Challenges in accessing agricultural credit among tribal and non-tribal communities in Chamba, Himachal Pradesh

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ABSTRACT

This study explores the challenges faced by tribal and non-tribal farmers in accessing agricultural credit in Chamba, Himachal Pradesh, with a focus on identifying disparities between these communities. Using data collected through a structured questionnaire and analyzed via the Mann-Whitney U test, the research identifies significant differences in the perception of barriers to credit access. The findings indicate that tribal farmers experience greater difficulties than their non-tribal counterparts, particularly in terms of awareness about loan schemes, accessibility to financial institutions, and securing sufficient loan amounts. Additionally, while interest rates were not considered as a major concern by either community, the study highlighted the significant burden of non-interest costs such as application fees, service charges, and the time and travel expenses incurred by farmers, especially those in remote tribal areas. The study underscores the need for targeted interventions, including financial literacy programs, improved banking infrastructure, and more accessible loan products tailored to the specific needs of tribal communities. These measures can help bridge the gap in agricultural credit access and promote financial inclusion for marginalized communities in rural India.

Keywords: *Access; Agriculture; Credit; Chamba; Farmers; Tribal; Non Tribal; Himachal Pradesh.*

Introduction

In present developing India, rural areas depended on agriculture; still continue to hold significant importance, not only as sources of livelihood but also as key contributors to employment generation. Agriculture is the largest source of livelihood for the rural

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population, which not only provides food and economic opportunities for rural population but also is devotion for them. It plays a critical role in the improvement in the life of people and overall development of the country as well (Kumar, V. 2022). Agriculture is the backbone of rural India, plays a vital role in ensuring the sustenance of farmers' lives. Currently, Indian agriculture is undergoing a transitional phase, where modern inputs, technologies, and resources have become indispensable (Kumar, A. Shinoj, P. & Joshi, P.K. 2010: Khan, N. et al., 2021). In this modernization process, alongside advanced techniques and inputs, finance emerges as a critical input (Yang & Zhu, 2013). Agricultural credit holds a unique yet highly significant place in this context. As an important tool to empower the farmers, credit is central to this transformation to take up necessary inputs, modern farming techniques and technologies (Scobie, G.M. & Franklin, D.L., 1977).

Most of the farmers in India belong to the small and marginal categories, and their share in the agricultural landscape has been steadily increasing, as highlighted by the 2015 Agricultural Census. According to 2015-16 Agriculture Census there was a 1.53% decrease in the total operated area compared to 2010-11 and 146.45 million operational holdings are there in India, with an aggregate area of 157.81 million hectares. However, there was an increase in the number of operational holdings and the average size of operational holdings decreased from 1.15 hectares in 2010-11 to 1.08 hectares in 2015-16, More than half of these operational holdings (126.06 million) are marginal and small, covering a total area of 74.07 million hectares, accounting for 46.94 percent of the total Holdings. The prevalence of small landholdings contributes to the poverty and low income levels among many Indian farmers, limiting their ability to invest in agricultural improvements (Sidhu & Gill, 2006).

In the context of agricultural growth, land and labor are no longer the primary drivers. Instead, capital investment and scientific knowledge have become crucial sources of agricultural advancement, with their contributions rapidly increasing (Rao,

C.H. 1980). This shift highlights the growing importance of finance for modern inputs and technological advancements with adequate credit in driving agricultural productivity and transformation (Scobie, G.M. & Franklin, D.L., 1977). For regions like Chamba, Himachal Pradesh, where diverse geographical and socioeconomic conditions prevail, access to agricultural credit is essential for sustaining and modernizing farming practices. Credit helps farmers to buy necessary inuts and adopt modern technologies to improve their farm production (Etonihu, Rahman, and Usman, 2013), it is an important means of supporting the poor farmers by stabilizing their income and reducing their vulnerability to financial hardships (Elias, Ahmad, and Patil, 2015). However, to access credit by farmers are fraught with challenges, particularly for marginalized communities such as tribal and small-scale farmers. However, several challenges hinder the effective implementation of credit systems. Research shows that farmers face many problems, such as unfair treatment, issues of collaterals, awareness or financial struggles, and other issues that affect their ability to get credit. These challenges make it harder for them to access the adequate agricultural credit properly, highlighting the need to understand these problems better.

