IJRTBT | Impact of Priority Sector Lending in Agriculture: A Study on Select Districts in West Bengal

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Abstract

In India, until the late sixties, commercial banks mainly provided loans to big trade houses for commerce, trade, and business. The stream of loans toward priority sectors, primarily agriculture, weaker segments, and small businesses, is scarce. However, India cannot achieve balanced, equitable, and sustainable growth and development without developing the agriculture sector, given that over 50% of the population is involved. After the nationalization of commercial banks, the broad categories under priority sectors were agriculture, small-scale industry, and exports. The paper relies on primary data about priority sector lending in the agricultural industry of selected blocks in West Bengal to assess the effectiveness of PSL in this sector. The paper employs suitable statistical tools to measure the efficacy. Based on the analysis, results, and findings, the paper offers suggestions to improve the situation of small and marginal farmers and landless farmers, the central portion (around 85% of the agriculture sector) in West Bengal.

Introduction

Direct credit to vulnerable sections of society has been observed as a national priority. It originated at a meeting of the National Credit Council held in 1968 in the month of July to enhance the responsibility of commercial banks in financing agriculture and small-scale industries. The priority sector lending concept has been used to channel the flow of credit to vulnerable sections of society that have not received a sufficient hold of institutional finance but have greater potential and help in the mitigation of poverty and the balanced growth of the economy. In 1969, India nationalized 14 major commercial banks to rectify the situation, marking a significant milestone in the country's banking history. Agricultural credit was never seriously considered by the banks. Since 1970, the priority sector lending (PSL) scheme has been an integral part of scheduled commercial banks.

The bank history reveals that the priority sector has been received around 15% of the total bank credits in 1969; later on, it has increased to 33.33% by 1974; and further, it has increased to 40% in 1980. (World Bank, 2004) In order to boost the flow of credit to the agricultural sector, the banks have been advised to set of connections for direct finance to the agricultural sector to arrive at a minimum level of 16% of the total outstanding credit by March 1987, 17% by March 1989, and 18% by March 1990, with an overall target of 40%. From time to time, certain changes have been made, but the overall target of 40% of net bank credit was remained unchanged.

The PSL scheme has been initiated in its current form in the year 1980. The latest master directions of PSL targets and classifications have been issued by the Reserve Bank of India (RBI) on September 4, 2020, to various instructions like commercial banks, SFBs, RRBs, UCBs, and LABs for the purpose of harmonisation (Reserve Bank of India, 2020). The RBI has, from time to time, revised the related guidelines to support and sustain environment-responsive lending policies for achieving sustainable development goals. Previous, the master directions of PSL had been issued independently for scheduled commercial banks, regional rural banks, small finance banks, and urban cooperative banks. The priority sector includes the following:

1) Agriculture
2) Micro, Small and Medium Enterprises (MSMEs)
3) Export credit
4) Education
5) Housing
6) Social Infrastructure
7) Renewable Energy
8) Others

The domestic civil commercial banks and foreign banks with 20 branches or above or below has been given a specified PSL target, which is 40% of the Adjusted Net Bank Credit (ANBC) or Credit Equivalent of Off Balance Sheet Exposure (CEOBE) in a phased manner by the RBI during the end of March 2018 and 2020, respectively. Out of the targeted PSL, agricultural credit is 18%, 10% is prescribed for small and Marginal Farmers (SMFs), advance to weaker sections is 12%, 15% is for regional rural banks, and credit to microenterprises is 7.5% of ANBC or CEOBE, whichever is higher. However, agricultural credit is not suitable for foreign banks.

Review of Literature

Numerous studies and works have been done over the years in the various dimensions of priority sector lending by academicians, researchers, regulators, and different committees. Some of them are highlighted below:

Rahaman and Mondal (2023) investigated the relationship between the PSL and the banks' economic performance from 2005 to 2021. Correlation and Multiple Linear Regressions were used for analysis. He found that there was a negative effect of PSL on the financial performance of banks, which was avoided or reduced.

Uppal (2009) examined the performance of the public, private, and foreign banks in India in compliance with the PSL target, which might be considered a serious issue by policymakers.

