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Socio-economic profile and pattern of credit utilization among grape growers in Sangli District of Maharashtra

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Abstract

The present study was undertaken to examine the socio-economic profile and pattern of credit utilization among grape growers in Sangli district of Maharashtra. A multistage sampling procedure was followed and 90 grape growers were selected from Walwa, Tasgaon and Jath talukas. Primary data were collected during 2025-26 through personal interviews using a pre-tested structured interview schedule. The results revealed that 46.67 per cent of grape growers were above 50 years of age, while 42.22 per cent belonged to the middle-aged group. Secondary education was the most common educational level (40.00%), males constituted 96.67 per cent of respondents and agriculture was the principal occupation of 93.33 per cent of growers. Cooperative societies were the major source of institutional credit, accounting for 84.44 per cent of respondents, while 76.67 per cent of growers borrowed amounts up to ₹4,00,000. Regarding utilization, 71.11 per cent of respondents partially utilized the borrowed credit, 15.56 per cent fully utilized it and 13.33 per cent diverted or mis-utilized it. Grape production was the major purpose of credit utilization, accounting for 71.75 per cent of the total amount, followed by household consumption (7.50%), other purposes (7.09%) and repayment of previous loans (7.05%). The chi-square test indicated a significant association between the source of credit and pattern of credit utilization ($\chi^2 = 10.40$; $p = 0.034$). The study highlights the need for timely and adequate institutional credit, appropriate loan amounts, financial guidance and effective follow-up to improve the productive utilization of credit among grape growers.

Keywords: Grape growers, agricultural credit, credit utilization, institutional credit, cooperative societies

Introduction

Agriculture and allied activities remain an important source of livelihood in India. With increasing commercialization and diversification, horticultural crops have assumed greater importance because of their income and employment-generating potential. Grapes are among the important high-value horticultural crops cultivated in Maharashtra, where production is supported by irrigation, specialized cultivation practices and established domestic and export markets.

Grape cultivation is capital and input intensive. Expenditure is incurred on vineyard establishment, planting material, trellising, irrigation, fertilizers, plant protection, labour, harvesting, grading, packing and marketing. A considerable share of these costs is incurred before farm income is realized. Consequently, access to timely and adequate credit is important for maintaining vineyard operations and meeting seasonal financial requirements.

Agricultural credit may be obtained from institutional sources such as cooperative societies and commercial banks. Institutional finance can support productive investment and reduce dependence on informal borrowing. However, the effectiveness of credit depends not only on its availability but also on its adequacy, timeliness and utilization. The socio-economic characteristics of growers can influence their borrowing decisions, access to financial institutions and ability to manage borrowed funds.

Sangli is an important grape-growing district of Maharashtra. Commercial grape cultivation in the district involves considerable expenditure and requires regular financial inputs. Small and marginal growers may face greater liquidity constraints because their own financial resources are relatively limited compared with the expenditure requirements of vineyard production. Examination of their socio-economic characteristics and credit utilization is therefore useful for

understanding the role of agricultural finance in grape cultivation. Against this background, the present study was undertaken to examine the socio-economic profile of grape growers and analyse the pattern and purpose of credit utilization among grape growers in Sangli district of Maharashtra.

Objectives

To study the socio-economic profile of grape growers.

To analyze the pattern and purpose of credit utilization among grape growers.

Materials and Methods

The study was conducted in Sangli district of Maharashtra. A multistage sampling procedure was followed. Three major grape-growing talukas, namely Walwa, Tasgaon and Jath, were selected. Three villages were selected from each taluka and ten grape growers were selected from each village. Thus, the final sample comprised 90 grape growers.

Primary data were collected during 2025-26 through personal interviews using a pre-tested structured interview schedule. Information was collected on demographic and farm characteristics, sources of credit, amount borrowed, utilization pattern and purpose-wise utilization of credit. Secondary information was obtained from relevant published and institutional sources.

The socio-economic and farm characteristics of grape growers were analyzed using frequencies, percentages and averages. Variables included age, education, gender, family size and occupation.

Percentage

Percentage = (Number of respondents in a category / Total number of respondents) × 100

Arithmetic Mean

$$\bar{X} = (\Sigma Xi) / n$$

where $\bar{X}$ is the sample mean, Xi is the value for the i -th respondent and n is the number of respondents.

Credit utilization was analyzed according to the purpose of borrowing, including grape production, household consumption, education, health, repayment of previous loans and other purposes.

Purpose-wise utilization (%) = (Credit used for purpose / Total credit utilized) × 100

Pearson's Chi-square test was employed to examine the association between credit source and pattern of credit utilization.

$$\chi^2 = \Sigma [(O_{ij} - E_{ij})^2 / E_{ij}]$$

$$E_{ij} = (\text{Row total } i \times \text{Column total } j) / \text{Grand total}$$

$$\text{Degrees of freedom} = (r - 1)(c - 1)$$

where O_{ij} is the observed frequency, E_{ij} is the expected frequency, r is the number of rows and c is the number of columns.

