



International Journal of Multidisciplinary Research and Growth Evaluation



International Journal of Multidisciplinary Research and Growth Evaluation

ISSN: 2582-7138

Received: 03-09-2021; Accepted: 19-09-2021

www.allmultidisciplinaryjournal.com

Volume 2; Issue 5; September-October 2021; Page No. 391-395

Farmers' attitude towards organic farming adoption in Tamil Nadu

Dr. V Gurumoorthy

Senior fellow-ICSSR, Madras Institute of Development Studies, Chennai, Tamil Nadu, India

Corresponding Author: Dr. V. Gurumoorthy

Abstract

Organic farming is the most sought after solution to the modern day farming issues. Both sustainable and hazard free, it remains a better option than chemical farming. Its practice not only ensures a better environment to live, but also helps in averting health hazards caused due to chemical fertilizers and pesticides. It can also be said organic farming will lead to a comprehensive restructuring of the environmental sector. A timely, inclusive and sustainable transformation can be attained only through organic farming. Given the growth of

organic sector, many farmers are shifting from inorganic farming to organic farming over the years. The shift to organic farming has propelled a significant shift in the growth of organic market. To reap the dividends of organic farming, the government should bring about a paradigm shift in creating awareness and boosting the sector. In light of these developments, the present study has been taken up to study and analyse the Farmers' attitude towards organic farming adoption in Tamil Nadu.

Keywords: Organic, adoption, Farmers', solution

Introduction

Organic farming has been considered to be a viable option to revive the eco-system. Its practice not only ensures a better environment to live, but also helps in averting health hazards caused due to chemical fertilizers and pesticides. It can also be said organic farming will lead to a comprehensive restructuring of the environmental sector. A timely, inclusive and sustainable transformation can be attained only through organic farming. Given the growth of organic sector, many farmers are shifting from inorganic farming to organic farming over the years. The shift to organic farming has propelled a significant shift in the growth of organic market. Reap the dividends of organic farming, the government should bring about a paradigm shift in creating awareness and boosting to the sector. In light of these developments, the present study has been taken up to study and analyse the Farmers' attitude towards organic farming adoption in Tamil Nadu, among various demographic variables of the farmers.

Objectives of the Study

- To present an overview of Farmers' attitude towards adoption of organic farming methods in Tamil Nadu
- To analyse the Farmers' attitude by using various statistical tools.
- To summarize and present the results.

Methodology

A sample of 150 organic farmers were surveyed by adopting snowball sampling method. The sample respondents were selected from various districts of Tamil Nadu. A Well-structured interview schedule was designed and administered among the sample respondents. Various statistical tools like ANOVA, t-test were used to analyse the collected data, to present the results.

Results and Discussion

General attitudes towards organic farming adoption

The researcher has presented an analysis of the general attitude of farmers to adopt organic farming system. The opinion of the respondents regarding organic farming system have been gathered with the help of an interview schedule. The data have been collected and subjected to statistical interpretations. The statistical analysis and interpretations have been made with the help of certain statistical techniques and tools. For this purpose, a field survey was conducted to collect first-hand information from 150 organic farmers. The general attitude of organic farmers towards organic farming adoption has been discussed in this paper.

The general attitudes towards organic farming adoption among different demographic profile of organic farmers namely, age group, educational qualification, community, annual income and area of residence are analysed with the help of ANOVA and 't' test and the results are presented below.

1. General attitudes towards organic farming adoption among the different age group of organic farmers

To reveal the significant gap between the different age groups of organic farmers and their general attitudes towards organic farming adoption, data on the general attitudes towards organic farming adoption have been collected and the 'ANOVA' test administered. The mean score between the different age groups of organic farmers on each argument was

Table 1: 'ANOVA' test for significant difference among Age group of organic farmers regarding the general attitudes towards organic farming adoption

Attitudes	Age Group (Mean Score)					F Statistics
	20-30 years	30-40 years	40-50 years	50-60 years	Above 60 years	
Organic farming is too labour intensive	4.00	3.77	3.02	3.46	2.87	3.249*
Use of chemical inputs improves product appearance	3.14	3.54	3.16	2.65	2.83	2.396
Organic farming is more profitable Than conventional farming	3.28	3.27	3.25	2.89	2.67	1.434
Use of chemical inputs is negative for health of people and animals	2.85	3.45	2.88	2.91	2.87	0.803
Without using chemical pesticides, high pest infestation can happen	4.28	3.86	3.55	3.65	3.00	3.112*
Use of chemical fertilizers improves product taste	4.28	3.95	3.81	3.82	2.90	4.892*
Organic farming reduces chemical output to the environment	4.42	3.59	3.72	3.29	3.19	3.211*
Governmental support to organic farming is important	4.57	4.09	3.69	3.46	3.54	2.633*