Manjusree & Giridhar (2018) highlighted the problems and prospects of PSL in SBI in the Bhdrabati region of Karnataka. They suggested that the government interference in lending to priority sectors should be 40% of ANBC or GEOBE, whichever is higher, fulfilled by the different bank groups. He observed that the PSBs and private banks might not achieve the goals of the PSL set up by the RBI. Only foreign banks could achieve the PSL's target. He also found that the non-performing assets of PSBs and private banks were higher. As per his recommendation, the government should fix quantitative as well as qualitative targets to increase the viability of the bank.

The World Bank (2004) reported that the Indian government-owned banks satisfied the rivalry and enhanced the charge of lending the loan to the public. But the cost of lending the loan is much lower at a private bank.

According to Bhati (2006), there exists a model relationship between the Indian banks and the lenders that must be worked upon to determine how it contributes to lending towards the priority sector lending. This have contributed to investigate the major hypothesis of the paper.

Yunus (1987) said that lending without regulation is not anything but aid. This aid would demolish the underprivileged in place of assisting them. He addressed the credit revival machinery before upbraiding the defaulter. One should not blame the recipient of the loan for failure to repay the loan in due time; rather, one must admonition the designer of the loan organization that botched to do the work.

According to Angadi (1983), the majority of priority sector advancements made to the agricultural sector are concentrated in a small number of states. The following factors primarily contribute to the concentration of bank activity: the opening of new branches quickly. the mobilization of deposits the privileged crop area, the amount of land used for cash and food crops, the extent of irrigated land, the adoption of high-yielding crop varieties, the availability of cooperative credit, and the degree of political awareness.

Das, Senapati, & John (2009) analyzed the various aspects of credit movement in the priority sectors. He discovered that the banks, who initiated the PSL scheme, were not properly following the scheme's aim. There was a need for lay down priorities in such a manner that the poorest of the poor would benefit.

Ahmed (2010) highlighted a clear and specific definition of the different components of PSL. Because from the survey, he found that some banks were not obvious about the exact scope of agriculture credit. Specific and detailed guidelines from the RBI could assist the banks to enhance their attachment in agricultural credit in the appropriate direction to achieve the objectives of PSL.

Langyintuo, 2020 Investigated how smallholder farmers in Sub-Saharan Africa are affected by lending to the priority sector. The research offers significant perspectives on how the livelihoods of smallholder farmers in the area can be enhanced by priority sector lending mechanisms that facilitate credit access.

Kambali and Niyaz Panakaje 2022, in their research, has highlighted the fact that the more viable the availability of loans for priority sectors, the greater the chances of utilising the loan amount for purchasing agricultural inputs (seeds, fertilizers etc.) and the incorporation of technological equipment in agriculture, thus fostering agricultural infrastructure. This conclusively leads to an increase in production and a betterment of the farmers' quality of life.

Nageswara & Sitansu (2024) provide an enlightening summary of priority sector lending in relation to Indian agriculture. Their research clarifies the workings and obstacles of priority sector lending, as well as its role in advancing India's agricultural sector.

With a focus on Bangladesh, Arif, Islam, and Islam, 2024 offers a thorough examination of the difficulties and possibilities related to priority sector lending in agriculture. Their research emphasizes how critical it is to deal with particular issues in order to maximize the benefits of lending programs in promoting agricultural growth.

Priority sector landings function in advancing sustainable agricultural development in developing nations is examined by Rahman & Mondal, 2023. Their results highlight how important smart lending strategies are to boosting the sustainability of farming methods and raising farmers's standards of living.

With a particular emphasis on Kenya, Alila & Atieno (2006) offer a comprehensive examination of the efficiency of priority sector lending in fostering agricultural sustainability. Their study provides important insights into the particular tactics and laws that support lending programs that successfully improve agricultural sustainability.

The effect of lending to the priority sector on agricultural growth in African nations is examined by Shuaibu and Nchake (2021). The findings of their study highlight the favourable relationship that exists between agricultural productivity and credit availability via priority sector lending, which in turn supports regional economic growth.

Goyal and Agrwal's 2015 analysis explores the difficulties and opportunities related to priority sector lending in the agricultural sector. Through a comprehensive analysis of extant literature and empirical data, Sharma underscores the intricate nature of the obstacles encountered by lenders, policymakers, and stakeholders in the agricultural sector. These difficulties include institutional bottlenecks, insufficient credit accessibility, and the need for creative financial products made specifically to meet the special needs of the agriculture industry.

