approach is the best fit to follow. This is because this research intends to measure and evaluate a phenomenon of limitations to bank finance on agricultural SMEs and provide a rational explanation using prior research findings on challenges of SME finances. There is insurmountable literature that have identified and documented various challenges to SME finance in general and as such this study would like to establish the causal links and relationships between identified variables and relate it credit rationing behavior of banks in financing agricultural SMEs.
However the limitations of positivisms approach according to Hughes (1980) cited in Acumen Insights (2009) is that it generally relies on the need to abstract data that can misinterpret the nature of social actions, it does not recognize subjective meanings and also it assumes that social reality can be discovered in each society independently.

3.4.2 Research Approach

3.4.2.1 Deductive

Various authors have discussed issues on selection between inductive and deductive approaches to research. Hussy and Hussy (1997) defined deductive approach to research as a study based on testing empirical observation from a developed conceptual and theoretical structure. It is thus developed from the generalized conceptual structure so as to answer questions on a particular situation. This research would like to evaluate the impact of variables such as age of firm, transparency of information provided, transaction costs, regulation and availability of collateral on bank financing decisions specifically to SMEs.

3.4.2.2 Quantitative versus Qualitative

A distinction between qualitative and quantitative approach is typically a methodological one. This is because during research development, the researcher anticipate the type of data that is needed in response to his research question which can be numerical, textural or both. The researcher then selects an approach based on the type of data that he intends to gather.

Qualitative research is inductive, holistic, and subjective process oriented methods that are used to understand, interpret, describe and develop theories on a particular phenomenon. It is concerned about describing life experiences and giving meaning to them and as such, it is mostly associated with words, language as compared to measurements, statistics and numerical measures.

Using qualitative research involves exploring the original context of a person’s experience to generate a rich knowledge and insight of the participant’s reality and social context (Holloway, 2005). Qualitative research generates knowledge using a
developmental and dynamic approach which does not employ any formal structured instruments. It involves a systematic collection and analysis of subjective data in an organized and intuitive fashion to identify the characteristics and significance of human experience (Holloway, 2005).

This research followed mostly a quantitative approach as opposed to qualitative. This is because the research intends to use numerical and statistical data to validate facts regarding challenges in agricultural SMEs. Quantitative approach emphasizes on the collection and analysis of numerical data which usually is associated with measuring the scale, range, frequency etc of a phenomenon. According to Mundar, Jukas and Matoket (2012), the approach is focused on derivation of conclusions from existing data using proven statistical quantitative methods.

The quantitative approach to research is more objective and formally systematic in nature. It is concerned with testing theory deductively from existing knowledge through developing hypothesized relationships and anticipated outcomes from the study. As noted by William (2007), quantitative research can be used in response to relational questions of variables under study. Procedurally, it involves the formation of a hypothesis, review of literature and a quantitative analysis of the collected data (William, 2007). The type of date that is collected in quantitative research is typically numeric and mathematical models are used in deriving meaning to the data.

Leedy and Ormrod cited in William (2007) identified three broad classifications of quantitative research as descriptive, experimental and causal comparative.

The descriptive approach examines the situation as it exists in its current state. It involves identification of attributes to a phenomenon based on observation or exploration of co-relationships between two or more phenomena.

Experimental research involves investigating the treatment of an intervention into a study group and measuring the outcome of the treatment.
The causal comparative research is concerned about examining how independent variables are affected by the dependent variable. It is thus a cause and effect type of approach that investigates the relationships between research variables. This approach according to William (2007) provide researcher with an opportunity to scrutinize the interaction between independent and how they influence the dependant variables. This study will adopt the comparative qualitative approach as it intends to investigate the interaction of research variables. There are a lot of identified variables that affect advancement of credit finance to SMEs that this research would like to evaluate their impact on loan granting decisions for agricultural SMEs.

3.4.3 Research Strategy
This is the method developed by the researcher to effectively carry out the research. There are various strategies used in business research that include experiments, surveys, action research and case study (Saunders et al, 2009). The purpose of this section is to indicate the type of strategy that was adopted to provide acceptable answers to the research problem. In this study, a case study research strategy was adopted and as such an in-depth discussion of the case study strategy was performed.

3.4.3.1 Case study
Robnison (2002) cited in Saunder et al (2009) defines a case study as a strategy of doing research that involves empirical investigation of a particular contemporary phenomenon within a real life context using multiple sources of evidence. This is because there is clear distinctive boundary between what is being studied and the context it is happening in as opposed to experimental strategy where the research environment is highly controlled. The case study research is mostly used in exploratory research where answers as to “what” and “how” needs to be addressed (Saunders et al, 2009). It is a flexible way of doing research that can use multiple data collection techniques within a single research that include interviews, direct observations, documentary as well as questionnaires to gain an in-depth understanding of a phenomenon in its real life situation.
The strength of the case study approach is in its ability to triangulate multiple data collection techniques. For this reason a case study was used together with a survey in this study where questionnaires were administered to collect data within a particular organizational context.

3.4.3.4.1 Case study strategies
There are four case strategy that were identified by Yin (2003) which are,

i. Single Case Study

This is when a single case study is selected for a particular study where an organization is selected for its uniqueness to provide evidence on the research problem being investigated. As noted by Saunders et al (2009) as single case study strategy was selected for this study because it provides convenience for part time students who usually select organizations they work for. It is thus the basis on which Agribank was selected as a case organization. However results from a single case study cannot be generalized.

ii. Multiple Case Study

This is where a single study incorporates multiple cases as a way of establishing whether findings in the first case are repeatable in multiple cases. This would enable generalization of findings on a particular phenomenon and such Yin (2003) hold up to multiple case study strategy than single case study research.

iii. Holistic Case Study

This involves studying the entire organization on a particular research. This is where the research questions are applicable to everyone within the organization

iv. Embedded Case Study

This is where a study is conducted on sub units with an organization which can be departments or work groups. Each of the selected organizational sub unit becomes a unit of analysis for the research.
A case study strategy was used for this study because,

- The research problem at hand is real life phenomenon. A case study would be ideal in that, it would allow the researcher to establish a rich understanding of problem as it occur in real life.
- Case study strategy can allow for triangulation of multiple sources of data collection techniques and that will enrich the research findings as quantitative data can be collected to explain any qualitative phenomenon. The data collection technique thus selected in the research was a survey.
- The case study organization was also selected on the basis of easy access to information.

