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THE PERCEPTION OF FARMERS TOWARD ORGANIC FARMING IN BHOPAL DISTRICT OF M.P.

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Abstract

Agriculture is the backbone of India. All changes in agriculture will result in the life of humans and nature and vice-versa. There has been a drastic change in the way we perform farming in the past few decades. It is characterized mainly by the adopting of machinery and chemical technology in agriculture, replacing the traditional knowledge. The big change has taken place during the green revolution. Such change has resulted in environmental pollution, degradation of soil health, loss of bio-diversity, and others. As the days went by, the farmers across. The nation has switched to modern agriculture without realizing the consequences the effects of modern agriculture has resulted in deterioration in soil quality, drastic impacts on the availability of agriculture producer; besides impacting health and lifestyle of the people. Organic farming, which has been also known as traditional farming, has come as an alternative, still, the farmers who have been modern agriculture are hesitant to practice Organic Farming. Hence, the Knowledge, Attitude, and Practice of organic farming largely influence their willingness to switch over to organic farming. Thus, the present study focuses on the knowledge, attitude, and practice of organic farming among the Bhopal districts.

Keywords: Conventional Farming, Employment, Education, Organic Farming.

Introduction

Organic Farming has been considered as the immediate demand for the world population which is suffering a lot from the chemical-based food grains, vegetables, and fruits. Only washing fruits & vegetables before consumption is not sufficient to reduce the residual effect of harmful chemicals. Now a day, like in every field, farmers are running in the race of increasing their production by using a heavy dosage of chemical fertilizers, growth hormones, pesticides, herbicides, fungicides, and many other harmful chemicals. In spite of the use of all these chemicals, the numbers of pests and diseases are continuously increasing, so is the amount of chemicals to cure them. This is not only affecting the health of the consumers but also harmful for the health of our mulching animals, Mother Earth, and the environment.

To overcome all such problems, Organic Farming is considered as one of the solutions. The concept of organic farming precisely follows the principles of eco-system and networking with nature. It is totally different from chemical farming both in philosophy and practice.

According to the definition given by USDA “organic farming is a system which avoids or largely excludes the use of synthetic inputs (such as fertilizers, pesticides, hormones, feedadditives etc.) and to the maximum extent, feasible rely upon crop rotations, crop residues, animal manures, off-farm organic waste, mineral grade rock additives and biological system of nutrient mobilization and plant protection” [1].

India is home to 30 percent of the total organic producers in the world but accounts for just 2.59 percent (2.30 million hectares) of the total organic cultivation area about 57.8 million hectares, according to the World of Organic Agriculture 2021 report [2]. At the same time, most of the organic farmers are struggling due to having poor policy measures, rising input costs, and limited market, according to a study by the Associated Chambers of Commerce and Industry of India (ASSOCHAM) and global consultancy firm Ernst & Young. The aim of this study was therefore to evaluate farmers’ perception towards organic farming and related issues associated with it. The present study was conducted in the Bhopal district of Madhya Pradesh, India. The state of Madhya Pradesh consists of 39 districts; out of these a convenient and random sampling technique was used to select 100 respondents from 3 villages of Bhopal district.

Objective

1. To study farmers’ perception towards converting non-organic to organic farming.
2. To study the personal, socio-economic, and psychological characteristics of farmers in Bhopal.
3. To study the history of organic farming and how far has it reached.
4. To find out the facts and figures about the related aspects.
5. To study the impact of organic farming.