In developing economies, farmers often face credit constraints and low income due to their inability to provide collateral to secure bank loans, this limits their access to formal financial support for farming purpose (Conning and Udry, 2007). Farmers in India rely for institutional and non institutional sources to avail credit for their farming and non farming purpose also (Tak & Tak, 2010). Informal sources include family, friends, relatives, and moneylenders, while formal sources operate through a well-organized three-tier structure. The Reserve Bank of India (RBI) and NABARD serve as the apex institutions in this system, while commercial banks, Regional Rural Banks (RRBs), and cooperative banks provide direct credit to farmers. Additionally, many banks collaborate with village-level societies and Self-Help Groups (SHGs) to deliver credit at the grassroots level (Kumar, Singh & Kumar, 2007). Ayegba, & Ikani (2013) mentioned that the

agricultural development can be accelerated by providing farmers with adequate credit at the right time, in the right place, and through the right institutions. Over the years, there has been a significant shift in the share of formal and informal credit sources in India. In 1951, institutional credit accounted for only 7.3% of borrowings by cultivator households, with a large 92.7% coming from non-institutional sources such as moneylenders and informal lenders. By 2016, this trend had reversed, with institutional sources making up 72% of borrowings, leaving only 28% from non-institutional sources. This change highlights the increasing role of formal financial institutions in providing credit to farmers, supported by policies and initiatives to reduce dependence on informal credit. Institutional agricultural credit has played a pivotal role in promoting modern farming techniques and private investments in agriculture by ensuring farmers have timely access to adequate credit at low-interest rates (Kumar & Thakur, 2023). However, despite the growing share of formal credit, farmers still face several challenges in accessing it. Issues such as the limited availability of financial institutions, their distance from farmers' homes, high-interest rates (Shobha & Siji, 2018), lack of awareness about various loan schemes, complex loan processes, and the need for collateral continue to create barriers (Sahni, M., 2020; Dhakshana & Rajandran, 2018). These challenges underscore the need for focused efforts to make formal credit more accessible and farmer-friendly.

This study seeks to address these critical gaps by investigating the underlying factors that hinder access to agricultural credit for tribal and non-tribal farmers in Chamba. Access to credit is influenced by several factors which also lead to several challenges. It aims to provide a comprehensive understanding of the issue, highlighting the systemic, institutional, and socio-cultural challenges that contribute to the inequities in credit access. The findings will offer insights for policymakers to design targeted interventions that promote financial inclusion and support sustainable agricultural development in the region.

Review of literature

Subramanian, & Sunil (2017), oberve that ensuring timely and adequate access to agricultural credit is essential for the growth of the farming sector. Efforts must focus on eliminating illegal costs associated with obtaining credit, which often burden farmers and hinder financial inclusion. Additionally, measures should be implemented to provide the required credit promptly and in sufficient amounts to meet the diverse needs of farmers. These steps are critical to improving the efficiency and effectiveness of agricultural finance systems.

Alam Khan, P., & Nazeer, D.I. (2019) identify and examine the challenges faced by farmers in obtaining and repaying agricultural loans. Farmers encounter issues such as crop failure, fluctuating monsoons, and insufficient awareness of loan procedures, collateral requirements, low yields, and volatile market rates. Major barriers include poverty, illiteracy, lack of mechanization, inadequate capital formation, poor marketing facilities, and limited knowledge of high-demand crops. Borrowers often face additional costs and procedural difficulties in securing credit, which can have long-term negative effects. Eliminating unnecessary costs and simplifying credit access are essential for mitigating these challenges.

Odinwa, et al. (2022), examine the challenges faced by farmers in accessing agricultural credit for enhanced food production, particularly in Delta State. It highlighted that farmers are more familiar with informal credit sources compared to formal ones, which remain largely inaccessible. Key challenges identified include a lack of trust by lending institutions, inadequate leadership vision in agriculture, and insufficient awareness of available credit facilities. Other barriers include high interest rates, lack of required savings with banks, diversion of loans for non-agricultural purposes, and the absence of insurance practices among farmers. Additional challenges include gender disparities, farmers' inability to repay revolving loans, illiteracy, the cost and

demand for feasibility reports, and farmers' aversion to risk. These issues collectively hinder effective access to agricultural credit.