Results and Discussion

Socio-Economic Profile of grape growers

The socio-economic profile of the sample respondents was

examined in terms of age, education, gender and family size and the results are presented in Table 1.

Table 1: Socio-economic characteristics of grape growers

Sr. No.	Socio-economic characteristics	Particulars	Frequency	Percentage
1	Age (years)	Young (<35)	10	11.11
		Middle-aged (36-50)	38	42.22
		Old (>50)	42	46.67
2	Education	Illiterate	2	2.22
		Primary	9	10.00
		Secondary	36	40.00
		Higher secondary	24	26.67
		Graduate	14	15.56
		Post-graduate	5	5.56
3	Gender	Male	87	96.67
		Female	3	3.33
4	Family size	≤3 members	6	6.67
		4 members	39	43.33
		5 members	22	24.44
		>5 members	23	25.56
5	Occupation	Agriculture	84	93.33
		Service	3	3.33
		Business	3	3.33

With regard to age, the largest proportion of respondents, 46.67 per cent, belonged to the old category (above 50 years), followed by 42.22 per cent in the middle-aged group (36-50 years) and only 11.11 per cent classified as young growers (below 35 years). Thus, nearly nine-tenths of the grape growers were middle-aged or older, indicating that grape cultivation in the study area was largely carried out by experienced farmers rather than younger entrants. This pattern is consistent with the capital-intensive and technically demanding nature of grape cultivation, which requires accumulated experience and resources typically associated with older age groups.

The educational status of the respondents showed that the majority, 40.00 per cent, had completed secondary education, followed by 26.67 per cent with higher secondary education and 15.56 per cent who were graduates. Only 2.22 per cent of the respondents were illiterate. The predominance of respondents with at least secondary-level education suggests a reasonably literate farming community, which may facilitate their understanding of credit procedures, record-keeping and adoption of improved cultivation and marketing practices.

Gender-wise distribution revealed that male respondents constituted an overwhelming majority (96.67 per cent), with female respondents accounting for only 3.33 per cent. This reflects the general pattern of male-headed farm decision-making prevalent in the study area, wherein credit-related and cultivation decisions are predominantly taken by male members of the household.

Regarding family size, 43.33 per cent of the households had four members, while 24.44 per cent had five members and 25.56 per cent had more than five members; only 6.67 per cent of households had three or fewer members. A moderate to large family size in the majority of households implies availability of family labour for grape cultivation, which is a labour-intensive enterprise and may also influence the household's consumption expenditure and, consequently, its borrowing requirements.

With respect to occupation, agriculture was the principal occupation for a large majority of the respondents (93.33 per cent), while service and business each accounted for 3.33 per cent. The overwhelming dependence on agriculture as the primary occupation underscores the centrality of grape

cultivation to the livelihood of these households and indicates limited diversification into non-farm income sources, which may enhance their dependence on credit to meet farm and household expenditure.

Source and Amount of Credit

The distribution of grape growers according to the source of credit availed is presented in Table 2.

Table 2: Distribution of grape growers according to source of credit (n = 90)

Source of credit	Frequency	Percentage
Cooperative societies	76	84.44
Commercial/Nationalized banks	11	12.22
Both sources	3	3.33
Total	90	100.00

The distribution of grape growers according to their source of credit is presented in the table. It was observed that cooperative societies were the major source of credit, accounting for 76 respondents (84.44%). This indicates the important role of cooperative credit institutions in meeting the financial requirements of grape growers in the study area. Commercial/nationalized banks were used by 11 respondents (12.22%), while only 3 respondents (3.33%) obtained credit from both cooperative societies and commercial/nationalized banks. Thus, the findings clearly indicate that grape growers were predominantly dependent on cooperative societies for agricultural credit. The higher dependence on cooperative societies may be attributed to their local accessibility and established linkage with farming households, making them a convenient source of institutional finance. The relatively low share of commercial/nationalized banks suggests that their role in providing credit to grape growers was comparatively limited. Overall, the predominance of cooperative societies highlights their significance in supporting the financial requirements of grape cultivation in the study area.

