



An Economic Analysis of Credit Utilization Pattern and Credit Gap for Grape Cultivation and Value Addition (Raisin Making) in Vijayapura District of Karnataka, India

**Asha Biradar ^{a+++*}, Prabhuling Tevari ^{b#}, G B Lokesh ^{c#},
Devendra Beeraladinni ^{d#} and Shivanand Kammar ^{e#}**

^a College of Agriculture, University of Agricultural Sciences, Raichur- 584104, Karnataka, India.

^b Department of Agricultural Economics, Agricultural Research Station, Siruguppa, University of Agricultural Sciences, Raichur -584104, Karnataka, India.

^c Department of Agricultural Economics, University of Agricultural Sciences, Raichur -584104, Karnataka, India.

^d Department of Agricultural Economics, Agricultural Research Station, Malnoor, University of Agricultural Sciences, Raichur -584104, Karnataka, India.

^e Department of Agricultural Extension Education, University of Agricultural Sciences, Raichur -584104, Karnataka, India.

Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

Article Information

DOI: <https://doi.org/10.9734/jeai/2024/v46i82702>

Open Peer Review History:

This journal follows the Advanced Open Peer Review policy. Identity of the Reviewers, Editor(s) and additional Reviewers, peer review comments, different versions of the manuscript, comments of the editors, etc are available here: <https://www.sdiarticle5.com/review-history/120425>

Original Research Article

Received: 15/05/2024

Accepted: 19/07/2024

Published: 22/07/2024

⁺⁺ PG Scholar;

[#] Assistant Professor;

^{*}Corresponding author: E-mail: ptevari@gmail.com;

Cite as: Biradar, Asha, Prabhuling Tevari, G B Lokesh, Devendra Beeraladinni, and Shivanand Kammar. 2024. "An Economic Analysis of Credit Utilization Pattern and Credit Gap for Grape Cultivation and Value Addition (Raisin Making) in Vijayapura District of Karnataka, India". *Journal of Experimental Agriculture International* 46 (8):252-62. <https://doi.org/10.9734/jeai/2024/v46i82702>.

ABSTRACT

Credit is an important factor triggering agricultural growth when it is utilized properly. The present study aims to analyze the credit utilization pattern and credit gap for grape cultivation and value addition (raisin making) in Vijayapura district, which is having the highest area under grape cultivation in Karnataka state. As the grape requires high maintenance expenses, its economic analysis is of great importance in its present status. The primary data was collected from 90 respondent grape farmers in the study area. The finding of the study revealed that the sample farmers borrowed an average of ₹ 1,46,883 from all the institutional sources for grape cultivation, and the utilization of borrowed institutional credit for grape production was ₹ 1,09,376 (74.5%), and ₹ 37,507 (25.5%) of borrowed institutional credit was diverted for raisin production. For raisin making the sample farmers borrowed a total of ₹ 1,67,372 in credit from non-institutional sources in the study area. ₹ 138,440 (82.72%) of borrowed non-institutional credit was utilized for raisin making and ₹ 28,932 (17.28%) of borrowed credit was diverted other purposes by the sample farmers. The total credit gap was found to be 58.49, 59.97, and 59.12 per cent from commercial banks, regional rural banks, and cooperative bank/societies respectively. The findings also indicated that the sample farmers used the borrowed institutional and non-institutional credit more effectively to increase their revenue, diverting it less often for other uses. Many farmers do not receive institutional credit in an adequate quantity, at the appropriate time, or at a reasonable cost. Therefore, there is a need to focus on existing access and the quantum of formal credit used for agricultural purposes by different farmers in rural areas of Vijayapura district.

Keywords: Institutional sources; non-institutional sources; credit utilization; credit gap.