A study by Bano and Sharma (2020) shows the following: Priority sector lending in India thoroughly focuses on the implications of the new Reserve Bank of India (RBI) guidelines. Sharma provides an in-depth analysis of policy frameworks and regulatory measures in order to shed light on how priority sector lending is changing and what that means for agricultural financing.

Research Gap

The recent paper tries to highlight the following Research Gap as perceived from the existing Literature:

a) The existing literature on the topic has primarily focused on secondary data collected from various paid-up sources. There are hardly any studies that are based on primary data collected at the grass-roots level. The current paper tries to address this gap in the literature.

b) Problems related to Priority Sector lending has been mostly in the literature without much authentication by the respondent farmers. The current study aims to close this gap by collecting first-hand opinions directly from farmers.

Objectives of the Study

The present study's research objectives are as follows:

(i) To measure the effectiveness of the PSL in agriculture sector in West Bengal.
(ii) To recommend some suggestive measure to develop the situation of small, marginal and landless farmers in West Bengal.

Methodology

The present research work is purely based on primary data. A structured questionnaire has been used to collect the primary data from the field survey. The study has been conducted in six

districts in West Bengal. These are, namely, Purba Bardhaman, Hooghly, Paschim Medinipur, Birbhum, South 24th Pargana, and Jhargram. Two blocks are identified and surveyed from each district for the study purpose. The field study is done with the help of convenience sampling techniques among the farmers in the selected blocks. The field study is done from February to November 2023. Finally, 421 farmers have responded to the survey. The Cornbach's alpha test has been made for the reliability and consistency of the questionnaire (Rahaman & Mondal, 2023). The outcome of the test is 0.856, which is very much acceptable. The frequency table, percentage, and statistical tools like the Pearson chi-square test and regression analysis are applied in the study for analyzing the primary data to depict rational winding up. The data have been analyzed using the SPSS-26 package.

Hypothesis

Eight sets of hypotheses have been formulated to achieve the research objectives of the present study. They are below:

1. H_0: There is no relation between loan availability under the PSL scheme and the use of higher-quality fertilizers.

2. H_0: There is no relation between loan availability under PSL scheme and availability of high-quality seeds.

3. H_0: There is no relation between loan availability under PSL scheme and improved irrigation facility.

4. H_0: There is no relation between loan availability under PSL scheme and improved firm technology.

5. H_0: There is no relation between loan availability under PSL scheme and improved overall productivity.

6. H_0: There is no relation between improved overall productivity and improved overall margin

7. H_0: There is no relation between improved overall productivity and improved quality of life.

8. H_0: There is no impact of loan availability under PSL scheme, improved overall productivity and improved overall margin on the quality of life of farmers.

Results and Discussion

Types of Farmers among Respondents

Types of farmers are one of the most important indicators to judge the effectiveness of PSL. According to PSL guidelines, higher of 40% of ANBC or CEOBE is allotted for PSL (Reserve Bank of India, 2020). Out of which 18% of ANBC or CEOBE is earmarked for the agricultural sector, out of which 10% is approved for small and marginal farmers, the farmer holding up to one hectare of agricultural land is marked as a marginal farmer, and the farmer holding one to two hectares of agricultural land is marked as a small farmer. The researcher has classified types of farmers into six classes, which are revealed in Table 1 below.

Table 1: Types of Farmers

Types of Farmers among Respondents	Frequency	Percent
Landless Farmer	34	8.1
Marginal Farmer	211	50.1
Small Farmer	80	19.0
Sem-Medium Farmer	2	0.5
Medium Farmer	16	3.8
Large Farmer	78	18.5
Total	421	100.0

Sources: Primary Data

Observation: The above table reveals that 50.1% of the respondents are marginal farmers, whereas 3.8% of the respondents are medium farmers.

