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A Study on the Effectiveness of Agricultural Finance and its Opportunities to Enhance the Standard of Living of Small Farmers - with Reference to Chengalpattu District

Ramu G[*]

Research Scholar & Assistant Professor, Dept., of Information System & Management, S.I.V.E.T. College, Chennai, TN, IND.

Dr. R. Rethinabai

Research Supervisor, Assistant Professor, P.G. & Research Dept., of Commerce, S.I.V.E.T. College, Chennai, TN, IND.

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ABSTRACT

This paper examines and analysis the effectiveness of small farmers in receiving agricultural finance, as well as their opportunities to improve their living conditions in Chengalpattu District. This article presents the descriptive study that serves as the foundation for a quantitative and conceptual framework approach to improving the living conditions of small farmers belonging to Chengalpattu District. Primary data were gathered through a random sampling method of survey from 200 small farmers. The variables in this study paper's elements are very reliable, and overall reliability is taken into account for future research. The majority of respondents are male and public limited banks formally help them financially. Opportunities have the highest significance value out of the three criteria. In structural equitation modelling, financial opportunity significantly raises the living standard of small farmers, while there is no relationship between problems and living standard. The emphasis of this study is on the improvement of small farmers' living conditions and their favourable impact on agricultural financial potential. Therefore, to improve the growth of small farmers, the government and financial institutions must put new plans into place and provide adequate financial and technological support. The distribution sample size for this study is 200 respondents, and it is only focused on small farmers in the Chengalpattu District. It is possible to conduct an additional study on medium- and large-scale farmers in various districts, and there are other factors to consider for future research. Small farmers' success and productivity are enabled by an effective Agricultural Finance System and monsoon, which benefits both rural and urban residents and economies. Furthermore, it contributes to more stable and peaceful civilizations and reduces the desire for young people to leave their communities. The Chengalpattu District has not yet produced a prior study article that discusses agricultural finance, its efficacy, and its prospects for raising standard of living. Since a random sampling method was used, the research findings and conclusions are only provisional.

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[*] *Corresponding author's e-mail:* ramu7thsense@gmail.com (Ramu G)

1.0 INTRODUCTION

Agriculture contributes to and sustains many people in emerging and developing economies, especially those living in rural areas. In many emerging nations, small farmers continue to produce at subsistence levels because they are still unable to make investments due to a lack of sufficient finance for farming, knowledge of marketing, poor crop management, and technical support. South Indian farmers are unable to improve agricultural productivity, especially during important points in the production cycle like harvest. Because of the poverty of small farms, wage workers are sometimes subjected to poor working conditions and low wages. In India, 86.2 per cent of farmers are marginal smallholder farmers, but agriculture remains the primary source of income for 70 per cent of rural households.

1.1 Agricultural Finance Meaning

Agricultural finance refers to the resources needed to do agricultural operations, *i.e.,* surveying the land, procuring the inputs (seeds, fertilizer, *etc.*), managing the crops, harvesting the crops, and marketing the agricultural outputs.

1.2 Definition

Murray (1953) described agricultural finance as a "financial examination of borrowing money and reserves by farmers, the functioning of farm lending institutions, association and organisation involvement in loans for agriculture." A further explanation is provided by Tandon and Dhondyal (1971). He used the phrase agricultural financing is considered a subfield of agricultural economics since it deals with the allocation of monetary and other economic resources across various farm departments.

1.3 Objectives of Agriculture Finance

- Agriculture financing enables underprivileged farmers to improve their income and uplift their lives.
- Agriculture finance promotes long-term agricultural growth by providing small farmers with market- based financial services and assisting them in marketing their products.

1.3 Small Farmer

As per RBI guidelines, "a Small Farmer is a farmer who cultivates agricultural land of more than 1 hectare and up to 2 hectares (as owner, renter, or sharecropper) is referred to as small farmer (5 acres)". The information provided is from the 2008 RBI report on the Agricultural Debt Waiver and Debt Relief Scheme.

