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Personal, socio-economic and psychological characteristics of ginger growers

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Abstract
The research conducted in Satara district of Maharashtra in the year 2022-23 aimed to investigate the marketing behaviour of ginger 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, Satara and Koregaon, which were purposively selected based on the basis of maximum area under ginger cultivation. The data were collected through personal interviews and analysed using suitable statistical tools. The results revealed majority of the respondents were in middle age group, with a medium family size, marginal land holding, medium size of area under ginger cultivation, medium experience in ginger cultivation, medium annual income, medium income from ginger, medium level of social participation, medium risk orientation, and medium innovativeness. The maximum of ginger 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, ginger growers, age, annual income

Introduction
Ginger is grown all over the world, including in Nigeria, West Indies islands, Indonesia, Australia, China, and Japan. India and China are among them, and they are the two main suppliers to the global market. Kerala, Karnataka, Mizoram, Arunachal Pradesh, Assam, Meghalaya, Nagaland, Manipur, Tripura, Sikkim, Orissa, and Madhya Pradesh are among the Indian states where ginger is grown. However, Madhya Pradesh, Karnataka, Assam, West Bengal, and Orissa are the top five states in India for ginger production. 72.6 percent of India's total ginger production is produced in these states. In India, there will be a total of 2,10,000 hectares and 2.5 million tonnes of ginger produced in 2020–21. Sikkim, which yields 26.3 tonnes of ginger per hectare, has the greatest production. Andhra Pradesh, which generates 9 tonnes per hectare, has the lowest yield.
Maharashtra is not one of India's top five producers of ginger. Madhya Pradesh, Karnataka, Assam, West Bengal, and Orissa are the top five states. About 1.35 percent of India's total ginger crop comes from Maharashtra. Compared to the national average of 10.74 tonnes per hectare, Maharashtra produces less ginger, at roughly 3.78 tonnes per hectare. The type of soil, climate, irrigation, control of pests and diseases, and harvesting techniques are some of the elements that influence ginger yield. (Source: Indiasatat 2021)
Satara is one of leading district in area and production of ginger. The area under ginger in Satara is 1913.19 hectors and production is 33519.19. The average productivity of ginger in Satara is 17.52 per hactor. Satara tehsil is leading tehsil followed by Koregaon Karad and Wai. There is no ginger area in Mahableshwar, Phaltan and Man. The objective of the research was studying personal socio-economic characteristic of ginger growers in research area.

Methodology
The present research was carried out in Satara district of Maharashtra in 2022 -23 purposively selected for the study as it had a maximum area under ginger cultivation in the Satara region. Ex-post facto research design was followed for the investigation.

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Out of 11 tehsils of Satara district, two tehsils namely Satara & Koregaon were purposively selected on the basis of the maximum area under ginger 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 analysed by employing suitable statistical tools like arithmetic mean, standard deviation, frequencies & percentage. The findings were meaningfully interpreted and relevant conclusion were drawn.

Results and Discussions
Age
Table 1 shows that the large majority (65.00 per cent) of the ginger growers were in the medium age group, followed by the young age group near about one fifth (22.86 per cent) and the older age group (12.14 per cent). Thus, it was determined that the large majority (65.00 per cent) of the ginger 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 ginger. However, (26.46 per cent) had completed high School, (23.57 per cent) of ginger producers had completed primary school Additionally, secondary level, graduation, illiterate, and post-graduate were each represented by 21.42 per cent, 17.85 per cent, 6.42 per cent, and 4.28 per cent of ginger growers, respectively. Thus, it would follow that the maximum of ginger growers (26.46 per cent) had a higher secondary education.

The ginger growers may come to understand the value of formal education and be inspired to pursue further education. In order to produce more ginger 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 (43.18 per cent) of the selected ginger growers were found in medium-size family, followed by low-size family (41.72 per cent), and large-size family (15.10 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 59.28 percent of ginger producers applied irrigation through rivers, followed by 46.42 percent through wells, 11.42 percent through tube wells, 7.14 percent through canals and 3.59 percent through farm pond. Similar findings were reported by Devde (2017) [6].

Size of land holding
Table 1 shows that the near half of ginger growers (47.85 per cent) have small land holdings (01.01 to 02.00 ha), while one fourth (25.00 per cent) have marginal land holdings (up to 01.00 ha). While one fifth (20.73 per cent) ginger growers belonged to the semi-medium land holding category (02.01 to 04.00 ha), while (06.42 per cent) ginger growers belonged to the medium land holding category (04.01 to 10.00 ha). no ginger producers were found in the large land holding category, which is over 10 hectares.

It was determined that the majority of ginger growers were found to belong to the small and marginal land holding category. These results demonstrated that, as ginger 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 (47.85 per cent) of ginger growers fall into the modest land holding category. Similar findings were reported by Sundresha (2018) [13] and Sonare (2019) [12].