Source: Primary data

*-Significant at 5% level of significance

Table 1 shows that the important general attitudes towards organic farming adoption among the organic farmers who are in the age group between 20-30 years were Governmental support to organic farming is important and Organic farming reduces chemical output to the environment since the respective high mean attitude scores were 4.57 and 4.42 respectively. Among the "Organic farmers are in the age group between 30-40 years" important general attitudes towards organic farming adoption were Governmental support to organic farming is important and Use of chemical fertilizers improves product taste since the respective mean scores were 4.09 and 3.95 respectively. Among the mean scores of the general attitudes towards organic farming adoption "Organic farmers are in the age group of 40-50 years", were Use of chemical fertilizers improves product taste and Organic farming reduces chemical output to the environment since the respective means scores were 3.81 and 3.72. Among the "Organic farmers are in the age group of 50-60 years" important general attitudes towards organic farming adoption were Use of chemical fertilizers improves product taste and Without using chemical pesticides, high pest infestation can happen since the respective mean scores were 3.82 and 3.65 respectively. Among the "Organic farmers are in the age group of above 60 years" important general attitudes towards organic farming adoption were Governmental support to organic farming is important and Organic farming reduces chemical output to the environment since the respective mean scores were 3.54 and 3.19 respectively.

A significant difference between the different age groups of organic farmers was found about the general attitudes towards organic farming adoption on its various aspects, which were 'Organic farming is too labour intensive, without

determined separately.

The following null hypothesis was framed to assess the significant difference between the age group of organic farmers and their general attitudes towards organic farming adoption.

Null Hypothesis

There is no significant difference among the age group of organic farmers regarding the general attitudes towards organic farming adoption

The following table shows the result of the 'ANOVA' test for a significant difference among the age group of organic farmers regarding the general attitudes towards organic farming adoption.

using chemical pesticides, high pest infestation can happen, use of chemical fertilizers improves product taste, Organic farming reduces chemical output to the environment and Governmental support to organic farming is important', as the respective "F" statistics were significant at 5%. However, aspects such as 'Use of chemical inputs improves product appearance, Organic farming is more profitable than conventional farming and use of chemical inputs is negative for health of people and animals' as the respective "F" statistics were not significant at 5%.

2. General attitudes towards organic farming adoption among the different educational qualifications of organic farmers

To reveal the significant difference between the educational qualifications of organic farmers and their general attitudes towards organic farming adoption, data on the general attitudes towards organic farming adoption have been collected and the 'ANOVA' test was administered. The mean score between the different educational qualifications of organic farmers on each statement on general attitudes towards organic farming adoption was determined separately.

The following null hypothesis was framed to assess the significant difference between the educational qualifications of organic farmers and their general attitudes towards organic farming adoption.

Null Hypothesis

There is no significant difference among the educational qualifications of organic farmers regarding the general attitudes towards organic farming adoption

The following table shows the result of the 'ANOVA' test for

a significant difference among the educational qualifications of organic farmers regarding the general attitudes towards

organic farming adoption.

Table 2: ‘ANOVA’ test for significant difference among educational qualifications of organic farmers regarding the general attitudes towards organic farming adoption

Attitudes	Educational qualifications (Mean Score)					F Statistics
	Illiterate	Primary	Higher Secondary	Higher Education	Technical	
Organic farming is too labour intensive	3.00	3.51	3.05	3.50	3.37	1.354
Use of chemical inputs improves product appearance	3.17	3.32	2.60	3.05	2.37	2.364
Organic farming is more profitable Than conventional farming	3.51	3.27	3.10	2.36	2.87	4.680*
Use of chemical inputs is negative for health of people and animals	2.55	3.35	2.86	3.21	2.12	2.624*
Without using chemical pesticides, high pest infestation can happen	3.37	3.89	3.31	3.65	3.25	1.583
Use of chemical fertilizers improves product taste	4.06	3.91	3.34	3.60	2.87	2.864*
Organic farming reduces chemical output to the environment	3.65	3.81	3.18	3.47	3.00	2.414
Governmental support to organic farming is important	3.17	3.97	3.55	3.86	4.12	3.176*

