



An Analysis of Agricultural Credit Utilization and Repayment Patterns among Farmers in Kanchipuram District

OPEN ACCESS

Manuscript ID:
ECO-2026-140210131

Volume: 14

Issue: 2

Month: March

Year: 2026

P-ISSN: 2319-961X

E-ISSN: 2582-0192

Received: 23.12.2025

Accepted: 18.02.2025

Published Online: 01.03.2026

Citation:

Vikraman, V and
Vinuchakravarthi, V.
“An Analysis of Agricultural
Credit Utilization and
Repayment Patterns among
Farmers in Kanchipuram
District.” *Shanlax
International Journal of
Economics*, vol. 14, no. 2,
2026, pp. 43–57.

DOI:

[https://doi.org/10.34293/
economics.v14i2.10131](https://doi.org/10.34293/economics.v14i2.10131)



This work is licensed
under a Creative Commons
Attribution-ShareAlike 4.0
International License

A. Vikraman

*Assistant Professor, Department of Commerce
Sri Sankara Arts and Science College, Enathur, Kancheepuram, Tamil Nadu, India*

V. Vinuchakravarthi

*Assistant Professor, Department of Business Administration
Sri Sankara Arts and Science College, Enathur, Kancheepuram, Tamil Nadu, India*

Abstract

Purpose: The objective of this study is to identify the awareness of farmers toward various government-offered loans and to evaluate the impact of these loans on their socio-economic conditions, including income levels, employment opportunities, and saving habits in the Kanchipuram district. The research specifically aims to analyze the various sources of financial assistance, the range of loan amounts applied for versus received, and the repayment capacity of farmers availing credit from financial institutions. Furthermore, the study seeks to understand the family conditions of farmers and provide actionable suggestions to improve the overall effectiveness of agricultural lending. **Methodology:** The study adopted a descriptive research design and utilized primary data collected via a structured questionnaire method. A convenience sampling method was employed to select a total of 500 respondents from five Administrative blocks within the Kanchipuram district which are Kanchipuram, Walajabad, Sriperumbudur, Uthiramerur, and Kundrathur each 100 samples taken from each blocks. Data analysis was performed using SPSS 17.0, utilizing statistical tools such as percentage analysis, chi-square tests, t-tests, and ANOVA to test various hypotheses regarding landholding size, cropping patterns, and credit utilization. The instrument's reliability was confirmed with a Cronbach's Alpha value of 0.96. **Results:** The findings indicate that demographic and agricultural factors significantly influence the purpose and utilization of agricultural credit borrowed from banks. While the banking system has made progress in disbursement, many farmers still face challenges due to small landholdings, leading some to depend on moneylenders at higher interest rates. The study reveals that access to institutional credit is vital for productivity; however, repayment behavior is influenced by factors such as the purpose of the loan, crop outcomes, and the socio-economic characteristics of the borrowers. Results also suggest a need for higher awareness among farmers regarding specific banking schemes. **Conclusion:** The study concludes that while institutional agencies have significantly expanded credit delivery, the success of the agricultural credit system depends heavily on proper utilization and timely repayment. Factors such as crop failure and high production costs remain primary obstacles to repayment. It is suggested that financial institutions, government agencies, and NGOs collaborate to educate farmers on productive loan use and simplify lending terms. Ultimately, enhancing the repayment culture and aligning loan amounts with actual agricultural needs are essential for the sustainable growth of the farming community and the national GDP. **Future Research:** The study results show that demographic, agriculture and agriculture related factors influence the purpose of utilization of agricultural credit borrowed from banks by the farmers in Kanchipuram district. In addition, financial institutions have to join hands with the government agencies, NGO's, Rural Development Organizations (RDO's) to enable the farming community.

Keywords: Agriculture Credit, Credit Utilisation and Loan Repayment Behaviour, Rural Banking, Institutional Credit, Small and Marginal Farmers, Awareness, Farmer Indebtedness

Introduction

Over 70% of the population is directly or indirectly involved in agriculture, which is the backbone of our nation's economy. Our nation offers a variety of climates, ranging from scorching tropical states to extremely frigid temperate regions. Monsoon rains, perennial rivers, and rainwater gathering systems such as ponds, lakes, etc. India's agricultural output and farm profitability are significantly impacted by natural disasters such as earthquakes, cyclones, storms, floods, landslides, and droughts. Farmers in India can use agricultural loans for a number of purposes, such as buying crops to cultivate, equipment for farming and irrigation, and other agricultural-related activities. These loans are available to farmers as well as people employed in other agro-related industries like animal husbandry, horticulture, apiculture, aquaculture, silk farming, and floriculture. Decisions about agricultural production, the use of chemicals, cultivation methods, and cropping patterns are all influenced by insurance, which is a crucial instrument for offering protection in dangerous circumstances. The use of crop insurance as a risk management strategy has grown significantly in recent years, as have crop insurance subsidies. Crop insurance is a potentially more effective risk-shifting mechanism that offers protection to all types of farmers. They give against a variety of natural calamities. In addition to reducing direct and indirect expenses to the national economy, agricultural insurance dramatically increases farmers' financial security. India's total food grain production reached a record high of 3,577.32 lakh metric tonnes (LMT) (or 357.73 million tonnes) in the agriculture year 2024-25, marking a significant increase of nearly 8% (about 254 LMT) over the previous year. This growth was driven by record production in rice and wheat. Despite the critical role of institutional finance in sustaining rural livelihoods, there remains a notable lack of systematic research comparing the performance of agricultural credit systems across diverse geographical locations. This knowledge deficit is compounded by a documented decline in institutional credit reach, which has inadvertently pushed farmers toward an over-dependence on high-interest private moneylenders. While government banking schemes exist to mitigate

these challenges, a significant awareness gap among the farming community persists, directly constraining agricultural productivity. Furthermore, there is an urgent need to empirically document localized repayment capacities and the specific demographic factors such as landholding size that influence how credit is actually utilized.