1. INTRODUCTION

India is predominantly an agrarian economy. Agriculture sector plays the vital role in its economic growth and stability as is indicated by its major share to gross domestic product which is about 20.19% in the total GDP, employment generation (about 70% of people directly or indirectly depend on agriculture) and export earnings (about 13.3% of total export earnings). Success in agricultural sectors has direct impact on achieving some macroeconomic objectives like poverty reduction, human resources development both in the agriculture and industrial sectors and attaining food self-sufficiency as well as food security. The success of agricultural sectors, however, depends on the adoption of new seed-fertilizer-water technologies. The adoption of new technologies demands for agricultural credit since most of the farmers in India are small to medium land holders with or without small savings and are unable to invest the required capital from their own. The credit structure of the agricultural sector in developing countries is characterized by dualism, that is, the co-existence of institutional (formal) and non-institutional (informal) credit agencies. At present, the government are providing credit to the farmers side by side to eradicate poverty [1].

Farmers cannot adopt modern practices without getting sufficient credit for the purchase of inputs, management of farms and marketing of

produced goods. Hence, the provision of credit in agricultural farming businesses facilitates a farmer to acquire physical inputs to be used in production. Credit is not only important but also indispensable for a farmer to expand and run his business more efficiently and properly which may not otherwise be possible on his savings [2,3]. Credit plays a significant role in increasing farm productivity and income if it is utilized properly. So, the pattern of credit utilization is very important in farming activities. Since the banks are essentially business institutions aiming at earning good profit, a banker would extend money for those purposes which seem to be profitable as well as consistent with the economic development of the country. To make a profit, banks must ensure that the borrowed funds are used for productive purposes. Proper use of credit promotes production and benefits for the borrowers. The use of credit for unproductive purposes very often results in overdue loans and weakens the financial viability of the concerned financial institutions. The success of credit institutions, therefore, depends mostly on the extent of proper utilization and successful repayment by the users. In this research, an investigation was made to show the pattern of credit utilization and credit gap for the grape farmers in the study area.

2. METHODOLOGY

The multistage purposive random sampling technique was adopted in designing the sampling

frame for the study. In the first stage, Vijayapura district was selected based on the highest area and production of grapes in Karnataka state. Similarly, in the second stage, three taluks—namely, Tikota, Babaleshwar, and Vijayapura were selected based on the highest area under grapes in Vijayapura district. In the third stage, three villages were selected based on the highest area from each taluk. In the fourth stage, randomly 10 respondents from selected villages in the taluks were interviewed according to the needs of the study.

From selected villages, 10 farmers were randomly selected from each village who were cultivating grapes and had also undertaken raisin production in their backyards. Farmers needed medium and long-term credit to establish the grape orchard, and the farmers used crop loans to get short-term credit for grape orchard maintenance. The purposively selected farmers were borrowers of institutional short-term credit for grape production, irrespective of institutional sources (scheduled commercial banks, regional rural banks, or cooperative banks/societies). The respondent farmers acquired the additional credit for raisin production from non-institutional sources as the institutional credit facility was unavailable for the same purpose. The analytical techniques used in the study are:

I. Descriptive statistics

The technique of descriptive analysis was used to estimate the extent of diversion in agriculture credit under different portfolios and utilization of credit. The percentages and averages were computed and compared to obtain meaningful results.

II. Credit gap analysis

Understanding of credit gap is important, if the required credit is not available then there is every chance of mis-utilization of loan amounts for different purposes. To understand this Total Credit Gap (TCG) was calculated.

Total Credit Gap (TCG) = Credit required – Credit sanctioned.

The TCG was further decomposed into two types viz., Gap-I and Gap-II.

Gap-I = Scale of finance – Credit sanctioned
Gap-II = Scale of finance – Credit required

The percentage of credit gap was calculated by using the following formula

$$\text{Credit Gap} = \frac{\text{Credit required} - \text{credit sanctioned}}{\text{Amount of credit required}} \times 100$$

3. RESULTS AND DISCUSSION

3.1 Utilization Pattern of Institutional Credit by Sample Farmers for Grape Cultivation in the Study Area

The utilization of institutional credit for grape cultivation by respondent farmers in the study area is shown in Table 1. The overall amount of credit utilized for grape production in the study area was ₹ 1,09,376 per acre from different institutional sources of credit. The majority of the credit per acre was used for labour wage payment (₹ 44,862), followed by the purchase of manure and vermicompost (₹ 19,168), fertilizer costs (₹ 18,340), plant protection chemicals (₹ 16,247), and the purchase of growth regulators and micronutrients (₹ 10,760). The amount of credit utilized by sample farmers from commercial banks, regional rural banks, and cooperative banks/societies was ₹ 11,2083, ₹ 10,7846, and ₹ 10,8200 per acre, respectively.

