

Farm lending by public and private sector banks in India: Risk factor analysis.

Prof.K.S.Rao*
Phani-Kumar Katuri**

Key Words:

1. Liberalization
2. Financial Market
3. Agricultural Sector
4. Poverty
5. Farmers
6. Banking Sector

Abstract

Liberalization of the financial market and financial reforms should be applauded for a gradual increase in financial intermediation, this doesn't seem to have had significant impact to farmers as seen from the agricultural sector's performance in terms of farm yields over the years; a situation which has seriously constrained the agricultural sectors' development and to a large extent floundered attempts to alleviate poverty in the country.

The attitudes that characterize bank lending to farmers and the information gap between banks and farmers complicates credit accessibility by farmers thereby curtailing their productivity and profitability. Theoretical approaches given by previous studies don't seem to agree on what issues determine commercial bank lending in general, let alone lending to the farmers. Andhra Pradesh(AP),India studies risk factors determining profitability in the formal banking sector which does not effectively lend to farmers.

Other studies on micro finance institutions focused on credit rationing and its influence on the operations of small and micro enterprises. This study will help to address the factors that contribute to lending to farmers by commercial banks in the state of Andhra Pradesh.

INTRODUCTION

A key development challenge over decades has been to increase agricultural productivity. One constraint facing farmers is lack of access to formal sector credit to enable them to take advantage of economic opportunities to increase their level of output, hence move out of poverty. Small scale farmers and the rural poor have been concerned about the design of various financial sector policies. Agricultural finance is dedicated to financing agricultural related activities such as; input supply, production, processing and distribution. Small loans to rural farmers, rarely justify the costs of legal action to call in a claim on land and then liquidate it. Similarly, movable assets such as livestock and equipment are also fairly high risk without proof of ownership and insurance cover. Consequently, access to credit by farmers is subject to

lending terms of the banks and information asymmetry. Proper information sharing between banks and the borrowers can reduce risks and increase access to credit by allowing banks screen borrowers at a lower cost. However, due to lack of accurate information about individuals or firms and their financial background, the banking industry finds it hard to select a good client.

Lending activities of various commercial banks depend on the willingness to extend much credit to some sector of the economy. Credit is the largest single income-earning asset in the portfolio of most commercial banks. Banks are, therefore, forced to spend enormous resources to estimate, monitor and manage credit. This greatly affects the lending behavior of commercial banks due to the large resources involved.

The commercial banks have to be careful with their lending prices as they cannot charge loan rates that are too low or too high. Too low rates might lead to a level of interest income that may not be enough to cover the cost of deposits, general expenses and the losses from some borrowers that do not pay. Charging too high loan rates in the other hand may create adverse selection issues and

*Professor, Department of commerce and management studies, Andhra University, Vizag, Andhra pradesh.

**Asst. Professor, Dept. of management studies, Vignan university,Vadlamudi(post),Guntur, Andhra Pradesh can be reached at katuri.phanikumar@gmail.com

moral hazard problems for borrowers.

Access to financial services can improve commercialization of smallholder agriculture and contribute to poverty alleviation among rural communities. The paper asserts that more than seventy percent of India's population is rural and experiences high incidence of poverty. A major portion, if not all, of these rural folks depend on agriculture for their livelihood. There is, therefore, need to tailor financial products for these people to stimulate higher productivity in their farming activities as a channel of achieving pro-poor growth and poverty reduction. However, formal financial markets fail in the provision of funding to the majority of smallholder farmers in developing countries (World Bank 2009).

This descriptive survey is meant to enhance a systematic description that is as accurate, as valid and as reliable as possible regarding the responses on determinants of lending to farmers by commercial banks in AP. The variables to be studied include lending to farmers policy, credit to farmers' standards, credit terms for farmers' and recollection policy of loans to farmers.

Sample

All commercial banks in Andhra Pradesh' India were eligible in the study. However a sample of 20 randomly selected banks was targeted to participate in this study. The head of marketing department per bank was the respondent to the self-administered questionnaire that was used for this study. This is because the marketing department has information concerning the issues to do with factors determining the performance of their financial products in the market.