Area under ginger cultivation
Table 1 indicates the two third ginger growers (66.90 per cent) belong to the medium group (0.15 to 0.46 ha), with 20.43 per cent and 12.67 per cent in the high (0.47 ha and above) and low (up to 0.14 ha) groups, respectively.

A large number of growers cultivate ginger on tiny land areas due to the high cost of planting materials and the volatility of the ginger price. Thus, the two third ginger growers (66.90 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 ginger grower. It was observed that the near two third of ginger growers (63.58 per cent) had medium experience, followed by high and low experience, accordingly 20.00 and 16.42 per cent. Near about two third ginger growers had medium farming experience because age of the maximum ginger 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 ginger cultivation
Table 1 shows the experiences in ginger cultivation of ginger growers. It was observed that the majority of ginger growers (65.00 per cent) had medium experience in ginger cultivation, followed by low and high experience in ginger cultivation, respectively 19.28 and 15.72 per cent, respectively.

Near about two third ginger growers had medium ginger cultivation experience because age of the maximum ginger 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 ginger growers. The large near two third (68.57 per cent) of the ginger growers were in the medium income group (annual income between Rs. 5,18,037 to 13,24,136 Rs), followed by 16.43 per cent in the high-income group (>Rs. 13,24,137) and 15 per cent in

the low-income group (Up to 5,18,036 Rs). According to the data, near two third of ginger growers (68.57 per cent) obtained an annual income between Rs. 5,18,037 to 13,24,136 Rs, this is due to maximum number of farmers possess small

and marginal land holding. 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 Ginger growers.

Sr. No.	Variable	Category	No	%
1	Age	Young (Up to 35 years)	32	22.86
		Middle (36 to 55 years)	91	65.00
		Old (56 years and above)	17	12.14
2	Education	Illiterate (No Schooling)	09	6.42
		Primary (1st to 7th Std)	33	23.57
		Secondary (8th to 10th Std)	30	21.42
		High Secondary (11th to 12th Std)	37	26.46
		Graduation	25	17.85
		PG	06	4.28
3	Size of family	Low (Up to 04)	58	41.72
		Medium (05 to 07)	60	43.28
		High (08 and above)	22	15.10
4	Source of irrigation	River	83	59.28
		Well	65	46.42
		Tube Well	16	11.42
		Canal	10	7.14
		Farm Pond	05	3.59
5	Size of land holding	Marginal (up to 01.00 ha)	35	25.00
		Small (01.01 to 02.00 ha)	67	47.85
		Semi Medium (02.01 to 04.00 ha)	29	20.73
		Semi Medium (02.01 to 04.00 ha)	09	6.42
6	Area under ginger cultivation	Low (Up to 0.14 ha)	18	12.67
		Medium (0.15 ha to 0.46 ha)	95	66.90
		High (0.47 ha and above)	29	20.43
7	Farming Experience	Low (Up to 07 years)	23	16.42
		Medium (08 to 22 years)	89	63.58
		High (23 and above years)	28	20.00
8	Experience in ginger cultivation	Low (Up to 05 years)	27	19.28
		Medium (06 to 16 years)	91	65.00
		High (17 and above years)	22	15.72
9	Annual income	Low (Up to 5,18,036 Rs)	21	15.00
		Medium (5,18,037 to 13,24,136 Rs)	96	68.57
		High (13,24,137 Rs and above)	23	16.43
10	Income from ginger crop	Low (Up to 3,15,126 Rs)	23	16.42
		Medium (3,15,127 to 9,68,945 Rs)	99	70.73
		High (9,68,946 Rs and above)	18	12.85
11	Source of information	Low (Up to 10 score)	17	12.14
		Medium (11 to 14 score)	101	72.15
		High (15 and above score)	22	15.71
12	Innovativeness	Low (Up to 12)	33	23.57
		Medium (13 to 18)	84	60.00
		High (19 and above)	23	16.43
13	Risk orientation	Low (Up to 17 score)	24	17.14
		Medium (18 to 22 score)	99	70.71
		High (23 and above score)	17	12.15
14	Social participation	Low (Up to 2 score)	19	13.57
		Medium (3 to 6 score)	93	66.43
		High (7 and above score)	28	20.00

Income from ginger crop
Table 1 show the income of farmer from ginger crop. The large majority (70.73 per cent) of the ginger growers were in the medium income group (income between Rs. 3,15,127 to 9,68,945 Rs), followed by 16.42 per cent in the low-income group (<Rs. 3,15,126 Rs) and 12.85 per cent in the high-income group (9,68,946 Rs and above). According to the data, the large majority of ginger growers (70.73 per cent) obtained income from ginger between (Rs. 3,15,127 to 9,68,945 Rs). Thus, possible reason was the large number of ginger growers fall into medium group of area under ginger 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 (72.15 per cent) of the respondents used medium sources of information, while 15.71 and 12.14 per cent used high and low sources of information, respectively.
Near three fourth (72.15 per cent) of the ginger growers used medium sources of information. Because large number of ginger 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 (60.00 per cent) exhibited a medium level of inventiveness, whereas more than one fifth 23.57 and 16.43 per cent of respondents, respectively, belonged to the low and high innovativeness groups.