3.4.4 Unit of Analysis
The unit of analysis in this research is agricultural SME loan approval and this is explained in terms of the decisions made on whether to accept or reject a loan application.

3.4.5 Research Instruments
A questionnaire was selected as the data collection instrument for this study. A questionnaire is described as a self report form designed to elicit information on a particular subject through a written response (Saunders et al, 2009). It uses less in-depth questions to probe on a particular subject matter. The reasons for selecting a questionnaire as a data collection instruments to evaluate impact of firm level and bank specific factors affecting loan granting decisions to Agricultural SMEs was made because of the following,

- They ensure high response rates as they were distributed to respondents electronically and returned electronically.
- They are less time consuming to administer
- They ensure preservation of research ethics through anonymity because respondent subject names were not required
- It used closed questions that made it easy to complete
A questionnaire comprising of a total of 33 closed and open ended questions was used to gather information required to answer the research question cited in Chapter 1. The questionnaire consisted firstly of questions that collect data on the control variable being the participants' job position, age gender, education and experience. There was section B comprised of questions that collected data on the factors that explains challenges encountered by banks in financing agricultural SMEs that were identified from literature. The factors are administration costs, age of the SME, quality of information provided, availability of collateral and length of relationship with the bank. Sets of four items each were formulated to gather information on the effect of these factors on loan approval decisions by the bank.

All the items were developed by the research using information gathered from the review of literature. They consisted of structured 5-point Likert - scale type of questions from [1] strongly disagree to [5] strongly agree (Appendix 1).

The last section of the questionnaire was designed so as to collect data relating to the dependant variables being loan approvals that was being measured in terms of approval and disapproval decisions. Also financing decisions were being measured in terms of loan amount decisions made by the bank.

3.4.6 Pilot Study

A pilot study is a pretest survey that is done on a smaller scale to enable the researcher to understand whether the questionnaire is understood by the respondents (Saunders et al, 2009).

In this study, a pilot study was conducted on 7 randomly selected employees and that helped in identifying areas where the questionnaire needed some corrections and adjustments were made accordingly. The pilot study helped in refining the questionnaire by dropping some questions and rephrasing some so that all questions can be easily understood by the respondents.
3.4.6.1 Population

A population refers to the full universe of people or things from which a sample is selected, (Saunders et al 2009). For the purpose of this study, the population was Agribank branch managers and relationship officers from branches in the Northern region of Agribank. The rational for choosing this population was that branch managers and relationship officers are the people who are involved in processing of loan applications within the bank. Also the Agribank’s northern region was selected on the basis that it where most agricultural activities in Zimbabwe are concentrated.

3.4.6.2 Sample size and sampling techniques

Sampling is a process of selecting units from the population so that by studying the sample generalizations can be made back to the population from which it was chosen. This means that a sample is a subset of the population (Wiersma and Jurs, 2005), that is meant to provide a researcher with an insight into population characteristics. However, Wegner (2003) propounded that a general disadvantage of sampling is the natural resistance by laymen to accept the results as true representative of a given population. Ideally a sample is used because of limiting resources, practicability. According to Saunders et al (2009), factors that determine the size of the sample include the following,

- The confidence one has with the data i.e. level of certainty that characteristics of data is well represented in the sample
- The margin of error that researcher can tolerate
- The type of analysis to be undertaken

A purposive sample of 41 participants from the staff members that are involved daily in processing of loans was selected. The sample was drawn from a population of branch managers and relationship officers who participate in the loan granting decisions within the bank. The sample was made up of managers and officers from Agribank branches that are located in the Northern region of Zimbabwe. The reason being agriculture activities in their diverse forms are concentrated in the northern region of Zimbabwe. The study area includes Manicaland, Eastern Masvingo, Midlands and Mashonaland.
provinces. In this region there are a total of Samples were selected from branches that are located in these provinces. In this region there are a total of thirteen in the category A and B grade branches and twelve category C branches.

3.4.7 Administering of Questionnaires

Questionnaires were distributed to relationship officers and managers who are involved in processing and administration of loans within Agribank. The selected participants included branch managers and relationship officers on the basis of the fact that they are the first line approving authorities in administering of loans within the bank. Relationship offices are the critical people who interface with customers and are the first line in the credit rationing process by banks.

The questionnaire with well explained instructions was sent by email as all the participants were on email. A waiting period of two weeks was provided to enable completion of the questionnaire and follow ups were made thereafter so as try and increase the response rate.

On receipt the completed questionnaire was printed and deleted from the mail box.

3.5 DATA ANALYSIS

The data analysis tool that was used in this study is the Statistical Package for Social Sciences SPSS. This was used to perform all the data analysis on all the relationships under study. Firstly a descriptive analysis of the data was done to show the characteristics of the respondents in the study. This intended to explore the characteristics of the responds include age, academic qualifications, level of experience and gender. This information is critical for cross tabulation of the research results as well as answering some of the research questions.

A reliability analysis was performed to measure data consistency and internal stability using Cronbach’s Alpha. This measures the inter-item consistency to reflect how items in questionnaire were able to capture the required data. A value that is less than 0.6 is generally considered poor while those above that are acceptable and above 0.8 is good and a 1 is the best.
The data was also tested for normality. This test is important as it enables selection of ideal statistical tests to be performed. This is because there are different tests that can be done on normally distributed data (parametric tests) and data that is non normal (non parametric tests)

A Spearman’s correlation analysis was used to establish the degree of correlation between the variables under study. The analysis was to find out whether age of SME firm, quality of information provided, availability of collateral, length of relationship with the bank and costs of administering loans influenced SME loan approval decisions with Agribank.