DATA COLLECTION

The primary data had collected using self administered questionnaires. One questionnaire was sent to each of the marketing managers of the 20 commercial banks in the sample. The questionnaire to be used is in Appendix- A covers general information, Appendix B, C & D represents the risk factor analysis relating to lending policy, assessment of returns and profitability aspects of lending. And also a 5-point Likert scale was used to analyse the risk factors of commercial banks lending to farmers. Closed ended questions enabled the research study to collect quantitative data while open-ended questions will be used to collect qualitative data.

DATA ANALYSIS

The primary data collected using the questionnaires were compiled, sorted, edited, classified and coded, and

analyzed using a computerized data analysis package SPSS. The mean and standard deviation were used to analyze which of the factors identified per variable least or most influenced lending decisions towards farmers. Pearson's correlation analysis was run to determine the existence and significance of the relationship between lending policy, credit standards to farmers, return on credit to farmers and risk on credit to Farmers.

Bank lending was measured by amount of the loan borrowed by farmers, interest rates, credit limits, and loan period in terms of the percentage rate charged by commercial banks, the amount of the loan borrowed by farmers, and months a borrower should have repaid the loan respectively. Credit standards to farmers were measured basing on the loan size, collateral requirements by banks and location of the borrowers from the bank.

The regression model below was used to determine the relationship between lending policy to farmers and credit to farmers' standards, bank profitability and Farmers' loan recollection policy. Lending to farmers policy is the dependent variable while the independent variables are credit standards, credit terms and collection policy. Each of the variables Y, X_1, X_2, X_3 , and will be the average of the respondent per bank.

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + e$$

WHERE

Y = Lending to Farmers

X_1 = Credit standards to Farmers

X_2 = Return on credit to farmers

X_3 = Risk on credit to Farmers

β_0 = Intercept Term

$\beta_1, \beta_2, \beta_3$ = Sensitivity of Lending to farmers to the independent variables

e = The error term

The – at 95% confidence level was used to measure the significance of the constants of regression, $\beta_0, \beta_1, \beta_2$ and β_3 . The significance of the whole regression was tested using the F–test at 95% confidence level. The strength of the level to which the three independent variables x_1, x_2 and x_3 explain the variation in lending was assessed using the coefficient of determination, and the Adjusted R^2 .

Lending to Farmers by Commercial Banks

Commercial banks are the most important savings, mobilization and financial resource allocation institutions. These roles make them an important part of economic growth and development. In performing this role, commercial banks can mobilize financial resources and



efficiently allocate them to productive investments. Irrespective of the economic policies of a country, commercial banks are interested in lending to numerous customers bearing in mind profitability, liquidity and solvency. However, the decisions to lend by commercial banks are influenced by a lot of factors. These factors include: the prevailing interest rates, the volume of deposits, the level of their domestic and foreign investment, their liquidity ratio, prestige and public recognition.

The agricultural sector in any country plays an important role in its economic growth and development through the contributions made to wealth creation, employment, food production, and income generation. Many farmers in Andhra Pradesh, however, still find it difficult when it comes to accessing credit from the formal financial institutions. This has hampered their desire to increase performance through modern farming. This inaccessibility to formal financing has led to poor growth and sometimes decline in agricultural productivity over the past years. It is therefore expected that there is a positive relationship between lending to the private sector and lending by commercial banks. However, the lending is highly dependent on factors like profitability, liquidity, solvency, information asymmetry and availability of money for lending. With respect to farmers, lending to farmers policy is expected to be affected by the standard of credit to farmers, the credit terms for farmers and the recollection policy of loans to farmers.

THE FARMING SECTOR

Access to credit is a major and complicated challenge in the agriculture sector. Commercial banks have the need to link their future profitably with the growth of lending to the agricultural segment. This means making agricultural lending a significant integral part of each of the commercial banks' growth strategy. Banks fail to appreciate the potential of the agriculture sector and the problems and realities related to production, products, and the political and economic organization of the value chain (USAID, 2012).

