AWARENESS OF FARMERS TOWARDS ORGANIC FARMING – A STUDY FROM RURAL FARMERS

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Abstract

Organic farming aims to restore previously damaged or destroyed ecological balance in nature by employing biological methods to control pests and diseases, improving soil fertility, containing environmental and human friendly production systems, prohibiting the use of synthetic and chemical fertilizers and pesticides, and encouraging organic and green fertilizing, crop rotation, and soil conservation. From farm to table, organic farming has control methods for all farm practices and issues certificates to organic products and producers. The present study aimed to know the awareness of farmers towards organic farming in Tirupur district. Questionnaire method was used to collect the data from 100 sample organic farmers by applying convenience sampling. Organic farming employs humane and environmentally friendly production systems with the goal of restoring nature's previously destroyed ecological balance as a result of poor production practices. Among the most environmentally harmful economic endeavors, agriculture has an impact on the soil, water, and atmosphere. For this reason, a shift to a model that is dedicated to sustainability is desperately needed in the midst of the fight against climate change. Organic farming is a better option because it respects the natural dynamics of ecosystems and is, in general, healthier and more environmentally friendly.

Keywords: Organic farming, Awareness, Production, Agriculture, Climate.

Introduction

Organic products are produced using an environmentally and socially conscious agricultural system that does not utilize chemical pesticides or fertilizers. Compost manure, green manure, and bone meal are examples of organic fertilizers. Organic farming, also referred to as ecological farming or biological farming, emphasizes crop rotation and companion planting among other practices. This type of farming produces nutrient-dense,

vibrant food that is resistant to disease by maintaining the soil's ability to reproduce and regenerate at the grass-root level, along with healthy plant nutrition and sound soil management. India's diverse agroclimatic zones offer immense potential for producing a wide range of organic products. An added benefit in a few regions of the nation is the long-standing practice of organic farming. This presents a promising opportunity for organic producers to access the steadily expanding domestic and international market. The use of composed manure and ongoing inspections of certified organic products lower the risk of developing cancer, brain damage, and birth defects. Compared to conventional food, organic food has higher nutritional content and is therefore fresher and healthier to eat. Products grown organically have higher levels of antioxidants, vitamins, and minerals than conventional farm food that has been fertilized. In the last ten years, consumer behavior has changed, particularly with regard to food consumption. Most consumers now tend to consume organic food because they believe it is healthier and grows using natural resources and organic farming practices. As a result, consumer behavior has changed to favor organic food.

Objective of the study

The present study aimed to know the awareness of farmers towards organic farming in Tirupur district.

Need of the study

Nowadays, a lot of farmers believe that organic farming can help them stabilize or even grow their revenue because of the expanding market and favorable public policies. In order to keep up with the evolving buying habits of urban residents in the organic food products market, organic food marketers must be creative and adaptable. For a considerable amount of time, the significance of organic food products was overlooked. Organic food products are becoming more important than commercial food products as a result of environmental sustainability. Concerns about food safety, human health, and the environment have led to a surge in interest in organic foods among consumers and public institutions, primarily in developed nations. Over the previous ten years, the market for organic products has expanded steadily. But the total share of organic product is still small compared with the total product market.

Problem of the study

Due to the high production costs associated with organic farming, many farmers are concerned about it. Fresh organic produce collection, transportation, and storage are extremely important. Organic food products have relatively low volumes, which makes the marketing and distribution chain ineffective and expensive. For example, government warehouses that use chemical treatment of storage areas are not permitted to store organic products. Organic food products are subject to inflationary pressure due to low supply and high demand. Thus, the price markups on these products are greater than those on traditional products. Furthermore, a lot of sellers combine products from several geographical areas in order to get a competitive price, which undermines the geographical origin standard.

