Challenges and Problems on Farmers' Access to Agricultural Credit Facilities in Cauvery Delta, Thanjavur District

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Abstract

In India, mostly farmers depend on the credit facility provided by the banks to sustain their farming business. These credit facilities would help them to buy farm equipment for modernization and for constructing storage units. The farmers required the credit facilities in all stages of agricultural activities. The Indian government provides assistance to solve the financial problems and also facilitate to get the credit easily. Yet, the farmers are facing challenges to obtain credit facilities from the banks. This paper studies about the issues faced by the farmers to obtain the agricultural loans. The area of the study was Cauvery Delta, Thanjavur District. The sample size was 205. The research design used in this paper was convenience sampling technique. The researcher used Structural equation analysis for data analysis. The result revealed that the processing time taken by the bank was the major challenge, faced by the farmers. It indicated that difficulties in repayment of EMI, surety and collateral, interest rate and documentation also had an impact on obtaining the loans from banks.

Keywords: access; agriculture; credit; farmers; Cauvery Delta; Thanjavur District

1. Introduction

The credit facility has been assisting people to sustain their business or venturing into new business. Farmers are another form of business people which

grows crops and sell it to customers. Farming has been the backbone of human presence, since time immemorial. It has likewise observed much progression over the years. In India, the agriculture technology is labor demanding, whereas the recent agriculture technology is mainly capital intensive (Thakur, 2016). The technique and execution of green technology may effective by diminishing the expenditure and cost of fertilizer, packaging, storage etc in the agriculture (Rajandran, 2013).

Though the innovations were effective and cost benefited, the small and marginal farmers were even facing the hindrance in the adaption of new technology due to their poverty. The farmers are in need of credit facility to develop their agricultural business. Credit facilitates farmers' to purchase and enable them to attain modern technologies for their farm production (Etonihu, Rahman, and Usman, 2013). Dhakshana and Rajandran (2017) stated that due to poor credit facilities farmers are unable to store their perishable items, which reduces their profit. The credit is the essential tool for establishing sustainable and profitable farming system. Elias, Ahmad, & Patil, (2015) stated that the credit is a significant instrument for promoting the welfare of the poor straightly through smoothening that decrease their vulnerability to short income.

The farmers acquire the credit from both the formal and informal institution. The formal institutions were cooperatives, commercial banks, regional rural banks. The informal creditors are money lenders, friends, and relatives. Even then, the farmers are finding challenges in accessing the credit. Formal credit providers have no suitable credit packages for small farmer's needs, while all the credit conditions are excessively cruel for these farmers, making it impossible to meet (Richard and Ramzy, 2016). This study was, therefore, focused on the challenges in credit accessibility by the farmers especially from the formal banking sector.

2. Literature Review

Udoka, Mbat, & Duke (2016) illustrated that the effect of commercial bank's credit on agricultural production in Nigeria. The researcher revealed that there is signified relationship by the increase in commercial banks credit to agricultural sector led to an increase in agricultural production in Nigeria. Thus the credit would assist in high production.

Ayegba and Ikani (2013) had done research on an impact assessment of agricultural credit on Rural Farmers in Nigeria. The researcher found 43.33% of the respondents confirmed that the loan approval is not on time constitutes the major challenge in the entire process of agriculture. Most of the times they receive approval for the loan applied months after the planting seasons has expired. Asogwa, Abu, and Ochoche (2014), described on analysis carried out on peasant farmer's access to agricultural credit in Nigeria. The investigator found that 52.31% of the respondents encountered delays in the approval of their loan and disbursement.

Alauddin and Biswas (2014) illustrated on agricultural credit terms in Bangladesh. The researcher stated that the farmers need the agricultural credit before starting the farming activities or production process. Thus, the farmers were seeking credit for their actual need. The authors further added that the repayment should be made after getting returns. Also, the interest rate for agricultural credit should be capped at minimum level considering agricultural as a priority sector. Sjah, Russell, & Cameron (2003) explained the farmer's credit repayment behavior in acceptance and repayment of agricultural credit in Lombok Indonesia. The researchers stated that the farmers' behavior in credit repayment was strongly influenced by their capability, character, and motivations. The authors found that farmers' tend to meet their obligations when they are financially capable. Also, they found that financial capability was accompanied by good borrower's character of willingness to meet the obligation on the part of borrowers with 'good character'. Their study also portrayed that motivational factor such as an expectation to obtain further credit, contact with credit officers, and avoiding associated risk could improve the rates of repayment.