Soundarya & Parimalarani (2022), conducted a study in Tamil Nadu focusing on understanding the challenges faced by farmers in accessing agricultural credit from financial institutions. The findings revealed that the primary issues included delays in loan disbursement, high costs associated with the credit application process, inadequacy of loan amounts, and a lack of knowledge about agricultural credit. Farmers also struggled with completing loan applications and were unaware of various loan schemes offered by banks. Additionally, the scale of finance was found to be insufficient. The study emphasized that the inadequacy of loan amounts was the most significant challenge, highlighting the growing credit needs of farmers in line with the rising costs of cultivation.

Lakhan, G.R. et al. (2020) identified challenges in agricultural finance provided by commercial banks. Bankers faced issues like indiscriminate borrower selection, political pressures, and delays due to incomplete documents such as no-dues and title deeds. Borrowers encountered problems including lack of awareness about loan programs, rigid procedures, delays in loan sanctioning, and disbursal processes.

Objective of the study

1. To examine the challenges faced by tribal and non-tribal communities in accessing agricultural credit in Chamba.

The primary objective of this study is to examine the challenges faced by tribal and non-tribal communities in accessing agricultural credit in Chamba. It aims to identify and analyze the socio-economic, institutional, and procedural barriers that hinder credit accessibility for these communities. The study also seeks to highlight disparities between tribal and non-tribal communities of study area in terms of their perception about the different problems faced by them in accessing the agriculture credit in term of overall cost of credit in other variables. By understanding these

challenges, the research intends to provide actionable insights to improve the financial inclusion of farmers in the region.

Research methodology

Study comprised primary data to obtain the required objective of the study. Primary data is collected using a semi structured questionnaire-cum-schedule, designed to capture comprehensive information about farmers' experiences with agricultural credit access. Three stages sampling with stratification was adopted. In the first stage all the seven blocks of Chamba district was selected, in second stage 3 villages with highest rural population from each development block was selected, and in 3rd and final stage 20 rural households accessing credit was selected purposively in the study. Total 420 respondent households were selected from the population of 94,596 rural households calculated by Finite Population Correction Factor formula to determine sample size.

The collected data analyzed employing statistical tools to identify patterns and relationships between different variables. Comparisons are made between tribal and non-tribal communities to understand disparities and unique challenges.

Scope of the study

The research aims to provide actionable insights into improving credit access for both tribal and non-tribal farmers, addressing systemic and regional challenges while suggesting policy interventions for financial inclusivity.

Study area

The study is focused on Chamba, a district located in the state of Himachal Pradesh, India. Chamba is known for its diverse geography, ranging from plains to mountainous regions, and is home to both tribal and non-tribal communities engaged in agriculture which is a unique combination of the district. The district's agricultural landscape is characterized by traditional farming practices comprising small and marginal farmers in majority, and the farming community relies on agricultural credit

to sustain and improve their livelihoods. Despite the availability of various credit sources, there are significant challenges in accessing financial resources. This study explored these challenges in detail, focusing on both tribal and non-tribal farmers in Chamba.

Analysis and interpretation

(i) Overall cost of the credit

The overall cost of credit encompasses all expenses incurred by farmers while obtaining and utilizing agricultural loans. These costs include interest rates, Loan Charges beyond Interest, Negotiation Cost and Cost of Time and Travel, such as travel expenses to banks and time lost during loan application and approval processes, for tribal and non-tribal farmers in Chamba, additional factors such as informal charges or bribes, the cost of preparing required documentation, and collateral-related expenses significantly increase the financial burden which are also included in the four main components of these area. These hidden costs disproportionately affect small and marginalized farmers, making credit access both expensive and challenging. Addressing these cost components is essential to ensure affordable and inclusive credit for all farmers in the region.