To find out whether the independent variables identified had an effect on the loan approval decisions by the bank a multiple regression analysis was used.

3.6 VALIDITY AND RELIABILITY

3.6.1 Validity
The validity of a research instrument is assessed by the degree to which the instrument measures what it is intended to measure (Polit and Hungler, 2004). Content validity refers to the extent to which the research instrument incorporates or represents all the factors under study. To ensure content validity a comprehensive literature review on bank challenges on financing SMEs was conducted prior to development of the questions. The questions thus developed for this research were based on information gathered from literature review. Even though the questionnaires were electronically distributed, they had clear instructions on how to complete them. A prior pretesting of the questionnaire was conducted in order to assess any inconsistencies in the questions and they were addressed before they were used for data collection.

External validity is the extent to which the research findings can be generalized outside the sample used in the study. The sample selected for this study represents the people who are involved in the day to day processing of loans within the bank and as such the findings from this study represent the general impact of the indentified factors on loan granting decisions within Agribank. However the findings cannot be generalized to all
banks in Zimbabwe due to other structural and institutional factor variations between the banking institutions.

3.6.2 Reliability
Polit and Hungler (2004) described reliability as the degree of consistency with which research instruments measures the attribute it is designed to measure. The researcher has also an effect on reliability of the instruments through bias in data collection procedure. In this study, this was minimized through use of electronic administration of questionnaires where respondents did not have any direct contact with the researcher. Research items were also evaluated for reliability using Cronbach’s Alpha before rigorous analysis was performed on the data.

3.7 ETHICS AND VALUES
Conducting a research project need to be guided by honesty and integrity as a way of protecting the rights of the participating people. Ethical issues relating to self determination, anonymity and confidentiality were observed throughout the research process.

Anonymity was insured by not including a section for filling in personal details and each response was printed on receipt and the response deleted from the mail box.

Confidentiality according to Polit and Hungler (2004) means that information provided by a respondent will not be publicly reported in a way which indentifies the source. The collected data was kept confidential and also respondents were not asked to put any form of personal identifications on the completed questionnaire.

3.8 CHAPTER SUMMARY
This researcher adopted a quantitative, explanatory survey approach design. Questionnaires were administered through email to collect data from a sample of 41 participants. The questionnaire consisted mostly of closed questions with a few open questions. The sample included those people who are involved in the processing of loans which are branch managers and relationship officers.
Throughout the data collection, collating and reporting, anonymity and confidentiality were ensured. Largely, this chapter described the research methodology, population, the sample, data collection strategies and instruments used in the research. The data collected using the described procedures is thus presented and analyzed in the following chapter.
CHAPTER 4: RESULTS PRESENTATION, ANALYSIS AND DISCUSSION

4.1 INTRODUCTION
This chapter presents the research findings following a survey done on a sample selected from relationship officers and branch managers who are involved in loan approvals within Agribank. The major objective of the study was to investigate the factors that influence loan approval decisions by Agribank to SMEs in the agriculture sector. The chapter begins by detailing the response rates, followed by descriptive tests and then eventually the correlation and regression tests that were conducted in order to validate or reject the hypotheses formulated Chapter 2.

4.2 RESPONSE RATE
The research tool that was used in this study was a self-administered questionnaire which was electronically distributed to the sample population. A total of 41 questionnaires were distributed to a sample selected from branch managers and relationship officers. The sample consisted of relationship officers and branch managers within the bank who represent people involved in making loan granting decisions for the bank. Of the total number of questionnaires that were sent out, 35 of them were successfully completed and were deemed usable for analysis. This represents an 84% response rate. This response rate is considered high enough to ensure validity and reliability of research findings according to Saunders et al. (2009) who said that high response rates increases validity of the findings. The reason for high response rate is mostly because of the email method used in administering questionnaires which is faster. Also the questionnaire was administered by an internal employee of the bank which allowed for openness as issues of classified information since company confidentiality were not of paramount importance. Furthermore, the study is of particular importance to these people who are entrusted with the responsibility of granting loans.

4.3 DESCRIPTIVE ANALYSIS
To enhance the analysis and discussion of the research results, an exploration into the characteristics of the sample was performed.
4.3.1 Job Position

The sample consisted mostly of relationship officers as compared to branch managers as shown in table 4.1 below.

Table 4.1 Respondents job positions

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid Branch manager</td>
<td>10</td>
<td>28.6</td>
<td>28.6</td>
<td>28.6</td>
</tr>
<tr>
<td>Relationship Officer</td>
<td>25</td>
<td>71.4</td>
<td>71.4</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>35</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

There are more respondents from relationship officers than branch managers as it relates to composing of these employees in the entire population. There are more relationship officers than managers as some branches have more than two officers reporting to one manager.

4.3.2 Level of education

The respondents have a diverse level of education ranging from college diplomas to postgraduate qualifications as shown in Figure 4.2 below.

![Figure 4.1 Academic qualifications of respondents](image)

Figure 4.1 Academic qualifications of respondents
All the respondents in the research have at least a college diploma with 82% of the respondents having at least an undergraduate degree. This is because of the bank’s deliberate human resource policy that requires all relationship officers to have a minimum qualification of an undergraduate degree. The understanding is that this is a decision-making position that requires sound decision making skills which are available in qualified personnel. Consequently, branch managers are naturally expected to have better qualifications as supervisors of relationship officers. There is also a strong human resources development policy within the bank that provides opportunity for personal academic development. This is reflected in the number of people who have managed to develop themselves to postgraduate level.