Source: Primary data

*-Significant at 5% level of significance

Table 2 shows that the important general attitudes towards organic farming adoption among the organic farmers who are illiterates were Use of chemical fertilizers improves product taste and Organic farming reduces chemical output to the environment since the respective high mean attitude scores were 4.06 and 3.65 respectively. Among the “Organic farmers who are primary education” important general attitudes towards organic farming adoption were Governmental support to organic farming is important and Use of chemical fertilizers improves product taste since the respective mean scores were 3.97 and 3.91 respectively. Among the mean scores of the general attitudes towards organic farming adoption "Organic farmers who are higher secondary education", were Governmental support to organic farming is important and Use of chemical fertilizers improves product taste since the respective means scores were 3.55 and 3.34. Among the "Organic farmers who are higher education" important general attitudes towards organic farming adoption were Governmental support to organic farming is important and without using chemical pesticides, high pest infestation can happen since the respective mean scores were 3.86 and 3.65 respectively. Among the “Organic farmers who are technical education” important general attitudes towards organic farming adoption were Governmental support to organic farming is important and Organic farming is too labour intensive since the respective mean scores were 4.12 and 3.37 respectively.

A significant difference between the different educational qualification of organic farmers was found about the general attitudes towards organic farming adoption on its various aspects, which were ‘Organic farming is more profitable than conventional farming, Use of chemical inputs is negative for health of people and animals, use of chemical fertilizers

improves product taste, Organic farming reduces chemical output to the environment and Governmental support to organic farming is important’, as the respective "F" statistics were significant at 5%. However, aspects such as ‘Organic farming is too labour intensive, use of chemical inputs improves product appearance and without using chemical pesticides, high pest infestation can happen’ as the respective "F" statistics were not significant at 5%.

3. General attitudes towards organic farming adoption among the different community of organic farmers.

To reveal the significant difference between the community of organic farmers and their general attitudes towards organic farming adoption, data on the general attitudes towards organic farming adoption have been collected and the ‘ANOVA’ test was administered. The mean score between the different communities of organic farmers on each statement on general attitudes towards organic farming adoption was determined separately.

The following null hypothesis was framed to assess the significant difference between the community of organic farmers and their general attitudes towards organic farming adoption.

Null Hypothesis

There is no significant difference among the community of organic farmers regarding the general attitudes towards organic farming adoption

The following table shows the result of the ‘ANOVA’ test for a significant difference among the different community of organic farmers regarding the general attitudes towards organic farming adoption.

Table 3: ‘ANOVA’ test for significant difference among different community of organic farmers regarding the general attitudes towards organic farming adoption

Attitudes	Community (Mean Score)				F Statistics
	OC	BC	MBC	SC/ST	
Organic farming is too labour intensive	3.63	3.73	3.83	2.50	3.123*
Use of chemical inputs improves product appearance	2.97	3.33	3.52	2.80	3.650*
Organic farming is more profitable than conventional farming	3.45	3.20	3.29	3.59	1.330
Use of chemical inputs is negative for health of people and animals	3.13	3.38	3.48	3.57	1.656
Without using chemical pesticides, high pest infestation can happen	3.18	3.09	3.03	2.65	1.103
Use of chemical fertilizers improves product taste	3.29	2.75	2.85	3.50	1.490
Organic farming reduces chemical output to the environment	3.00	3.28	3.18	2.45	1.472
Governmental support to organic farming is important	3.84	3.78	3.89	3.69	1.201

Source: Primary data

*-Significant at five per cent level

Table 3 shows that the important general attitudes towards organic farming adoption among the organic farmers who belong to OC were Governmental support to organic farming is important and Organic farming is too labour intensive since the respective high mean attitude scores were 3.84 and 3.63 respectively. Among the "Organic farmers who belong to BC" important general attitudes towards organic farming adoption were Governmental support to organic farming is important and Organic farming is too labour intensive since the respective mean scores were 3.78 and 3.73 respectively. Among the mean scores of the general attitudes towards organic farming adoption "Organic farmers who belong to MBC", were Governmental support to organic farming is important and Organic farming is too labour intensive since the respective means scores were 3.89 and 3.83. Among the "Organic farmers who belong to SC/ST" important general attitudes towards organic farming adoption were Governmental support to organic farming is important and Organic farming is more profitable than conventional farming since the respective mean scores were 3.69 and 3.59 respectively.