The analysis highlights the significant financial burdens faced by farmers in accessing agricultural loans. Among the various components, the cost of time and travel stands out as the most substantial expense, with a mean value of 3.78 and the highest variation (standard deviation of 0.782), highlighting the logistical and geographic challenges and even opportunity costs borne by farmers, particularly in remote areas, significantly contribute to the overall cost of credit. The Loan Charges beyond Interest and Negotiation Costs were found to have similar mean values of 2.33 and 2.32, respectively, indicating a consistent additional financial strain due to formal charges and informal negotiation-related expenses. Meanwhile, the amount of interest paid shows a lower mean of 1.73 but with moderate variability (standard deviation of 0.707) reflecting the benefits of standardized interest rates or institutional frameworks offering concessional credit. The overall

cost of credit, with a mean of 2.60 and a low standard deviation of 0.434, reflects the uniformity of the cumulative burden across respondents.

Results of the analysis represent that the respondents did not find interest rates very high, likely because they rely more on institutional sources offering concessional loans to farmers. However, Time and Travel Costs had the highest average, indicating that farmers spend significantly more on travel to access agricultural credit, these costs are likely influenced by geographic and logistical challenges, especially for those in remote areas. In comparison, the average expenses for Interest Paid, Loan Charges, and Negotiation Costs were lower. The low variability in Interest Paid suggests that standardized interest rates or regulations provide consistency across borrowers, Loan Charges and Negotiation Costs showed moderate variability, possibly due to differences in borrower characteristics, loan terms, or negotiation methods. In contrast, Time and Travel Costs showed the greatest variability, driven by factors like distance to credit institutions, making it a critical area for policy makers to address for reducing the overall cost of credit for farmers. These findings emphasize the need for targeted interventions to reduce hidden costs, streamline loan procedures, and address the logistical challenges that disproportionately affect small and marginalized farmers, ensuring equitable access to credit for all.

Table 1: Overall cost of agriculture credit

Overall cost of credit			
	Sum	Mean	Std. Deviation
Amount of Interest paid	725	1.73	.707
Loan Charges beyond Interest	982.67	2.33	.569
Negotiation Cost	977.50	2.32	.598
Cost of Time and Travel	1589.67	3.78	.782
Overall Cost	**1092.86**	**2.60**	**.434**

Source: Field Survey 2023-24.

Community wise analysis and cost of agriculture credit between tribal and non-tribal farmers households

The independent samples t-test was conducted to analyze the community-wide differences in the cost of agriculture, focusing on various cost components. Different component of cost included in the study was interest paid. loan charges beyond interest such as cost of application fees, other forced purchase lender services, service fees charged, bribes in this, rate of minimum deposit, closing costs, amount paid to obtain back collateral, Negotiation costs associated included, money paid to extension agents, amount paid to local officials or leaders, technicians expenses, gifts and bribes to local agents, Time and Travel cost including costs of frequent visits to the bank to get a loan, loss of work time, and the cost to collect documents required for a loan. The Levene's Test for Equality of Variances utilized to assess the equality of variances between the two groups, followed by a t-test for Equality of Means to determine if there were significant differences in the mean values of the specified costs. For the category "Cost of Interest paid," the Levene's Test indicates equal variances ($F=1.167$, $p=.281$), and the subsequent t-test suggests no significant difference in means between tribal and non-tribal areas ($t=-1.725$, $df=418$, $p=.085$). However, for others the Levene's Test suggests equal variances.

The analysis revealed several significant and non-significant differences between the two communities. Notably, significant differences were observed for application fees, forced purchase of other lender services, service fees charged, payments made to extension agents, and payments to local officials or leaders. Specifically, application fees exhibited a mean difference of -0.440 ($p < 0.01$), indicating that one community incurred substantially lower application fees. Similarly, the forced purchase of other lender services showed a mean difference of -0.268 ($p < 0.01$), highlighting that one community faced fewer forced purchases. Service fees charged also differed significantly, with a mean difference of -0.294 ($p < 0.01$), suggesting lower service fees for one community. Payments made to extension agents showed a

