

Factors affecting Farmers' Choices for Producing Organic Products in India: An Empirical Study

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Abstract

The production of organic products has gained significant attention worldwide due to growing concerns over food safety and environmental sustainability. In India, where agriculture has a crucial part in the economy, there is a significant interest in organic farming. However, the implementation of organic farming practices by farmers is still limited and the factors that influence farmers' choices for producing organic products are not well understood. This empirical study aims to identify the factors affecting farmers' choices for producing organic products in India. Economic benefits, such as higher prices for organic products and lower input costs, are the main motivation for farmers to implement organic farming practices and it is also influenced by several other secondary factors such as access to information, availability of inputs, access to markets, and government policies. The study highlights the challenges faced by farmers in producing organic products and also concludes that promoting organic farming in India requires a multi-pronged approach that addresses the socio-economic, environmental, and policy-related factors that impact farmers' choices.

Keywords: Organic Products, Farmers, Food Quality, Rural Employment

Introduction

The current farming practices in India have led to socio-economic and environmental problems, and there is a need to find other methods to overcome these challenges. Sustainable agriculture practices can contribute to higher production, higher food quality, rural employment, poverty drop, and better utilization of natural resources. Organic farming has emerged as a viable alternative to chemical-based farming, as it addresses both quality and sustainability anxieties and provides cost-effective living options for rural communities. But for the sustained growth of organic farming, strong institutional mechanisms and government support are essential. The promotion of sustainable agriculture is crucial to support the farmers in the sector and attain

socio-economic development with the help of effective sustainable farming practices (Soumya, 2015).

Organic farming is gaining popularity as a substitute to current agricultural systems and can be ecologically sustainable by using natural inputs to enhance crop yields. India has great opportunities for rural employment and secure life through agriculture. Organic farming covers 4.72 million hectares of land in India, ranking it 10th globally, with a compound growth rate of 11.52% from 2005-2013. Organic products command more prices than non-organic ones in the market. India has the ability to develop into a significant producer of organic goods considering the increasing need for agricultural goods in other countries, the country's numerous agro climatic areas, a large domestic market, and the long tradition of environmentally friendly farming (Deshmukh & Babar, 2015).

India has faced the challenge of producing enough food for its growing population since gaining independence. To address this challenge, the country has relied heavily on “high-yielding varieties” and the integration of irrigation, enrichers, and insecticides. However, this has raised concerns about pollution, toxicity, and the sustainability of farming practices. Organic farming has emerged as a potential solution, as it can provide good and nutritious food without unfavorably influencing the soil and the environment. While quality organic products are produced in India, concerns remain about whether organic farming in a greater scale can harvest adequate food for the country's enormous population (Yadav et al., 2013). The lack of adequate organic additives, natural fertilizers, and regional markets for organic goods, as well as poor utilization of regulations, expensive inputs, and capital-driven control by contractual companies, are obstacles to the embracing of organic farming. To combine OF with bottom-up solutions, dissemination of technology with complementary transfer of information from farmers' organisations and the resources they have locally, as well as inventiveness, a complete structure is required. This will facilitate the adoption of large-scale farming practices to handle the environmental tragedy in the wake of global warming as well as the health and financial stability of India's vast rural population (Pandey & Singh, 2012).

Literature review

Rana et al. (2012) found in their study that the age of the farmer, the farming experience of the domestic head, farm size, easy admission to credit, the awareness of farmers towards organic

farming, and the role of extension service were the major drivers and barriers in the implementation of organic farming. Elderly farmers are less likely to embrace organic farming than newer ones, which may be a result of the latter's risk tolerance tendencies. Growers who have more knowledge in farming and possessed a larger land area are better susceptible to accept organic farming. Easy access to credit is an important factor in adoption, as small family farms required credit to go for adoption.