Literature Reviews

Overview of Agricultural Credits

The amount of direct agricultural loan has a bigger impact on increasing agricultural productivity (Das et al., 2009). (Bhalla & Singh, 2010) in his study has identified 10% increase in institutional credit supply leads to an 8–9% increase in the adoption of fertilisers, tractors, and tube wells, according to an analysis of input demand elasticity. However, in Punjab, a 1% increase in credit only results in a 0.0245% increase in wheat productivity. In addition to showing a higher elasticity for agricultural employment and pump investment than commercial credit, cooperative credit has a ten-fold greater impact on fertiliser application than on total crop output (Bashir et al., 2010). Nevertheless, in high-suicide risk states like Tamil Nadu, Karnataka, and Chhattisgarh, farmers continue to be hindered by institutional delays, strict repayment structures during crop failures, and the incapacity of credit to meet basic consumption needs (Mishra et al., 2017). Although credit availability for farmers did not substantially increase overall production, it did trigger a change in the distribution of resources by raising expenditures on cattle, machinery, and fertilisers, so indicating a shift in which capital investment replaces human labour (Bashir et al., 2010; Binswanger & Khandker, 1995). A study by (Gandhimathi & Vanitha, 2010), a farmer's decision to apply for loans from commercial or cooperative banks in Tamil Nadu is largely influenced by the cost of production (64.69%) and landholding size (13.46%), while the actual use of credit has a negligible impact (only 0.36%). The impact of this credit on crop productivity is still minimal in Karnataka, despite the fact that farmers obtained 69% of their total loans from formal financial institutions. This is mainly due to the fact that the cost of credit accounts for only 1.9% of all cultivation expenses

and only 0.9% of the total output value(Kannan, 2011).

(Ayaz & Hussain, 2011) study, which assessed technical efficiency in Punjab using Stochastic Frontier Analysis (SFA), discovered that credit availability greatly improves performance, with 78.91% of borrowers reaching the highest efficiency tier (0.80 to 1.00) compared to only 62% of non-borrowers. Agricultural credit was found to be the most significant factor influencing farm efficiency, while education, farming experience, herd size, and cultural customs all had a beneficial impact on productivity. A study by (Narayanan, 2016), identified the diversion rate for large farmers (3.03%) is reported as “higher” than for small farmers (23.22%), small farmers actually had a substantially higher diversion rate. A detailed examination of cotton production shows a significant relationship between farm size and loan leakage. Large farmers only diverted 4% of their institutional loans, whereas marginal farmers showed the highest rate of credit diversion at 25%, followed by small farms at 21%(Chavan et al., 2016). There is a clear benefit for borrowers who use formal financial channels, according to an investigation of technical inefficiency among West Bengali borrowers. When compared to landowners who relied on landlord-based financing, those who borrowed from banks showed noticeably less technical inefficiency (Laha, 2013). When compared to farmers who have not obtained finance, those who have accepted new equipment have demonstrated greater technical production (Rani, 2020).

The study by (Baba et al., 2015) shows, Only 7.61% of the state’s overall credit requirements are met by financial institutions, according to research conducted in Jammu and Kashmir, indicating a severe deficiency in formal lending. Additionally, farmers only used 65% of the financing that was actually disbursed for direct productive uses. (Chandio et al., 2019) looked at the factors influencing rice productivity in Sindh, Punjab, using Stochastic Frontier Analysis, and found that farm size is a key factor in success. The study found that, perhaps as a result of improved economies of scale, an increase in farm size might result in a significant 80% increase in rice productivity. Although land size is the most

important element, the study also discovered that credit availability increases output by 26.95% on its own.

This implies that, even though enlarging farm boundaries is quite successful, supplying financial liquidity is still a crucial secondary lever for raising crop yields. A startling change occurred when commercial banks shifted 94.23% of their agricultural loans to farmers’ consumption needs. This implies that commercial bank loans are frequently leveraged to close the gap between household liquidity and high personal expenditure requirements, even if cooperative credit is closely linked with farm operations(Kshama & Santha, 2019).

Both formal and informal debt are used by Indian farmers as a dual-purpose tool: first, to finance necessary agricultural investments, and second, as a safety net to ease consumption amid unfavourable income shocks. But the dynamic changes when debt reaches critical levels. The loss of creditworthiness, which is often a strong motivator for repayment, stops working as a deterrent after a certain level of insolvency. This is especially true with official credit channels, where the sheer difficulties of paying off the growing debt frequently outweigh the perceived repercussions of non-repayment(Chakraborty & Gupta, 2023). The impact of the waiver on beneficiary farmers’ savings and consumption reveals that, while the amount and pattern of consumption did not change, precautionary savings increased in the form of increased investment in jewellery, most likely as a result of anticipating more credit constraints in the post-waiver period(Mishra et al., 2017). If lending institutions choose not to provide loans to defaulters because they think they are likely to default again, they could work against the borrowing farmers and worsen the financial burden on governments whose budgetary resources may already be constrained. Borrowers’ expectations of regular government bailouts could tarnish farmers’ credit culture and further limit farm lending(De & Tantri, 2014). The ex post payback attitude of the waiver beneficiaries doesn’t appear to have changed. In reality, the possibility of future debt relief is what causes moral hazard and strategic loan default, which makes loan defaults vulnerable to the election cycle after debt relief(Giné & Kanz, 2018).