mean difference of -0.199 ($p < 0.05$), indicating disparities in costs, while payments to local officials or leaders displayed a positive mean difference of 0.230 ($p < 0.05$), suggesting higher costs for one community in this regard. On the other hand, cost components such as the rate of minimum deposit, closing costs, bribes, cost of frequent visits to the bank, loss of work time, and document collection costs did not show statistically significant differences between the communities. These findings imply that while certain costs of agricultural credit are similar across communities, others vary significantly due to rely on different institutions and different institutional practices, accessibility to credit facilities, or socio-economic factors. The observed discrepancies highlight the necessity of policy intervention in specific costs like application fees, service charges, and forced purchase to make agricultural credit easily accessible to all. The efforts to rectify these deviations will further help in eliminating the burden on the targeted communities and increase the level of accessibility and affordability in the credit system.

Table 2: Independent samples t-Test results for community-wise analysis of agricultural costs

Cost Component	Levene's Test for Equality of Variances (Sig.)	t-value	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	90% Confidence Interval of the Difference
Cost of Interest Paid	0.281	-1.725	418	0.085	-0.122	0.070	-0.238 to -0.005
Application Fees	0.001	-4.483	418	0.000	-0.440	0.098	-0.602 to -0.278
Forced Purchase of Other Lender Services	0.568	-3.033	418	0.003	-0.268	0.089	-0.414 to -0.123
Service Fees Charged	0.743	-3.384	418	0.001	-0.294	0.087	-0.437 to -0.151
Bribes Involved to Take Credit	0.002	-0.554	418	0.580	-0.058	0.105	-0.232 to 0.115
The Rate of Minimum Deposit	0.290	-0.768	418	0.443	-0.070	0.091	-0.220 to 0.080
Closing Costs Paid	0.079	-1.606	418	0.109	-0.154	0.096	-0.311 to 0.004
Paid Amount to Extension Agents	0.004	-2.136	418	0.033	-0.199	0.093	-0.352 to -0.045
Paid Amount to Local Official or Leader	0.636	2.489	418	0.013	0.230	0.093	0.078 to 0.383

Paid Expense for Technician	0.290	-0.697	418	0.486	-0.077	0.110	-0.259 to 0.105
Paid Gifts and Bribes to Local Agent	0.294	0.927	418	0.355	0.096	0.103	-0.075 to 0.266
Cost of Frequent Visits to the Bank to Get Loan	0.569	0.536	418	0.593	0.047	0.087	-0.097 to 0.190
Loss of Work Time	0.371	-0.563	418	0.574	-0.052	0.093	-0.206 to 0.101
Cost to Collect Documents Required for Loan	0.526	-1.011	418	0.313	-0.099	0.098	-0.260 to 0.062

Source: Field Survey 2023-24.

In conclusion, the Independent Samples t Test conducted on the cost of agriculture credit in tribal and non-tribal areas has revealed significant variations in various cost components. While no significant difference was found in the cost of interest paid, this result may be attributed to their reliance on institutional sources that offer concessional credit to farmers at the same rate of interest. This practice extends beyond community identification and regional differences, suggesting uniformity in interest rates provided by these sources to both tribal and non-tribal farmers. While noteworthy distinctions were identified in crucial aspects such as "Application fees," "Forced purchase of other lender services," and "Service fees Charged." The statistical analysis underscores the importance of considering not only interest-related costs but also ancillary expenses, including bribes, minimum deposit rates, closing costs, and expenses associated with negotiation and documentation.

(ii) Problems associated with agriculture credit

The challenges of agricultural finance are numerous and complex. Managing farm finance involves issues at both organizational and functional levels. Farmers obtain credit from non institutional and institutional agencies for various purposes, but many farmers faces difficulties during this process. In this study, we aimed to explore farmers' perceptions to identify the various problems they face while accessing agricultural credit in the study area, using a 5-point Likert scale. Based on insights derived from previous literature, a comprehensive list of potential issues and challenges

was identified which are related to the access of agriculture credit. Respondents were asked to record their responses on a five-point Likert scale. Following the completion of data collection, descriptive statistical tools were employed to analyze the data. Specifically, measures such as sum, mean, and standard deviation were calculated to interpret the findings. The identified issues were ranked in descending order based on their mean values obtained from the analysis. Additionally, this study emphasizes community-specific challenges in accessing agricultural credit, aiming to provide a clear understanding of the problems faced by farmers within different community contexts. The study has shown the various problems in obtaining the institutional credit, which is presented in table 2.