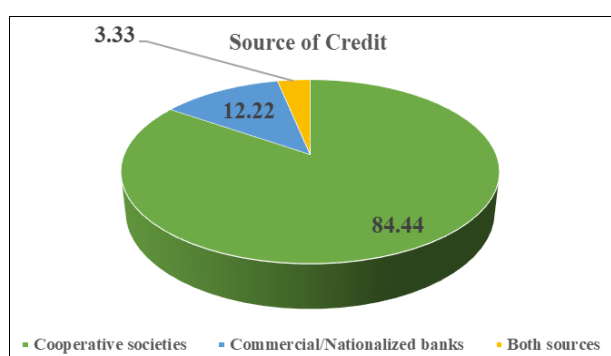


Fig 1: Distribution of grape growers according to source of credit

The distribution according to the amount of credit borrowed is presented in Table 3.

Table 3: Distribution according to amount of credit borrowed (n = 90)

Amount borrowed	Frequency	Percentage
Up to ₹2,00,000	35	38.89
₹2,00,000-₹4,00,000	34	37.78
₹4,00,000-₹6,00,000	14	15.55
₹6,00,000-₹8,00,000	7	7.78
Total	90	100.00

Nearly three-fourths of the respondents (76.67%, taken together)

borrowed amounts up to ₹4,00,000, with 38.89 per cent borrowing up to ₹2,00,000 and a further 37.78 per cent borrowing between ₹2,00,000 and ₹4,00,000. Only 7.78 per cent of the growers had borrowed amounts exceeding ₹6,00,000. This distribution indicates that the credit needs of the majority of grape growers were moderate, corresponding broadly to the small and marginal landholding pattern observed in the sample, while a smaller proportion of growers with larger operational requirements borrowed comparatively higher amounts.

Pattern of Credit Utilization

The pattern of utilization of borrowed credit by the sample respondents is presented in Table 4.

Table 4: Pattern of credit utilization (n = 90)

Pattern of utilization	Frequency	Percentage
Fully utilized	14	15.56
Partially utilized	64	71.11
Diverted/Mis-utilized	12	13.33
Total	90	100.00

The majority of respondents, 71.11 per cent, reported partial utilization of the credit borrowed for the intended productive purpose, while only 15.56 per cent fully utilized the borrowed amount as intended. Notably, 13.33 per cent of the growers diverted or mis-utilized the credit for purposes other than those for which it was sanctioned. The predominance of partial utilization suggests that although credit was largely directed towards productive use, a considerable share was simultaneously channelled towards non-productive or consumption-related needs, which may reduce the effectiveness of institutional credit in enhancing productive investment on the farm.

Purpose-wise Utilization of Credit

The purpose-wise utilization of credit by the sample respondents is presented in Table 5.

Table 5: Purpose-wise utilization of credit by grape growers

Purpose	Amount (₹/farm)	Percentage	Rank
Grape production	2,05,126.70	71.75	I
Household consumption	21,444.69	7.50	II
Other purposes	20,259.80	7.09	III
Repayment of previous loan	20,158.89	7.05	IV
Education	13,383.33	4.68	V
Health	5,505.55	1.93	VI

Grape production ranked first among the purposes of credit utilization, accounting for the highest share of 71.75 per cent (₹2,05,126.70 per farm), followed distantly by household consumption (7.50%, rank II), other purposes (7.09%, rank III), repayment of previous loans (7.05%, rank IV), education (4.68%, rank V) and health (1.93%, rank VI). The overwhelming predominance of grape production as the primary purpose of credit utilization confirms that borrowed funds were principally directed towards meeting the substantial input requirements of vineyard operations. At the same time, the cumulative share of non-productive purposes — household consumption, loan repayment, education and health amounted to nearly one-fifth of total credit utilized, corroborating the pattern of partial utilization observed in Table 4 and indicating that a segment of borrowed credit was diverted towards meeting pressing household obligations rather than being confined

strictly to farm production.

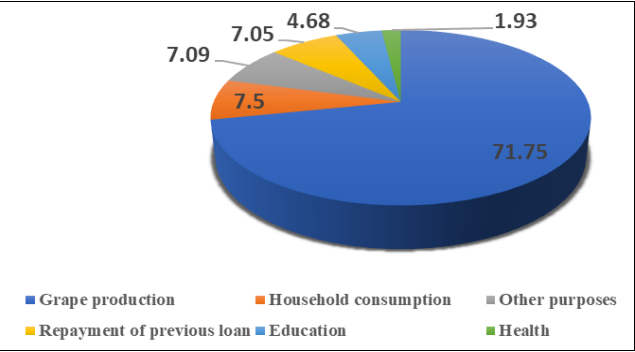


Fig 2: Purpose-wise utilization of credit

Association between Source of Credit and Pattern of Utilization

The association between the source of credit and the pattern of credit utilization was examined using the chi-square test and the results are presented in Table 6.

The relationship between credit source and pattern of credit utilization among the 90 grape growers revealed that cooperative societies were the major source of credit, accounting for 76 respondents (84.44%), followed by nationalized banks with 11 respondents (12.22%), while 3 respondents (3.33%) obtained credit from both sources.