Reason for Non Payment of Loan

Economic Factors

(Louzis et al., 2012) identified growing agreement that bank-specific factors are equally important predictors of non-performing loans (NPLs), despite the fact that many researchers first concentrated on broad economic factors. Numerous studies currently look at a variety of internal metrics, including asset quality, lending standards, and capital adequacy, to determine how specific institutional behaviours directly affect NPL outcomes.

According to (HU et al., 2004) Large banks enable management to assess loans and make significant investments to prevent loan deterioration. The size of the bank has a negative correlation with NPLs. This suggests that because they need more resources to manage Research Explorer NPLs, larger banks have lesser non-performing assets (NPAs).

(Alhassan et al., 2014) found Poor management and skimming loss are also contributing factors to high NPAs. Unhealthy management techniques include a lack of collateral or unhealthy collateral, inadequate management and borrower compliance, and ineffective credit marking. By skimming, banks will be more economical because they won't work as hard to guarantee higher loan quality. Consequently, over time, the quantity of non-performing loans (NPLs) will rise. The quantity of capital accessible to banks is examined via the moral hazard hypothesis. Many non-performing loans (NPLs) are thought to be the result of banks' inadequate capitalisation. Numerous bank-specific factors, such as the size of the bank and the possibility of diversification, have an impact on NPLs. It's unclear whether way bank-specific traits and non-performing loans are related.

(Louzis et al., 2012) highlighted Indian farmers' current struggles as well as emphasized the shift from conventional agricultural contributions to the systemic concerns brought on by recent legislative changes.

It addresses farmer worries about corporate control and the possible demolition of the APMC Mandi system while highlighting the vital need for government support in irrigation, credit, and market infrastructure(Monisha & Jeevitha, 2025).

Pests and Pandemics

(Dhaliwal et al., 2015) crops the potential output of agricultural and horticultural crops is threatened by diseases, nematodes, weeds, insect pests, and some vertebrates. For farmers, consumers, and all three creatures along the food chain, they have significant and often catastrophic consequences. Each cultivation cycle of agricultural and horticultural crops in India results in output and productivity losses of about 15.7% due to pests totaling over \$36 billion USD. (Sandilyan et al., 2018) terrestrial plant species, illnesses, and insects accounted for 54, 25, and 22 of the 173 identified invasive alien species as of 2018. Pests of Transboundary Plants The globalised movement of people and goods in recent decades has made transboundary pests a major danger to the environment and food security. 2020 saw an increase in desert locust populations in India, with swarms reaching epidemic levels throughout the pandemic. Swarms entering Madhya Pradesh, Uttar Pradesh, Punjab, Haryana Gujarat and Telangana during May and June put Rajasthan on high alert. As of the first week of July, FAO had issued a high alert due to the potential for further locust swarms to travel from Somalia to the India-Pakistan border(FAO, 2020a, 2020b). It is yet unclear whether a locust plague is imminent. The most recent invading insect of 2020 was the cassava mealybug (CMB), which was initially discovered in Thrissur, Kerala. (Joshi et al., 2020) it caused an infestation of 9 to 46% in Tamil Nadu. Anagyrus lopezi, a parasitoid specific to CMB, is now being eradicated and imported in order to prevent its spread to unaffected places. In May 2018, the autumn armyworm (FAW) expanded throughout all of India's maize-growing states. It was recently reported from Bangladesh as well. Eight pesticides were suggested by India, with conservation and augmentative biocontrol-cumcultural control actions being given top priority(Arumugam et al., 2019). After being discovered on coconuts in Tamil Nadu and Kerala in 2016, the rugose spiralling whitefly (RSW) subsequently expanded to Andhra Pradesh, Karnataka, Goa, and Assam via infected seedlings and plant material transportation (Arulraj et al., 2019). RSW's host crops include banana, mango, sapota, guava, cashew, maize, ramphal, oil palm, Indian almond, water apple, jack fruit, and

other decorative plants (Selvaraj et al., 2020). The current focus is on improving the niche survival of the parasitoid *Encarsia* and its natural structure in RSW endemic areas. In 2014, reports of the South American tomato moth (SATM), an invasive insect that affects tomatoes in both greenhouse and field settings, were made. (Sridhar et al., 2019) It has become a common pest after spreading to various states. As a long-term management approach, resistance breeding through screening of wild and cultivated tomato genotypes is in progress, despite the fact that the natural prevalence of *Metarhizium* an isopliae on larval SATM was as high as 35%. Since its discovery in Coimbatore, Tamil Nadu, in 2007, the papaya mealybug (PMB) has seriously harmed horticultural and agricultural products. Over 1,500 hectares of mulberries were also devastated in Tamil Nadu.

Market Size

The total food grain production in the country was recorded at 357.73 million tonnes up by 8%

Record Production: The 2024-25 food grain output is a record, increasing from 332.29 million tonnes in 2023-24 to 357.32 million tonnes.

Estimates for Various Food Grains

Rice: Recorded at 1,501.84 lakh tonnes (150.18 million tonnes), up from 1,378.25 LMT in 2023-24. Wheat: Reached 1,179.45 lakh tonnes (117.94 million tonnes).

Coarse Cereals/Shree Anna: Production was bolstered by maize (approx. 43.41 million tonnes) and millets (approx. 18.59 million tonnes).

Drivers of Growth: The surge is attributed to improved, high-yielding seeds, increased agricultural mechanization, and favorable climatic conditions.

Horticulture: In 2024-25, horticulture production also reached a record of 362.08 million tonnes, which surpassed the total food grain production.

The data highlights a significant, sustained increase in India's agricultural output over the past decade, from 251.54 million tonnes in 2015-16 to the current record, strengthening national food security.