The agricultural sector is composed mainly of primary producers of small size, where the risks are greatest because primary producers have the least negotiating ability among the players in their industry making them mere price takers. The sector is also characterized by inefficient use of resources like water, fertilizer and land leading to low productivity. This sector is susceptible to

environmental shocks like changes in weather patterns. Production is too small leading to inability to achieve economies of scale.

The agriculture sector is very capital intensive with low return on investment necessitating long term financing. The sector is a highly knowledge-based sector; rural based with slowly improving poor physical infrastructure. Even the introduction of new technology and new techniques is slow, coupled with lack of attention to financial literacy and to good business management. Its adaptation to changing market conditions on the supply side is also slow (Beck, Demirgüç, Laeven, & Maksimovic, 2006).

COMMERCIAL BANKS IN ANDHRA PRADESH AND THE FARMING SECTOR

Nott (2003) argued that adequate and timely information enables lenders to set loan terms accordingly. Failure to exchange information between the lender and the borrower brings about information asymmetry between the two parties, and to address this problem, lenders limit their credit facilities to sectors which they perceive to possess limited information asymmetry.

In addition, to compensate for the high information asymmetry risks, lenders tend to charge higher interest rates, and lend for a short time period, hence constraining credit affordability. They also ask for collateral, limit the loan amount, and in most cases banks are located in urban centres which further limit credit accessibility by rural farmers. Become inefficient and forces market participants to take risks because it is assumed that information that is provided is always inadequate and untimely. In financial markets, information asymmetry arises between borrowers and lenders because borrowers generally know more about their projects than lenders do.

Information asymmetry entails absence of accurate, timely, complete, quantity and quality information about the borrowers' ability and willingness to pay back the loan (Nott, 2003). According to Kenneth & Adrian (1997), the bank's decision to lend is often complicated by inadequate and inaccurate information. In the quest to screen out borrowers likely to default, banks need information. Although banks demand that borrowers disclose all the required information, borrowers often conceal information that is likely to work in their favour. It is therefore necessary to develop methods of evaluating the volume and quality of financial and non financial information given by farmers.

In Andhra Pradesh the expansion and improvement of the



productivity of the agriculture sector is one of the key drivers of the realization of the development goal. Farming is believed to be a generator of employment directly and indirectly while ensuring food security for AP. However, there seems to be financing issues in this sector especially with regard to formal financing. To reorganize financing to this key sector, it is important that the factors that determine lending to this sector in AP are discovered to be used as input when designing financing policy.

The agricultural sector in AP plays an important role in the economic growth and development. Farmers in AP however, still experience difficulties in accessing credit from the formal financial institutions to increase their performance through modern farming. The study therefore, seeks to find out the determinants of lending to farmers by commercial banks in AP and how they affect the performance of farmers

RESEARCH OBJECTIVE

This study aimed at establishing the determinants of lending to farmers by commercial banks in the state of Andhra Pradesh.

This study is significant to scholars and future researchers, banks, government policy makers and investors in the agricultural sector. Lending to any sector in the economy is a dynamic issue dependent upon the environment within which it is done. The research gap identified in this study concerns there not being an up to date study concerning the determinants of lending to this sector by commercial banks. This study will fill that research gap and enable future researchers to get the latest information that will be used to enhance their arguments concerning lending to the farming sector. Banks will benefit from this study since it will provide objective and well researched findings concerning determinants that drive lending to the farming sector across the commercial banking sector. The main drivers will then be used as input to tailor products that will meet the specific needs of the farmers while ensuring the bottom line for the commercial bankers.

The policy makers of the government will find this study useful as an input into their policy designing, commercialization of the agricultural sector as a food production sector in addition to being a provider of employment. To come up with accurately made policies, this study will provide accurate and most recent findings concerning determinants of lending by commercial banks to this sector. These findings can then be used in designing of policies to stimulate performance of the agricultural

sector.