According to the credit utilization study, the majority of the loan was used to pay labour payments as well as the purchase of manures and fertilizers because these inputs were critical and required in a specific quantity at the appropriate time. The fact that a sizable sum of institutional credit was borrowed and used to pay labour wages suggests that hired labour was employed more frequently for grape cultivation in the studied region.

Commercial banks made a substantial contribution to all the production processes used in grape cultivation, among other credit sources. This may be explained by the increased availability of financing from commercial banks and the ease with which farmers have been able to do so. This caused farmers to depend more on formal institutions than on informal ones for access to loans for grape production, so there is still a need to strengthen institutional sources of financing. In addition, effective extension strategies may be used to educate the farmers in the study region on how to use credit responsibly. Similar results were obtained by Kamal et al. [4], Deb et al [5] and Haryanto [6].

Table 1. Utilization pattern of institutional credit by sample farmers for grape cultivation in the study area (₹/acre)

SI. No.	Credit utilization purposes	Commercial Banks (n=36)		Regional Rural Banks (n=33)		Cooperative Banks /Societies (n=21)		Overall (n=90)	
		Amount (₹)	% to total	Amount (₹)	% to total	Amount (₹)	% to total	Amount (₹)	% to total
1	Purchase of manures and vermin-compost	23339	20.82	17241	15.99	16924	15.64	19168	17.52
2	Purchase of fertilizer	19160	17.09	18060	16.74	17800	16.45	18340	16.77
3	Purchase of growth regulators and micronutrients	11458	10.22	10727	9.10	10095	9.33	10760	9.84
4	Purchase of plant protection chemicals	15070	13.44	16000	14.83	17667	16.33	16247	14.85
5	Payment of labour wages	43056	38.43	45818	43.34	45714	42.25	44862	41.02
Total credit utilized		112083	100.00	107846	100.00	108200	100.00	109376	100

Table 2. Diversion of institutional credit by sample farmers for raisin making in the study area (₹/acre)

SI. No.	Credit diversion purposes	Commercial banks (n=36)		Regional Rural Banks (n=33)		Cooperative banks /Societies (n=21)		Overall (n=90)	
		Amount (₹)	% to total	Amount (₹)	% to total	Amount (₹)	% to total	Amount (₹)	% to total
1	Repair and replacement of sheds with iron mesh and zinc sheet roof	20500	54.91	15700	43.32	11800	30.30	16000	42.66
2	Payment of labour wages	11708	31.36	12955	35.74	14786	37.97	13149	35.06
3	Purchase of chemicals	1792	4.80	3955	10.91	5286	13.57	3678	9.81
4	Purchase of packing materials	1633	4.37	1455	4.01	3643	9.35	2244	5.98
5	Purchase of crates	1033	2.77	1680	4.64	2429	6.24	1714	4.57
6	Transportation and storage costs	667	1.79	500	1.38	1000	2.57	722	1.92
Total credit diverted		37333	100.00	36245	100.00	38944	100.00	37507	100.00

Table 3. Overall scenario of institutional credit utilized by sample farmers in the study area (₹/acre)

SI. No.	Credit utilized	Commercial Banks (n=36)		Regional Rural Banks (n=33)		Cooperative Banks/Societies (n=21)		Overall (n=90)	
		Amount (₹)	% to total	Amount (₹)	% to total	Amount (₹)	% to total	Amount (₹)	% to total
1	Credit utilized for cultivation of grapes	112083	75.01	107846	74.84	108200	73.53	109376	74.50
2	Diversion of credit for raisin making	37333	24.99	36245	25.16	38944	26.47	37507	25.50
Total credit borrowed		149416	100.00	144091	100.00	147144	100.00	146883	100.00

3.2 Diversion of Institutional Credit by sample Farmers for Raisin Making in the Study Area

Table 2 displays how the sample farmers diverted institutional credit for raisin-making in the study area. The formal financial institutions do not offer any specific credit facilities for value addition or processing, and the credit that was acquired from institutional sources for production purposes was instead used for processing and value-added operations in the studied region. The sample farmers in the research district used a total of ₹ 37,333 of credit availed from commercial banks for raisin production. But the majority of this credit (₹ 20,500) was used to repair and replacement of the sheds with iron mesh and zinc sheet roofs, followed by labour expenditures (₹ 11,708), chemicals for dipping (₹ 1,792), packaging materials and curtains (₹ 1,633), crates (₹ 1,033), and transportation and storage expenses (₹ 667).