Kosgey (2013) determined the agricultural credit access among grain grower in Kenya. The researcher exposed that farmer who reimburses their loans in more than one year especially undetermined time, accessed credit more than those who reimburse in less than one year. Due to severe timelines, the majority of farmers who were to reimburse in less than one year end up in failure to pay or delay. This ultimately spoilt their fame with financial institutions and as a consequence condensed their ability to access credit in upcoming.

Njuguna and Nyairo (2015), studied on the effect agricultural credit supply to small-scale farmers in rural Kenya. The researchers found that collateral requirement delays the access to credit by small-scale farmers from the bank. Their

study portrays that farmers who are not having right collateral were having low chance to access the loan form credit institution.

Udoka, Mbat, & Duke (2016) described that the effect of commercial bank's credit on agricultural production in Nigeria. The researcher found that there is a positive and agricultural production in Nigeria and a negative relationship between interest rate and agricultural output also confirmed theoretical postulations. The author, in addition, stated that this is because an increase in the rate of interest charged to farmers for funds borrowed discouraged many farmers from borrowing and thus, they have less agricultural investment. Mishra and Mani (2013) determined the bank credit role in the development of agricultural sector in Bihar. The research was carried out among farmers in Bihar. The researchers initiated the procedure of sanction of loan should be easy the number of documents required for it should be as less as possible.

2.1 Research Gap

The research gives some details about the agricultural credit problems of farmers. The studies highlighted the credit accessibilities difficulties of processing time, repayment of EMI, security, and collateral, high-interest rate, high documentation problems associated with the availability of agricultural credit. The majority of the agricultural management research focused on production, marketing, supply chain and consumer preference towards agricultural products. A minority of the research only focused on financial problems of farmers in the agricultural sector. The prime research of the study focused on accessing the agricultural credit issue from a formal banking institution. So as to bridge this gap the present study titled "Challenges and problems faced by farmers to access the agricultural credit in Cauvery Delta at Thanjavur District" was undertaken.

3. Research Methodology

3.1 Variables used in the study

Credit Accessibility is a dependent variable. Processing time, difficulties in repayment, surety or collateral, high-interest rate and high documentation are the independent variables also demographic variables like gender, experience, and income.

3.2 Hypothesis of the Study

Every single line drawn between the variables in SEM represents hypotheses.

1. **Hypothesis1**

    H_0 - Processing time has no positive direct effect on credit accessibility.

    H_1 - Processing time has the positive direct effect on credit accessibility.

2. **Hypothesis2**

    H_0 – Difficulties in repayment of EMI has no positive direct effect on credit accessibility

    H_1 - Difficulties in repayment of EMI has the positive direct effect on credit accessibility.

3. **Hypothesis3**

    H_0 – Surety and collateral has no positive direct impact on credit accessibility.

    H_1 - Surety and collateral has a positive direct impact on credit accessibility.

4. **Hypothesis4**

    H_0 – the High-interest rate has no positive direct impact on credit accessibility

    H_1 - the High-interest rate has a positive direct impact on credit accessibility

5. **Hypothesis5**

    H_0 – High documentation has no positive direct impact on credit accessibility.

    H_1 - High documentation has a positive direct impact on credit accessibility

3.3 Area of the Study

Thanjavur is "Rice bowl of Tamil Nadu". Thanjavur district is an important agricultural center located in the <u>Cauvery Delta</u>. Thus, purposively Thanjavur was selected for the research.

3.4 Source of Data

3.4.1 Primary Data

Primary data were collected from the farmers in the sample area through direct interview using the structured questionnaire after the identification of gaps and

finalization of research objectives a questionnaire was prepared. Primary Data were collected from 205 farmers from Thanjavur district. The method of conducting the survey was through- Structured Questionnaire. The questionnaire was measured on 5-point Likert Scale.

3.4.2 Secondary Data

The secondary data was collected from different news journals, articles. A detailed literature review was conducted from all the available materials.

3.5 Sampling Method and Techniques

The study is a descriptive study. The study conducted at Thanjavur district for identifying the challenges among the farmers to access agricultural credit. The convenient sampling technique was used, which helped to interview the farmers with whoever happens to meet. Followed by the pilot study, 205 farmers took part in this study.