1.4 Standard of Living

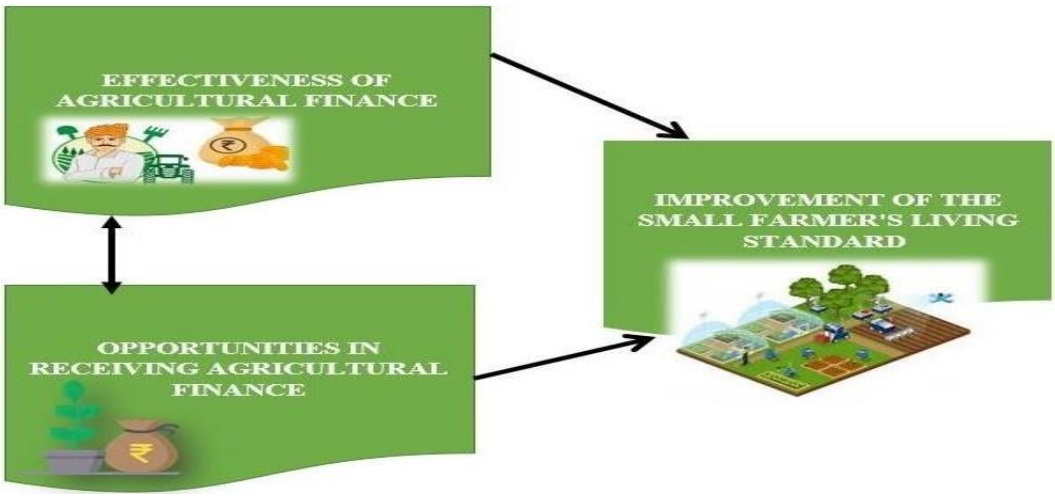
The term "standard of living" is used to describe a population's access to and consumption of a broad range of consumer goods and services. The term standard of living is used to describe the quality of life lived by small farmers.

1.5 Background of Chengalpattu district Small Farmers

The role of small farmers in Indian agriculture is crucial. According to the 2015–2016 Agriculture Census, small and marginal farmers comprise 86 percentage of all farmers but only 47

percentage of all croplands, demonstrating that there are major discrepancies in landholdings in India. I closely related the expansion of small farmers to the development and eradication of poverty in the country. In Tamil Nadu's Chengalpattu district, which was originally a part of the Kanchipuram district, all of the district's income comes from agriculture. Due to a lack of resources or inadequate agricultural financing, nearly 21 percentage of Chengalpattu's population suffers from economic disadvantage. This group primarily comprises landless agricultural workers and small and marginal farmers who lack access to basic amenities like decent housing, clean water, and healthcare. However, the vast majority of these land pieces were dry, stony, wastelands, or lacking water supply. The majority of the district's agricultural activities depend on the monsoon, except for a tiny region close to the Palar River's bed. The enlargement of small farms into larger tracts of land, the use of advanced cultivation equipment, such as the planned application of fertilizers, the use of digital technology for forward and backward connections, market research, and price forecasting etc.

2.0 CONCEPTUAL FRAMEWORK FOR THE STUDY



2.1 Small Farmers' Effectiveness when Receiving Agricultural Finance

- Although it seems obvious that when compared to large farmers, small farmers are more productive due to their sincere efforts.
- The first step is settling on a working definition of “efficiency”. As compared to large farms, small ones make better use of the land. As mechanisation often leads in better labour productivity, large farms may be seen as employing employees more effectively.
- If sufficient agricultural finance is available, effective utilisation of resources and various factors of production, such as land, labour, and capital, is possible.

2.2 Small Farmers face challenges while receiving Agricultural Finance

- Small farmers are threatened by the availability, financing, and timely supply of inputs such as seeds, fertilizers, and pesticides, as well as a lack of awareness about government schemes and subsidies, as well as nature (floods, droughts, and monsoon failures). One of the most serious issues confronting small farmers is a lack of adequate irrigation facilities.
- The worst of all problems occur when farmers attempt to sell their goods at market rates after the end of agricultural activities.

- Due to their lack of knowledge, accessibility to bigger marketplaces, and varying crop values in different markets, they make easy prey for neighbourhood traders and middlemen.

