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RELATIONSHIP BETWEEN PROFILE OF FARMERS AND THEIR PERCEPTION ABOUT ORGANIC FARMING

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ABSTRACT

The study was carried out in Gujarat state. Total 160 farmers practicing organic farming and registered under Gujarat Organic Products Certification Agency were selected randomly for the study. Ex-post facto research design was used. The coefficient of correlation was computed to find out the relationship between the variables and the step-wise regression (multiple regressions) analysis was employed to envisage the extent of variation caused by independent variables on perception towards organic farming. Amongst the sixteen selected variables in the study, education, agricultural mass media exposure, scientific orientation, risk orientation, achievement motivation and knowledge about organic farming had positive and highly significant relationship with the perception of farmers towards organic farming. Out of sixteen independent variables, five variables viz. risk orientation, knowledge about organic farming, cropping intensity, annual income and agricultural mass media exposure were found to be influencing on perception towards organic farming which were together contributing 28.70 per cent variation.

Keywords**:** *organic farming, perception, relationship*

INTRODUCTION

Since the introduction of "Green Revolution" technologies, India's agriculture has transitioned from subsistence to commercial production. The Green Revolution has been the keystone of India's agricultural achievement, transforming the country from the arena of food deficiency to self-sufficiency. The input-intensive "Green Revolution" has concealed significant externalities in recent decades that have a negative impact on natural resources, human health, and agriculture itself, despite its success (Gamit and Vinaya Kumar, 2022). Crop yield is declining day by day despite maximization of chemical inputs, increasing land fragmentation, diminishing natural assets, high costs for external farm inputs and pesticide-related health issues have threatened the livelihoods of many farming families and led to a climate of despair in many rural areas.

These issues can be combated with sustainable agriculture as it is ecologically sound, economically suitable, and socially acceptable as it helps farmers to achieve self-sufficiency, and self-reliance. Hence, the adoption of organic farming as one of the strategies for sustainable agricultural growth is crucial in present era.

As defined by the National Programme on Organic Production (NPOP), India "Organic agriculture is a system of farm design and management to create an eco-system which can achieve sustainable productivity without the use of artificial external inputs such as chemical fertilizers and pesticides." The key objective of organic farming resides in the development of a self-sustainable farming system in harmony with nature which delivers ecologically and economically sustainable pure food with the enrichment of surrounding biodiversity and its entire components.

In this context, it becomes essential to study how organic farming is perceived as among the farmers who have adopted it and how their perception is influenced by their various characteristics. The knowledge about the relationship between the perception of farmers about organic farming and their characteristics can provide the clues for manipulating these variables to make the farming community more favorably perceptive towards organic farming and thus can help a lot to pave the way for the expansion and development of organic farming in the larger interest of the farming community. With all these considerations, this study was thought worthwhile to be carried out with the following objective.

OBJECTIVE

To study the relationship between the profile of farmers and their perception about organic farming

METHODOLOGY

The study was carried out in Gujarat state. Total 160 farmers practicing organic farming and registered under Gujarat Organic Products Certification Agency were selected randomly for the study. Ex-post facto research design was used. The independent variables were measured using appropriate scales with modifications wherever felt necessary. A standardized scale was developed and used for the measurement of perception towards organic farming. The data were gathered through personal interviews and then assembled, tabulated, and analyzed to obtain adequate answers for the specific objective of the study using various appropriate statistical tools. The coefficient of correlation was computed to find out the relationship between the variables. The step-wise regression (multiple regressions) analysis was employed to envisage the extent of variation caused by independent variables on perception towards organic farming.

RESULTS AND DISCUSSION

Relationship between profile of farmers and their perception about organic farming

A farmer shows different degree of perception towards various aspects of the organic farming because of the difference in their personal characteristics. Thus, it may be stated that the degree of perception of farmers toward organic farming differs with their personal, economical, situational, communicational and psychological characteristics. Hence, considering the importance of these characteristics, an attempt was made in this investigation to ascertain the relationship if any, between personal, economical, situational, communicational and psychological characteristics of farmers and their perception towards organic farming.

A statistical method of Karl Pearson's coefficient correlation (r) was used to calculate relationship between the characteristics of farmers and their perception about organic farming. The results obtained are depicted in Table 1.

It is apparent from the data presented in Table 1 that amongst the sixteen selected variables in the study, six variables had positive and highly significant influence and six variables had positive and significant influence on perception of farmers about organic farming, while four variables had non-significant relationship. The independent variables like education (0.223**), agricultural mass media exposure (0.230**), scientific orientation (0.315**), risk orientation (0.382**), achievement motivation (0.206**) and knowledge about organic farming (0.343**) had positive and highly significant relationship with the perception of farmers towards organic farming, whereas variables like experience in organic farming (0.182*), annual income (0.156*), cropping intensity (0.177*), training undergone (0.198*), extension participation (0.199*) and market orientation (0.190*) had positive and significant relationship with the perception of farmers towards organic farming. The variables like age (-0.057), land holding (0.087), land holding under organic farming (0.106) and livestock possession (0.017) failed to show any significant influence on the perception of farmers of towards organic farming.