Sources of Agricultural Credit under PSL

According to PSL master direction, the revise guiding principles on PSL is applicable for all commercial banks, regional rural banks, cooperative bank, SHG Bank Linkage, JLG Bank Linkages Reserve Bank of India, 2020. From which bank the respondents are taken loan is shown in table 2 below:

Table 2: Sources of Agricultural Credit Under PSL

Sources of Agricultural Credit under PSL	Frequency	Percent
Commercial Banks	174	41.3
RRBs	147	34.9
Cooperative Banks	47	11.2
SHG-Bank Linkage	44	10.5
JLG Bank Linkage	9	2.1
Total	421	100.0

Sources: Primary Data

Observation: The above table shows that 41.3% of the respondents are availing loans from commercial banks, 34.9% are availing loans from RRBs, only 2.1% from JLG Bank Linkage, and 11.2% are availing loans from Cooperative Bank previously, which was one of the most important *sources* of finance for farmers in rural areas.

Sources of Informal Agricultural Credit
Before the implementation of PSL, informal *sources* of credit were one of the major *sources* of finance in the agricultural sector in rural areas. But after the implementation of PSL and so many modifications and changes in the PSL Master Direction Informal *Sources* of finance are not the major *sources* of finance (Reserve Bank of India, 2020). But still, the poor landless farmer and a few small and marginal farmers avail themselves of loans from informal *sources* due to their easy availability and mode of repayment. It has been presented in the following table.

Table 3: Sources of Informal Agricultural Credit

Sources of Informal Agricultural Credit	Frequency	Percent
Money Lenders	4	1.0
NBFCs	46	10.9
Other Non-Institutional Sources	1	0.2
Not Taken	370	87.9
Total	421	100.0

Sources: Primary Data

Observation

The above table shows that 87.9% of the respondents have not taken any loans from informal *sources,* whereas 10.9% are taken loans from NBFCs and 0.2% from other non-institutional *sources*.

Types of Loan Taken under PSL

As per PSL guidelines, agricultural loans will be given to farmers for farm credit that viz., preparation of land, plantation, purchase of fertiliser and pesticides, spray, harvest, grading, and transportation of their personal farm's produce. agricultural infrastructure, which encompasses the purchase of agricultural implements and machinery, as well as loans for small and minor farmers to purchase land. Agricultural credit also includes loans for allied activities like dairy, fishery, animal husbandry, poultry, beekeeping, and sericulture. Due to this reason, the researcher has classified the 'Types of Loan Taken Under PSL' into three categories viz. farm credits, agricultural infrastructure, and allied activities, which are exposed in Table 4.

Table 4: Types of Loan Taken Under PSL

Types of Agricultural Credit under PSL	Frequency	Percent
Farm Credit	364	86.4
Agricultural Infrastructure	20	4.8
Allied Activities	37	8.8
Total	421	100.0

Sources: Primary Data

Observation

The above table reveals that 86.4% of respondents are taken loan for Farm credit, 4.8% for Agricultural Infrastructure and 8.8% loan taken for Allied Activities.

Hypothesis Testing
Pearson Chi-Square Test: A chi-square test is useful in the current study for testing the hypothesis as two categorical variables are independent of each other. In other words, to test whether there is any difference in the average of the two variables.

Hypothesis-1

H_0: There is no relation between loan availability under PSL scheme and more use of high-quality fertilizers.
H_1: There is a relation between loan availability under PSL scheme and more use of high-quality fertilizers.

Table 5: Cross tabulation between Loan Availability under PSL Scheme and More Use of High-Quality Fertilizers

			More Use of High-Quality Fertilizers					Total
			Highly Agree	**Agree**	**Neutral**	**Disagree**	**Highly Disagree**	
Loan Availability under PSL Scheme	Highly Agree	Number	75	31	5	1	0	112
		% of Total	17.8%	7.4%	1.2%	0.2%	0.0%	26.6%
	Agree	Number	39	168	23	13	0	243
		% of Total	9.3%	39.9%	5.5%	3.1%	0.0%	57.7%
	Neutral	Number	8	19	37	0	0	64
		% of Total	1.9%	4.5%	8.8%	0.0%	0.0%	15.2%
	Disagree	Number	1	0	1	0	0	2
		% of Total	0.2%	0.0%	0.2%	0.0%	0.0%	0.5%
	Highly Disagree	Number	0	0	0	0	0	0
		% of Total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total		Number	123	218	66	14	0	421
		% of Total	**29.2%**	**51.8%**	**15.7%**	**3.3%**	**0.0%**	**100.0%**