The implementation of organic farming was found to be strongly associated and significantly correlated with schooling, annual revenue, naturally produced agricultural knowledge, use of the mainstream media, organizational look regarding promoting organic farming, and inventiveness, according to a study by Pradhan et al. (2017) on farmers in the North district of Sikkim, India. The size of the property, on the contrary, was substantially and adversely linked. They also found eight crucial variables, including “motivator”, “family capacity”, “income”, “farm economy”, “socioeconomics”, “education”, “land ownership”, and “resource use efficiency”, that were related to the implementation of sustainable agriculture in Sikkim.

Patidar & Patidar (2015) conducted a study in Madhya Pradesh, India that aimed to analyse farmers' awareness of organic farming and the problems related to it and it was found that the majority of respondents had a positive perception of organic farming. Five variables that affect respondents' perception of organic farming were identified, including “age”, “educational background”, “farm size”, “benefits”, and “social aspects”. Interestingly, the study inferred that the expense related with organic farming did not affect farmers' attitudes towards it, indicating that farmers may prioritize yield and profit over the cost of inputs in agriculture. But there is a need for a better knowledge and acceptance of the system and administration incentives to bridge the difference amid knowledge and implementation.

Azam & Banumathi (2015) examined the significance of socio-demographic dimensions in implementing organic farming in the Nalanda district of Bihar and found that factors such as “educational attainment”, “age”, and “gender” have a positive effect on farmers' decision to switch to organic farming. The financial situation of organic farmers has been supported significantly, resulting in better living conditions. The government's training programs also helped farmers become more self-sufficient and assured in standing up for their privileges against corporate agriculture. Organic farming has seen substantial development in recent

years, with supporters citing environmental and nutritional benefits, as well as potential for rural development and employment opportunities.

Raghu et al. in their 2014 study highlight the importance of adopting enhanced “nutrient management techniques”, “pest mitigation technology”, and “soil conservation measures” for sustainable agricultural methods. They found that the majority of farmers in the surveyed households use a combination of chemical enrichers and “farm yard manure”. A significant portion of farmers surveyed had not yet adopted soil conservation measures, which are crucial for long-term sustainability. The use of non-chemical management practices, such as inter and mixed cropping, is limited to a small section of farmers, which calls for the promotion of such practices to improve productivity and long-term sustainability.

Panneerselvam et al. (2011) explored the “perceived relevance”, advantages, and obstacles to converting to organic agriculture in three different Indian states- Tamil Nadu, Madhya Pradesh, and Uttarakhand and found that conventional farmers identified manufacture and promotion obstacles as the key limitations to implementing organic farming, while less awareness and administrative backing were the other problems. While governmental assistance was accessible, organic growers have been more preoccupied with issues relating to manufacturing, the climate, and welfare. Indian farmers' inadequate understanding regarding organic agricultural practices has been recognized as an issue, and academic structures, authorities, and community organizations were urged to work together to provide guidance, education, training, and monetary assistance for small- and marginal-scale farmers during the transition period.

Azam (2015) studied to understand the socio-demographic outline and financial situation of small and marginal farmers in India, with a specific focus on organic and conventional farming, and found that most farmers embraced organic farming after 2009, and their socioeconomic circumstance has improved as a result. Factors such as education level, training, mode of transportation, and target consumers influenced farmers' decisions to adopt organic farming. But farm experience and land holding patterns did not seem to significantly influence farmers' decision-making. The study highlights the potential benefits of organic farming for sustainable living and financial liberation of small and marginal farmers in India.

Riar et al. (2017) conducted a farm survey in the Nimar valley of the Madhya Pradesh state in central India to understand the societal and biological reasons of both organic and traditional

cotton growers for adhering to their specific farming practices. It was discovered that while traditional farmers were concerned about their standing in the community as a whole, organic cultivators were inspired by the long-term viability of cotton cultivation and creating healthier foods without chemical pesticides. While organic producers with medium to small farms were driven by the higher price of cotton that is organic, those with bigger holdings were more worried with closed cycles of nutrients and decreasing their reliance on outside inputs.