Table 1: Relationship between profile of farmers and their perception towards organic farming

(n=160)

Sr. No.	Independent Variables	('r' value)
X_1	**Age**	-0.057
X_2	**Education**	0.223**
X_3	**Experience in organic farming**	0.182*
X_4	**Land holding**	0.087
X_5	**Land holding under organic farming**	0.106
X_6	**Annual income**	0.156*
X_7	**Livestock possession**	0.017
X_8	**Cropping intensity**	0.177*
X_9	**Training undergone**	0.198*
X_{10}	**Agricultural mass media exposure**	0.230**
X_{11}	**Extension participation**	0.199*
X_{12}	**Scientific orientation**	0.315**
X_{13}	**Risk orientation**	0.382**
X_{14}	**Market orientation**	0.190*
X_{15}	**Achievement motivation**	0.206**
X_{16}	**Knowledge about organic farming**	0.343**

* Significant at 0.05 per cent level of probability

** Significant at 0.01 per cent level of probability

This finding is supported by the findings of Mujalde (2018), Jadhav (2020), Tripathi (2021), Ghosh (2022) and Kalasariya *et al*. (2022).

Relative importance of independent variables in explaining perception towards organic farming

Generally, in behavioural sciences, no dependent variable can be influenced singly by one independent variable. As such, the perception towards organic farming is in reality not influenced by any of the independent variables singly. It is found to be influenced by more than one of these independent attributes jointly through their reciprocal and interactive relationship. In order to assess the influence of each independent variable to the dependent variable, the effect of others is to be held constant. The stepwise regression is one such method which has been widely adopted in multiple regression analysis. It has got the added advantage that at each stage of analysis, every variable is subjected to an examination as its predictive value. The results pertained to step-wise regression are reported in Table 2.

Table 2: Step-wise multiple regression analysis of perception towards organic farming among farmers of Gujarat

(n=160)

Model	Independent Variables	Multiple correlation coefficient (R)	Coefficient of Determination (R^2)	Partial regression coefficient (b)	Std. Error	Standard partial regression coefficient (SPRC)	Rank
1	**Risk Orientation**	0.382	0.146 (14.60)	0.586	0.113	0.382	**1st**
2	**Risk Orientation + Knowledge about organic farming**	0.448	0.201 (20.10)	0.467 0.542	0.115 0.165	0.304 0.247	**2nd**
3	**Risk Orientation + Knowledge about organic farming + Cropping intensity**	0.485	0.235 (23.50)	0.440 0.592 0.042	0.114 0.163 0.016	0.287 0.270 0.186	**3rd**
4	**Risk Orientation+ Knowledge about organic farming + Cropping intensity + Annual income**	0.516	0.266 (26.60)	0.431 0.573 0.052 2.955E-006	0.112 0.160 0.016 0.000	0.281 0.261 0.231 0.183	**4th**
5	**Risk Orientation + Knowledge about organic farming + Cropping intensity + Annual income + Agricultural mass media exposure**	0.535	0.287 (28.70)	0.430 0.450 0.054 3.214E-006 0.222	0.110 0.169 0.016 0.000 0.106	0.280 0.205 0.242 0.200 0.154	**5th**

Figures in parenthesis indicate percentage

From the Table 2, it can be observed that risk orientation accounted for 14.60 per cent variation, while risk orientation along with knowledge about organic farming accounted for 20.10 per cent variation. Further, risk orientation, knowledge about organic farming and cropping intensity explained 23.50 per cent variation, whereas risk orientation, knowledge about organic farming, cropping intensity and annual income accounted for 26.60 per cent variation. All these four variables in addition to agricultural mass media exposure accounted for 28.70 per cent variation in perception towards organic farming. The R^2 value at each stage of step wise regression was found to be significant.

CONCLUSION

It can thus be concluded from the above findings that education, agricultural mass media exposure, scientific orientation, risk orientation, achievement motivation and knowledge about organic farming had positive and highly significant relationship with the perception of farmers towards organic farming, whereas variables like experience in organic farming, annual income, cropping intensity, training undergone, extension participation and market orientation had positive and significant relationship with the perception of farmers towards organic farming. Out of sixteen independent variables, five variables *viz.* risk orientation, knowledge about organic farming, cropping intensity, annual income and agricultural mass media exposure were found to be influencing on perception towards organic farming. All these five independent variables together were contributing 28.70 per cent variation.

POLICY IMPLICATION

The variables such as education, agricultural mass media exposure, scientific orientation, risk orientation, achievement motivation and knowledge about organic farming were found to have highly significant correlation with perception of farmers towards organic farming. Such variables, wherever and whichever possible, may be manipulated to improve the perception towards organic farming and thereby increase its adoption among the farmers.

CONFLCT OF INTEREST

All authors declare that they have no conflict of interest.

REFERENCES

Gamit, R. A. and Vinaya Kumar, H. M. (2022). Farmers attitude towards zero budget natural farming. *Guj. J. Ext. Edu.,* 34 (1): 41-46. https://doi.

org/10.56572/gjoee.2022.34.2.0010

Ghosh, S. (2022). *A study on attitude, perception and adoption of organic farming by vegetable growers in selected districts of North Bengal.* (Doctoral thesis, Uttar Banga Krishi Viswavidyalaya, Pundibari, Cooch behar, West Bengal).

Jadhav, H. S. (2020). *Perception of farmers about Zero Budget Natural Farming.* (Master's thesis, Vasantrao Naik Marathwada Krishi Vidyapeeth (VNMKV), Parbhani, Maharashtra).

Kalasariya, N., Naik, R. M. and Karravula, R. (2022). Knowledge of tribal farmers towards organic farming practices. *Guj. J. Ext. Edu.,* 33 (2): 18-16. https://doi.org/10.56572/gjoee.2022.33.2.0004

Mujalde, R. (2018). *Perception of farmers towards organic farming in Sirmour block of Rewa District (M.P).* (Master's thesis, Jawaharlal Nehru Krishi Vishwa Vidyalaya, Jabalpur).

Tripathi, S. (2021). *A study on knowledge, attitude and perception of farmers on organic farming in Bundelkhand Region of Uttar Pradesh.* (Master's thesis, Banda University of Agriculture & Technology, Banda).

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