Sources: Researchers' Compilation

Table 6: Chi-Square Tests

	Value	**df**	**Asymptotic Significance (2-sided)**
Pearson Chi-Square	205.356	9	0.000
Likelihood Ratio	175.174	9	0.000
Linear-by-Linear Association	85.071	1	0.000
No of Valid Cases	421		

Sources: Researchers' Compilation

Interpretation

The result of the Chi-Square test, or P value, at the 5% level of significance is 0.000. It is less than 0.05 at the 5% level of significance. Thus, the alternative hypothesis is established, and the null hypothesis is discarded. Consequently, it can be said that there is an association between loan availability under the PSL scheme and more use of high-quality fertilizers. The cross-tabulation reveals that 57.7% of the respondents agree that sufficient loans are available under the PSL scheme, and as a result, 51.8% of respondents agree that they are using high-quality fertilisers.

Hypothesis-2

H_0: There is no relation between loan availability under PSL scheme and availability of high-quality seeds.

H_1: There is a relation between loan availability under PSL scheme and availability of high-quality seeds.

Table 7: Cross Tabulation between Loan Availability under PSL Scheme and Availability of High-Quality Seeds

			Availability of High-Quality Seeds					Total
			Highly Agree	Agree	Neutral	Disagree	Highly Disagree	
Loan Availability under PSL Scheme	Highly Agree	Number	72	34	6	0	0	112
		% of Total	17.1%	8.1%	1.4%	0.0%	0.0%	26.6%
	Agree	Number	45	171	27	0	0	243
		% of Total	10.7%	40.6%	6.4%	0.0%	0.0%	57.7%
	Neutral	Number	6	17	41	0	0	64
		% of Total	1.4%	4.0%	9.7%	0.0%	0.0%	15.2%
	Disagree	Number	1	0	1	0	0	2
		% of Total	0.2%	0.0%	0.2%	0.0%	0.0%	0.5%
	Highly Disagree	Number	0	0	0	0	0	0
		% of Total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total		Number	124	222	75	0	0	421
		% of Total	29.5%	52.7%	17.8%	0.0%	0.0%	100.0%

Sources: Researchers' Compilation

Table 8: Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	193.273	6	0.000
Likelihood Ratio	162.874	6	0.000
Linear-by-Linear Association	111.338	1	0.000
No of Valid Cases	421		

Sources: Researchers' Compilation

Interpretation: The result of Chi-Square test or P value at 5% level of significance is 0.000. It is less than 0.05 at 5% level of significance. Thus, alternative hypothesis is established the null hypothesis is discarded. Consequently, it can be said that there is a relationship between loan availability under PSL scheme and more use of high-quality seeds.

The cross tabulation shows that 57.7% respondents are agreed that the loan is available under PSL whereas 52.7% on the respondents agree with the perception of availability of high-quality seeds.

Hypothesis-3:
H_0: There is no relation between loan availability under PSL scheme and improved irrigation facility.
H_1: There is a relation between loan availability under PSL scheme and improved irrigation facility.

Table 9: Cross tabulation between Loan Availability Under PSL Scheme and Improved Irrigation Facility

			Improved Irrigation Facility					Total
			Highly Agree	**Agree**	**Neutral**	**Disagree**	**Highly Disagree**	
Loan Availability under PSL Scheme	Highly Agree	Number	69	32	11	0	0	112
		% of Total	16.4%	7.6%	2.6%	0.0%	0.0%	26.6%
	Agree	Number	33	169	31	10	0	243
		% of Total	7.8%	40.1%	7.4%	2.4%	0.0%	57.7%
	Neutral	Number	8	12	43	1	0	64
		% of Total	1.9%	2.9%	10.2%	0.2%	0.0%	15.2%
	Disagree	Number	1	0	1	0	0	2
		% of Total	0.2%	0.0%	0.2%	0.0%	0.0%	0.5%
	Highly Disagree	Number	0	0	0	0	0	0
		% of Total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total		Number	111	213	86	11	0	421
		% of Total	26.4%	50.6%	20.4%	2.6%	0.0%	100.0%

Sources: Researchers' Compilation

Table-10: Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	202.617	9	0.000
Likelihood Ratio	176.762	9	0.000
Linear-by-Linear Association	87.101	1	0.000
No of Valid Cases	421		

Sources: Researchers' Compilation

Interpretation: The result of Chi-Square test or P value at 5% level of significance is 0.000. It is less than 0.05 at 5% level of significance. Thus, alternative hypothesis is established the null hypothesis is discarded. Consequently, it can be said that there is a relationship between loan availability under PSL scheme and improved irrigation facility.