3.6 Statistical Tools Used

The tools used in this study were reliability test, correlation, and structural equation modeling. Wantara (2013) and Jayanthi and Rajandran (2017) have used structural equation model to find out the impact of independent variables on dependent variables. The researcher also performed structural equation model using (AMOS23). The data were analyzed by IBM SPSS20 Packages and SPSS (AMOS23).

4. Data Analysis
4.1 Socio-Demographic Description

Table – 4.1 Socio-Categorical Description of Farmers

Categories	Frequency
Gender	
Male	112 (54.6)
Female	93(45.4)
Experience	
<5yrs	39 (19)
>5yrs <10yrs	64 (31.2)
>10yrs	102 (49.8)

Income	
<10000	40 (19.5)
>10000<15000	34 (16.6)
>15000<20000	86 (42)
>20000<25000	33 (16.1)
Above 25000	12 (5.9)

Note: - Figure in the parenthesis is the percentage

Table 4.1 shows the Socio-Categorical background of the Agricultural Farmers. Out of total respondent 205, 54.6% were male and 45.4% were female farmers. The majority (49.8%) of the farmers falling under above 10 years of experiences followed by 31.2% of 5 - 10 years experiences and 19% of below 5 years of experiences. The result showed that majority of the farmers 42% were earned Rs.15000-Rs.20000, followed by 19.5% of farmers earned less than Rs.10000, 16.6% of farmers earned Rs.10000-Rs.15000, 16.1% of farmers earned Rs.20000- Rs.25000, and 5.9% of farmers earned above Rs.25000.

4.2 Reliability Test

Table 4.2 Reliability test

Cronbach's Alpha	N of Items
0.953	6

The Nunnally (1978), has recommended that the Cronbach's value more than 0.7 represents the good reliability of the variables. For this study table, 4.2 shows the Cronbach's value is 0.953 which is more than the required value and that confirmed the reliability of the variables.

4.3 Correlation

Table 4.3 Correlation

	Credit Accessibility	Processing time	Difficulties in EMI	Surety and Collateral	High-interest rate	High Documentation
Credit Accessibility	1					
Processing time in the bank	.806**	1				

Difficulties in EMI	.751**	.703**	1			
Surety and Collateral	.796**	.767**	.759**	1		
High interest rate	.760**	.729**	.774**	.782**	1	
High Documentation	.732**	.832**	.750**	.843**	.802**	1

Table 4.3 reveals the relationship between dependent and independent variables. It is noted that there is a strong positive relationship between the variables credit accessibility and processing time (r = 0.806, p<0.01), credit accessibility and security collateral (r = 0.796, p<0.01), credit accessibility and high-interest rate (r = 0.760, p<0.01), credit accessibility and difficulties in repayment of EMI (r = 0.751, p<0.01), and credit accessibility and high documentation (r = 0.732, p<0.01). Thus, the correlation coefficient values for the independent and dependent variable indicates that there is a strong positive correlation.

4.4 Structural Equation Model

In order to test the proposed hypothesis structural equation modeling was performed using AMOS 23. Keeping credit accessibility as dependent variable and processing time, difficulties in repayment of EMI, security or collateral, high-interest rate, and high documentation are independent variable the SEM model was constructed.

4.4.1 Hypothesis Testing

Every single path in the structural equation model between the variables signified a particular hypothesis. The table shows the path coefficients, standard error, the critical ratio also known as t value and the related p-value to measure the relationship between the variables for credit accessibility. It reveals that all the independent variables had a direct positive effect on credit accessibility that is dependent. Highly significant P values reject the null hypothesis and accept the alternative hypothesis.

Table 4.4 Hypothesis Path Summary

Hypothesized Path			Estimate	S.E	C.R	P	H_0
Creditability	<---	Time	.474	.062	7.474	***	Rejected

Creditability	<---	EMI	.180	.056	3.259	***	Rejected
Creditability	<---	Surety	.331	.064	5.048	***	Rejected
Creditability	<---	Interest	.210	.065	3.173	***	Rejected
Creditability	<---	Documentation	-.267	.077	3.378	***	Rejected

Note: *** indicates the P value is <0.01 and highly significant.