Some of the recent major Government initiatives in the Agricultural sector are as follows:

- **Neem Coated Urea (NCU):** Regulates urea use and slows nitrogen release. It reduces cultivation costs, improves soil health, and is now mandatory for all domestic and imported urea.
- **Paramparagat Krishi Vikas Yojana (PKVY):** Promotes organic farming through a cluster-based approach (10,000 clusters of 50 acres each) to improve soil organic matter and farmer income.

Irrigation & Water Management

- **PM Krishi Sinchai Yojana (PMKSY):** Motto: "Har Khet Ko Paani." Focuses on end-to-end irrigation solutions, rainwater harvesting (Jal Sanchay), and micro-irrigation (Per drop-More crop).
- **Micro Irrigation Fund (MIF):** A ₹5,000 crore fund with NABARD to help States mobilize resources and incentivize the expansion of micro-irrigation coverage.
- **National Watershed Development Project (NWDPPA):** Launched in 1990-91; focuses on integrated watershed management and sustainable farming in rainfed areas.

Risk Management & Climate Resilience

- **PM Fasal Bima Yojana (PMFBY):** Actuarial-based crop insurance. Farmers pay low premiums (2% Kharif, 1.5% Rabi, 5% Commercial) with the government subsidizing the rest. Aims for claim settlement within two months of harvest.
- **National Mission for Sustainable Agriculture (NMSA):** Part of the National Action Plan on Climate Change. It promotes climate-resilient farming, integrated farming systems, and resource conservation.
- **Agriculture Contingency Plan:** Prepared by CRIDA-ICAR to help districts manage extreme weather events like droughts, floods, and heatwaves.

Market, Storage & Infrastructure

- **National Agriculture Market (e-NAM):** A pan-India electronic trading portal that networks existing APMC mandis to create a unified national market.

- Gramin Bhandaran Yojna (2001-02): Provides subsidies for rural storage facilities to help farmers prevent distress sales and wait for better market prices.

Livestock & Fisheries

- Livestock Insurance Scheme: Protects farmers against the death of cattle/animals while promoting qualitative improvements in livestock products.
- National Scheme on Welfare of Fishermen: Financial aid for housing, community halls, drinking water, and “saving-cum-relief” support during lean fishing periods.
- Fisheries Training and Extension: Focuses on training and extension programs to modernize and improve the efficiency of the fishery sector.

Statement of the problem: Agriculture remains the backbone of food security and the economy, yet it faces a severe growth decline and systemic “segregation.” In Tamil Nadu, where the sector is paramount, farmers are trapped in a cycle of indebtedness caused by a lack of institutional credit and the failure of natural cycles (droughts and floods).

- Financial Distress: Due to small landholdings, many farmers are denied bank loans, forcing them to rely on private moneylenders with high interest rates. This leads to the loss of assets through the sale of gold and the mortgaging of ancestral lands.
- Socio-Economic Impact: The lack of guaranteed income and full-time work results in unemployment and forced migration. Furthermore, a declining social status and the inability to recover production costs have contributed to a tragic rise in farmer suicides.
- Market Vulnerability: Without proper credit or financial buffers, farmers are often forced into distress sales, disposing of their produce below the cost of production, which makes debt repayment impossible.

Need for the Study

Agricultural credit is essential not just to supplement a farmer’s limited self-finance, but to manage the time lag between purchasing inputs and

harvesting the output. It acts as a financial bridge that allows production to remain steady despite the inherent uncertainties of farming.

- Liquidity vs. Production: Ideally, an infinite supply of liquidity allows farmers to make production decisions independently of their personal consumption needs.
- The Impact of Credit Rationing: When credit is “rationed” meaning farmers cannot access the full amount they need even by offering higher interest liquidity becomes a binding constraint.
- Operational Trade-offs: Under these constraints, households are forced to make suboptimal choices regarding which inputs to buy or which investments to prioritize, often leading to lower yields and reduced efficiency.

Scope of the Study

The Evolution of Indian Agriculture

India has undergone a remarkable transformation from a food-deficit nation at independence to a self-sufficient net exporter, with record food grain production reaching 291.95 million tonnes (2019-20). While agriculture’s contribution to the GDP has dipped below 20%, the sector remains the primary livelihood for the majority, bolstered by India’s unique advantage of 15 agro-climatic zones and diverse soil types.

Future Demand and Resource Pressure

By 2030, the demand for food grains is projected to rise to 345 million tonnes due to population growth and a shift toward high-quality, nutritious varieties. This creates immense pressure to produce more from a shrinking pool of cultivable land, requiring a strategic focus on “Per Drop, More Crop” and sustainable land management.

Strategic Interventions for Stakeholders

To secure the future of the sector, planners are prioritizing the modernization of supply chains, the reduction of market intermediaries, and the support of small landholdings. There is an urgent need for cost-effective, climate-resilient technologies and the conservation of natural resources to ensure long-term environmental and economic viability.

Objectives of the Study

- To assess the Socio-economic conditions, employment opportunities, and saving habits of farmers in the Kanchipuram District.
- To examine the various factors affecting the utilization of credit facility of the respondents.
- To examine the repayment capacity of the farmers while availing loan from financial institutions.
- To provide actionable suggestions for enhancing the overall effectiveness and impact of agricultural loan schemes

Hypotheses of the Study

- There is no significant difference among Gender and Awareness of loan
- There is no significant relationship between the type of crops and the various factors affecting the utilization of credit facility of the respondents
- There is no significant relationship between the kind of land and the factors influencing the utilization of credit facilities.
- There is no significant relationship between the landholding size of the respondents and the factors influencing their utilization of credit facilities.
- There is no significant relationship between the category of farmer and the factors influencing the utilization of credit facilities.