4.3.3 Age of respondents

The age of sample was explored and summarised in the table 4.2 below,

**Table 4.2: Age of respondents**

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>18 to 25 years</td>
<td>1</td>
<td>2.9</td>
<td>2.9</td>
<td>2.9</td>
</tr>
<tr>
<td>26 to 35 years</td>
<td>21</td>
<td>60.0</td>
<td>60.0</td>
<td>62.9</td>
</tr>
<tr>
<td>36 to 45 years</td>
<td>13</td>
<td>37.1</td>
<td>37.1</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>35</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

It can be observed that the greater proportion of the sample (60%) is within the age group of between 26 and 35 years. The major reason for this distribution is on the recruitment policy where the bank employees graduate trainees who rise through the system to occupy branch manager and relationship officers after the training program. The age 26 is usually the lower limit for one to have completed first degree and having completed the graduate program.

4.3.4 Experience of respondents

The level of experience of the sample was also explored and is presented in the table below,
Table 4.3: Level of work experience of respondents

<table>
<thead>
<tr>
<th>Validation</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 to less than 5 years</td>
<td>4</td>
<td>11.4</td>
<td>11.4</td>
<td>11.4</td>
</tr>
<tr>
<td>5 to less than 7 years</td>
<td>17</td>
<td>48.6</td>
<td>48.6</td>
<td>60.0</td>
</tr>
<tr>
<td>More than 7 years</td>
<td>13</td>
<td>37.1</td>
<td>37.1</td>
<td>97.1</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>2.9</td>
<td>2.9</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>35</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

The results show that more than 78% of the respondents have at least five years of work experience in undertaking loan administration work within Agribank. Banking is a practice in which the more time one spends practising it, the more efficient s/he becomes. The average number of years of experience is an indication that the bank has managed to perfect its loan management systems by returning experienced personnel. However, this can also been an explaining factor to low labour mobility in Zimbabwe in the past 10 years due to dwindling employment opportunities. Nevertheless, this creates the well experienced sample for the study.

4.4 NORMALITY TEST

The Kolmogorov – Smirnov normality test was conducted to assess the normality of the data in order to enable selection of the proper statistical tests that are ideal for the study. The results of the test are shown in table below,

Table 4.4 Normality test results

<table>
<thead>
<tr>
<th>Item</th>
<th>Kolmogorov-Smirnov(a)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Statistic</td>
</tr>
<tr>
<td>Loan approval</td>
<td>.251</td>
</tr>
<tr>
<td>Loan administration costs</td>
<td>.294</td>
</tr>
<tr>
<td>Age of an SME</td>
<td>.229</td>
</tr>
<tr>
<td>Quality of Information</td>
<td>.238</td>
</tr>
<tr>
<td>Availability of collateral</td>
<td>.303</td>
</tr>
<tr>
<td>Length of relationship with bank</td>
<td>.443</td>
</tr>
<tr>
<td>Gender of entrepreneur</td>
<td>.318</td>
</tr>
<tr>
<td>Loan approval</td>
<td>.205</td>
</tr>
</tbody>
</table>

a Lilliefors Significance Correction

The table above shows the results of the normality tests conducted on data on the research variables. Highly significant values (p < 0.05) were found with all the variables...
reporting significant values of less than 0.05. This shows that the data is not normally distributed and as such, non-parametric tests are ideal for this type of data. The test that were selected for further analysis were the Man–Whitney Test and Kruskal–Wallis to test, while Spearman’s correlation analysis were selected for relationships between the research variables.

4.5 RELIABILITY TEST
In order to understand the reliability of the items in each of the research factors, a reliability test was conducted. The Cronbach’s Alpha was used to test item reliability. The reliability test reveals that items on availability of collateral, length of relationship, gender of entrepreneur and loan amount decisions had an Alpha value that is less than 0.6 (Appendix 2 and Appendix 3). This was despite trying to delete items in the questionnaire with the view to enhance reliability. This means that the level of consistency is very low in these items and these items are unacceptable for use in the analysis. The low values however can be attributed to a low number of questions (gender of entrepreneur) or poor interrelatedness of the items. These items were subsequently removed from the model as they were shown that they are not suitable for use in further analysis. This means that $H_4$ and $H_5$ cannot be analysed further using the available data and as such these hypotheses cannot be validated. The new model was thus now built on the remaining items that passed the reliability test that are shown in Table 4.5 below,
Table 4.5: Reliability test results

<table>
<thead>
<tr>
<th>Item</th>
<th>Cronbach’s α</th>
<th>Number of Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration Costs</td>
<td>0.619</td>
<td>3</td>
</tr>
<tr>
<td>Number of years of existence</td>
<td>0.915</td>
<td>4</td>
</tr>
<tr>
<td>Quality of information submitted</td>
<td>0.606</td>
<td>3</td>
</tr>
<tr>
<td>Loan approval decision</td>
<td>0.600</td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>0.616</strong></td>
<td><strong>13</strong></td>
</tr>
</tbody>
</table>

Items that passed the reliability test which are administration costs, age of SMEs and quality of information, submitted were found to be suitable for further analysis. This results in a new model to tests hypotheses H$_1$, H$_2$ and H$_3$

4.6 MANN-WHITNEY TEST

This is a non parametric test that is used to test research hypotheses. It measures the difference between two categories of an independent variable in regards to the dependent variable. In this regard, it was important to test whether gender and job position of the respondents were explanatory variables to decisions on loan approval.

4.6.1 Loan approval decisions by gender

This test was done in order to verify whether the gender of the employees was influencing loan approval decisions within the bank. The results are shown in tables 4.6 and 4.7 respectively, below.

