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Personal, socio-economic and psychological characteristics of strawberry growers

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Abstract

The research conducted in Satara district of Maharashtra in the year 2023-24 aimed to investigate the marketing behaviour of strawberry growers in the region. The study followed an ex-post facto research design and collected data from 140 respondents from 14 villages in two tehsils, Mahabaleshwar and Jaoli, which were purposively selected based on the basis of maximum area under strawberry cultivation. The data were collected through personal interviews and analyzed using suitable statistical tools. The results revealed majority of the respondents were in middle age group, with a medium family size, small land holding, medium size of area under strawberry cultivation, medium experience in strawberry cultivation, low annual income, medium income from strawberry, medium level of source of information, medium risk orientation, and medium innovativeness. The maximum of strawberry growers exhibited a medium level of innovativeness. Since most growers have a good education, the government should thus take the initiative to raise the level of innovativeness by disseminating literature on success stories and holding demonstrations to encourage producers to adopt new technologies.

Keywords: Marketing behaviour, strawberry growers, age, annual income

Introduction

The strawberry classified under the rosaceae family, is an herbaceous plant. The modern strawberry, *Fragaria x ananassa*, is a hybrid originating from North and South American strawberries, characterized as an octoploid species. Primarily, strawberries are cultivated as temperate fruit crops. In its natural habitat, strawberries are perennial plants, but in commercial farming, they require replanting each year. Approximately 78 countries globally grow strawberries.

Currently, India produces approximately 24.39 thousand metric tons of strawberries annually from an area covering 29 thousand hectares (Anonymous, 2018). In India, the productivity of strawberries is notably low at 7.8 metric tons per hectare (MT/ha). Maharashtra contributes around 56% of India's strawberry production. Surprisingly, Haryana surpasses Maharashtra in productivity, achieving 17.63 MT/ha compared to Maharashtra's 6.82 MT/ha. Recently, there has been an expansion of strawberry cultivation beyond Maharashtra, particularly in Haryana and Himachal Pradesh. In the Mahabaleshwar Tahsil, 850 hectares are devoted to strawberry cultivation, involving 1,800 farmers who collectively produce 20,000 tons of strawberries valued at over 100 crore rupees. The strawberries from this region have earned a Geographical Indication (GI) status as 'Mahabaleshwar strawberry,' which protects their unique characteristics.

Methodology

The present research was carried out in Satara district of

Maharashtra in 2023 -24 purposively selected for the study as it had a maximum area under strawberry cultivation in the Satara region. Ex-post facto research design was followed for the investigation.

Out of 11 tehsils of Satara district, two tehsils namely Mahabaleshwar & Jaoli were purposively selected on the basis of the maximum area under strawberry cultivation from each tehsil, seven villages and from each village 10 respondents were selected by using a random sampling method, which make 14 villages and 140 respondents respectively. The data were collected by personal interview method through structured interview schedule of analyzed by employing suitable statistical tools like arithmetic mean, range, frequencies & percentage. The findings were meaningfully interpreted and relevant conclusion were drawn.

Results and Discussion Age

Table 1 shows that the large majority (60.00 per cent) of the strawberry growers were in the medium age group, followed by the young age group near about one fifth (23.56 per cent) and the older age group (16.44 per cent). Thus, it was determined that the large majority (60.00 per cent) of the strawberry growers fell into the category of middle age.

Compared to younger and older farmers, middle-aged farmers tend to be more stable and have greater family responsibilities. Most of them fall into this age range since they are typically the main source of income for their families. Wagh (2016) ^[14] and Devde (2017) ^[6] observed similar findings.

Education

The information in table 1 shows that all farmers, from those with no schooling up to those with a postgraduate degree, were active in the cultivation of strawberry. However, (29.29 per cent) had completed high School, (20.00 per cent) of strawberry producers had completed primary school. Additionally, secondary level, graduation, illiterate, and post-graduate were each represented by 25.00 per cent, 15.00 per cent, 6.43 per cent, and 4.28 per cent of strawberry growers, respectively. Thus, it would follow that the maximum of strawberry growers (29.29 per cent) had a higher secondary education.

The strawberry growers may come to understand the value of formal education and be inspired to pursue further education. In order to produce more strawberry and potentially develop a market management strategy, it assists producers in collecting information. The majority of farmers are likely to have completed higher secondary and college education because it is a well-known truth that educated people become more creative and logical in their thinking, which helps them build marketing skills. Similar conclusions were reported by Bheemudada (2015) ^[4] and Parushi (2017) ^[10].