Table 3: Overall problems associated with access to agriculture credit

Descriptive Statistics	Sum	Mean	Rank
The location of banks and credit agencies is far from my village, making them difficult to access.	1598	3.80	1
Visiting banks or credit agencies leads to a loss of my daily wages.	1563	3.72	2
I lack awareness about loan schemes, their processes, and the required procedures.	1546	3.68	3
The loan application process is too complicated and time-consuming for me.	1472	3.50	4
There are frequent delays in the sanctioning of my loan, causing inconvenience.	1395	3.32	5
Banks demand high-value security as collateral, which I find difficult to provide.	1284	3.06	6
The amount of loan sanctioned to me is often insufficient to meet my needs.	1224	2.91	7
The loan repayment period provided to me is too short for me to manage comfortably.	1221	2.91	8
I experience a lack of cooperation from bank staff during the loan process.	1103	2.63	9
Bank officials display favoritism, which affects my fair access to loans.	1041	2.48	10
The interest rates on loans are high, making repayment challenging for me.	629	1.50	11

Source: Field Survey 2023-24.

The findings reveal that the location of banks and credit agencies emerged as the most significant challenge, with a mean score of 3.80. This issue, ranked first, underscores the geographical constraints faced by rural farmers, particularly those residing in remote tribal areas, where accessing financial institutions often requires considerable time and effort. The second-ranked challenge, with a mean score of 3.72, is the loss of daily wages incurred by farmers while visiting banks or credit agencies. These points to the opportunity cost of availing credit, which disproportionately affects small and marginal farmers who rely on daily earnings for sustenance. Farmers also reported a lack of awareness about loan schemes, processes, and required procedures as a major challenge, with a mean score of 3.68 (ranked third). This indicates a significant gap in financial literacy, which limits their ability to access formal credit and leverage available schemes effectively.

The complexity and time-consuming nature of the loan application process ranked fourth, with a mean score of 3.50. Many farmers expressed frustration over the cumbersome documentation and procedural requirements, which deter them from pursuing formal credit options. Delays in the sanctioning of loans, with a mean score of 3.32 (ranked fifth), further exacerbate farmers' difficulties, causing disruptions in their agricultural activities, especially during critical periods such as sowing and harvesting seasons. Other challenges include the requirement for high-value collateral, ranked sixth (mean score: 3.06), which poses a significant hurdle for resource-poor farmers. Additionally, the loan amounts sanctioned are often insufficient to meet their needs (ranked seventh, mean score: 2.91), and the repayment periods are too short to be manageable (ranked eighth, mean score: 2.91).

Farmers also reported experiencing a lack of cooperation from bank staff during the loan process, with a mean score of 2.63, ranked ninth. This indicates potential gaps in customer service and empathy from financial institutions toward rural borrowers. Ranked tenth, with a mean score of 2.48, is the issue of favoritism among bank officials, which affects the equitable distribution of

credit. Farmers perceive that this practice undermines their fair access to financial resources. Finally, the high interest rates on loans were identified as the least significant challenge, with a mean score of 1.50 (ranked eleventh). While this issue may not be as pressing as others of costless, it still poses a challenge for farmers with limited earning capacity.

These challenges directly linked with the farmer's access of agriculture credit and required targeted interventions to address these challenges. As with improving institutional infrastructure and rely on concessional credit by the farmers, their concern toward interest rate is very low but still other challenges which are associated with the access of credit are important to address like as improving the accessibility of banks and credit agencies, enhancing financial literacy, streamlining loan processes, and fostering a more cooperative approach among banking staff could significantly improve farmers' access to credit. Additionally, tailoring loan products to better suit the specific needs of tribal and non-tribal farmers in Chamba could ensure a more inclusive and effective agricultural credit system.