Table 4.6 Mean Ranks for gender comparison

<table>
<thead>
<tr>
<th>Gender</th>
<th>N</th>
<th>Mean Rank</th>
<th>Sum of Ranks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loan approval</td>
<td>Male</td>
<td>24</td>
<td>18.29</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>11</td>
<td>17.36</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>35</td>
<td></td>
</tr>
</tbody>
</table>
The test revealed no statistically significant differences in loan approval decisions between males (Md = 18.29, n = 24) and females (Md = 17.36, n = 11), $U = 125.000$, $z = -0.261$, $p = 0.0820$. In this result, even though males had a slightly higher mean rank score, the results were statistically insignificant meaning that the gender of the granting officer is not an explanatory variable in the loan approval decisions of Agribank. Loan decisions that are made within the bank are consistent regardless of the gender of the approving authority. This can be attributed to sound training programs by the bank in loan administration.

### 4.6.2 Loan approval decisions by job position

The test was also done in order to verify whether job position of the employees was influencing loan approval decisions within the bank. The results are shown in table 4.8 below.

<table>
<thead>
<tr>
<th>Position</th>
<th>N</th>
<th>Mean Rank</th>
<th>Sum of Ranks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loan approval</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Branch manager</td>
<td>10</td>
<td>14.20</td>
<td>142.00</td>
</tr>
<tr>
<td>Relationship Officer</td>
<td>25</td>
<td>19.52</td>
<td>488.00</td>
</tr>
<tr>
<td>Total</td>
<td>35</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 4.9 Test Statistics for comparison of job positions

<table>
<thead>
<tr>
<th>Test Statistic</th>
<th>Loan approval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mann-Whitney U</td>
<td>87.000</td>
</tr>
<tr>
<td>Wilcoxon W</td>
<td>142.000</td>
</tr>
<tr>
<td>Z</td>
<td>1.457</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
<td>.145</td>
</tr>
<tr>
<td>Exact Sig. [2*(1-tailed Sig.)]</td>
<td>.174(a)</td>
</tr>
</tbody>
</table>

a  Not corrected for ties.
b  Grouping Variable: Position

It was revealed that there is no statistically significant differences between branch managers (Md = 14.20, n = 10) and relationship officers (Md = 19.52, n = 25), U = 87000, z = -1.457, p = 0.174 on loan approval decisions. The results also showed that the mean approval rank on relationship officers was higher than that of branch managers but this was not statistically significant as shown by the significance value of 0.174 which is > 0.05.

4.7 KRUSKAL – WALLIS TEST

This test is conducted when the variable has more than two categories. The test was also performed to evaluate whether other demographic characteristics of the sample which are age and level of academic qualification had an impact on loan approval decisions within Agribank.

4.7.1 Loan approval decisions by age

A test was conducted to evaluate whether the age of a loan granting personnel with the bank had an effect on loan granting decisions. The results are presented in table 10 and 11 below,

Table 4.10 Mean Ranks on loan approvals by age

<table>
<thead>
<tr>
<th>Age</th>
<th>N</th>
<th>Mean Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loan approval</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18 to 25 years</td>
<td>1</td>
<td>7.50</td>
</tr>
<tr>
<td>26 to 35 years</td>
<td>21</td>
<td>18.48</td>
</tr>
<tr>
<td>36 to 45 years</td>
<td>13</td>
<td>18.04</td>
</tr>
<tr>
<td>Total</td>
<td>35</td>
<td></td>
</tr>
</tbody>
</table>
The Kruskal – Wallis test revealed a statistically insignificant difference in loan approval decisions across different age groups (Group 1, n = 1: 18 to 25 years, Group 2: n = 21, 26 to 35 years, Group 3: n = 13, 36 to 45), $X^2(2, n =35) = 1.208, p = 0.547$. The mean ranks for those aged between 18 to 25 and those aged between 26 and 35 is almost the same. However, that of branch managers and relationship officers aged below 25 year is slightly lower. It must be noted that there was a single respondent in this category. There is nevertheless no statistical difference between these means meaning that age is also not an influencing factor in loan granting decisions within the bank.

4.7.2 Loan approval decisions by level of education

A test was performed to measure the impact of education level on the loan approval decisions and the results are show in the tables 10.12 and 10.13 respectively below,

<table>
<thead>
<tr>
<th>Education</th>
<th>N</th>
<th>Mean Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loan Approval</td>
<td></td>
<td></td>
</tr>
<tr>
<td>College diploma</td>
<td>4</td>
<td>18.50</td>
</tr>
<tr>
<td>Undergraduate degree</td>
<td>18</td>
<td>16.94</td>
</tr>
<tr>
<td>Post graduate degree</td>
<td>13</td>
<td>19.31</td>
</tr>
<tr>
<td>Total</td>
<td>35</td>
<td></td>
</tr>
</tbody>
</table>

Table 4.13 Test Statistics on comparison of level of education

<table>
<thead>
<tr>
<th></th>
<th>Loan Approval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi-Square</td>
<td>.455</td>
</tr>
<tr>
<td>Df</td>
<td>2</td>
</tr>
<tr>
<td>Asymp. Sig.</td>
<td>.797</td>
</tr>
</tbody>
</table>

a Kruskal Wallis Test
b Grouping Variable: Education
The Kruskal–Wallis test revealed no statistically significant difference in loan approval decisions across education levels (Group 1, n = 4: college diploma, Group 2: n = 18, undergraduate degree, Group 3: n = 13, post graduate degree), \(X^2(2, n = 35) = 0.455, p = 0.797\). An evaluation of the effect of level of education also showed that there is no statistically significant difference between one’s level of education and the type of decisions s/he makes in loan approval.

It can be concluded that demographic characteristics of Agribank staff members who are involved in loan administration have no effect on loan approval decisions. This may be explained by the fact that loan administration within the bank is guided by well established procedures that result in uniformity in the decision making behaviour.

### 4.8 CORRELATION ANALYSIS

In order to answer the research question and test other hypotheses on the relationships between variables and in particular the correlation of variables with the dependant variable (loan approval), a correlation analysis was performed. This test enables an appreciation of the direction and strength of relationships between the variables using the Spearman’s correlation test. The correlation results are shown in table 4.14 below.