Size of family

The information in 1 demonstrates that the maximum (44.29 per cent) of the selected strawberry growers were found in medium-size family, followed by low-size family (40.71 per cent), and large-size family (15.00 per cent). This reason might be due to social changes and love for keeping individuality of new generation rather than to live together in joint family. Thus, it can be inferred that, large proportion of the respondents belonged to medium sized family.

Similar conclusions were reported by Panikra (2016) ^[9] and Wagh (2016) ^[14].

Source of irrigation

Table 1 showed that 57.86 percent of strawberry producers applied irrigation through rivers, followed by 20.71 percent through wells, 10.71 percent through tube wells, 7.86 percent through canals and 2.86 percent through farm pond. Similar findings were reported by Devde (2017) ^[6].

Size of land holding

Table 1 shows that the near half of strawberry growers (47.14 per cent) have small land holdings (01.01 to 02.00 ha), while one fourth (26.43 per cent) have marginal land holdings (up to 01.00 ha). While one fifth (20.00 per cent) strawberry growers belonged to the semi-medium land holding category (02.01 to 04.00 ha), while (06.43 per cent) strawberry growers belonged to the medium land holding category (04.01 to 10.00 ha). no strawberry producers were found in the large land holding category, which is over 10 hectares.

It was determined that the majority of strawberry growers were found to belong to the small and marginal land holding

category. These results demonstrated that, as strawberry is a commercial crop, persons with little and semi-medium sized land holdings are attracted to its production. This leads to the conclusion that the near half (47.14 per cent) of strawberry growers fall into the modest land holding category. Similar findings were reported by Sundresha (2018) ^[13] and Sonare (2019) ^[12].

Area under strawberry cultivation

Table 1 indicates the two third strawberry growers (52.14 per cent) belong to the medium group (0.31 to 0.55 ha), with 05.72 per cent and 42.14 per cent in the high (0.56 ha and above) and low (up to 0.30 ha) groups, respectively.

A large number of growers cultivate strawberry on tiny land areas due to the high cost of planting materials and the volatility of the strawberry price. Thus, the two third strawberry growers (52.14 per cent) belong to medium group. Comparable results were reported by Chavhan (2019) ^[5] and Devde (2017) ^[6].

Farming Experience

Table 1 shows the farming experiences of strawberry grower. It was observed that the near two third of strawberry growers (62.14 per cent) had medium experience, followed by high and low experience, accordingly 22.15 and 15.71 per cent. Near about two third strawberry growers had medium farming experience because age of the maximum strawberry growers comes under medium age group. The results of the study are in line with the results reported by Wagh (2016) ^[14] and Avinash (2017) ^[3].

Experience in strawberry cultivation

Table 1 shows the experiences in strawberry cultivation of strawberry growers. It was observed that the majority of strawberry growers (64.29 per cent) had medium experience in strawberry cultivation, followed by low and high experience in strawberry cultivation, respectively 20.00 and 15.71 per cent, respectively.

Near about two third strawberry growers had medium strawberry cultivation experience because age of the maximum strawberry growers comes under medium age group. The findings of the present study are similar to the findings of Wagh (2016) ^[14], Patil (2018) ^[11].

Annual income

Table 1 displays the annual income of strawberry growers. The large majority (36.43%) of the strawberry growers were in the "low income" group (annual income between Rs. (4,60,001 to 7,70,000 Rs), followed by 20.71 per cent in the medium-income group (7,70,001 to 10,80,000 Rs) whereas (17.14%) of respondents had "high" annual income (10,80,001 to 13,90,000 Rs) and remaining 10 per cent of them had "very high" level of income group (13,90,001 and above). The findings of the present study are similar to the findings of Wagh (2016) ^[14], Avinash (2017) ^[3].

Table 1: Personal, Socio-economic and Psychological characteristics of Strawberry growers.