Due to this study, the policies designed will target and be beneficial to the investors in the farming sectors. Putting in place policies to improve the sector is a critical factor that directly touches the investors in the farming sector-be they farmers or otherwise. In that respect, this study will be of significance to farmers and other investors in the agricultural sector.

AP is an agriculture based state and there is a lot of interest in the financing activities in this vital sector. The explanation provided by theory that there is connection between lending policy and issues like credit standards; assessment of return on credit; and assessment of risk on credit to farm may not be universal to all sector or countries. This research was, therefore, designed to find out the determinants of lending to farmers by commercial banks in Andhra Pradesh. The study was conducted through a survey using self administered structured questionnaires delivered to commercial banks in AP.

The respondents were required to provide an assessment of their lending policy to farmers vis-a-vis their policies on Credit Standards with Regard to Farmers; their Assessment of Return on Credit to Farmers; and their assessment of Risk on Credit to Farmers. The results indicate that banks give out loans to finance farming activities and that farmers have reliable sources of income that enable them to pay back their loans in time. The results show that Credit Standards Credit Standards Regard to Farmers negatively affected lending to farmers. The research has also found that Return on Credit to Farmers negatively affected lending policy to farmers. Further, Risk on Credit to Farmers negatively affected lending to farmers. This indicates that Credit Standards with Regard to Farmers; Return on Credit to Farmers; and Risk on Credit to Farmers reduces the amounts provided to the farmers in AP. Factors such as the location of the financial institution, loan size extended to farmers, interest rates charged on credit to farmers affect lending to farmers by commercial banks.

Based on the findings and the conclusions of this study, it is recommended that policies should be designed to ensure that the income from farmers in AP is stabilized to mitigate risk and improve their creditworthiness. Policies should also put in place to ensure that farmers have skills to manage their finances properly to maintain excellent financial records with banks. Policies should be put in place to help banks relax their credit qualification for farmers so



as to stimulate the demand and supply of credit.

RISK FACTOR ANALYSIS OF FARM LENDING

Information Quality:

According to O'Brien (1996), information is the degree of information content, form and time characteristics that give it value to specific individuals and users. It is observed that information asymmetry can be measured on the basis of information quality and quantity, where quantity is the adequacy of information according to the perception of the receiver. The quality of information is determined by the level of its completeness, correctness, and the impartiality with which it is collected. The more accurate it is the higher the quality. Information is of good quality if it is reliable, timely, complete, fair and consistent, and presented in clear and simple terms, relevant and understandable to its users.

Information quality can be enhanced through increased information disclosure. Increased information disclosure has an incentive of reducing information search costs and promotes informed lending practice. Information sharing avails more information to parties involved which further reduces on the risks of information asymmetry. In developed countries, credit bureaus collect information from various sources and provide such records as the repayment behaviours of individuals and firms for a variety of uses, thereby reducing information asymmetries so lenders are able to screen borrowers at a lower cost. As a result, lenders can make credit decisions faster and reduce risks, hence increasing lending. The quality and quantity of information desired by banks in most developing countries is still low and hence complicating sound decision making.

Credit Accessibility

Credit was defined by Ellis (1992) as a sum of money in favour of the person to who control over it is transferred, and who undertakes to pay it back. According to Penchansky & Thomas (1981) access refers to entry into or use of something or to the factors influencing entry or use. Thus, access to credit may be referred to as, the right to obtain or make use of or take advantage of borrowed money from a lender. In a developing country context, credit is an important instrument for improving and enhancing the productivity capacity of any sector. It also facilitates the flow of savings from surplus units to deficit units (Diagne et al, 2000).

The outcome of this is that only a small proportion of the total number of rural households and farmers credit from the formal sector. Again among those with access to the

institutional credit, a very small group particularly the rich and the elites in the village receive a very large share of the total amount disbursed. Consequently, the overwhelmingly constrained borrowers are forced to turn to the rather expensive and unreliable informal credit sources (Okurut et al, 2004).