**Table 4.14 Correlations**

<table>
<thead>
<tr>
<th></th>
<th>Administration costs</th>
<th>Age of SME</th>
<th>Quality of Information</th>
<th>Loan approval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spearman’s rho</td>
<td>Correlation Coefficient</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>35</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age of SME</td>
<td>Correlation Coefficient</td>
<td>-.021</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.906</td>
<td>.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>35</td>
<td>35</td>
<td></td>
</tr>
<tr>
<td>Quality of information</td>
<td>Correlation Coefficient</td>
<td>.267</td>
<td>.059</td>
<td>1.000</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.121</td>
<td>.734</td>
<td>.</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>35</td>
<td>35</td>
<td>35</td>
</tr>
<tr>
<td>Loan approval</td>
<td>Correlation Coefficient</td>
<td>-.124</td>
<td>-.266</td>
<td>-.272</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.479</td>
<td>.122</td>
<td>.113</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>35</td>
<td>35</td>
<td>35</td>
</tr>
</tbody>
</table>
The table shows that there are low relationships between the independent variables and the dependant variable. The results show that loan administration costs has a negative relationship with loan approval decisions within the bank with a Spearman’s correlation coefficient of -0.124. This though not statistically significant seems to concur with Ganbold (2008) and Beck (2007) who noted that transaction costs in the major constraint to financing SMEs.

There is also a low negative relationship between the age of an SME and the loan approval decision by the bank as shown by $r = -0.266$. This is also contrary to what was found in literature where Serrasqueiro and Nunes(2011) found out that the influence of SME’s age on finance sources is particularly crucial in countries where stock markets are under developed such that the major sources of business finance would be retained earnings and bank credit finance. In addition, Kari (2013) also concluded that conservative viewers say that banks would not provide funding to SMEs until they have achieved a certain level of production. However due to non significance of this test $p = 0.122$ which is greater than 0.05, $H_2$ cannot be validated. We cannot conclude on the hypothesis due to limitations on the data as shown by the output of the analysis.

The relationship between loan approval and quality of information was also evaluated as shown in table 4.13 above. The results showed a week negative relationship with an $r = -0.272$ but the result was not statistically significant with a $p$ value $p= 0.113$. However literature suggests that problems of information asymmetry Stiglitz and Weiss (1981) and Auronen (2003) is very significant in credit rationing in SME finance. Therefore even there, negative relationship was observed between availability of quality information and loan approval decisions within Agribank, the results fall short in validating or rejecting $H_3$ because the result is not statistically significant.

### 4.9 Regression Analysis

A multiple regression test was conducted in order to predict determinants of loan approval decisions within the bank. The results are shown in the table 12.14 below,
Table 4.15 Regression Model Summary

<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>.282(a)</td>
<td>.080</td>
<td>-.009</td>
<td>.602</td>
</tr>
</tbody>
</table>

a Predictors: (Constant), Admin Costs, Age of Survival, Information Quality
b Dependent Variable: Loan approval

The results presented in Table 4.15 above show that administration costs, age of agricultural SME and quality of information submitted can only predict 8% of loan granting decisions within the bank ($r^2 = 0.08$). This means that the factors identified in this model do not account much of the variation in the loan approval decisions made by the bank (Saunders et al, 2009). There might be other factors that need to be factored into the model that have some significant influence on loan approval decisions. Some of the factors might be related to political lending which makes proper loan appraisal ineffective as some approvals are not subjected to proper rigorous analysis.

Table 4.16 ANOVA table

<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>1</td>
<td>Regression</td>
<td>.973</td>
<td>3</td>
<td>.324</td>
<td>.895</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>11.236</td>
<td>31</td>
<td>.362</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>12.210</td>
<td>34</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a Predictors: (Constant), Admin Costs, Age of Survival, Information Quality
b Dependent Variable: Loan approval

The model is a poor model for prediction of loan approval decisions within Agribank as shown by a very low F value of 0.895, which is also not statistically significant ($p > 0.05$). It can thus be proposed that the identified variables are not the ones that influence financing decisions to agricultural SMEs within Agribank. There the effect of external factors such as political interference can be said to have a significant influence to bank financing decisions.

4.9.1 Interpretation of Beta (β) values

The $\beta$ values of all the variables were calculated and are represented in table 12.15 below,
Table 4.17 Beta Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>1</th>
<th>Sig.</th>
<th>95% Confidence Interval for B</th>
<th>Correlations</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td>Lower Bound</td>
<td>Upper Bound</td>
<td>Zero-order</td>
<td>Partial</td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>8.841</td>
<td>1.991</td>
<td>4.440</td>
<td>.000</td>
<td>4.780</td>
<td>12.902</td>
</tr>
<tr>
<td></td>
<td>Age of SME</td>
<td>-.102</td>
<td>.078</td>
<td>-.229</td>
<td>1.316</td>
<td>.198</td>
<td>-.260</td>
</tr>
<tr>
<td></td>
<td>Quality of information</td>
<td>-.009</td>
<td>.140</td>
<td>-.011</td>
<td>-.061</td>
<td>.951</td>
<td>-.293</td>
</tr>
<tr>
<td></td>
<td>Administration costs</td>
<td>-.115</td>
<td>.111</td>
<td>-.189</td>
<td>1.035</td>
<td>.309</td>
<td>-.343</td>
</tr>
</tbody>
</table>

a Dependent Variable: Loan approval

All the beta values in the model have negative values as shown in the model below,

\[
\text{Loan Approval} = -0.229 \times \text{(Age of SME)} - 0.011 \times \text{(Quality of Information)} - 0.189 \times \text{(Administration costs)} + \text{Error}. \]

This means that all tested variables have negative relationships with loan approval decisions within the bank.
4.10 CHAPTER SUMMARY

This chapter presented the research findings from administration of questionnaires to the sample population. It further presented the various statistical analyses that were performed to validate or reject research hypotheses. Non parametric tests were performed because of the non normality of the data. All the demographic characteristics (age, gender, level of education, and years of experience) were found to be statistically insignificant in predicting loan approval decisions. No further statistical tests that were performed on effect some variables (effect of collateral, and length of banking relationship) as these items could not meet the reliability test requirements. There were weak negative relationships between the independent variables (cost of administration, quality of information) on the loan approval decisions, though they were all not statistically significant.