Respondent borrowers from regional rural banks, on the other hand, spent ₹ 36,245 on the value addition of grapes which is raisin production. The majority of credit (43.32%) was spent on shed repair and replacement, followed by labour wages (35.74%), chemical purchases (10.91%), purchases of crates (4.64%), packaging materials and curtains purchases (4.01%), and transportation and storage costs (1.38%).

In the case of cooperative banks and societies, ₹ 38,944 was utilized for the raisin making by the sample respondents in the study area. The majority of the credit borrowed from cooperative banks or societies was used to repair and rebuild the sheds (₹ 11,800), with the remainder going toward the payment of labour wages (₹ 14,786), the purchase of chemicals (₹ 5,286), packing materials purchases (₹ 3,643), crates purchases (₹ 2,429), and transportation and storage costs (₹ 1,000).

The overall amount diverted by sample farmers for repair and replacement of sheds from all institutional credit sources was ₹ 16,000, which constituted 42.66 per cent of the total amount diverted. The institutional credit usage for labour costs, purchases of chemicals, purchases of packing materials, purchases of crates, and transportation and storage costs were 35.06, 9.81, 5.98, 4.57, and 1.92 per cent, respectively of the total institutional credit diverted. In the studied district, drying grapes in sheds was a

common practice. These sheds consist of long, iron-mesh platforms in 8–12 tiers on which the grape bunches are placed in a single layer. The sheds have zinc-sheet roofs, which protect the bunches from direct sunlight. There were no walls, and the wind was allowed to flow freely over the bunches. The next major cost incurred in raisin-making in the studied district was human labour (35.06%). After drying raw grapes in shades, collected raisins are separated from stems during the cleaning process. After primary cleaning, cap stem removal is done by hand, and the process of grading is done at this time only and these activities involve huge amount of human labour. Another important cost incurred by the sample farmers for raisin production was on chemicals (9.81%). The main practice that causes faster water loss from grape berries is dipping grapes in solution, therefore sample farmers dipped the grape bunches in different brands of dipping oils which are available in the market. Raisins are hygroscopic by nature; therefore, the raisins are packed by sample farmers as per the demand of the market from good-grade packing material and as per the norms specified by the Food Safety and Standards Authority of India (FSSAI). Similar results were obtained by Kamal et al. [4].

3.3 The Overall Scenario of Institutional Credit Utilized by Sample Farmers in the Study Area

Table 3 displays the sample respondents' overall institutional credit utilization pattern for grape cultivation, as well as credit diversion for raisin making in the study district.

The sample farmers borrowed an average of ₹ 1,46,883 from all the institutional sources for grape cultivation, and the utilization of borrowed institutional credit for grape production was ₹ 1,09,376 (74.5%), and ₹ 37,507 (25.5%) of borrowed institutional credit was diverted for raisin production.

Farmers had borrowed short term loan of ₹ 1,49,416 from commercial banks for production purposes in the study area. In a similar fashion, the sample farmers in the research area have borrowed crop loan from regional rural banks (₹ 1,44,091). In case of cooperative banks/societies, the farmers have borrowed amount of ₹ 1,47,144 for grape cultivation.

The total amount utilized for grape cultivation was ₹ 1,12,083, which accounted for 75.01 per cent of the total credit borrowed from commercial banks. The total sum used for raisins was ₹ 37,333, or 24.99 per cent of the total borrowed credit from commercial banks. The respondents allocated 74.84 per cent and 25.16 per cent of the total credit they borrowed from the regional rural banks for grape cultivation and raisin production, respectively. Similarly, in the case of the cooperative banks/societies, 73.53 per cent of total credit was utilized for grape cultivation and 26.47 per cent was diverted for raisin production.