Community wise problems associated with access to agriculture credit

Community wise problems associated with Access to agriculture credit was identified with Mann-Whitney U test which examine whether there are significant differences in how non-tribal and tribal (scheduled tribal) communities perceive challenges related to accessing agricultural credit. This test is also known as the Wilcoxon rank-sum test, which is a non-parametric statistical method that compares two independent groups. It is particularly useful when the data does not meet the assumptions of normality or when the variables are ordinal or non-continuous. The test works by ranking all data points across both groups, calculating the U statistic, and analyzing the p-value to identify any significant differences between the groups' median ranks. A p-value below a commonly used threshold (such as 0.05) indicates that the differences between the two groups are statistically significant.

This suggests that the non-tribal and tribal communities experience or perceive the challenges of accessing agricultural credit differently. The application of the Mann-Whitney U test in this study try to provides valuable insights into the unique difficulties faced by each community, allowing for a deeper understanding of community-specific problems. This analysis helps to highlight disparities and can inform targeted policy interventions to improve agricultural credit access for both tribal and non-tribal farmers.

Table 4 presents the mean ranks of challenges associated with accessing agricultural credit, grouped by tribal and non-tribal communities. It highlights how these two different communities rank these challenges differently, providing insight into the relative importance or intensity of the issues for each community. Table 5 presents Mann-Whitney U Test Statistics which shows the results of the test, which assesses whether the differences in the mean ranks from Table 4 are statistically significant. It provides p-values and test statistics for each problem, indicating the challenges where the differences between the two groups are meaningful or not.

Table 4: Mean Ranks of Mann-Whitney U Test Results for Problems Associated with Access to Agricultural Credit

Problem	Community	N	Mean Rank	Sum of Ranks
Awareness	Non-Tribal	255	182.08	46430.50
	Scheduled Tribal	165	254.42	41979.50
Banks and Credit Agencies Location	Non-Tribal	255	198.59	50640.00
	Scheduled Tribal	165	228.91	37770.00
Loan Procedure	Non-Tribal	255	203.22	51820.50
	Scheduled Tribal	165	221.75	36589.50
Delay in Loan Sanctioning	Non-Tribal	255	213.77	54511.00
	Scheduled Tribal	165	205.45	33899.00
High Value of Security	Non-Tribal	255	205.94	52514.00
	Scheduled Tribal	165	217.55	35896.00
Cooperation by Staff Members	Non-Tribal	255	214.86	54790.00
	Scheduled Tribal	165	203.76	33620.00
Bank Officials' Favoritism	Non-Tribal	255	215.52	54958.00
	Scheduled Tribal	165	202.74	33452.00

Insufficient Period of Loan	Non-Tribal	255	205.64	52439.00
	Scheduled Tribal	165	218.01	35971.00
Insufficient Amount	Non-Tribal	255	197.66	50402.50
	Scheduled Tribal	165	230.35	38007.50
Loss of Wages	Non-Tribal	255	197.38	50331.00
	Scheduled Tribal	165	230.78	38079.00
Interest Rate	Non-Tribal	255	216.53	55214.50
	Scheduled Tribal	165	201.18	33195.50

Source: Field Survey 2023-24.

Table 5: Mann-Whitney U Test Statistics for Problems Associated with Access to Agricultural Credit

Problem	Mann-Whitney U	Wilcoxon W	Z	Sig. (2-tailed)
Awareness	13790.500	46430.500	-6.333	0.000
Banks and Credit Agencies Location	18000.000	50640.000	-2.716	0.007
Loan Procedure	19180.500	51820.500	-1.642	0.101
Delay in Loan Sanctioning	20204.000	33899.000	-0.730	0.465
High Value of Security	19874.000	52514.000	-0.998	0.318
Cooperation by Staff Members	19925.000	33620.000	-0.947	0.344
Bank Officials' Favoritism	19757.000	33452.000	-1.091	0.275
Insufficient Period of Loan	19799.000	52439.000	-1.051	0.293
Insufficient Amount	17762.500	50402.500	-2.780	0.005
Loss of Wages	17691.000	50331.000	-2.905	0.004
Interest Rate	19500.500	33195.500	-1.709	0.088

a. Grouping Variable: Community
Source: Field Survey 2023-24

The results indicate a statistically significant difference in the perception of awareness-related challenges between tribal and non-tribal farmers, with a p-value of 0.000. Tribal farmers reported a significantly higher mean rank (254.42) compared to non-tribal farmers (182.08), suggesting that lack of awareness about loan schemes and processes is more pronounced among tribal communities. This highlights the need for targeted financial literacy programs to address this gap. Similarly, the location of banks and credit agencies was found to be a significant challenge