2.3 Financial Opportunities to the Small Farmers

- Small farmers' investment decisions are heavily influenced by their ability to obtain financial resources. In India, the Central and State Governments have made significant efforts to improve agricultural operations by offering agricultural inputs at reduced or no cost. The agricultural officers provide free agricultural training, workshops, and different cultivation methods.
- Small farmers may be discouraged from adopting new technology, purchasing agricultural inputs, or taking other actions that can increase efficiency and productivity. Crop protection and crop insurance are provided at a low cost. With better access to financing, small - scale farmers' investment alternatives may expand, and their risk-taking capacity may advance and means to market their produces.

2.4 Improvement in Small Farmers' Living Standard

- Agricultural extension institutions should be strengthened, and extension workers' capacities should be developed to facilitate the change in terms of increasing the productivity of lands to improve small farmers' welfare.
- To achieve and maintain a fair standard of living, invest in their farms, and continue to produce a crop that is sustainable, small farmers must improve their revenues and competitiveness.
- When there are good agricultural practices and modified irrigation techniques used by small farmers, they can enhance their standard of living with the help of the agricultural finance system.

3.0 REVIEW OF LITERATURE

Sl. No.	Author & Year	Research Area	Contribution
1	Mandala *et al.,* (2021)	Problems in Financing and Marketing	The primary objective of this study is to learn about farmers' difficulties in the agriculture industry. The farmers' major problems are low production, difficulty in marketing, and insufficient financial support to do farming activities. To assist farmers in increasing yields by providing advanced seeds that are gentle on the environment, productivity must be improved, and much-needed new marketing technologies should be implemented.
2	Kanagavalli and Manida (2020)	Challenges to Improve Livelihood of Farmers	The study analyses the difficulties and potential benefits of smallholder farming in Tamil Nadu. The study highlights the changes in agricultural output, farming practises, and the involvement of small farmers. The role of smallholder farmers is very important in enhancing food security and sustainable employment generation among the rural area. The government need to concentrate

			on value addition units. Such as promotion of innovative technologies in agro-base product value addition and entrepreneurship in agriculture.
3	Dwivedy (2011)	Challenges Faced by the Agriculture Sector in Developing Countries with Special Reference to India	This research aims to examine the role of agricultural inputs in the growth of India's agricultural gross domestic product. The authors argue that the government can influence agricultural practises on the input and output sides of the economy. Based on the study, reviving public sector investment is critical due to its multiplier effect on the sector's overall gross capital formation. As a result, a long-term perception plan for rural areas is required, focusing on infrastructural projects with the greatest total impact as well as the greatest linkages.
4	Gandhi *et al.,* (1999)	Rural and Small Farmers	The importance of agroindustry in India is examined in this article in light of how they contribute to the growth of rural areas and small farmers. To evaluate the real and potential contribution of the agroindustry and the difficulties it faces, its characteristics and limitations are analysed. The effectiveness and contribution to the development of rural and small farmers of institutional and organisational models that have been tried or suggested in India are assessed. The study then concludes with ramifications for management and policy.

3.1 Objectives of the Study

- To examine the demographic data from the sample respondents in Chengalpattu District.
- To ascertain the relationship between Age groups and financial opportunities that can increase small farmers' standard of living.
- To determine the causality between the problems faced by small farmers and their improvement in the living standard of small farmers in Chengalpattu District.

4.0 METHODOLOGY ADOPTED

Design	Descriptive
Data Sources & Sample Size	Primary data & 200 respondents
Sample Area	Chengalpattu District
Research Instrument	Structured Questionnaire
Sampling Method	Random Sampling
Statistical Tools	Frequency, Descriptive, One-Way ANOVA, Correlation, SEM Path Analysis and Multiple Correlation
Statistical Software	SPSS, AMOS

4.1 Research Hypothesis

- **H_1 -** There is no significant relationship between age group of the respondents and factors of financial opportunities, Problems in obtaining the loan and small farmers' living standard.
- **H_2 -** There is no correlation between financial opportunities, and the enhancement of small farmers' living standard.
- **H_3 -** There is no significant association between the problems in obtaining the agricultural finance and the enhancement in standard of living of a small farmer.

5.0 DATA ANALYSIS

In this survey, random sampling was used to collect data, and the statistical results were analysed by using SPSS software.