From the aforementioned findings, it can be inferred that the farmers in the study district utilized nearly three-fourths of their credit for grape cultivation and diverted one-fourth of their borrowed sum to value-added purposes. The findings also indicated that the sample farmers used the borrowed institutional credit more effectively to increase their revenue, diverting it less often for other uses. Similar results were obtained by Kamal et al. [4], Ramasamy and Malaiarasan [7] and Taskin et al, [8].

3.4 Utilization Pattern of Non-Institutional Credit by Sample Farmers for Raisin Making in the Study Area

The utilization pattern of credit for raisin making by sample farmers from non-institutional sources is shown in Table 4. Most of the small and medium farmers preferred non-institutional sources as they were not getting sufficient credit from institutional sources for value addition. In the research district, farmers who borrowed money from moneylenders used a total of ₹ 1,32,405 in credit for raisin making. However, the majority of this credit was spent on the repair and replacement of sheds (₹ 58,544), followed by labour wages (₹ 35,340), purchase of packing materials (₹ 19,600), purchase of crates (₹ 9,811), purchase of chemicals (₹ 8,450), and transportation and storage costs (₹ 660). The sample respondents, on the other hand, borrowed money from friends or relatives and spent ₹ 1,44,475 on raisin production in the studied district. The majority of credit was spent on the repair and replacement of sheds in the backyards of farmers' houses (₹ 65,714), followed by labour wages (₹ 37,120), purchase of packing materials (₹ 20,600), purchase of crates (₹ 10,811), the purchase of chemicals (₹ 9,450), and transportation and storage costs (₹ 780).

The overall amount utilized for the repair and rebuilding of sheds by sample farmers from non-institutional sources was ₹ 62,129, which constituted 44.88 per cent of the total amount borrowed. The credit usage for labour wages, purchase of packing materials, crates, chemicals, transportation and storage costs were 26.17, 14.52, 7.45, 6.46, and 0.52 per cent, respectively in the study area. The major part of the non-institutional credit was utilized for repairs and replacement of shed materials and labour wages. From the above results, it can be concluded that the sample farmers of the district utilized non-institutional sources of credit for their immediate cash requirements in raisin making.

3.5 Diversion of Non-Institutional Credit by Sample Farmers for Other Purposes in the Study Area

Table 5 illustrates the non-institutional credit that the sample of respondents in the research area diverted for other purposes. The findings revealed that the farmers diverted a total of Rs 18,055 from the loan they obtained from money lenders in the researched region for the production of raisins for other purposes. The majority of the borrowed money was used to purchase livestock (₹ 11,805), household items (₹ 3,001), farm implements (₹ 1,944), animal shed repairs (₹ 833), and feed/fodder for livestock (₹ 472). The sample respondents who borrowed money from friends and family relatives to produce raisins misappropriated a total of ₹ 39,810. Overall, the sample farmers diverted a total of ₹ 28,932 of the non-institutional loan they borrowed for other purposes.

The majority of credit from various non-institutional sources was largely diverted by the study area's sample farmers for the purchase of livestock and family necessities. Livestock rising is the predominant activity in rural India in general and in the study region in particular. Credit borrowers utilized the non-institutional credit to purchase a range of livestock animals, including buffalo, cows, bullocks, and goats, in order to ensure additional revenue from the sale of milk and meat. They also needed to buy feed for their cattle in the study area. The aforementioned findings imply that a sizeable quantity was used in the research area for personal consumption. The small and medium-sized farmer respondents' lack of education and poverty might be responsible for the non-institutional credit being used for unintended ends.