The research variables were also found to be very week predictors of the dependent variable. These results and analysis were the basis on which conclusions and recommendations which are presented in the next chapter were made.
CHAPTER FIVE CONCLUSION AND RECOMMENDATION

5.1 INTRODUCTION
This chapter presents conclusions deduced from the study findings that were presented in Chapter 4. The major objective of the study was to analyze the factors that influence bank decisions on financing SMEs in the agricultural sector in Zimbabwe. These factors were analyzed and discussed in detail in Chapter 4 and in this chapter conclusions and recommendations based on these findings are being presented. The chapter also presents recommendations and some research gaps that form areas for future studies.

5.2 CONCLUSIONS
From the analysis of results the following conclusions can be made,

Loan granting decisions within Agribank seem to be influenced more by external operational environmental factors than factors identified through literature review. The model formulated after literature review in Chapter 2 proved to be not a predictor of loan approval decisions to agricultural SMEs within Agribank. This model seems be influenced to a greater extend by external factors that include the shareholder (government) influence, economic conditions as well as political influence to agricultural financing. The model thus needs to be redefined to incorporate these external factors as these factors are found to have very little effects on approval decisions within the bank.

The independent variables (cost of loan administration, age of an agricultural SME as well as quality of information submitted by agricultural SMEs) are not good predictors of loan approval decisions within the Agribank. There are very week negative relationship between these independent variables and the dependent variable. This means that these factors are of little importance on financing decisions to agricultural SMEs within the bank.

This study also concludes that demographic characteristics of loan evaluation officers have no significant effect on loan approval decisions within that bank. There is consistency in loan approval decisions regardless of differences in gender, job position,
level experience and academic qualifications between the people involved in loan granting in the bank.

5.3 RESEARCH HYPOTHESIS VALIDATION

$H_1$: Costs of administering loans determine Agribank decisions on financing of agricultural SME loans.

There is a week statistically insignificant ($p = 0.479$) negative relationship between costs of administration of loans and loan approval decisions within Agribank. It can be concluded that administration costs do not determine loan approval decisions within Agribank. $H_1$ is thus rejected and a conclusion is made that loan administration costs do not determine loan approval decisions within Agribank.

$H_2$: Age of an agricultural SME firm does not affect financing decisions by Agribank

There is a statistically insignificant relationship ($p = 0.122$) between age of SMEs and loan approval decisions within Agribank. We reject $H_2$ and conclude that the number of years of existence of an agricultural SME affect financing decisions within the bank.

$H_3$: Adequacy of information submitted by agricultural SMEs is positively related to bank’s financing decisions

The relationship between these variables was found to be statistically insignificant ($p = 0.113$) and as such we reject $H_3$ and conclude that the adequacy of information submitted by agricultural SMEs to Agribank is not positively related to bank financing decisions.

$H_4$: Length of banking relationship and provision of collateral security influences financing decisions to agricultural SMEs by the bank.

Research items relating to this hypothesis failed the Cronbach reliability test and they were subsequently removed from the model as they were proved to be not suitable for use in further analysis. This means that $H_4$ could not analyzed further using the available data and as such these hypotheses cannot be validated.
H₅: Employee demographic characteristics moderate loan approval decisions within Agribank.

There are statistically insignificant relationships between the demographic characteristics and loan approval decisions as shown by the Kruskal – Wallis and the Mann-Whitney tests. H₅ is being rejected and a conclusion made that employee demographic characteristics (age, gender, level of education and experience) do not have any significant effect on loan approval decisions made within Agribank.

5.4 RECOMMENDATIONS
In this study, it was noted that demographic characteristics of loan granting personnel has no significant effect on loan approval decisions. This can be used in recruitment policies where, there should be no need to segregate prospective employees on the basis of gender, level of education or age.

The bank is strongly recommended to come up with operational procedures manuals that factor in these identified factors that need to be managed if it is to improve its profitability from agriculture SMEs finance. These variables though not statistically significant on influencing financing decisions, their effect might be shown on the poor performance of the loan.

The bank need to come up with systems that enhance profitability of the SME sector as the economy is currently being driven by SME activities.

5.5 AREAS FOR FURTHER STUDY
There is some work that needs to be done to test the relevance of the identified factors in influencing bank financing decisions within Zimbabwe. It was highlighted on the limitations that a single case study was used in this study and as such this study needs to be replicated in privately owned commercial banks in Zimbabwe before generations.

The study used a state owned bank which might have resulted in the model developed not being applicable as a result of effect of external factors. Further research need to be
developed and incorporated effect of shareholding on the loan granting decisions by the bank.

Also there might be need to compare the model between a private owned bank and a state owned bank to see whether similar results can be produced.
REFERENCES


39. European Commission (2009), Improving the financing environment in Europe ec.europa.eu (29.05.13)
45. Ganbold, B. Improving Access to finance for SMEs: International Good experiences and lessons from Mongolia No. 438 IDE-JETRO
47. Greener, S. (2008). Business Research Methods, Ventus Publishing. USA
49. International Trade Centre., (2009), How to access Trade Finance: A guide for Exporting SMEs, Geneva, Switzerland


64. Olomi, D., Mori, N., Mduma, E., & Urassa, G. (2008). Constraints to access to capital by Tanzanian SMEs, Dar es Salaam: REPOA


APPENDICES

Appendix 1: Research questionnaire

My name is Samapenda Freddie a Master of Business Administration (MBA) student with the University of Zimbabwe’s Graduate School of Management. As part of my studies, I am performing a research on the challenges encountered by commercial banks in financing SMEs in the agricultural sector.