Research Methodology

The entire basis of this research is primary data. It has only been carried out in the Kanchipuram District. The research region's maximal agricultural area has been selected. A carefully planned interview schedule was used to directly gather primary data from farmers for a general understanding of the farmers' capacity for usage and repayment in the study area. Secondary data was gathered from both published and unpublished sources. The Annual Credit Plans prepared by the Indian Overseas Bank (the Lead Bank of Kanchipuram district), the Annual Reports of KCCB, and the Statistical Handbooks prepared by the Department of Economics and Statistics, Kanchipuram are significant secondary sources.

Sampling Design

The study utilized a combination of random and convenience sampling methods to select its respondents.

Sample Size Determination: Although the total population was large, the researcher used Cochran's formula to determine a representative sample size. While a minimum of 385 respondents was required, the study actually utilized a total sample of 500 farmers.

Selection procedure: The researcher identified the Kanchipuram district consists of four Taluks, namely, Kanchipuram, Kundrathur, Sriperumbudur, Uthiramerur. It consists of Five administrative Blocks The data has been collected for all the 5 Administrative Blocks in Kanchipuram district.

S.No	Administrative Blocks	Selected Villages
1	Kanchipuram	Kalakattur, Dhamal, Perumbakkam, Vishar .Musaravakkam
2.	Walajabad	Thenneri, Govindavadi, Enathur, Illuppattu Kaliyanur,
3.	Sriperumbudur	Echoor, Senthamangalam, Santhevvellore, Mathur Mettupalayam
4	Uthiramerur	Karannai, Karuvepampondi, Tthirupulivanam Manampathi, Vayalakavur
5	Kundrathur	Adhanur, Kolapakkam, Salamangalam, Vadakkupattu, Somangalam

From each of these Administrative blocks, five villages were randomly selected. From each of these 25 villages, 20 samples were collected based on convenience sampling to reach the final count of 500.

Questionnaire Reliability

Reliability was assessed using Cronbach's Alpha through SPSS 17.0 on pilot data.

- Alpha Value: The instrument demonstrated high internal consistency with an overall reliability

score of 0.96. This far exceeds the standard acceptable value of 0.7.

- Refinement: The data was further “cleaned” by calculating Corrected Item-Total Correlations (CITC). Items with a CITC less than 0.5 were generally excluded if their removal increased the overall reliability of the structure.

Data Validation and Instrument Design

The research employed several procedures to ensure the validity and accuracy of the primary data:

- Instrument Structure: The primary tool was a structured questionnaire developed in consultation with local farmers. It primarily used closed-ended statements rated on a 5-point Likert scale (Strongly Agree to Strongly Disagree).
- Word-Based Scales: Instead of simple numeric scales, the study used word-based scales to better reflect the farmers’ actual experiences and ensure respondents shared a common understanding of the answers.
- Data Collection Procedure: Subjects were given clear instructions and guaranteed privacy and anonymity (except for an optional name field) to encourage honest responses. Most answers were self-coded by the respondents.

Cross-Validation: While primarily based on primary survey data, the researcher used secondary sources such as scholarly journals, Annual reports from the KCCB, and previous articles to provide context and support for the findings.

Statistical tools: The collected data were analysed with the help of statistical approaches such as the Percentage Analysis, chi square test, t Test and ANOVA were used. Further the researcher has randomly selected five villages in every blocks the details of selected villages as follows.

Result and Discussion

Particulars	Classification	Number of Respondents	Percentage
Gender	Male	473	94.60
	Female	27	5.40

Age	Less than 20 years	14	2.80
	21- 30 years	50	10.00
	31- 40 years	138	27.60
	41- 50 years	183	36.60
	Above 50 years	115	23.00
Educational qualification	No formal education	269	53.80
	Primary School	153	30.60
	High School	54	10.80
	Under graduate	19	3.80
	Post graduate	5	1.00
No. of family Members	Up to 5 Members	42	8.40
	6- 10 Members	444	88.80
	Above 10 Members	14	2.80

Source: Primary Data

Out of the total respondents 500 respondents, 94.60 per cent of the respondents are in male and 5.40 per cent of the respondents are in female. In the age group comprise, of 36.60 per cent of the respondents are in the age group of 51-50 years, 27.60 per cent of respondents are fall under the age group of 31-40 years, 23 per cent of respondents are in the category of Above 50 age group, 10.00 per cent of respondents are fall under the category of 21-30 and only 2.8 per cent of respondents are in the age group of less than 20 years. In educational background of the respondents, of 53.80 per cent of the respondents are in No formal education, 30.60 per cent of respondents are primary level, 10.80 per cent of respondents are in high school level, 3.8 per cent and 1.00 per cent of respondents qualified for under graduate and post graduate respectively. Out of the total, 88.80 per cent of the respondents fall under the category of 6-10 members in their family, 8.40 per cent of respondents is in up to 5 category and only 2.80 per cent of respondents are in above 10 members in the family.

Classification of the Respondents on the Basis of their Gender and Awareness

Gender	Awareness		Total
	YES	NO	
Male	362 (76.53)	111 (23.47)	473 (100)
Female	13 (48.15)	14 (51.85)	27 (100)
Total	375 (75.00)	125 (25.00)	500 (100)

Source: Primary data

Note: Figures in the parentheses are indicates percentage to the row total

The above table shows that the sample respondents are classified on the basis of their various loan awareness and the gender. Out of the total 500 respondents, 375 respondents known the government schemes, of which 362 and 13 respondents are coming under the age category of Male and Female respectively, Out of the total respondents, 125 respondents are not knowing the government loan schemes, of which 111 respondents are coming under male, 14 respondents are falling under the female respectively.