Table 4. Utilization pattern of non-institutional credit by sample farmers for raisin making in the study area (₹/acre)

Sl. No.	Credit utilization purposes	Money lenders (n=15)		Friends/relatives (n=20)		Overall (n=35)	
		Amount (₹)	% to total	Amount (₹)	% to total	Amount (₹)	% to total
1	Repair and replacement of sheds with iron mesh and zinc sheet roof	58544	44.22	65714	45.48	62129	44.88
2	Payment of labour wages	35340	26.69	37120	25.69	36230	26.17
3	Purchase of packing materials	19600	14.80	20600	14.26	20100	14.52
4	Purchase of crates	9811	7.41	10811	7.48	10311	7.45
5	Purchase of chemicals	8450	6.38	9450	6.54	8950	6.46
6	Transportation and storage costs	660	0.50	780	0.54	720	0.52
Total credit utilized		132405	100.00	144475	100.00	138440	100.00

Table 5. Diversion of non-institutional credit by sample farmers for other purposes in the study area (₹/acre)

Sl. No.	Credit diversion	Money lenders(n=15)		Friends/relatives (n=20)		Overall (n=35)	
		Amount (₹)	% to total	Amount (₹)	% to total	Amount (₹)	% to total
1	Purchase of feed/fodder	472	2.61	303	0.76	387	1.34
2	Purchase of farm implements	1944	10.77	2647	6.65	2295	7.93
3	Shed repair	833	4.61	1212	3.04	1022	3.53
4	Purchase of livestock	11805	65.38	17023	42.76	14414	49.82
5	Household purpose	3001	16.62	18625	46.78	10814	37.38
Total credit diverted		18055	100.00	39810	100.00	28932	100.00

Table 6. Overall scenario of non-institutional credit utilized by sample farmers in the study area (₹/acre)

Sl. No.	Overall credit utilized	Money lenders (n=15)		Friends/relatives (n=20)		Overall (n=35)	
		Amount (₹)	% to total	Amount (₹)	% to total	Amount (₹)	% to total
1	Credit utilized for raisin making	132405	88.01	144475	78.40	138440	82.72
2	Diversion of credit for other purposes	18055	11.99	39810	21.60	28932	17.28
Total credit borrowed		150460	100.00	184285	100.00	167372	100.00

Table 7. Credit gap for grape cultivation and raisin making in the study area (₹/acre)

SI. No.	Credit gap levels	Particulars	Commercial Banks	Regional Rural Banks	Co-operative Banks/societies
1.	GAP-I	Scale of finance for grape production	120000	120000	110000
		Amount Sanctioned for grape production	149416	144091	147144
		GAP-I	+29416 (24.51)	+24091 (20.07)	+37144 (33.77)
2.	GAP-II	Scale of finance for grape production	120000	120000	110000
		Credit requirement for grape production and raisin making	360000	360000	360000
		GAP-II	-240000 (66.66)	-240000 (66.66)	-250000 (69.44)
3.	TCG	Amount Sanctioned for grape production	149416	144091	147144
		Credit requirement for grape production and raisin making	360000	360000	360000
		Total Credit Gap	-210584 (58.49)	-215909 (59.97)	-212856 (59.12)

*Note: In GAP-I, figures within the parentheses indicate percentage to scale of finance fixed.
In GAP-II and TCG, figures within the parentheses indicate percentage to credit requirement.*

3.6 Overall Scenario of Non-Institutional Credit Utilized by Sample Farmers in the Study Area

Table 6 displays the sample respondents' overall non-institutional credit utilization pattern for raisin making, as well as credit diversion for other purposes.

Overall, the sample farmers borrowed a total of ₹1,67,372 in credit for raisin making from non-institutional sources in the study area. ₹138,440 (82.72%) of borrowed non-institutional credit was utilized on raisin making and ₹28,932 (17.28%) of borrowed credit was diverted other purposes by the sample farmers.

According to a review of the non-institutional credit obtained from various sources, farmers had borrowed an amount of ₹1,50,460 from moneylenders for raisin making purposes. In a similar fashion, the sample farmers in the research area have borrowed the largest sums of money from friends and relatives (₹1,84,285). Across the non-formal institutions, the respondent farmers employed funding in a more-or-less identical manner for raisin production and diverted for other purposes.

The total amount used for raisin making was ₹1,32,405, which accounted for 88.01 per cent of the total credit borrowed from the moneylenders. The total sum diverted for other activities was ₹ 18,055, or 11.99 per cent of the total borrowed credit from the moneylenders. The respondents allocated 78.4 per cent (₹1,44,475) and 21.60 per cent (₹ 39,810) of the total non-institutional credit they borrowed from the friends/relatives for raisin making and other purposes, respectively.

