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Correlational analysis of personal, socio-economic, communicational and psychological characteristics of grape growers with their perception towards climate variability

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Abstract

Climate variability refers to the variations in the mean state of the climate and variations in other parameters (such as the occurrence of extremes) on all temporal and spatial scales beyond that of individual weather events. The average range of temperature for a location, as indicated by minimum, maximum and average temperature values, is an example of a measure of climate variability. An ex-post facto research design was used for this research. The investigation was carried out in the Nashik and Sangli district. Thirty villages were chosen at random. A total of 360 farmers were chosen from each community, with twelve grape growers chosen from each village. The information was gathered through personal interviews. This investigation aims to analyze the correlational analysis of personal, socio-economic, communicational and psychological characteristics of grape growers with their perception towards climate variability. In investigated result revealed that out of twelve independent variables education, experience in grape cultivation, social participation, extension contacts, mass media exposure, economic motivation, risk orientation, scientific orientation and achievement motivation all these variables establish positive and significant relationship at 0.01 per cent level of significance with perception of grape growers towards climate variability while other variables like age, annual income, area under grape establish positive and non-significant correlation with perception of grape growers towards climate variability.

Keywords: Correlational analysis, grape growers, perception and climate variability

Introduction

According to popular belief, grape cultivation began in the Middle East between 6,000 and 8,000 years ago, and the fruit has been used as human food throughout history. Grape is the important fruit covering 116 thousand hectares occupying 1.70 per cent of the total area. In addition, the country is a major exporter of fresh grapes. The country has exported 156,218.34 MT of Grapes to the world for the worth of Rs. 155131.67 lakh during the year 2015-16. (Source: www.apeda.gov.in 2016). Maharashtra, Karnataka, Tamil Nadu and Mizoram are major grape-growing states. Maharashtra leads the country in production, accounting for more than 71% of total output and having the highest productivity in 2020-21. With a 24 per cent share in 2020-21, Karnataka is the second largest producer of Grapes.

Grape is one of the important fruit covering an area of 155.30 thousand hectares occupying 2.24 per cent of the total area in 2020-21. The country is also a major exporter of fresh Grapes to the world. The country has exported 263,075.67 MT of Grapes to the world for the worth of Rs. 2,302.16 crores/ 305.66 USD Millions during the year 2021-22. Climate is a major factor in the success of all agricultural systems, influencing whether a crop is suitable for a particular region, controlling crop production and quality, and ultimately driving economic sustainability.

Perception is the process by which individual take information or stimuli from our surroundings and converts them into psychological awareness. It's fascinating to see how different people infer about the same situation or phenomenon using the same or different sets of information. Knowledge, interest, culture, and a variety of other social processes shape the behaviour of an actor who uses information to try to influence a specific situation or phenomenon. 'Climate variability is more dynamic, making adaptation more difficult. Climate variability has a greater impact in arid and semi-arid regions where agriculture is heavily reliant on rainfall and ground water for irrigation.

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Climate variability is a regular phenomenon changing every year. Adaptation to climate change for agriculture is critical for dealing with climate variability. This investigation study Coefficient of correlation was used to find out relationship between personal, socio-economic, communicational and psychological characteristics of grape growers with their perception towards climate variability.

Methodology

The present study was conducted in Nashik and Sangli districts because they had maximum area under grape production among the other districts. From selected district Niphad, Dindori and Nashik tahsils from Nashik district were selected and Tasgoan, Miraj and Palus from Sangli district were selected. From the selected tehsils five villages from each tahsil selected randomly. For the purpose of this research, a total of 30 villages were selected. From each selected village 12 grape growers were selected randomly. So, total 360 grape growers were selected for this study. Ex- post facto research design was used for study. Data was collected with the help of pre-tested interview schedule by personal interview technique from growers mostly contacting with them on farm. The collected qualitative data is converted into quantitative data by assigning score to them and by using certain statistical tools like frequency, percentage, mean, standard deviation etc. Coefficient of correlation was used to find out relationship between personal, socio-economic, communicational and psychological characteristics of grape growers with their perception towards climate variability.

Result & Discussion

The relationship between the personal, socioeconomic, communicational, and psychological traits of grape producers and their perception towards climate variability was examined using a correlation test.