($p = 0.007$), with tribal farmers (mean rank 228.91) facing greater difficulties than non-tribal farmers (mean rank 198.59). This finding underscores the importance of improving physical accessibility to financial institutions, particularly in remote tribal areas.

Other significant differences were observed for challenges related to the insufficient amount of loan sanctioned ($p = 0.005$) and loss of daily wages due to visits to banks ($p = 0.004$). In both cases, tribal farmers (mean ranks of 230.35 and 230.78, respectively) expressed greater dissatisfaction compared to their non-tribal counterparts (mean ranks of 197.66 and 197.38, respectively). This suggests that credit amounts often fall short of the needs of tribal farmers, and the opportunity cost of accessing credit is disproportionately higher for them.

For other challenges, such as the loan procedure, delay in loan sanctioning, high value of security, cooperation by staff members, bank officials' favoritism, insufficient loan repayment periods, and interest rates, the differences between tribal and non-tribal communities were not statistically significant (p-values > 0.05). This indicates that both communities face these issues to a similar extent, reflecting broader systemic inefficiencies in agricultural credit delivery.

Result of the study highlight critical disparities in specific areas of agricultural credit access between tribal and non-tribal farmers, particularly in areas such as awareness, accessibility, loan amounts, and opportunity costs. Tribal communities are significantly more disadvantaged in terms of awareness, access, and financial adequacy, necessitating targeted interventions to bridge these gaps. These findings emphasize the need for community-specific interventions, including financial literacy campaigns, decentralized banking infrastructure, and tailored credit policies that address the unique needs of tribal farmers. Such measures can help bridge the gap in agricultural credit access and contribute to the financial inclusion of marginalized communities in Chamba, Himachal Pradesh.

Conclusion

In conclusion, this study sheds light on the multifaceted challenges faced by tribal and non-tribal farmers in accessing agricultural credit in Chamba, Himachal Pradesh. The analysis reveals significant disparities between the two communities, particularly in terms of awareness, accessibility, and the financial burden associated with credit. Tribal farmers face greater difficulties in understanding loan schemes (Mean Rank = 254.42), accessing nearby banks and credit agencies (Mean Rank = 228.91), and securing adequate loan amounts (Mean Rank = 230.35). These findings underscore the need for targeted interventions to improve financial literacy and bank infrastructure in tribal areas, ensuring that the specific needs of tribal farmers are addressed effectively.

Additionally, while interest rates were not a major concern for either community, the study highlighted the significant burden of non-interest costs such as application fees, service charges, and the time and travel expenses incurred by farmers, especially those in remote tribal areas. With a mean value of 3.78 for the cost of time and travel, it is evident that geographical isolation exacerbates the financial strain on farmers. The Mann-Whitney U Test revealed that these challenges are more pronounced for tribal communities, with statistically significant differences in the mean ranks for issues like awareness and the location of credit facilities, reinforcing the need for policy reforms that address these logistical barriers and reduce the associated costs.

Ultimately, the results of this study call for a comprehensive approach to improve agricultural credit access in Chamba, focusing on reducing geographic and economic barriers, enhancing awareness, and tailoring financial products to the needs of marginalized communities. By addressing the unique challenges faced by tribal farmers, such as the lack of awareness, remote locations of credit agencies, and inadequate loan amounts, policy reforms can help create a more inclusive and accessible credit system. This would not only improve the economic well-being of farmers but also contribute to the broader goal of financial

inclusion in rural areas, ultimately bridging the gap between tribal and non-tribal communities in accessing agricultural credit.

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