Materials and methods

Seufert et al. (2012) compared the yields of organic and conventional agriculture. They collected information on several study characteristics reported in the papers and derived characteristics of the study site from spatial global data sets. The study examined the difference between organic and conventional yields with the natural logarithm of the response ratio (the ratio between organic and conventional yields), an effect size commonly used in Meta-analyses. The study found that overall, organic yields are typically lower than conventional yields. They concluded that to achieve sustainable food security it should be to produce more organic food at affordable prices, ensure livelihoods for farmers, and reduce the environmental costs of agriculture. Ayuya et al (2015) conducted a study on effect of certified organic production systems on poverty among smallholder farmers with empirical evidence from Kenya. The primary data were collected from cross sectional survey of local market-oriented peri-urban vegetable and rural honey producers in Kenya. Descriptive statistics used to analyse the data and the poverty was measured using the multidimensional poverty methodology and endogenous switching probit model used to assess the effect of certified organic production on multidimensional poverty. It was found that certified producers were less likely to be multidimensional poor compared to their counterfactual case of not participating in organic certification schemes and noncertified producers would be less likely to be poor if they were to participate in organic certification production. It was suggested to enhance the smallholder farmer livelihood through poverty reduction in the emerging and growing certified organic market. The study concluded that households with

younger and highly educated are the chief decision makers and higher household social capital was more likely to participate in organic-certified systems.

Methodology is a systematic approach to resolving research problems. It explains the various steps that researchers typically take when studying research problems, as well as the logic behind them. This study utilized both primary and secondary data. In order to collect primary data, the study used a field survey. The researcher collected one hundred samples from various consumers in the Erode district using questionnaire. The respondents were selected by using convenience sampling. Multiple Regression analysis was used to conduct analysis.

Results and Discussions

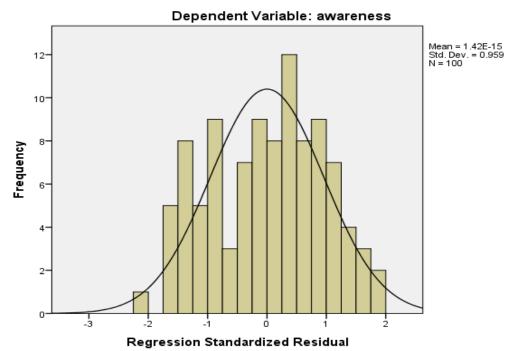
The most common type of linear regression analysis is multiple linear regression. Multiple linear regression is a predictive analysis that explains the relationship between one continuous dependent variable and two or more independent variables. The current study examines the relationship between organic farmers' awareness of organic farming and the independent variables studied. The model summary for the study is provided below.

| Table 1 Model Summary | | | | | | |
|--------------------------|-------|----------|-------------------|-------------------------------|--|--|
| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | | |
| 1 | .504ª | .254 | .188 | 8.787 | | |

The primary goal of this technique is to estimate the uncertainty of the dependent variable using its covariance with all independent variables. The R-square coefficient of determination measures the goodness-of-fit of the measured Sample Regression Plane (SRP) using the percentage of variance in the dependent variables defined by the fitted sample regression equation. It is noted that the R square value is 0.254, indicating that two variables, age and family type, contribute 25.4% to farmers' awareness of organic farming, and these are significantly associated at the 1% and 5% levels. The following chart shows the Histogram display and the value on awareness of organic farmers.

Chart 1

Histogram



It is clear from the Anova table that the variables whose F Value is 3.874 and the associated probability for F test is less than or equal to 0.05. Hence the F value is significant at 1% level and the study is perfectly fit to know the relationship between the selected variables.

Table 2

| ANOVA | | | | | | | | | | |
|---------|-----------------|-------------------|-------------|-------------|-------|-------------------|--|--|--|--|
| Model | | Sum of Squares df | | Mean Square | F | Sig. | | | | |
| 1 | Regression | 2392.981 | 8 | 299.123 | 3.874 | .001 ^b | | | | |
| | Residual | 7026.579 | 91 | 77.215 | | | | | | |
| | Total | 9419.560 | 99 | | | | | | | |
| a. Depe | ndent Variable: | Awareness of or | ganic farme | rs | | • | | | | |

The table below depicts multiple regression analyses that show the relationship between independent variables and farmer awareness of organic farming practices.