Table 1: Relationship between Profile and Perception of grape growers towards climate variability (n=360)

| Sr. No. | Variables | Correlation |
|---------|---------------------------------|---------------------|
| 1. | Age | 0.080 ^{NS} |
| 2. | Education | 0.250** |
| 3. | Experience in grape cultivation | 0.210* |
| 4. | Social Participation | 0.390** |
| 5. | Annual Income | 0.060 ^{NS} |
| 6. | Area Under Grape | 0.040 ^{NS} |
| 7. | Extension contacts | 0.388** |
| 8. | Mass media exposure | 0.409** |
| 9. | Economic Motivation | 0.365** |
| 10. | Risk Orientation | 0.360** |
| 11. | Scientific Orientation | 0.350** |
| 12. | Achievement motivation | 0.340** |

NS- Non significant

*- Significant at 0.05 level of significance

** - Significant at 0.01 level of significance
r value at 0.05=0.98 and 0.01=0.128

It is evident from table 1. revealed that correlation of independent variables like education (0.250**), experience in grape cultivation (0.210*), social participation (0.390**), extension contacts (0.388**), mass media exposure (0.409**), economic motivation (0.365**), risk orientation (0.360**), scientific orientation (0.350**) & achievement motivation (0.340**) all these variables establish positive & significant relationship at 0.01 per cent level of significance with

perception of grape growers towards climate variability.

The possible reason might be that their level of education from higher secondary to graduation level, medium attribute of social participation & other attribute is more contact with extension agencies, great exposure with mass media, and medium to high economic motivation, risk orientation, scientific orientation and achievement motivation the respondent rightly perceived climate variability and their bitter consequence on grape farming.

The findings of the study similar to findings of those reported by Kranthi Kumari (2014) [5], Joshi (2015) [4], Barman and Lotha (2016) [3], Parganiha (2016) [8], Uddin *et al.* (2017) [10], Ansari *et al.* (2018) [2] and Mundhe (2019) [6]

The variables like age (0.080^{NS}), annual income (0.060^{NS}) and area under grape (0.040^{NS}) establish non-significant correlation perception of grape growers towards climate variability. Possible reason might be that irrespective of the above variables they undergone through aberrant weather conditions and greater media outlets.

The findings are quite similar to the findings of Kranthi Kumari (2014) [5] Satishkumar (2016) [9] and Ofuoku (2011) [7].

Conclusion

General climate variability is natural phenomenon so rightly they perceived grape perceived in variation in atmosphere, the level of formal education of the grape growers they perceive the changes, greater experience in grape farming and due to the climatic aberration scenarios they have been exposed to over time. There is a greater media outlet, good contact to extension personnel etc. So this investigation observed that correlation of independent variables like education, experience in grape cultivation, social participation, extension contacts, mass media exposure, economic motivation, risk orientation, scientific orientation and achievement motivation all these variables establish positive and significant relationship at 0.01 per cent level of significance with perception of grape growers towards climate variability while other variables like age, annual income, area under grape establish positive and non-significant correlation perception of grape growers towards climate variability.

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References

1. Anonymous; c2016. www.apeda.gov.in
2. Ansari MA, Joshi S, Raghuvanshi R. Understanding farmers perceptions about Climate change: a study in a North Indian State. *Adv. Agr. Environ Sci.* 2018;1(2):85-89.
3. Barman, Lotha. Farmers' Perception on Climate Variability and their Coping Strategies -An Assessment in Assam, *Indian Res. J Ext. Edu.* 2016, 16(3).
4. Joshi S. Farmers' Perception about Climate Change and Strategies to cope up with Climate Change in Uttar Pradesh. M.Sc. (Agri.) Thesis. Govind Ballabh Pant

- University of Agriculture and Technology, Pantnagar (U.S. Nagar), Uttarakhand, India; c2015.
5. Kranthi Kumari B. A study on Farmers Perception and Adaptability of the farmers towards Climate Variability in Kurnool District of Andhra Pradesh. M.Sc. (Ag.) Thesis. Acharya N.G. Ranga Agricultural University, Hyderabad, India; c2014.
 6. Mundhe SD. Farmer's Perception about Climate Change in Marathwada Region. M.Sc. (Agri.) Thesis, VNMKV, Parbhani. (M.S.); c2019.
 7. Ofuoku AU. Rural farmers perception of climate change in central agricultural zone of Delta state, Nigeria. Indonesian Journal of Agricultural Sciences. 2011;12(2):63-69.
 8. Parganiha O. Farmers perception about climate change and its impact on agriculture and allied activities in Chhattisgarh plains. Ph.D. Thesis, Uni. I.G.K.V., Raipur, India; c2016.
 9. Satishkumar N. Farmers' Perception and Adaptation Strategies to Climate Variability in Dairy Farming: An Exploratory Study in Northern Dry Zone of Karnataka. Ph.D. (Agri.) Thesis, ICAR - National Dairy Research Institute, Karnal; c2016.
 10. Uddin MN, Bokelmann W, Dunn ES. Determinants of Farmers Perception of Climate Change: A Case Study from the Coastal Region of Bangladesh. American Journal of Climate Change. 2017;6:151-165.