The cross tabulation reveals that 57.7% respondents are agreed that sufficient loan is available under PSL scheme and it has resulted 50.6% respondents are agreed that irrigation facility is improved.

Hypothesis-4:
H_0: There is no relation between loan availability under PSL scheme and improved firm technology.
H_1: There is a relation between loan availability under PSL scheme and improved firm technology**.**

Table 11: Cross Tabulation Between Loan Availability Under PSL Scheme and Improved Firm Technology

			Improved Firm Technology					Total
			Highly Agree	**Agree**	**Neutral**	**Disagree**	**Highly Disagree**	
Loan Availability under PSL Scheme	Highly Agree	Number	78	27	7	0	0	112
		% of Total	18.5%	6.4%	1.7%	0.0%	0.0%	26.6%
	Agree	Number	22	207	13	1	0	243
		% of Total	5.2%	49.2%	3.1%	0.2%	0.0%	57.7%
	Neutral	Number	8	25	31	0	0	64
		% of Total	1.9%	5.9%	7.4%	0.0%	0.0%	15.2%
	Disagree	Number	1	1	0	0	0	2
		% of Total	0.2%	0.2%	0.0%	0.0%	0.0%	0.5%
	Highly Disagree	Number	0	0	0	0	0	0
		% of Total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total		Number	109	260	51	1	0	421
		% of Total	25.9%	61.8%	12.1%	0.2%	0.0%	100.0%

Sources: Researchers' Compilation

Table 12: Chi-Square Tests

	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	250.021	9	0.000
Likelihood Ratio	213.328	9	0.000
Linear-by-Linear Association	110.981	1	0.000
No of Valid Cases	421		

Sources: Researchers' Compilation

Interpretation

The result of Chi-Square test or P value at 5% level of significance is 0.000. It is less than 0.05 at 5% level of significance. Thus, alternative hypothesis is established the null hypothesis is discarded. Consequently, it can be said that there is a close association between loan availability under PSL scheme and improved firm technology. The cross tabulation reveals that 57.7% respondents are agreed that sufficient loan is available under PSL scheme and it has resulted 61.8% respondents are agreed that firm technology is improved.

Hypothesis-5:

H_0: There is no relation between loan availability under PSL scheme and improved overall productivity.
H_1: There is a relation between loan availability under PSL scheme and improved overall production.

Table 13: Cross Tabulation Between Loan Availability Under PSL Scheme and Improved Overall Productivity

			Improved Overall Productivity					Total
			Highly Agree	**Agree**	**Neutral**	**Disagree**	**Highly Disagree**	
Loan Availability under PSL Scheme	Highly Agree	Number	82	27	3	0	0	112
		% of Total	19.5%	6.4%	0.7%	0.0%	0.0%	26.6%
	Agree	Number	71	158	14	0	0	243
		% of Total	16.9%	37.5%	3.3%	0.0%	0.0%	57.7%
	Neutral	Number	9	14	41	0	0	64
		% of Total	2.1%	3.3%	9.7%	0.0%	0.0%	15.2%
	Disagree	Number	1	1	0	0	0	2
		% of Total	0.2%	0.2%	0.0%	0.0%	0.0%	0.5%
	Highly Disagree	Number	0	0	0	0	0	0
		% of Total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total		Number	163	200	58	0	0	421
		% of Total	38.7%	47.5%	13.8%	0.0%	0.0%	100.0%

Sources: Researchers' Compilation

Table 14: Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	226.745	6	0.000
Likelihood Ratio	179.514	6	0.000
Linear-by-Linear Association	115.476	1	0.000
No of Valid Cases	421		

Sources: Researchers' Compilation

Interpretation

The result of Chi-Square test or P value at 5% level of significance is 0.000. It is less than 0.05 at 5% level of significance. Thus, alternative hypothesis is established the null hypothesis is discarded. Consequently, it can be said that there is a close association between loan availability under PSL scheme and improvement of overall productivity.

The cross tabulation reveals that 57.7% of the respondents are agreed that sufficient loan is available under PSL scheme and due to that reason overall productivity is improved.