Thus, the majority of ginger growers (60.00) 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 ginger growers. It can be seen that more than two third 70.71 per cent of the respondents had a medium degree of risk orientation, while 17.14 and 12.15 per cent of them had low and high levels of risk orientation, respectively.

The more than two third ginger growers (70.71 per cent) had medium risk orientation due to large number of ginger growers complete their education up to higher secondary and college level and most of ginger growers fall in to medium group of innovativeness.

Social participation
As shown in Table 1, the two third of ginger growers (66.43 per cent) fall into the medium category of social participation, whereas the remaining one fifth ginger growers (20.00 per cent) and (13.57 per cent) belong to the high and low categories, respectively. As a result, it can be reported that the two third (66.43 per cent) of ginger growers fall into the medium category of social participation due to their desire in engaging in social events to learn new things.

The findings of the present study are similar to the findings of chavhan (2019) [5].

Conclusion
The majority of the respondents were middle age, with a medium family size, marginal land holding, medium size of area under ginger cultivation, medium experience in ginger cultivation, medium annual income, medium income from ginger, medium level of social participation, medium risk orientation, and medium innovativeness. The majority of responders showed medium marketing behaviours. It was found that most of ginger growers cultivated medium-sized areas. This indicates that there is a good chance to encourage the cultivation of ginger in the research area. The efforts should be made by KVK's, State Agriculture Department should made effort to increase the area under ginger crop through farmer rallies, exhibitions, result demonstration of improved cultivation practices. processing and marketing related training programmes in consultation with the State Agriculture University. The majority of ginger 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.

References
1. Anonymous. District-wise area, production and productivity of Ginger crop. District Superintendent of Agriculture, Satara; c2021.
2. Anonymous. State-wise area, production and productivity of Ginger crop; c2021.
3. Avinash. An analysis of technological gap of ginger cultivation by the farmers in Bidar District. M.Sc. (Agri) Thesis, University of Agriculture Science, Raichur; c2017.
4. Bheemudada AB. Technological gap in ginger production in Haveri and Uttar Kannada districts of Karnataka. M.Sc. (Agri.) Thesis, University Agriculture Science, Dharwad, Karnataka; c2015.
5. Chavan. Training Needs of ginger Growers. M.Sc. (Agri.) Thesis, Mahatma Phule Krishi Vidyapeeth, Rahuri; c2019.
6. Devde. Marketing Behaviour of Vegetable Growers. M.Sc. (Agri.) Thesis, Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani; c2017.
7. Kadam. A study of technological gap in ginger cultivation. M.Sc. (Agri.) thesis, MPKV, Rahuri; c2008.
8. Maghade. Technological gap in onion cultivation from Rahata tahsil of Ahmednagar district. M.Sc. (Agri.) thesis, MPKV, Rahuri; c2007.
9. Panikra. A study on adoption of ginger production technology by the farmers of Raigarh District of Chhattisgarh. M.Sc. (Agri.) Thesis, Indira Gandhi Krishi Vishwavidyalaya, Raipur; c2016.
10. Parushni. A Study on Technology Gap of Ginger Cultivation in Shivamogga District. M.Sc. (Agri.) Thesis, University of Agricultural and Horticultural Sciences, Shivamogga; c2017.
11. Patil. Marketing Behaviour of Chilli Growers in Kolhapur District. M.Sc. (Agri.) Thesis, Mahatma Phule Krishi Vidyapeeth, Rahuri; c2018.
12. Sonare. A Study on marketing behaviour of tomato growers in Shivpuri District, M.P. M.Sc. (Agri.) Department of Agricultural Extension and Communication, Rajmata Vijayaraje Scindia Krishi Vishwa Vidyalaya College of Agriculture, Gwalior (M.P.); c2019.
13. Sundersha. A Study on Knowledge and Adoption of Improved cultivation Practices by Ginger Growers in Hassan District. M.Sc. (Agri.) Thesis, University of Agriculture Sciences, Bengaluru; c2018.
14. Wagh. Knowledge and Adoption of Ginger Production Technology followed by Ginger Growers. M.Sc. (Agri.) thesis, MPKV, Rahuri; c2016.