From the aforementioned findings, it can be inferred that the farmers in the study region utilized non-institutional credit for raisin making at a relatively high rate compared to other purposes. The findings also indicated that the sample farmers used the borrowed non-institutional credit more effectively to increase their revenue, diverting it less often for other uses.

3.7 Credit Gap for Grape Cultivation and Raisin Making in the Study Area

Total credit gap (TCG) calculations for various credit sources are shown in Table 7. The TCG was split into Gap-I and Gap-II, two distinct gap

levels. The Gap-I is the discrepancy between the scale of financing for grape cultivation and the sum that the banks have sanctioned for grape cultivation per acre. The second gap (Gap-II) is the discrepancy between the scale of financing for grape production and the credit requirements by the farmers for grape growing and raisin making in the Vijayapura district. The commercial banks, regional rural banks, and cooperative banks set the per-acre scale of financing at ₹ 1,20,000, ₹ 1,20,000, and ₹ 1,10,000, respectively. The State Level Technical Committee (SLTC) declared the scale of financing for grape cultivation per acre, which is the same for all the banks operating in the area under study. The SLTC decision allows it to advance a range of (+/-) 20 percent to the scale of finance to farmers.

In the case of commercial banks, the average amount sanctioned per acre was ₹ 1,49,416 as against the scale of finance of ₹ 1,20,000 per acre, indicating a positive GAP-I of ₹ 29,416 (24.51%) for grape growing. According to the scale of funding in regional rural banks, the average amount sanctioned per acre was ₹ 1,44,091, indicating a positive GAP-I of ₹ 24,091 (20.07%) for grape cultivation. In the case of cooperative banks/societies, the average amount sanctioned per acre was ₹ 1,47,144 as against the scale of finance of ₹ 1,10,000 per acre, indicating a positive GAP-I of ₹ 37,144 (33.77%) for grape production in the study area. The sanctioning discretion lies with the branch managers in the study area; all the bank managers have advanced beyond the scale of finance fixed by the SLTC for grape production in the studied district.

The gap between the credit requirement for both grape production and value addition in grapes and the scale of finance was also worked out for the sample farmers in the study area, and the results are presented in Table 7. A negative GAP-II of ₹ 2,40,000 (66.66%) was calculated for grape cultivation and value addition in the case of commercial banks and regional rural banks, where the credit demand per acre was ₹ 3,60,000 and the scale of finance was set at ₹ 1,20,000 per acre. In cooperative banks, there existed a negative GAP-II of ₹ 2,50,000 (69.44%) for grape cultivation and value addition.

The total credit gap (henceforth TCG) was also estimated for the sample respondents, and the findings of the study indicated that the per-acre

average amount of loan sanctioned for farmers worked out to ₹ 1,49,416 from commercial banks as against the per acre required amount of ₹ 3,60,000. This has led to the TCG of 58.49 per cent (₹ 2,10,584/ac) in commercial banks' lending. In the case of regional rural banks, the average per acre amount of loan sanctioned for farmers was ₹ 1,44,091 as against the amount of loan required of ₹ 3,60,000. This has resulted in a TCG of ₹ 2,15,909 (59.97%) for grape farmers in the study area. The average amount of loan sanctioned per acre by cooperative banks/societies was estimated to be ₹ 1,47,144 as against the amount of loan required per acre of ₹ 3,60,000 with a TCG of 59.12 per cent.

The commercial banks had the lowest TCG among the various institutional credit sources in Vijayapura district. The fact that commercial banks have a characteristic that allows them to offer adequate credit in lump sums might be the possible reason for the lowest credit gap. On the other hand, the regional rural banks have a larger credit gap, which suggests that the loan they offer would not be enough to pay the costs of production and value addition incurred by the farmers.

Although the district has a number of financial institutions that can provide farmers with effective credit support, many farmers do not receive institutional credit in an adequate quantity, at the appropriate time, or at a reasonable cost. Therefore, there is a need to focus on existing access and the quantum of formal credit used for agriculture purposes by different farmers in rural areas of Vijayapura district. A programme that increases the amount of credit distributed with better technical supervision and prompt credit disbursement by financial institutions is urgently needed to enhance the socio-economic situation of grape farmers in the study area. The above results are in context with the study conducted by Pagire and Nagane [9] and Shivaswamy et al. [10].