A significant difference between the different community of organic farmers was found about the general attitudes towards organic farming adoption on its various aspects, which were 'Organic farming is too labour intensive and use of chemical inputs improves product appearance', as the respective "F" statistics were significant at 5%. However, aspects such as 'Organic farming is more profitable than conventional farming, use of chemical inputs is negative for health of people and animals, without using chemical

pesticides, high pest infestation can happen, use of chemical fertilizers improves product taste, organic farming reduces chemical output to the environment and governmental support to organic farming is important' as the respective "F" statistics were not significant at 5%.

4. General attitudes towards organic farming adoption among the different annual income of organic farmers

To reveal the significant difference between the annual income of organic farmers and their general attitudes towards organic farming adoption, data on the general attitudes towards organic farming adoption have been collected and the 'ANOVA' test was administered. The mean score between the different annual incomes of organic farmers on each statement on general attitudes towards organic farming adoption was determined separately.

The following null hypothesis was framed to assess the significant difference between the annual income of organic farmers and their general attitudes towards organic farming adoption.

Null Hypothesis

There is no significant difference among the different annual income of organic farmers regarding the general attitudes towards organic farming adoption

The following table shows the result of the 'ANOVA' test for a significant difference among the different annual income of organic farmers regarding the general attitudes towards organic farming adoption.

Table 4: 'ANOVA' test for significant difference among different annual income of organic farmers regarding the general attitudes towards organic farming adoption

Attitudes	Annual Income (Mean Score)					F Statistics
	Upto Rs.100000	Rs.100000-200000	Rs.200000-300000	Rs.300000-400000	Above Rs.400000	
Organic farming is too labour intensive	3.30	3.81	3.50	3.72	4.00	2.755*
Use of chemical inputs improves product appearance	2.92	4.00	3.31	3.08	3.76	4.702*
Organic farming is more profitable than conventional farming	2.90	3.90	3.29	3.36	3.53	2.746*
Use of chemical inputs is negative for health of people and animals	3.28	3.44	3.27	3.28	3.55	0.351
Without using chemical pesticides, high pest infestation can happen	3.30	2.88	3.55	2.92	3.00	0.699
Use of chemical fertilizers improves product taste	3.00	2.77	4.00	2.89	2.90	0.772
Organic farming reduces chemical output to the environment	3.69	3.60	2.75	2.87	3.51	1.562
Governmental support to organic farming is important	3.89	3.73	3.80	3.64	3.97	1.149

Source: Primary data

*-Significant at five per cent level

From the above table, it is understood that Governmental support to organic farming is important and Organic farming reduces chemical output to the environment are the important general attitudes towards organic farming adoption among the organic farmers who belong to the annual income of upto Rs.1,00,000 as their mean scores are 3.89 and 3.69 respectively. It is further understood that use of chemical inputs improves product appearance and Organic farming is more profitable than conventional farming are the important general attitudes towards organic farming adoption among the organic farmers who belong to the annual income between Rs.1,00,000-2,00,000 as their mean scores are 4.00 and 3.90 respectively. The table further shows that use of chemical fertilizers improves product taste and Governmental support to organic farming is important are the important general attitudes towards organic farming adoption among the organic farmers who belong to the annual income

between Rs.2,00,000-3,00,000 as their mean scores are 4.00 and 3.80 respectively. The table further indicates that organic farming is too labour intensive and Governmental support to organic farming is important are the important general attitudes towards organic farming adoption among the organic farmers who belong to the annual income between Rs.3,00,000-4,00,000 as their mean scores are 3.72 and 3.64 respectively. The table further describes that organic farming is too labour intensive and Governmental support to organic farming is important are the important general attitudes towards organic farming adoption among the organic farmers who belong to the annual income of Rs.4,00,000 as their mean scores are 4.00 and 3.97 respectively. Regarding the general attitudes towards organic farming adoption among the different annual income of organic farmers, Organic farming is too labour intensive, use of chemical inputs improves product appearance and organic farming is more

profitable than conventional farming are statistically significant at 5 per cent level.

5. General attitudes towards organic farming adoption among the different area of residence of organic farmers

To reveal the significant difference between the area of residence of organic farmers and their general attitudes towards organic farming adoption, data on the general attitudes towards organic farming adoption have been collected and the 'ANOVA' test was administered. The mean score between the different area of residence of organic farmers on each statement on general attitudes towards organic farming adoption was determined separately.