Test 1

For examining the difference among Gender and Awareness of loan and the following hypothesis has been framed.

Null Hypothesis (Ho): There is no significant difference among Gender and Awareness of loan

The Chi - Square test has been employed to examine hypotheses & computed results presented below:

Chi-Square Tests

Particulars	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	10.975a	1	.001
Likelihood Ratio	9.504	1	.002
Linear-by-Linear Association	10.953	1	.001
N of Valid Cases	500		

The above test of significant p value is less than 0.05. So, the null hypothesis was rejected and it is concluded that, there is a significant difference among gender and awareness of loan.

Test-2

In order to examine the relationship between Type of crops and various factors affecting the utilization of credit facility of the respondents the following hypotheses are formulated.

Null Hypothesis (Ho): There is no significant relationship between the type of crops and the various factors affecting the utilization of credit facility of the respondents

The Independent 'T' test has been applied at 5 per cent level of significance to examine the hypothesis and the computed results are presented in the following table

Particulars		Levene's Test for Equality of Variances		95% Confidence Interval of the Difference	
		F	Sig.	Lower	Upper
Drought	Equal variances assumed	7.634	.006	-.268	.013
	Equal variances not assumed			-.259	.003
Inferior quality of input	Equal variances assumed	.060	.806	-.248	.029
	Equal variances not assumed			-.251	.032
Market conditions	Equal variances assumed	2.088	.149	-.023	.250
	Equal variances not assumed			-.024	.250
Sanctioning the loan	Equal variances assumed	.200	.655	-.279	.065
	Equal variances not assumed			-.276	.062
Social factors	Equal variances assumed	1.314	.252	-.021	.402
	Equal variances not assumed			-.028	.409

Sickness	Equal variances assumed	10.744	.001	.116	.553
	Equal Variance not Assumed			.108	.561
Weather condition	Equal variances assumed	.687	.408	.183	.640
	Equal variances not assumed			.186	.638

It is observed that the significant p values are more than 0.05. So, the null hypothesis is accepted and it is concluded that there is no significant relationship between the type of crops and market condition, sanctioning the loan amount, social factors, market condition and weather condition are various factors affecting the utilization of credit facility of the respondents.

As the calculated p values are less than 0.05, so the null hypothesis is rejected and it is concluded that there is a significant relationship between the type of crops and the drought and sickness are the factors affecting the utilization of credit facility of the respondents.

Test-2

In order to examine the relationship between farmer category and various factors affecting the utilization of credit facility of the respondents the following hypotheses are formulated.

Null Hypothesis (Ho): There is no significant relationship between the farmer category and the various factors affecting the utilization of credit facility of the respondents

The Independent 'T' test has been applied at 5 per cent level of significance to examine the hypothesis and the computed results are presented in the following table

Particulars		Levene's Test for Equality of Variances		95% Confidence Interval of the Difference	
		F	Sig.	Lower	Upper
Drought	Equal variances assumed	2.458	.118	-.085	.222
	Equal variances not assumed			-.092	.229
Inferior quality of input	Equal variances assumed	8.410	.004	-.114	.189
	Equal variances not assumed			-.098	.173
Market conditions	Equal variances assumed	1.682	.195	-.117	.181
	Equal variances not assumed			-.100	.164
Sanctioning the loan	Equal variances assumed	.010	.922	-.307	.069
	Equal variances not assumed			-.309	.071
Social factors	Equal variances assumed	.919	.338	.151	.609
	Equal variances not assumed			.141	.619
Sickness	Equal variances assumed	28.214	.000	.017	.495
	Equal Variance not Assumed			-.008	.520
Weather condition	Equal variances assumed	.307	.580	.035	.536
	Equal variances not assumed			.041	.531

It is observed that the significant p values are more than 0.05. So, the null hypothesis is accepted and it is concluded that there is no significant relationship between the farmer category and the variables like drought, market condition, sanctioning the loan



amount, social factors and weather condition are important factors affecting the utilization of credit facility of the respondents.

As the calculated p values are less than 0.05. So, the null hypothesis is rejected and it is concluded that there is a significant relationship between the farmer category and inferior quality of input and sickness are the important factors affecting the utilization of credit facility of the respondents.

Social factors	Equal variances assumed	24.430	.000	.184	.631
	Equal variances not assumed			.156	.659
Sickness	Equal variances assumed	13.655	.000	.235	.697
	Equal variances not assumed			.220	.711
Weather condition	Equal variances assumed	.245	.621	.131	.619
	Equal variances not assumed			.127	.623

Test 3

In order to examine the relationship between kinds of land and various factors affecting the utilization of credit facility of the respondents the following hypotheses are formulated.

Null Hypothesis (Ho): There is no significant relationship between the kinds of land and the various factors affecting the utilization of credit facility of the respondents.

The Independent ‘T’ test has been applied at 5 per cent level of significance to examine the hypothesis and the computed results are presented in the following table

Particulars		Levene's Test for Equality of Variances		95% Confidence Interval of the Difference	
		F	Sig.	Lower	Upper
Drought	Equal variances assumed	15.836	.000	-.377	-.080
	Equal variances not assumed			-.358	-.100
Inferior quality of input	Equal variances assumed	.958	.328	.015	.310
	Equal variances not assumed			.018	.307
Market conditions	Equal Variance Assumed	20.059	.000	-.213	.078
	Equal Variance not Assumed			-.193	.058
Sanctioning the loan	Equal variances assumed	3.976	.047	-.635	-.276
	Equal variances not assumed			-.603	-.308

It is observed that the significant p values in the case of kinds of land more than 0.05. So, the null hypothesis is accepted and it is concluded that There is no significant relationship between the kinds of land and inferior quality and weather condition are important factors affecting the utilization of credit facility of the respondents.