4. CONCLUSION

Credit utilization and credit gap for grape cultivation and value addition in Vijayapura district. As observed in this study most of credit utilized nearly three fourth of their credit for grape cultivation and diverted one-fourth of their borrowed sum to value-added purposes. From the findings, it can be inferred that the farmers in the study region utilized non-institutional credit for raisin making at a relatively high rate

compared to other purposes. The findings also indicated that the sample farmers used the borrowed institutional and non-institutional credit more effectively to increase their revenue, diverting it less often for other uses. Borrowers were found to be conscious about purposive utilization of loan money. The scale of finance decided by the institutions was not enough. And furthermore, in the context of the inflationary trend of all crucial input's prices being used in the grape's cultivation, this scale cannot be justified. It is therefore, necessary to raise the scale of finance for grape crop by the institutions, in particular and other financing agencies, in general for grape crop.

DISCLAIMER (ARTIFICIAL INTELLIGENCE)

Authors hereby declare that NO generative AI technologies such as Large Language Models (ChatGPT, COPILOT, etc) and text-to-image generators have been used during writing or editing of manuscripts.

ACKNOWLEDGEMENT

The authors thank and acknowledge grape farmers of Vijayapura district of Karnataka state for sharing their field data and experiences. The authors also grateful for the insightful comments offered by the anonymous peer reviewers at script and tables.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. Keerthana K, Rohini A, Muruganathi D, Vasanthi R. An Economic Analysis on Production of Grapes in Theni District of Tamilnadu. *Asian Journal of Agricultural Extension, Economics & Sociology*. 2021 Oct 15;39(11):28-34.
2. Deng L, Chen L, Zhao J, Wang R. Comparative analysis on environmental and economic performance of agricultural cooperatives and smallholder farmers: The case of grape production in Hebei, China. *Plos one*. 2021 Jan 25;16(1): e0245981.
3. Singh RP, Pandey AL, Singh SK, Rural credit and participation of credit agencies- An analysis. *Indian Co-operative*

- Review, Indian. Coop. Rev. 200138(4): 211-220.
4. Kamal MS, Ali MA, Alam MF. Cost and return analysis of banana cultivation under institutional loan in Bogra, Bangladesh. International Journal of Natural and Social Sciences. 2015;2(1):19-27.
 5. Deb L, Sarkar ARM, Rahaman MA, Md. Asaduzzaman, Siddique AB, Agricultural Credit and Profitability of MV Boro Rice Cultivation at Farm Level in Some Selected Areas of Chapai Nawabganj District. J Bangladesh Agril Univ. 2020;8(3):667–673.
 6. Haryanto T, Wardana WW, Jamil IR, Brintanti ARD, Ibrahim KH, Impact of credit access on farm performance: Does source of credit matter? Heliyon. 2023;9(24):e19720.
DOI: 10.1016/j.heliyon.2023.e19720
 7. Ramasamy P, Malaiarasan U. Agricultural credit in India: Determinants and effects. Indian Economic Review. 2023;58(1):169-195.
 8. Taskin M, Rahman MA, Mian MR, Mukta MA, Demand for agricultural credit and profitability of boro rice cultivation in a selected area of Bangladesh. The Business Age. 2024;9(1):1-8.
 9. Pagire BV, Nagane RV, Crop loan disbursement to banana and grape crops by the co-operative banks in Western Maharashtra case study of Solapur DCCB. Journal of Agriculture Research and Technology, 2013;38(3):440-445.
 10. Shivaswamy GP, Raghavendra KJ, Anuja AR, Singh KN, Rajesh T, Harish Kumar HV. Impact of institutional credit on agricultural productivity in India: A time series analysis. Indian Journal of Agricultural Sciences. 2020;90(2):412-417.

Disclaimer/Publisher's Note: The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of the publisher and/or the editor(s). This publisher and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.

© Copyright (2024): Author(s). The licensee is the journal publisher. This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Peer-review history:

The peer review history for this paper can be accessed here:
<https://www.sdiarticle5.com/review-history/120425>