Sr. No.	Variable	Category	No	%
1	Age	Young (Up to 34 years)	33	23.56
		Middle (35 to 54 years)	84	60.00
		Old (55 years and above)	23	16.44
2	Education	Illiterate (No Schooling)	09	6.43
		Primary (1st to 7th Std)	28	20.00
		Secondary (8th to 10th Std)	35	25.00
		High Secondary (11th to 12th Std)	41	29.29
		Graduation	21	15.00
		PG	06	4.28
3	Size of family	Small (Up to 04 Members)	57	40.71
		Medium (05 to 07 Members)	62	44.29
		Large (08 and above Members)	21	15.00
4	Source of irrigation	River	81	57.86
		Well	29	20.71
		Tube Well	15	10.71
		Canal	11	07.86
		Farm Pond	04	02.86
5	Size of land holding	Marginal (up to 01.00 ha)	37	26.43
		Small (01.01 to 02.00 ha)	66	47.14
		Semi Medium (02.01 to 04.00 ha)	28	20.00
		Medium (04.01 to 10.00 ha)	09	6.43
6	Area under strawberry cultivation	Low (Up to 0.30 ha)	59	42.14
		Medium (0.31 ha to 0.55 ha)	73	52.14
		High (0.56 ha and above)	08	05.72
7	Farming Experience	Low (Up to 13 years)	22	15.71
		Medium (14 to 23 years)	87	62.14
		High (24 and above years)	31	22.15
8	Experience in strawberry cultivation	Low (Up to 11 years)	28	20.00
		Medium (12 to 20 years)	90	64.29
		High (21 and above years)	22	15.71
9	Annual income	Very Low (Up to 4,60,000 Rs)	24	17.14
		Low (4,60,001 to 7,70,000 Rs)	51	36.43
		Medium (7,70,001 to 10,80,000 Rs)	29	20.71
		High (10,80,001 to 13,90,000 Rs)	22	15.71
		Very High (13,90,001 and above)	14	10.00
10	Income from strawberry crop	Low (Up to 3,60,000 Rs)	55	39.29
		Medium (3,60,001 to 6,30,000 Rs)	78	55.71
		High (6,30,001 Rs and above)	7	5.00
11	Source of information	Low (Up to 10 score)	16	11.43
		Medium (11 to 15 score)	99	70.71
		High (16 and above score)	25	17.86
12	Innovativeness	Low (Up to 12)	33	23.57
		Medium (13 to 16)	79	56.43
		High (17 and above)	28	20.00
13	Risk orientation	Low (Up to 18 score)	29	20.71
		Medium (19 to 22 score)	94	67.14
		High (23 and above score)	17	12.15

Income from strawberry crop

Table 1 show the income of farmer from strawberry crop. The large majority (55.71 per cent) of the strawberry growers were in the medium income group (income between Rs. 3,60,001 to 6,30,000 Rs), followed by 39.29 per cent in the low-income group (<Rs. 3,60,000 Rs) and 5.00 per cent in the high- income group (6,30,001 Rs and above). According to the data, the large majority of strawberry growers (55.71 per cent) obtained income from strawberry between (Rs. 3,60,001 to 6,30,001 Rs). Thus, possible reason was the large number of strawberry growers fall into medium group of area under strawberry cultivation. The

findings of the present study are similar to the findings of Maghade (2007)^[8], Kadam (2018)^[7].

Source of information

According to Table 1, near three fourth (70.71 per cent) of the respondents used medium sources of information, while 17.86 and 11.43 per cent used high and low sources of information, respectively.

Near three fourth (70.71 per cent) of the strawberry growers used medium sources of information. Because large number of strawberry growers collect the information from various sources. Similar conclusions were reported by Chavhan (2019)^[5] and Wagh (2016)^[14].

Innovativeness

As shown in Table 1, the majority of the respondents (56.43 per cent) exhibited a medium level of inventiveness, whereas more than one fifth 23.57 and 20.00 per cent of respondents, respectively, belonged to the low and high innovativeness groups.

Thus, the majority of strawberry growers (56.43) belonged to medium category. were a medium yearly income and a higher secondary education beyond college level. Aside from this, they used medium social participation and information sources. It may have led to their medium degree of inventiveness.

Risk orientation

Table 1 shows the risk orientation of strawberry growers. It can be seen that more than two third 67.14 per cent of the respondents had a medium degree of risk orientation, while 20.71 and 12.15 per cent of them had low and high levels of risk orientation, respectively.

The more than two third strawberry growers (67.14 per cent) had medium risk orientation due to large number of strawberry growers complete their education up to higher secondary and college level and most of strawberry growers fall in to medium group of innovativeness.

Conclusion

The majority of the respondents were middle age, with a medium family size, small land holding, medium size of area under strawberry cultivation, medium experience in strawberry cultivation, low annual income, medium income from strawberry, medium level of social participation, medium risk orientation, and medium innovativeness. The majority of responders showed medium marketing behaviour. It was found that most of strawberry growers cultivated medium-sized areas. This indicates that there is a good chance to encourage the cultivation of strawberry in the research area. The efforts should be made by KVK's, State Agriculture Department should made effort to increase the area under strawberry crop through farmer rallies, exhibitions, result demonstration of improved cultivation practices. processing and marketing related training programmed in consultation with the State Agriculture University. The majority of strawberry growers exhibited a medium level of innovativeness. Since most growers have a good education, the government should thus take the initiative to raise the level of innovativeness by disseminating literature on success stories and holding demonstrations to encourage producers to adopt new technologies.

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