Loan Size

When dealing with credit applications lenders are never sure about the extent to which applicants are honest in the information they provide. Lending presents credit risks that have to be mitigated either by giving reduced loan amounts that the lender feels the borrower can pay, or by totally rejecting the application. Even with granted applications the lender has to reduce default risks. Necessary precautions are put in place in case the borrower fails to pay (Akoten et al, 2006).

Location of Financial Institution

Location from Financial institutions and physical distance of farm households from formal lending institutions is one of the factors that influence access to formal credit. According to Hussien (2007) farm households are discouraged to borrow from bank if it is located farther. This is because both temporal and monetary costs of transaction, especially transportation costs, increase with lender-borrower distance which raises the effective cost of borrowing at otherwise relatively lower interest rate in the sector.

Similarly, few financial institutions are willing to grant loan applications from distantly located borrowers because of the high processing and monitoring costs. Long distances increase transaction costs which complicate the loan monitoring process and consequently creating moral hazard risks.

Constraints of Credit Accessibility to Farmers

Diagne et al (2000) stated that a household is said to have access to a type of credit if at least one of its members has a strictly positive credit limit for that type of credit. Similarly, a household is classified as credit constrained for a type of credit if at least one of its members is constrained for that type of credit. Access to financial services by farmers is normally seen as one of the constraints limiting their benefits from credit facilities. However, in most cases the access problem, especially among formal financial institutions, is one created by the institutions mainly through their lending policies. This is manifested in the form of prescribed minimum loan amounts, complicated application procedures and restrictions on credit for



specific purposes.

Okurut (2006) noted that the rural poor farmers are excluded from the formal financial system due to the fact that formal banks are either unwilling or unable to serve farmers. These banks face high risk and transaction costs, difficulties in enforcing contracts, and penalization by the central bank for lending to enterprises that lack traditional collateral. They also lack reliable information on borrowers, appropriate information systems and instruments for managing risk.

Reliability Analysis

Variable	Cronbach's Alpha	Remarks
Lending policy to farmers	0.76	Acceptable
Credit standards with regard to farmers	0.08	Good
Assessment of return on credit to farmers	0.84	Good
Assessment of Risk on credit farmers	0.81	Good

Source: Research findings

Response Rate and Data Reliability

The study targeted a sample of 20 banks that offered lending to farmers. As given in Table 1.1 the Cronbach's Alpha for Lending Policy to Farmers was 0.76 which is acceptable. That of Credit Standards with Regard to Farmers was 0.80 which is good. That of Assessment of Return on Credit to Farmers was 0.84 which is good. The Cronbach's Alpha for Assessment of Risk on Credit to Farmers 0.81 which is good. The data collected can therefore provide reliable findings.

Descriptive Statistics

Table 1.2 shows the summary statistics of the responses to the variables in the questionnaire. The mean for Lending Policy to Farmers (LPF) was 2.85 ($\sigma = 0.68$) indicating a slight disagreement with the lending policy. The maximum level of agreement with lending policy was 3.30 while the lowest score was 1.80. The mean score for Credit Standards with Regard to Farmers (CSRF) was 3.10 ($\sigma = 0.76$) indicating slight agreement that lending policy was affected by Credit Standards with Regard to Farmers. The highest mean score was 2.00 indicating a disagreement

Data Analysis Results And Discussion

This study presents the data and provides the interpretation of the findings from the analysis. It presents data analysis ending with the determination of whether the ending is related to credit standards with regard to farmers, assessment of return on credit to farmers and assessment of risk on credit to farmers. The data is presented and then analyzed in comparison with other similar studies.

Analysis of Data and Presentation of Findings

that Credit Standards with Regard to Farmers affected lending policy to farmers while the highest mean score was 4.40 which was an agreement that Credit Standards with Regard to Farmers affected the lending policy to farmers.