Hypothesis: 6
H_0: There is no relation between improved overall productivity and improved overall margin.
H_1: There is a relation between improved overall productivity and improved overall margin

Table 15: Cross tabulation between Improved Overall Productivity and Improved Overall Margin

			Improved Overall Margin					Total
			Highly Agree	**Agree**	**Neutral**	**Disagree**	**Highly Disagree**	
Improved Overall Productivity	Highly Agree	Number	133	29	1	0	0	163
		% of Total	31.6%	6.9%	0.2%	0.0%	0.0%	38.7%
	Agree	Number	22	166	12	0	0	200
		% of Total	5.2%	39.4%	2.9%	0.0%	0.0%	47.5%
	Neutral	Number	0	6	52	0	0	58
		% of Total	0.0%	1.4%	12.4%	0.0%	0.0%	13.8%
	Disagree	Number	0	0	0	0	0	0
		% of Total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Highly Disagree	Number	0	0	0	0	0	0
		% of Total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total		Number	155	201	65	0	0	421
		% of Total	**36.8%**	**47.7%**	**15.4%**	**0.0%**	**0.0%**	**100.0%**

Sources: Researchers' Compilation

Table 16: Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	487.684	4	0.000
Likelihood Ratio	420.325	4	0.000
Linear-by-Linear Association	280.277	1	0.000
No of Valid Cases	421		

Sources: Researchers' Compilation

Interpretation

The result of Chi-Square test or P value at 5% level of significance is 0.000. It is less than 0.05 at 5% level of significance. Thus, alternative hypothesis is established the null hypothesis is discarded. Consequently, it can be said that there is an association between the improved overall productivity and improved overall margin.

The cross tabulation reveals that 47.5% of the respondents are agreed that overall productivity has been improved and it has resulted that 47.7% respondents are agreed that overall margin also improved.

Hypothesis-7:

H_0: There is no relation between improved overall productivity and improved quality of life.
H_1: There is a relation between improved overall productivity and improved quality of life.

Table 17: Cross tabulation between Improved Overall Productivity and Improved Quality of Life

			Improved Quality of Life					Total
			Highly Agree	**Agree**	**Neutral**	**Disagree**	**Highly Disagree**	
Improved Overall Productivity	Highly Agree	Number	91	65	7	0	0	163
		% of Total	21.6%	15.4%	1.7%	0.0%	0.0%	38.7%
	Agree	Number	33	144	23	0	0	200
		% of Total	7.8%	34.2%	5.5%	0.0%	0.0%	47.5%
	Neutral	Number	2	14	42	0	0	58
		% of Total	0.5%	3.3%	10.0%	0.0%	0.0%	13.8%
	Disagree	Number	0	0	0	0	0	0
		% of Total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Highly Disagree	Number	0	0	0	0	0	0
		% of Total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total		Number	126	223	72	0	0	421
		% of Total	**29.9%**	**53.0%**	**17.1%**	**0.0%**	**0.0%**	**100.0%**

Sources: Researchers' Compilation

Table 18: Chi-Square Test

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	213.283	4	0.000
Likelihood Ratio	178.643	4	0.000
Linear-by-Linear Association	137.851	1	0.000
No of Valid Cases	421		

Sources: Researchers' Compilation

Interpretation

The result of Chi-Square test or P value at 5% level of significance is 0.000. It is less than 0.05 at 5% level of significance. Thus, alternative hypothesis is established the null hypothesis is discarded. Consequently, it can be said that there is an association between overall productivity and quality of life of the farmer.

From the cross tabulation it is also seen that 47.5% of the surveyed farmers are agreed that their overall productivity has been improved. As a result, 53% respondents are agreed that quality of life also has been improved.

Regression Analysis

In the current study, regression analysis is done for assessing the relation among one dependent variable and several independent variables.

Hypothesis: 8

H_0: There is no impact of loan availability under PSL scheme, improved overall productivity and improved overall margin on the quality of life of farmers.

H_1: There is an impact of loan availability under PSL scheme, improved overall productivity and improved overall margin on the quality of life of the farmer.