Table 1 – Reliability Test

Factors	Cronbach's Alpha
Problems in Obtaining the Loan	0.830
Financial Opportunities	0.761
Standard of Living	0.769
Overall	**0.826**

Source: Primary Data

Table 2 – Respondents Demographic Profile

Sl. No.	Particulars	No. of Respondents	Percentage
Gender wise Distribution			
1	Male	150	75.0
2	Female	50	25.0
	TOTAL	**200**	**100.0**
Age wise (in years) Distribution			
1	Below 35 years	140	70.0
2	35-45 years	30	15.0
3	45-55 years	25	12.5
4	Above 55 years	5	2.5
	TOTAL	**200**	**100.0**
Marital Status wise Distribution			
1	Married	125	62.5
2	Unmarried	75	37.5
	TOTAL	**200**	**100.0**
Education Qualification wise Distribution			
1	Up to HSC	100	50.0
2	UG	45	22.5
3	Others	55	27.5
	TOTAL	**200**	**100.0**

Small Farmers Agricultural Annual Income per Acre			
1	Below ₹5,000	45	22.5
2	₹5,001 - ₹15,000	85	42.5
3	Above ₹15,0000	70	35.0
	TOTAL	**200**	**100.0**
Formal Source of Finance			
1	Public Sector Banks	95	47.5
2	Private Sector Banks	40	20.0
3	Co-operative Banks	65	32.5
	TOTAL	**200**	**100.0**
Informal Source of Finance			
1	Friends and Relatives	100	50.0
2	Indigenous Bank and Money Lenders (Pawnbrokers)	100	50.0
	TOTAL	**200**	**100.0**

Source: Primary Data

Table 3 – Mean and Std. Deviation of the Sample Respondents

Sl. No.	Particulars	Mean Value	Std. Deviation
1	Gender	1.25	0.434
2	Age in years	1.48	0.808
3	Marital Status	1.38	0.485
4	Qualification	2.05	0.707
5	Agricultural Income	2.13	0.750
6	Formal	1.85	0.884
7	Informal	1.50	0.501

Source: Primary Data

Table 4 – Analysis of One-Way ANOVA for Factors and Age Groups

Factors	Age Group (in years)	N	Mean Value	Std. Deviation	F Value	P Value
Problems in obtaining the loan	Below 35	140	12.64	3.93	0.440	0.724
	35-45	30	13.50	3.79		
	45-55	25	13.20	5.30		
	Above 55	5	13.00	0.00		
	TOTAL	**200**	**12.85**	**4.05**		
Financial Opportunities	Below 35	140	11.86	4.28	4.248	0.006**
	35-45	30	13.50	2.61		
	45-55	25	14.40	2.63		
	Above 55	5	14.00	0.00		
	TOTAL	**200**	**12.48**	**3.95**		

Standard of Living	Below 35	140	13.18	4.59	1.872	0.136
	35-45	30	15.17	3.96		
	45-55	25	13.00	5.16		
	Above 55	5	15.00	0.00		
	TOTAL	**200**	**13.50**	**4.56**		
Overall Effectiveness	Below 35	140	37.68	11.02	2.169	0.093
	35-45	30	42.17	9.11		
	45-55	25	40.60	3.07		
	Above 55	5	42.00	0.00		
	TOTAL	**200**	**40.61**	**10.07**		

** Indicates 1% level of significance.

Source: Primary Data

Table 5 – Analysis of Correlation Between the Factors

Factors	Analysis	Problems in obtaining the loan	Financial opportunities	Standard of living
Problems in obtaining the loan	Pearson Correlation	1.000	.435**	.268**
Financial opportunities	Pearson Correlation	.435**	1.000	.687**
Standard of living	Pearson Correlation	.268**	.687**	1.000

**correlation is significant at the 0.01 level (2-tailed).

Source: Primary Data

5.1 Model Fit- SEM

Structural equation modeling is a statistical technique for testing and estimating causal relations using a combination of statistical data and qualitative causal assumptions. It's used to verify the relationship between the factors of financial opportunities, problems in obtaining the loan and small farmers' living standard.