Tables 4.4 and Figure 1 shows that the path coefficient analysis of processing time with credit accessibility (0.474), difficulties in repayment of EMI (0.180), Surety and collateral (0.331), high documentation (-0.267), high-interest rate (0.210) were significant at P-value (P<0.01). The overall model is fit according to fit indices suggested by Hu and Bentler (1999); the CMIN/DF value is at 2.874<3 with significant p-value < 0.05, which indicates a good fit. The GFI and AGFI values are at >0.90 & >0.80 (Jöreskog, & Sörbom, 2006)) indicates a good fit, whereas RMSEA values are at 0.07 lies between 0.05 to 0.010 as suggested by Hu and Bentler (1999).
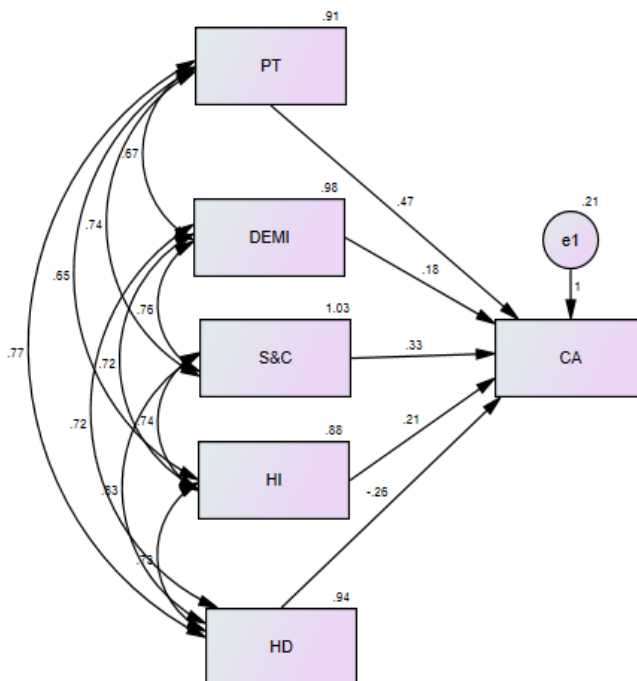

Figure 1 structural model between dependent and independent variables

5. Discussion on findings

The root cause of many agricultural issues is inadequate creditability. In financing, creditability has a significant role and influence in production, marketing, and other agrarian activity. Thus, the credit accessibility research is a necessity for the sustainable development and enhancement in the agricultural field. This research explores the credit accessibility constraints faced by the farmers in Cauvery Delta, Thanjavur district. The research properly tested the entire hypothesis mentioned in this research. The variables employed in the study were chosen from various literature surveys. The study determines one dependent variable and five independent variables. Both variables were correlating with each other. The results of SEM revealed that the estimated value processing time (0.474) has the highest impact on the credit accessibility, followed by surety and collateral (0.331). The research carried out by Saqib, Kuwornu, Panezia, & Ali (2017) stated that existing credit policy could be amended to protect the interest of tenant farmers, who lack in collateral security coincide with the results of this research. Next, High-interest rate (0.210), and difficulties in repayment of EMI (0.180), have the lesser impact than processing time and Surety & Collateral, whereas High documentation (-0.267) has negative impact on credit accessibility. Therefore, it is evident that all the five independent variables were highly impacting on the credit accessibility of farmers. Das, Senapati, and John (2009) stated the salient features of the agricultural credit outlook in India are the wide regional disparities in the disbursement of agricultural credit by programmed commercial banks. The result of this study would help the banking institutions to improve their operation on agricultural credit to the small, marginal and large farmers equally.

6. Suggestions
Based on the findings of the study the following suggestions are made:-

1. Taking more time to process the credit loan is the highest impact to access the agriculture credit smoothly. To tackle these, the financial institution should provide the loan on time to farmers on their needy time.
2. Many farmers had respondents that the high-interest rate of credit was their big challenge. Thus the agricultural extension and policymaker should make things easier on procedures and decrease the interest rate.
3. The respondents have highly had an impact on repaying the credit EMI. The banking institution strictly made penalty to the non-paid interest of farmers.

This makes the farmers very fear as a result of suicide and loss of concentrating on farming. The credit institution should consider the farmers for the nonpayment of EMI and support them by providing some concern.

7. Conclusion

Agriculture is the main sector of Indian economy. But attaining the maximum profitability in the agricultural sector by farmers was the big question in nowadays. Currently, the farmers facing a lot of serious problem like water scarcity, the high cost of inputs, marketing issues, and credit problems etc. Agricultural credit is essential to overcome production, marketing, and other problems. Therefore the government should focus on and support the farmers by giving more credits with some subsidies and low-interest rate. The government should also pay attention to more credit schemes which would be very useful to the small and marginal farmers.

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