As the calculated p value for the factors affecting the credit facilities, namely drought, market condition, sanctioning the loan amount, social factors and sickness are less than 0.05, the null hypothesis is rejected and it is concluded that There is a significant relationship between the kinds of land and the above mentioned factors affecting the utilization of credit facility of the respondents.

Test 4

In order to examine the relationship between land size and the various factors affecting the utilization of credit facility of the respondents the following hypotheses are formulated.

Null Hypothesis (Ho): There is no significant relationship between the land size and the various factors affecting the utilization of credit facility of the respondents

The F- test has been employed at 5 per cent level of significance to examine the hypothesis and the computed results are presented in the following table

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Drought	Between Groups	7.636	4	1.909	3.640	.006
	Within Groups	259.564	495	.524		
	Total	267.200	499			
Inferior quality of input	Between Groups	2.729	4	.682	1.310	.265
	Within Groups	257.823	495	.521		
	Total	260.552	499			
Market conditions	Between Groups	3.904	4	.976	1.937	.103
	Within Groups	249.328	495	.504		
	Total	253.232	499			
Sanctioning the loan	Between Groups	12.200	4	3.050	3.875	.004
	Within Groups	389.600	495	.787		
	Total	401.800	499			
Social factors	Between Groups	29.069	4	7.267	6.207	.000
	Within Groups	579.563	495	1.171		
	Total	608.632	499			
Sickness	Between Groups	5.027	4	1.257	.958	.430
	Within Groups	649.235	495	1.312		
	Total	654.262	499			
Weather condition	Between Groups	17.867	4	4.467	3.151	.014
	Within Groups	701.675	495	1.418		
	Total	719.542	499			

It is observed that the significant p values are more than 0.05. So, the null hypothesis is accepted and it is concluded that there is no significant relationship between the land size and inferior quality of input, market condition, and sickness. As the calculated p value are less than 0.05, the null hypothesis is rejected and it is concluded that there is a significant relationship between the land size and drought, sanctioning the loan amount, social factor and weather condition are various factors of affecting the utilization of credit facility.

Optimize agricultural lending, institutions should implement a robust monitoring system through regular field visits and simplified repayment procedures, while offering flexible restructuring for borrowers affected by natural calamities. By shifting toward a relationship-based model, bank officials can better assess creditworthiness and foster a “personal touch” that motivates timely repayment and discourages political interference. Furthermore,

educating farmers on the necessity of institutional credit as a repayable investment rather than aid is essential for maintaining the financial health of both the bank and the agricultural community.

Suggestions: Suggestions for Improving Agricultural Credit Effectiveness Policy-Level Recommendations

These suggestions focus on the government’s role in creating a more supportive regulatory and financial environment for farmers.

- **Update Credit Policies:** The government should regularly update credit policies to align with the rising costs of cultivation and the actual credit needs of farmers.
- **Simplify Procedures:** There is a critical need to simplify documentation and loan disbursement procedures, particularly for small and marginal farmers, to reduce transaction costs.
- **Integrated Infrastructure:** Agricultural planning

should move toward a holistic framework that integrates credit with rural infrastructure, such as improved water management, roads, and power.

- **Monitored Interest Rates:** Regulatory bodies should regularly monitor banks to ensure that agricultural loans are disbursed with reasonable interest rates and at appropriate seasonal times.

Institutional-Level Recommendations

These suggestions are directed at banks (public, private, and cooperative) to improve their lending and recovery processes.

- **Enhanced Monitoring:** Lending organizations should establish robust monitoring and follow-up systems, including regular field visits by officers to ensure credit is being utilized correctly.
- **Flexible Restructuring:** In events of natural calamities, monsoon failure, or accidents, financial institutions should offer to rearrange or restructure loans to prevent penalties and facilitate borrower recovery.
- **Input-Based Lending:** To minimize the risk of credit non-utilization, banks could adopt alternate methods such as providing primary or seasonal agricultural inputs directly instead of cash.
- **Risk Mitigation:** Before disbursing loans, banks should consider requiring guarantees or references from reputable institutions or individuals to lower default rates.
- **Legal Action Against Defaulters:** To maintain the vitality of the banking system, strict legal action should be taken against “determined” (intentional) non-payers to reduce the burden of bad debts on commercial banks.

Farmer-Level Recommendations

These suggestions focus on empowering farmers through education and better financial management.

- **Financial Literacy Campaigns:** Extensive campaigns are needed to educate farmers about existing banking schemes and to increase awareness, as many current problems stem from a lack of information.
- **Capacity Building:** Farmers should receive

training on the timely and proper use of credit, as well as the importance of adhering to repayment schedules established in loan agreements.

- **Diversified Credit Use:** Encouraging the universalization of Kisan Credit Cards (KCC) and allowing their use for non-farm purposes for short periods (e.g., 90-120 days) can help small farmers manage liquidity better.
- **Ethical Repayment:** Borrowers should be educated that institutional loans are not gifts and must be repaid to ensure the bank’s continued ability to help the farming community.