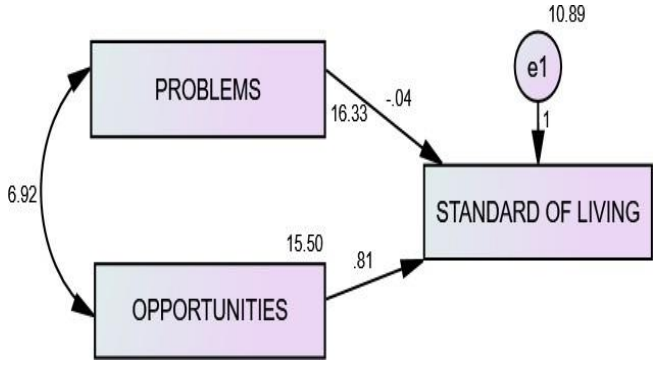


Figure 1 – Unstandardised Path

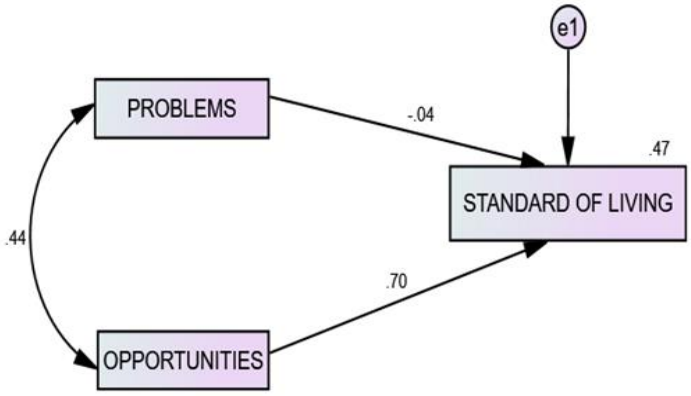


Figure 2 – Standardised Path

Table 6 – Model Fit Summary

Variable Summary	Variable Counts
Observed Endogenous Variable	Total Variables:4
1. Standard of Living	Observed: 3
Observed Exogenous Variables	Unobserved: 1
1. Financial Opportunities	Exogenous: 3
2. Problems in obtaining the loan	Endogenous: 1
Unobserved, Exogenous Variables	
1. e1 – Error1	

Table 7 – SEM Path Analysis among the Factors (Unstandardised, Standardised)

Factor		Factors	Unstandardised	Standardised	C.R.	P Value	Remark
Standard of living	<---	Financial opportunities	.814	.704	12.32	**0.001****	**Accepted**
Standard of living	<---	Problems in obtaining the loan	-.043	-.038	-.673	.501	Rejected

** indicates 1% level of significance

Source: Calculated from Primary Data

Table 8 – Correlation and Multiple Correlation between the Factors

Correlations	r	Squared Multiple Correlations	R^2
Financial opportunities < --- > Problems in obtaining the loan	0.435	Standard of living	0.474

Source: Calculated from Primary Data

5.2 SEM Result

- The SEM model was perfectly fit for the analysis.

- In (Table 7) SEM analysis reveals, those small farmers financial opportunities are positively influencing the standard of living of the small farmers. with (P value = 0.001) and significant at the 1% level. Since, H_2 was accepted for this finding.
- Table 8 reveals a significant correlation between financial opportunities and problems in obtaining the loan by small farmers, (r = 0.435) and the standard of Living has (R^2 = 0.474).