The highest mean score for Assessment of Return on Credit to Farmers (ARCF) was 3.00 ($\sigma = 0.90$) indicating neutrality to the effect of the Return on Credit to Farmers on the lending policy. The highest mean score was 4.40 which indicated an agreement that Return on Credit to Farmers affected the lending policy. The lowest mean score was 1.60 which was a disagreement that Return on Credit to Farmers affected lending policy. The mean score for Assessment of Risk on Credit to Farmers (ACR) was 3.37 ($\sigma = 0.61$) indicating a slight agreement that Risk on Credit to Farmers affected lending policy. The highest mean score was 4.70 which was a strong agreement that Risk on Credit to Farmers affected lending policy. The lowest mean score was 2.80 which was a disagreement that Risk on Credit to Farmers affected lending policy to farmers.



Descriptive Statistics:

Variable	Mean	Minimum	Maximum	Std. Dev
LPF	2.85	1.8	3.8	0.68
CSRF	3.1	2	4.4	0.76
ARCF	3	1.6	4.4	0.9
ACR	3.37	2.8	4.7	0.61

Source: Research findings

Correlation and Regression Analysis

Table 1.3 presents the correlation between the four variables in this study. The values used in the regression were the averages of the responses per variable per bank. Based on the analysis shown there was strong positive correlation between Assessment of Return on Credit to Farmers and Assessment of Risk on Credit to Farmers, $r(11) = 0.57$. Weak positive correlation was found between Credit Standards with Regard to Farmers and Assessment

of Return on Credit to Farmers, $r(11) = 0.01$ and between Credit Standards with

Regard to Farmers and Assessment of Risk on Credit to Farmers, $r(11) = 0.02$. Weak negative correlation was found: between Lending Policy to Farmers and Credit Standards with Regard to Farmers, $r(11) = -0.39$; between Lending Policy to Farmers and Assessment of Return on Credit to Farmers, $r(11) = -0.16$; and between Lending Policy to Farmers and Assessment of Risk on

Correlation Matrix

Variable	LPF	CSRF	ARCF	ACR
LPF	2.85	1.8	3.8	0.68
CSRF	3.1	2	4.4	0.76
ARCF	3	1.6	4.4	0.9
ACR	3.37	2.8	4.7	0.61

Source: Research findings

Credit to Farmers, $r(11) = -0.27$.

(Note: LPF= Lending Policy to Farmers; CSRF= Credit Standards with Regard to Farmers; ARCF = Assessment of Return on Credit to Farmers; ACR= Assessment of Risk on Credit to Farmers)

Table 1.4 presents the regression analysis of the variables with Lending Policy to Farmers as the dependent variable with Credit Standards with Regard to Farmers; Assessment of Return on Credit to Farmers; and Assessment of Risk on Credit to Farmers as the independent variables. The constant term of the regression was 4.90 indicating that there was strong activity in lending to farmers independent of Credit Standards with Regard to Farmers; Assessment of Return on Credit to Farmers; and Assessment of Risk on Credit to Farmers. The constant term was statistically significant, $(t) = 3.16, < 0.05$. The coefficient of Credit Standards with Regard to Farmers was -0.34 indicating that Credit Standards with Regard to Farmers negatively affected lending to farmers. However, the coefficient was

not statistically significant, $t(11) = -1.15, P > 0.05$.

The coefficient of Assessment of Return on Credit to Farmers was -0.006 indicating that Assessment of Return on Credit to Farmers negatively affected lending policy to farmers. However the coefficient was not statistically significant, $(t) = -0.02, > 0.05$. The coefficient of Assessment of Risk on Credit to Farmers was -0.29 indicating that Assessment of Risk on Credit to Farmers negatively affected lending to farmers. The coefficient was not statistically significant, $(t) = -0.64, > 0.05$. the whole regression was not statistically significant and the variation in Lending Policy to Farmers was poorly explained by the variation in Credit Standards with Regard to Farmers; Assessment of Return on Credit to Farmers; and Assessment of Risk on

Credit to Farmers, $F(3,7) = 0.66, P > 0.05, R^2 = 0.22$.