Conclusion

The study provides a comprehensive overview of the factors influencing agricultural credit in the Kanchipuram district:

- **Utilization Determinants:** The research confirms that the utilization of agricultural credit is significantly influenced by a combination of demographic factors, specific agricultural needs, and land-related variables.
- **Awareness Gaps:** A primary barrier to effective credit use is the low level of awareness among farmers regarding various government lending schemes and banking services.
- **Repayment Challenges:** Repayment performance is often compromised by external factors such as natural calamities (droughts/floods), crop failure, and the high cost of cultivation relative to market returns.
- **Institutional vs. Informal Sources:** While institutional credit from public, private, and cooperative banks has grown, many small-scale farmers still depend on informal moneylenders due to rigid collateral requirements and complex documentation at banks.
- **Impact of Credit:** When accessed and utilized correctly, institutional credit, particularly through initiatives like the Kisan Credit Card (KCC) has a measurable positive impact on farm income and productivity.

Limitations of the Study

By focusing exclusively on the Kanchipuram District of Tamil Nadu, this study provides a highly specialized and culturally nuanced analysis that

captures the specific impact of local traditions and socio-economic conventions on agricultural credit. The deliberate selection of specific respondents and town panchayats ensures a concentrated, high-quality data set that offers deep insights into a distinct geographic micro-environment. Furthermore, the time-bound nature of the survey provides a precise 'snapshot' of the current financial landscape, serving as a critical contemporary baseline for future longitudinal comparisons. Ultimately, the controlled sample size allows for a rigorous, detailed examination of variables that might otherwise be diluted in a broader, less targeted population study.

Future Research Scope

To build upon this study, future research could explore the following areas:

- **Digital Transformation Impact:** Investigate how the increasing computerization of Primary Agricultural Credit Societies (PACS) and digital banking affects credit accessibility for rural farmers.
- **Insurance Efficacy:** A focused study on the role of agricultural insurance (such as PMFBY) in mitigating repayment defaults during natural calamities, as current satisfaction with insurance appears low.
- **Climate Resilience & Credit:** Research into how specific "green" or climate-resilient agricultural practices influence the credit needs and repayment capacity of farmers in drought-prone regions of Tamil Nadu.
- **Gender-Specific Financial Inclusion:** A deeper analysis of the specific benefits and barriers faced by women farmers in accessing credit, particularly within Self-Help Groups (SHGs).
- **Post-Disbursement Monitoring Models:** Evaluate the effectiveness of different monitoring and field-visit models by lending institutions to see which best prevent the diversion of agricultural funds for non-productive uses.

References

- Alhassan, A. L., et al. "Asset Quality in a Crisis Period: An Empirical Examination of Ghanaian Banks." *Review of Development Finance*, vol. 4, no. 1, 2014, pp. 50–62.
- Arulraj, S., et al. "Technology Transfer in Coconut: Global Scenario and Strategies." *The Coconut Palm (Cocos nucifera L.) – Research and Development Perspectives*, Springer, 2019, pp. 723–756.
- Arumugam, R., et al. "A Statistical Study on the Production of Crops before and after Gaja Cyclone in the Delta Region around Thanjavur District." *Compliance Engineering*, vol. 10, no. 12, 2019, pp. 598–607.
- Ayaz, S., and Z. Hussain. "Impact of Institutional Credit on Production Efficiency of Farming Sector." *Pakistan Economic and Social Review*, 2011, pp. 149–162.
- Baba, S. H., et al. "Econometric Analysis of Demand and Supply of Institutional Credit to Agriculture in Jammu and Kashmir." *Economic Affairs*, vol. 60, no. 4, 2015, p. 669.
- Bashir, M. K., et al. "Impact of Agricultural Credit on Productivity of Wheat Crop." *Pakistan Journal of Agricultural Sciences*, vol. 47, no. 4, 2010.
- Binswanger, H. P., and S. R. Khandker. "The Impact of Formal Finance on the Rural Economy of India." *Journal of Development Studies*, vol. 32, no. 2, 1995, pp. 234–262.
- Chandio, A. A., et al. "The Nexus of Agricultural Credit, Farm Size and Technical Efficiency in Sindh, Pakistan." *Journal of the Saudi Society of Agricultural Sciences*, vol. 18, no. 3, 2019, pp. 348–354.
- Das, A., et al. "Impact of Agricultural Credit on Agriculture Production in India." *RBI Occasional Papers*, vol. 30, no. 2, 2009, pp. 75–107.
- Giné, X., and M. Kanz. "The Economic Effects of a Borrower Bailout." *Review of Financial Studies*, vol. 31, no. 5, 2018, pp. 1752–1783.
- Kannan, E. "Relationship between Agricultural Credit Policy and Crop Productivity." *Indian Journal of Agricultural Economics*, vol. 66, no. 3, 2011.
- Laha, A. "Technical Efficiency in Agricultural Production and Access to Credit in West Bengal." *International Journal of Food and Agricultural Economics*, vol. 1, no. 2, 2013, pp. 53–62.
- Louzis, D. P., et al. "Determinants of Non-Performing Loans in Greece." *Journal of Banking & Finance*, vol. 36, no. 4, 2012, pp. 1012–1027.
- Narayanan, S. "The Productivity of Agricultural

Credit in India.” *Agricultural Economics*, vol. 47, no. 4, 2016, pp. 399–409.

Rani, S. P. “Economic Analysis of Agricultural Credit on Production Efficiency.” *Journal of Applied Life Sciences International*, vol. 23, no. 12, 2020, pp. 102–110.

Author Details

A. Vikraman, *Assistant Professor, Department of Commerce, Sri Sankara Arts and Science College, Enathur, Kancheepuram, Tamil Nadu, India, Email ID: kanchiviki@gmail.com*

V. Vinuchakravarthi, *Assistant Professor, Department of Business Administration, Sri Sankara Arts and Science College, Enathur, Kancheepuram, Tamil Nadu, India, Email ID: drvvchakravarthi@gmail.com*