6.0 FINDINGS OF THE STUDY

- As per (Table 1), all of the variables have reliable Cronbach's Alpha values, and the total reliability of the study is 0.826.
- The demographic profile of the respondents is shows in (Table 2), with Male makes up the majority of respondents (75%). 70% of responders are under 32 years old in terms of age distribution, and 62.5% of them are married. In terms of education, 50% of small farmers have less than an HSC. The high annual agricultural income of small farmers was between ₹5,001 and ₹15,000, or 42.5%. Under financial sources 47.5% of farmers rely on public sector banks as their primary source of formal financing.
- Table 3 displays the study's descriptive data. Age had the lowest mean value (1.25) S.D. value (0.434) and agricultural income had the highest mean value (2.13) S.D. value (0.750).
- Table 4 Age groups and financial opportunities of small farmer have strong significance (P = 0.006) in the One-way ANOVA. Since P value is less than 0.01, the null hypothesis (H_1) is rejected at 1% level of significance.
- Table 5 shows the correlation analysis reveals a positive association between financial opportunities and small farmers' standard of living (r = 0.687) and (R^2 = 0.472, or 47%). The relationship between problems in obtaining the loan and financial opportunities of small farmers are weaker, at (r = 0.435) and (R^2 = 0.189 or 19%).
- Table 6 implied that variable summary and variable count used in the structural equation model. In those financial opportunities and problems in obtaining the loan are observed as Exogenous Variables and the standard of living is observed Endogenous Variable.
- Table 7 shows that the small farmers' Financial Opportunities has the positive impact on Standard of Living of the small farmers in Chengalpattu District.
- Table 8 shows the positive correlation of financial opportunities and the problems in obtaining the loan of small farmers (r = 0.435) and multiple correlation of the Standard of living which effect is (R^2 = 0.474).

7.0 RECOMMENDATION AND SUGGESTIONS

- The financial opportunities have a favourable impact on standard of living; therefore, the government investment on agriculture needs to be carefully monitored, controlled and improved accordingly.
- Quick loan facilities should be arranged by the government to the younger generation in order to improve the agricultural operations.
- The study places a strong emphasis on the influence on small farmers' access to agricultural financing and the improvement of their standard of living. As a result, the government and financial institutions should take additional agricultural finance facilities for available to the district's small farmers.

- To achieve equitable credit distribution among states, districts, and underdeveloped regions, Governmental action is necessary.
- At the same time to improve the growth of small farmers' living condition, with adequate financial and technology support much needed in the region.

8.0 CONCLUSION

Since ancient times, India has had a substantial role in agricultural production. For the growth of small farmer living standard, the government need to develop and implements various plans and programmes for their successive farming operation. However, to become a viable source of income for the current and future generations, the agricultural finance system urgently needs a capital infusion, new investments, and technological improvement. With the current globalised and interconnected world, it is necessary to re-evaluate our policies in order to sustain the country's advancement. Agricultural activities should be modernised and improved in response to the changing global environment in order to protect people and their precious health.

9.0 SCOPE FOR FURTHER RESEARCH

The further research can do on the topic in medium- and large-scale farmers and their problems for agricultural development in various districts.

REFERENCES

Dwivedy, N., (2011) "Challenges Faced by the Agriculture Sector in Developing Countries with Special Reference to India", *International Journal of Rural Studies (IJRS),* 18(2), pp. 1-6.

Gandhi, V., Kumar, G., & Marsh, R., (1999) "Agroindustry for Rural and Small Farmer Development: Issues and Lessons from India", *The International Food and Agribusiness Management Review,* 2(3-4), pp. 331-344. https://doi.org/10.1016/S1096-7508(01)00036-2.

Kanagavalli, G., & Manida, M., (2020) "Challenges and Opportunities to Improve the Livelihoods of Smallholder Farmers in Tamil Nadu", *Journal of Shanghai Jiaotong University,* 16(7), pp. 312-321.

Mandala, G. N., Sangode, P. B., Devi, A. S., & Gandreti, V. R. R., (2021) "Problems and Constraints Faced by Farmers in Financing and Marketing of Agricultural Produce in India", *Universal Journal of Accounting and Finance,* 9(2), pp. 139-144. https://doi.org/10.13189/ujaf.2021.090201.

Murray, W. G., (1953) *"Agricultural Finance"*, 3rd Edition, Ames: Lowa State College Press.

Rajakrishnan, V. S., & Karpagam, S., (2021) "A Study on Coconut Manufacture in Salem District and Dharmapuri Districts", *Quing: International Journal of Commerce and Management,* 1(1), pp. 29-38. https://doi.org/10.54368/qijcm.1.1.0011.

Tandon, R, K., & Dhondyal, S. P., (1971) *"Principles and Methods of Farm Management"*, 7th Revised and Enlarged Edition, Kanpur: A. Joshi.