Regression Results

Variable	Coefficient	Std. Error	t-ratio	P-Value
Constant	4.9	1.55	3.16	0.02
CSRF	-0.34	0.30	-1.15	0.29
ARCF	-0.006	0.31	-0.02	0.98
ACR	-0.29	0.45	-0.64	0.54
F(3,7)	0.66			
P-Value (F)				
R-Squared				
Adjusted R - squared	0.22			
	-0.11			

Source: Research findings

The regression model was found to take the form:

Lending policy to farmers = 4.90 – 0.34(CSRF) – 0.006(ARCF) – 0.29(ACR)

Interpretation of the Findings

This study has found three main results. It has found that Credit Standards with Regard to Farmers negatively affected lending to farmers. The research has also found that Assessment of Return on Credit to Farmers negatively affected lending policy to farmers. Further, Assessment of Risk on Credit to Farmers negatively affected lending to farmers. This indicates that Credit Standards with Regard to Farmers; Assessment of Return on Credit to Farmers; and Assessment of Risk on Credit to Farmers reduces the amounts provided to the farmers in AP. These findings also agree with those of Pafula (2003) investigated loan portfolio performance of the commercial banks and micro-financial intermediaries. This comparative study investigated the relationship between loan policies and administration and loan portfolio performance. Results of the study revealed a strong relationship between loan policies and loan administration. There was a negative relationship between loan appraisal and follow up action, strong negative relationship between loan appraisal and business sector outreach and positive relationship between follow up actions and business sector outreach. This indicated that there was a connection between lending and loan recovery policies.

FINDINGS AND SUGGESTIONS

Policies should be put in place to help banks relax their credit qualification for farmers. Just like any other financial institution, banks want to ensure that their funds are safe as they lend to farmers. However, much as the farmers

require funding, the risk control measures and their desire for profitability is stifling the lending. This recommendation is based on the finding that tighter controls concerning credit standards to farmers, assessment of return on credit to farmers, and assessment of risk on credit to farmers tended to limit lending.

Commercial banks should adopt special arrangements for lending to farmers other than lumping them together with other borrowers. Because many farmers are not accessing credit, the credit terms given to farmers such as loan period, credit limits and interest rates need to be designed and determined according to the specific nature of the farming business, so as to enable them repay the loans as per schedule.

Commercial banks should supply vital information such as monitoring fees, insurance fees, and penalty for early loan repayment to farmers since such costs affect their profitability. Credit beneficiaries also need to be well informed on their obligations, particularly in loan repayment needs.

CONCLUSION

From the findings of this research the following conclusions are drawn. Banks give out loans to farmers and farmers have sources of income that enable them to pay for the loan and the accruing interests.

The banks rely on the financial statements of applicants, but did not strictly push for collateral for the loans given to farmers. The profitability of banks together depended on their view farmers as profitable customers with high returns, however, the location of the banks within easy

reach to facilitate borrowing by farmers were not a serious factor driving profitability. The loan recollection policy of the banks was determined by their consideration that credit to farmers is riskier than credit to other borrowers.

It is also concluded that standards adopted before lending to farmers has a great effect on the amount of credit demanded and supplied. High credit standards regard to farmers reduce lending to farmers. Strict rules in the assessment of return on credit to farmers negatively also reduce the amount of credit given to farmers. Further, higher standards of assessment of risk on credit to farmers reduce lending to farmers. This indicates that credit standards with regard to farmers; assessment of return on credit to farmers; and assessment of risk on credit to

farmers reduces the amounts provided to the farmers in AP.

Questionnaire

You are requested to complete this questionnaire as honestly as possible. The data obtained from this questionnaire will be used solely for academic purpose and will be handled with utmost confidentiality.

Appendix A: GENERAL INFORMATION

Complete this section by filling in the spaces

Name of the bank and address

Name of the officer contacted and his designation

How many branches do you have in AP

(a) To what extent do you agree that the following contribute to your lending policy to farmers

Appendix B

(1- Strongly disagree 2- Disagree, 3- Neutral 4 – Agree 5 – Strongly agree)