Table 5: 'ANOVA' test for significant difference among different area of residence of organic farmers regarding the general attitudes towards organic farming adoption

Attitudes	Area of residence (Mean Score)					F Statistics
	Hamlet	Village	Town Panchayat	Town	City	
Organic farming is too labour intensive	3.58	3.62	3.96	3.44	3.80	2.724*
Use of chemical inputs improves product appearance	3.66	3.04	3.75	3.04	3.75	3.010*
Organic farming is more profitable than conventional farming	3.83	3.07	3.66	3.19	3.54	2.783*
Use of chemical inputs is negative for health of people and animals	3.93	3.21	3.37	3.58	3.93	1.216
Without using chemical pesticides, high pest infestation can happen	3.41	3.08	2.81	3.19	3.20	1.607
Use of chemical fertilizers improves product taste	3.75	2.94	2.65	3.05	2.90	1.458
Organic farming reduces chemical output to the environment	3.58	2.91	3.43	3.15	3.40	1.336
Governmental support to organic farming is important	3.50	3.72	4.18	3.67	4.02	2.798*

Source: Primary data

*-Significant at five per cent level

From the above table, it is understood that use of chemical inputs is negative for health of people and animals and organic farming is more profitable than conventional farming are the important general attitudes towards organic farming adoption among the organic farmers who are residing in hamlet area as their mean scores are 3.93 and 3.83 respectively. It is further understood that Governmental support to organic farming is important and organic farming is too labour intensive are the important general attitudes towards organic farming adoption among the organic farmers who are residing in village area as their mean scores are 3.72 and 3.62 respectively. The table further shows that Governmental support to organic farming is important and organic farming is too labour intensive are the important general attitudes towards organic farming adoption among the organic farmers who are residing in town panchayat as their mean scores are 4.18 and 3.96 respectively. The table further indicates that Governmental support to organic farming is important and use of chemical inputs is negative for health of people and animals are the important general attitudes towards organic farming adoption among the organic farmers who are residing in town as their mean scores are 3.67 and 3.58 respectively. The table further describes that Governmental support to organic farming is important and use of chemical inputs is negative for health of people and animals are the important general attitudes towards organic farming adoption among the organic farmers who are residing in city as their mean scores are 4.02 and 3.93 respectively. Regarding the general attitudes towards organic farming adoption among the different area of residence of organic farmers, Organic farming is too labour intensive, use of chemical inputs improves product appearance, organic farming is more profitable than conventional farming and Governmental support to organic farming is important are statistically significant at 5 per cent level.

The following null hypothesis was framed to assess the significant difference between the area of residence of organic farmers and their general attitudes towards organic farming adoption.

Null Hypothesis

There is no significant difference among the different area of residence of organic farmers regarding the general attitudes towards organic farming adoption

The following table shows the result of the 'ANOVA' test for a significant difference among the area of residence of organic farmers regarding the general attitudes towards organic farming adoption.

Conclusion

The study has explored the farmers' attitude towards organic farming adoption in Tamil Nadu. The finding of the study supports the fact that with the right impetus, the sector is all set to grow in manifolds in the years to come. Along with the growth of the sector, the farmers can also have a better return for their yield. The chronic issues like drought, floods plaguing the farming society can be brought to an end only by means of organic farming. The pertinent measures by the Government to accentuate the significance of organic farming among the farming community at large is the need of the hour.

References

1. Ghosh MK, Sohel MH, Ara N, Zahara FT, Nur SB, Hasan MM. Farmers Attitude towards Organic Farming: A Case Study in Chapainawabganj District. Asian Journal of Advances in Agricultural Research, 2019, 1-7.
2. Patidar S, Patidar H. A study of perception of farmers towards organic farming. International Journal of Application or Innovation in Engineering & Management. 2015; 4(3):269-277.
3. Shams A, Fard ZHM. Factors Affecting Wheat Farmers' Attitudes toward Organic Farming. Polish Journal of Environmental Studies, 2017, 26(5).
4. Yanakittkul P, Aungvaravong C. A model of farmers intentions towards organic farming: A case study on rice farming in Thailand. Heliyon, 2020; 6(1):3039.
5. Sharifuddin J, Mohammed ZA, Terano R. Rice farmers' perception and attitude toward organic farming adoption. Jurnal Agro Ekonomi. 2016; 34(1):35-46.