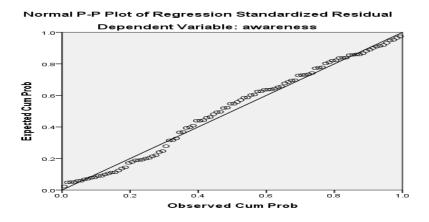
Table 3
Multiple Regression Analysis

| Coefficients ^a | | | | | | | | | |
|---------------------------|---------------------------|--------------------------------|------------|------------------------------|--------|--------|--|--|--|
| | Model | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. | | | |
| | | В | Std. Error | Beta | | | | | |
| 1 | (Constant) | 40.918 8.181 | | 5.001 | .000 | | | | |
| | Gender | 3.212 | 1.850 | .165 | 1.736 | .086 | | | |
| | Age | -2.643 | 1.201 | 207 | -2.201 | .030** | | | |
| | Educational qualification | .885 | .862 | .100 | 1.027 | .307 | | | |
| | Family type | 1.677 | .516 | .307 | 3.250 | .002* | | | |
| | Monthly income | -2.228 | 1.220 | 177 | -1.827 | .071 | | | |
| | Family size | 702 | 1.837 | 036 | 382 | .703 | | | |
| | Wealth position | .845 | 1.764 | .047 | .479 | .633 | | | |
| | Land size | -3.650 | 1.894 | 177 | -1.927 | .057 | | | |

^{*-} Significant at 1% level: ** - Significant at 5% level.

It is divulged that variables such as gender, educational qualification, family type and wealth position are positively associated with the awareness of farmers towards organic farming. The velocity of raising the level of awareness of farmers on organic farming shows better results of the key indicators of awareness such as gender with 3.212 units change, with 0.885 units change in educational qualification, with 1.677 units change in family type, and with 0.845 units change in wealth position of the farmers. The following chart shows the Normal P-P plot of regression standardized residual.

Chart 2



Hence, it is exposed from the study that the R square value is 0.254, indicating that two variables, age and family type, contribute 25.4% to farmers' awareness of organic farming, and these are significantly associated at the 1% and 5% levels. The variables such as gender, educational qualification, family type and wealth position are positively associated with the awareness of farmers towards organic farming. The velocity of raising the level of awareness of farmers on organic farming shows better results of the key indicators of awareness such as gender with 3.212 units change, with 0.885 units change in educational qualification, with 1.677 units change in family type, and with 0.845 units change in wealth position of the farmers.

Suggestions and conclusion

The younger generation in India is looking for alternative processes to create a more vibrant life. This is leaving a gap that must be closed in order for the nation's economy to grow smoothly. To do this, it will take some creativity and chances to draw in the younger crowd. Nonetheless, a lot of young people in rural areas are also considering full-time careers in farming and are taking it on as a regular profession. The improving state of the world economy and the rise in food insecurity have contributed to this growing appreciation of agriculture. The global pandemic that struck suddenly and the ongoing conflict between some countries have increased demand for organic food. Many adjustments are needed when switching from conventional to organic farming. The farmer's mentality is one of the largest shifts. Unfortunately, conventional methods frequently rely on band-aid solutions that don't deal with the root of the issue. Transitioning farmers typically worry too much about substituting permissible organic products for synthetic inputs, rather than thinking about management practices based on preventive strategies. Organic product quality and other requirements ought to be incorporated into the Codex Alimentarius. FAO, national and international research institutions, NGOs, and IGOs should work together to support the organization of technical consultations and meetings that center either entirely or partially on organic farming practices. FAO should make better use of its excellent information distribution system to spread special studies, research findings, and useful recommendations on organic agriculture by collaborating with NGOs and research institutions. Finally, a food product must meet organic standards and provide proof to an organic certification body, such as Soil Association Certification, at every stage of the supply chain, from farmers and packers to food processors and retailers selling organic products, in order to be labeled as organic.

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