I would appreciate if you can complete this questionnaire in order for me to complete my MBA studies. You are guaranteed that your response will be treated with utmost confidentiality and will solely be used for academic purposes and information will be used in aggregated form.

SECTION A

3.1 DEMOGRAPHIC INFORMATION

3.1.1 Gender

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>[1] Male</td>
<td></td>
</tr>
<tr>
<td>[2] Female</td>
<td></td>
</tr>
</tbody>
</table>

3.1.2 What is your job position?

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>[1] Branch manager</td>
<td></td>
</tr>
<tr>
<td>[2] Relationship officer</td>
<td></td>
</tr>
</tbody>
</table>

3.1.3 Age

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>18 to 25</td>
<td></td>
</tr>
<tr>
<td>26 to 35</td>
<td></td>
</tr>
<tr>
<td>36 to 45</td>
<td></td>
</tr>
<tr>
<td>Over 46</td>
<td></td>
</tr>
</tbody>
</table>

3.1.4 What is your education level?

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>[1] Secondary/ High School</td>
<td></td>
</tr>
<tr>
<td>[2] College diploma</td>
<td></td>
</tr>
<tr>
<td>[3] Undergraduate degree</td>
<td></td>
</tr>
<tr>
<td>[4] Professional Qualification</td>
<td></td>
</tr>
<tr>
<td>[5] Post graduate degree</td>
<td></td>
</tr>
</tbody>
</table>

3.1.5 For how many years have been working for this bank?

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>[1] 1 to less than three years</td>
<td></td>
</tr>
<tr>
<td>[2] 3 to less than 5 years</td>
<td></td>
</tr>
<tr>
<td>[3] 5 to less than 7 years</td>
<td></td>
</tr>
<tr>
<td>[4] more than 7 years</td>
<td></td>
</tr>
</tbody>
</table>
SECTION B

3.2 Challenges encountered by banks in agricultural SME finance

3.2.1 Loan administration costs

Please read the statement in the table below and choose the answer that best describes your opinion on the effect of administration costs on loan granting decisions within the bank by crossing an (X) in a relevant box.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. It is not profitable for banks to finance agricultural SMEs due to high administration costs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. The average administration costs on loans to agricultural SMEs are high</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Transaction costs associated with administering agricultural SME loans are prohibitive to bank lending to this sector.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Loan administration costs do not impact on your bank financing decisions to agricultural SME finance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3.2.2 Years of survival of the SME/ SME firm

For each of the statements in the table below, please choose the answer that describes your opinion on the year of existence for an agricultural SMEs.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. This bank will not provide credit to agricultural SMEs that have just been established</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. The number of years of survival of an agricultural SME is a very critical consideration factor on the financing decisions by the bank</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. The bank will not consider loan request by agricultural SMEs that are less than one year old</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. The bank will only provide finance to established agricultural SMEs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3.2.3 Quality of information submitted to the bank by SMEs
For each of the following statements, choose the answer that best describes your opinion on the effect of information submitted by SMEs to the bank

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>It is difficult for banks to obtain sufficient information on agriculture SME project repayment capacity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Project proposal submitted by agricultural SMEs are less reliable for use in project appraisal</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Agricultural SMEs find it difficult to provide critical information required by the bank</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Information submitted by SMEs is usually correct on the proposed use of funds</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 3.2.4 Collateral security

For each of the following statements, choose the answer that best describe your opinion on the effect of provision of collateral security on financing decisions by your bank

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Collateral security is an important consideration when offering loans to agricultural SMEs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>The number and value of entrepreneur’s assets determine the amount of loan that can be accessed by an agricultural SME</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Agricultural SMEs find it difficult to meet collateral requirements of the bank</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Provision of collateral security is not considered very critical by the bank when offering loans to agricultural SMEs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3.2.5 Length of relationship of SME and the bank

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The bank provides loans to existing account holders only</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>The bank will not grant loans to applicants without any banking relationship with it</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Account activity is very critical in determining loan amount to agricultural SMEs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3.3 CONTROLLING FACTORS

3.3.1 Effect of gender

For each of the following statements, choose the answer that best describe your opinion on financing decisions by your bank

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Male and female agricultural entrepreneurs have equal chances to access loans from the bank</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>There is a high success probability for a male than female applicant</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3.4 BANK FINANCING OUTCOME

3.4.1 Bank approval or disapproval of loans

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>It is common for the bank to totally disapprove a loan application by an agricultural SME</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Loans to agricultural SMEs account for the greater proportion of the loan portfolio</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Success rates for agricultural SME loans is similar to that of SMEs in</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
For each of the following statements, choose the answer that best describe your opinion on financing decisions by your bank.

### 3.3.1 Loan size decisions

For each of the following statements, choose the answer that best describe your opinion on financing decisions by your bank.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The bank reduces loan amounts for agricultural SMEs that do not meet the qualification criteria</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Loan amount approved are a function of SME’s meeting bank’s loan requirement criteria</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Agricultural SMEs are usually granted the loan amounts they would have applied for in the first place</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 3.4 Any other comments?

Thank you for your time.
**Appendix 2:** Reliability Statistics for items on availability of collateral

<table>
<thead>
<tr>
<th>Cronbach’s Alpha(a)</th>
<th>Cronbach's Alpha Based on Standardized Items(a)</th>
<th>N of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>-.997</td>
<td>-.430</td>
<td>4</td>
</tr>
</tbody>
</table>

a The value is negative due to a negative average covariance among items. This violates reliability model assumptions. You may want to check item codings.

**Appendix 3:** Reliability Statistics for items on length of relationship

<table>
<thead>
<tr>
<th>Cronbach’s Alpha</th>
<th>Cronbach's Alpha Based on Standardized Items</th>
<th>N of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>.275</td>
<td>.361</td>
<td>3</td>
</tr>
</tbody>
</table>