		1	2	3	4	5
I Lending policy to Farmers						
1	The bank gives out loans to finance farming activities				V	
2	The interest rate charged on loans restrict farmers from borrowing		V			
3	The interest rate charged by the bank is always favorable to farmers					V
4	Farmers are able to take loans at any interest rate	V				
5	The bank always offers farmers better interest rate				V	
6	The interest rate discourages farmers from applying for loans	V				
7	The loan repayment period that the bank gives enables farmers to accumulate assets		V			
8	The loan repayment period enables borrowers to pay all their pending loans in time	V				
9	The loan repayment period given by the bank is always favorable to farming activities		V			
10	Farmers have reliable source of income that enables them to pay back their loans in time		V			



Appendix C

(b) To what extent does your bank rely on the factors that best describes your opinion. below when issuing credit to farmers? Tick the number

(1- Not at all 2- To a Small Extent 3 - Not Sure 4 - To a High Extent 5 -Always)

III Assessment of return on credit to farmers		1	2	3	4	5
1	Does your bank view farmers as profitable customers with high returns			V		
2	Does your bank consider its profitability when issuing credit to farmers	V				
3	Our bank's branches are located within easy reach to facilitate borrowing by farmers					V
4	The bank offers tailor made products to farmers despite the profitability every year				V	
5	Your banks expansion strategy targets rural areas so as to improve accessibility of credit by farmers				V	
6	This bank usually lends to farmers the exact amount of the loan that they require for farming business regardless of the bank's profitability			V		
7	The interest rates charged by this bank to farmers depend on the banks profitability	V				
8	The bank's profitability limits the number of farmers who can access agricultural loans to many farmers	V				
9	Our bank's branches are located within easy reach to facilitate borrowing by farmers					V

Appendix D

(c) To what extent does your bank depend on profitability when extending credit to farmers? Tick the number that best describes your opinion.

(1- Never 2- Sometimes 3- Frequently 4 – Very Frequently 5 – Always)

III Credit standards with regard to farmers		1	2	3	4	5
1	The financial statements of applicants		V			

2	Character/ Integrity of the farmer				V	
3	Capacity of the farmer to pay		V			
4	The bank accepts the type of collateral that farmers provide for bank loans		V			
5	Capital/contribution	V				
6	Cash flow statements of the farmer	V				
7	Only selected farmers can always access loans from this bank	V				
8	The interest rates charged by this bank prevents farmers from acquiring loans					
9	Farmers pay back their pending loans in time with all the interest			V		

REFERENCES

Aggarwal, S., & Mittal, P. (2012). Non-Performing Asset: Comparative Position of Public and Private Sector Banks In India, *International Journal of Business and Management Tomorrow*, Vol.2 (1).

Boudriga, A., Taktak, NB., & Jellouli, S. (2009). Bank specific business and institutional environment determinants of nonperforming loans: Evidence from MENA countries, *ERF 16th Annual Conference on Shocks, Vulnerability and Therapy*, November 2009.

Chaudhary, S., & Singh, S. (2012). Impact of Reforms on the Asset Quality in Indian Banking, *International Journal of Multidisciplinary Research* Vol.2(1).13-31. Chhimpa, J. (2002), Incremental NPA: Stem that Inflow, *Vinimaya*, 23(3): 18-21.

Collins, NJ., & Wanjau, K. (2011). The Effects of Interest Rate Spread on the Level of Non-Performing Assets: A Case of

Commercial Banks in Kenya, *International Journal of Business and Public Management* Vol. 1(1).

Dash, MK., & Kabra, G. (2010). The Determinants of Non-Performing Assets in Indian Commercial Banks: an Econometric Study, *Middle Eastern Finance and Economics*, Issue 7 (2010).

Espinoza, R., & Prasad, A. (2010). Non Performing Loans in the GCC Banking System and their Macro Economic Effects, *IMF Working Paper series*, WP/10/224.

Fainstein, G. (2011). The Comparative Analysis of Credit Risk Determinants - In the Banking Sector of the Baltic States, *Review of Economics & Finance*, March 2011.

Heid, F., & Kruger, U. (2011). Do Capital buffers mitigate volatility of bank lending? A simulation study, *Discussion Paper Series 2 Banking and Financial Studies* N0 03/2011.