Nandi et al. (2015) aimed to study smallholder farmers' approaches, intentions, and obstacles to producing organic fruits and vegetables in South India, and to recognize farmers' profiles based on their approaches and purposes and found that market and environmental factors were most valued by smallholder farmers, followed by government support, benefit-cost, and community factors for organic fruits and vegetable production. Three clusters of smallholder farmers were identified, with different levels of orientation towards producing organically based on each factor. Production barriers were identified as the most significant challenge for smallholders, followed by advertising, technical and management issues, and finally by monetary and commercial obstructions.

Kallas et al. in their 2010 study found that farmers' objectives and risk preferences effect the adaptation decision. Particularly, producers who are not cautious about risk, eager to protect the ecosystem, and ready to create jobs in their local area are more inclined to embrace sustainable agriculture quickly. Furthermore, tiny farms with diversified output that are situated in less desirable regions exhibit higher danger rates. Farmers are more likely to switch to organic cultivation if they receive higher output rates, have trouble getting financing, and engage in another line of work. Higher adoption rates are also influenced by simple access to data resources, the availability of regional agrarian officials, and some policy rules.

Objective

1. To find the factors affecting farmer's choices for producing organic products in India

Methodology

In this study 247 respondents were surveyed to know the factors affecting farmer's choices for producing organic products in India. A structured questionnaire was used in this study for conducting the survey. Also, a convenient sampling method was used by the researcher for

collecting the primary data. After the completion of the fieldwork, the data was analyzed and evaluated by mean and t-test.

Table 1 Factors Affecting Farmer’s Choices for Producing Organic Products in India

S. No.	Statements	Mean Value
1.	The lack of adequate organic additives, natural fertilizers and regional markets for organic goods	4.23
2.	Poor utilization of regulations, expensive inputs, and capital-driven control by contractual companies	4.14
3.	Lack of knowledge and resources are affecting organic farming production by farmers	3.97
4.	Manufacturer and promotional obstacle is considered as the key limitations to implementing organic farming	3.64
5.	Less awareness and administrative backing	3.86
6.	Preferable climatic conditions	4.06
7.	Production barriers were identified as the most significant challenge for organic farming	3.78
8.	Advertising, technical and management issues	3.99
9.	Monetary and commercial obstructions	4.17

Table above is showing the factors affecting farmer’s choices for producing organic products in India. The respondent says that the lack of adequate organic additives, natural fertilizers and regional markets for organic goods with mean value 4.23, monetary and commercial obstructions with mean value 4.17 and poor utilization of regulations, expensive inputs, and capital-driven control by contractual companies with mean value 4.14. The respondent also

believes preferable climatic conditions with mean value 4.06, advertising, technical and management issues with mean value 3.99 and lack of knowledge and resources are affecting organic farming production by farmers with mean value 3.97. Respondents also believes that less awareness and administrative backing with mean value 3.86, production barriers were identified as the most significant challenge for organic farming with mean value 3.78 and manufacturer and promotional obstacle is considered as the key limitations to implementing organic farming with mean value 3.64.

Conclusion

Organic farming has the ability to expand soil fertility, decrease the ecological impact of agriculture, and improve the health and well-being of farmers and consumers. However, the transition to organic farming is seldom straightforward and can be impacted by various economic, social, and environmental factors. The empirical study discussed in this paper sheds light on some of the key issues that influence farmers' decisions to adopt organic farming practices in India. Factors affecting farmers' choices for producing organic products in India are influenced by a multitude of factors, which are interconnected and complex. The empirical study revealed that farmers' decisions are driven by various factors, including economic incentives, government policies, environmental concerns, and market demand. Farmers' education, knowledge, access to inputs, and availability of resources also play a crucial role in their decision-making process. Raising consumer awareness and improving market linkages can also help increase demand for organic products, thereby incentivizing more farmers to implement organic practices. The promotion of organic farming in India thus requires a holistic approach that addresses the complex web of factors that shape farmers' decisions and their ability to adopt sustainable agricultural practices.

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