Table 19: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.62	0.385	0.380	0.53106
Predictors: (Constant), Improved Overall Margin, Loan Availability under PSL Scheme, Improved Overall Productivity				
Dependent Variable: Improved Quality of Life				

Sources: Researchers' Compilation

Table 20: ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	73.470	3.000	24.49015	86.83771	0.000
	Residual	117.603	417.000	0.28202		
	Total	191.074	420.000			
Dependent Variable: Improved Quality of Life						
Predictors: (Constant), Improved Overall Margin, Loan Availability under PSL Scheme, Improved Overall Productivity						

Sources: Researchers' Compilation

Interpretation

The above table reveals that the R's value is 0.62 and R square's value is 0.385 and value of adjusted R square is 0.380 and standard error of the estimate is 0.53106.

In this model p value of beta coefficient is 0.000 which is significant at 5% level of significance. It is less than 0.05 at 5% level of significance. Thus, alternative hypothesis is established the null hypothesis is discarded. Consequently, it can be said that there is a relationship between improved quality of life of the farmer and loan availability under PSL scheme, improved overall productivity and improved overall margin of the farmer.

Here the value of F is 86.83771 which are significant at 5% level. The value of R square is 0.385 which indicates the model is a good fit and there is high correlation between the variables. Positive sign of the regression coefficient indicates that there is a direct relationship between loan availability under PSL and another independent variable. The adjusted R square value is 0.380 can explain about 38% of the variance in loan availability under PSL. . Finally it can be concluded that loan availability under PSL, improved overall productivity and improved overall margin have a positive effect on the quality of life of the farmer.

Findings

Important and vital outcomes of the present research work are show below:

    i.   Small and marginal farmers are the major respondents in the area of the study.

ii.   Majority of the agricultural loans under PSL are borrowed by the farmers from commercial banks in the study area.

iii.   Most of the respondents have not borrowed any kind of agricultural loan from informal *Sources*s.

iv.   Majority of the farmers have taken agricultural loan under the scheme of firm credit under PSL.

v.   There is a relation between loan availability under PSL scheme and more use of high-quality fertilizers.

vi.   Loan availability under PSL scheme has a relation with availability of high-quality seeds.

vii.   Similarly, loan availability under PSL scheme has an association with improved irrigation facility.

viii.   There is a relation between loan availability under PSL scheme and improved firm technology.

ix.   There is an association between loan availability under PSL scheme and improved overall productivity.

x.   Improved overall productivity has a relation with overall margin improvement.

xi.   There is a relationship between improved overall productivity and improved quality of life.

xii.   There is an impact of loan availability under PSL scheme, improved overall productivity and improved overall margin on the quality of life of farmers.

Conclusion

The analysis and results of the present study helps to wind up that the amount of loan given under PSL by the different Bank is sufficient to meet the needs of high-quality seeds, fertilizers, irrigation and firm technology i.e. the input cost. As a result, the farmers can improve the productivity, margin, and also the quality of life. The farmers are not depending on the informal *Sources* of credit. However, the study is not free from certain limitations. It has considered only six districts in West Bengal. An increase in the sample size may provide different result. But the present study helps to measure the effectiveness of PSL in agriculture sector in West Bengal and recommended some suggestions which helps in policy implications at the Government level.

Suggestions
From the above study some suggestions may be given for the betterment of the small, marginal and landless farmers in West Bengal. They are as below:

i.   Both central and state Government should intimate the farmers regarding the different Government scheme available for agriculture and allied activities.
ii.   Bank should organise awareness campaign for the farmers regarding the different banking products and services which are available for the farmers.
iii.   It is observed from the primary survey that shortage of permanent staff in the Regional Rural Bank is a major problem in the way of providing better services in the rural areas,

So, Government should take initiative to increase the number of employees in the RRBs.

iv. Irrigation facility should be improved and it should be owned and maintained by the Government as, private owned pumps and deep tube wells charge higher prices from farmers.

v. Government should provide high yielding seeds and fertilizer to the small and marginal farmer at free of cost or at a subsidised rate.

Future Scope of Present Study

The present study has been conducted by collecting the Reponses from 6 districts of West Bengal out of 23 districts of the state. Further studies can be conducted covering all the districts of the state. The recent study has worked extensively on the existing schemes of central and State Government in the domain of priority sector lending. The study can pave the way for devising a new scheme that can bring solution to the recent problems of priority sector Lending as highlighted in this paper.

Conflict of Interest

The authors declare that they have no competing interests.

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