Among the respondents who fully utilized their credit, all 14 respondents (100.00%) obtained credit from cooperative societies, while none obtained credit from nationalized banks or

both sources of the 64 respondents (71.11%) who partially utilized their credit, 54 respondents (84.37%) obtained credit from cooperative societies, 9 respondents (14.06%) from nationalized banks and 1 respondent (1.56%) from both sources.

Table 6: Association between source of credit and pattern of credit utilization

Credit source	Fully utilized	Partially utilized	Mis-utilized	Total	χ ² value	p-value
Cooperative society	14 (100)	54 (84.37)	8 (66.67)	76 (84.44)	10.40	0.034
Nationalized bank	0	9 (14.06)	2 (16.67)	11 (12.22)		
Both sources	0	1 (1.56)	2 (16.67)	3 (3.33)		
Total	14 (100)	64 (100)	12 (100)	90 (100)		

Among the 12 respondents (13.33%) who mis-utilized/diverted their credit, 8 respondents (66.67%) obtained credit from cooperative societies, 2 respondents (16.67%) from nationalized banks and 2 respondents (16.67%) from both sources.

The calculated χ² value of 10.40 with a p-value of 0.034 was significant at the 5 per cent level. This indicates a significant association between the source of credit and the pattern of credit utilization among grape growers. Thus, the source from which credit was obtained had a significant influence on whether the credit was fully utilized, partially utilized or mis-utilized.

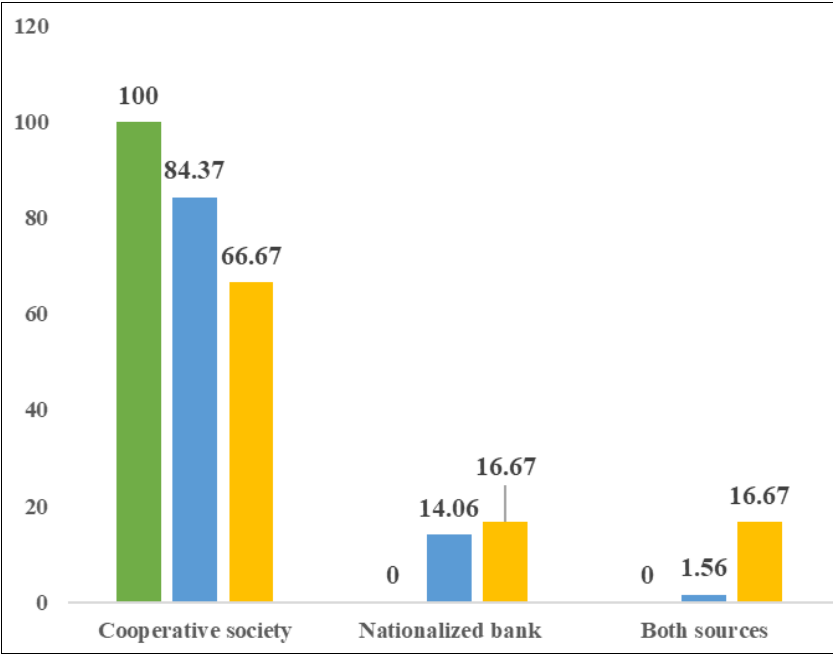


Fig 3: Source of credit and pattern of credit utilization by grape growers

Conclusion

The study revealed that grape cultivation in Sangli district was largely managed by experienced, middle-aged to older growers with moderate family sizes, most of whom were engaged primarily in agriculture and possessed at least secondary-level education. Institutional credit, particularly through cooperative societies, played a dominant role in financing grape cultivation, with the majority of growers borrowing moderate amounts to meet the substantial input requirements of vineyard operations. However, the pattern of credit utilization indicated that while a

large share of respondents used their borrowed funds partially for the intended productive purpose, a notable proportion diverted credit towards non-productive uses such as household consumption, repayment of previous loans, education and health. Grape production remained the principal purpose of credit utilization, underscoring the capital-intensive nature of the enterprise, but the considerable share of funds directed towards non-farm needs points to gaps in the adequacy or timeliness of credit relative to overall household financial requirements. The significant association observed between source of credit

and pattern of utilization further suggests that the lending institution's engagement with borrowers has a bearing on how effectively credit is put to productive use, with cooperative societies showing comparatively better utilization outcomes than other sources. These findings highlight the need to strengthen institutional credit delivery mechanisms, ensure that loan amounts and disbursement schedules are aligned with the actual financial requirements of grape cultivation and provide grape growers with better financial guidance and follow-up support to minimize diversion of credit. Doing so would enhance the productive impact of institutional finance and contribute to more sustainable and efficient credit utilization among grape growers in the region.

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