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Literature Review

- (Heissenhuber & Ring, 1991)[3] this study concluded that the economic aspect of organic farming with the help of two existing organic farms. They try to find out economic parameters and try to scrutinize the financial situation. This study resulted that organic farming is highly qualified to reach a comparable income, there is a further increase in the demand for organically based products which shows a rise in the income of organic farmers.
- (Laepplé & Donnellan, 2008)[4] their study focuses on the role that the attitudes of farmers play in identifying drivers and barriers to the intention to convert to organic farming using the theory of planned behavior. To set this paper in context, it is part of a larger study that aims to explain the decision to adopt or not to adopt organic farming over time with respect to a variety of factors such as economic, institutional, and socio-economic as well as comparing the attitudes and objectives of organic and conventional farmers.
- (Kotresha, Ananthnag, Girish, & Angadi, 2014)[5] in this study investigated the knowledge, and attitude of vegetable growers towards organic farming. A survey method through a face-to-face interview by using a structured schedule was used to collect data from a total of 30 vegetable growers in Maddur taluk of Mandya district which was selected by using a simple random sampling method. The findings of the study show that the knowledge of the respondents on organic farming especially pertaining to the use of chemical insecticides, herbicides and fertilizers are need to be improved, their attitude is also still negative, and they are dependent on conventional practices (i.e. chemical) especially to control pests and diseases.
- (Soumya, 2015)[6] studied the scope of organic farming as an effective way to promote sustainable agriculture development in India, and find ways to overcome socio-economic and environmental problems arising from unsustainable farm practices, increase agriculture contribution to India's GDP, tell the importance of organic farming to reduce poverty, generate rural employment, enhance regional integration, accelerate rural development and improve productivity in agriculture.
- (Patidar & Patidar, 2015)[7] aim to studied and evaluate farmers' perception of organic farming and emerging issues associated with it. The study area is the Khargon district of Nimar M.P., India. Which author find out the positive perception of farmers towards organic farming revealed that around 67% of respondents are in favor of organic farming to attaining improved productivity, farm income, and food as well as environmental safety point of view.
- (Devi, 2017)[8] in her study on the attitude of farmers towards organic farming discussed farmers' attitude towards organic farming and issues associated with it like sustainable development, environment protection, soil degradation, etc. and how to overcome it. This study was conducted in Erode District. She found out that the farmers do not have a good level of knowledge mainly focused on promoting organic farming as a profitable alternative to conventional farming could have a positive impact on the tendency for conversion.
- (Oyedele, Wole-Alo, Owolabi, & Okunlola, 2018)[9] concluded their research paper- The study examined small-scale farmers' perception about organic farming status in Ondo state, Nigeria with a view of expanding. Their finding showed that the majority of the respondents practiced integrated organic farming with 76.6 percent while only 23.3 percent of the farmers practiced pure organic farming.
- (Anand & Mishra, 2018)[10] this study on farmers' perception towards organic inputs in selected districts of Gujarat was carried out to know farmers' perception towards organic inputs and to find out awareness level and satisfaction level about organic input. And their objective is to know the major market competitors of Bharat Krushi Care Pvt. Ltd and to study the purchasing pattern of organic input. They found that most of the farmers were highly aware of the bioproduct and the familiarity of the organic inputs among farmers depends on the promotional efforts of the marketers.

Research Method to Be Selected

Investigator selected a descriptive Survey Method for the study with the help of a questionnaire.

Study Area

The study was conducted in selected villages in the Bhopal district (Barkhera Pathani, Papalia Pende Khan, Bagsewaniya, bagmugaliya village) of Madhya Pradesh, India.

Data Collection

The study deals with farmers' perceptions of organic farming and related aspects. The data has been basically collected from secondary sources such as scholarly articles, reviews, research papers, reports of various companies published research reports, etc. Primary data has also been collected for knowing the actual perception of farmers regarding organic farming and their experience in organic farming among different regions of the Bhopal district.

For collecting the primary data questionnaire were filled by 100 respondents from various age groups and from different regions. Convenience sampling was done for this. The questionnaire included questions regarding their personal information which



include age, education, income group, etc., and general information like land holding, cattle, tools and techniques they use, and their views about organic farming.

The questionnaire basically tried to find out the perception of farmers. Descriptive statistical tools like bar graphs, pie charts, etc. have been used for the interpretation of the data. Extensive literature reviews of published books, research papers, and newspaper articles have been undertaken. For the recent trends and developments, government official websites and the internet were also explored. The structured questionnaires will be formed in consideration with the view of variables with the help of the research guide. The data had been collected from farmers by doing field visits.

Data analysis tools

Statistical techniques like correlation and regression were used. Data were analysed with the IBM SPSS 25.0 latest version of the software package.

Limitations of The Study

- 1. The study is limited to Bhopal city only.
2. The study is restricted to one type of agriculture form i.e., organic farming.
3. The study is delimited to four villages BarkheraPathani, Papalia Pende Khan, Bagsewaniya, bagmugaliya village in Bhopal District of Madhya Pradesh.
4. The size of the sample taken for the study is small i.e., of 100 respondents only.
5. Time constraint was also one of the limitations of the research as people were really reluctant to fill up the questionnaires.
6. Translation problem occur to fill up questionnaires as it is prepared in English.
7. To collect the questionnaires back was a time-consuming task.

Analysis of The Survey

Farmers' perception is the study of individuals groups, or firms and all the activities associated with the farmers, including the farmers' emotional, mental, and behavioral response that precedes or follows these activities.

It is basically examining how emotions, attitudes, and preferences affect farmers' behavior. The characteristics of individual farmers such as availability of inputs, cost of inputs, demographics and behavioral variables such as usage rates, loyalty, usage seasons, availability of fertilizers, tools, and techniques, willingness to provide referrals, in an attempt to understand farmers wants and their perception regarding organic farming. The study of farmers' perception also investigates the influences on the farmers, from various villages, groups, friends, reference groups, and society in general. The study is concerned with all the aspects of organic farming from small private farmers to big farmers who done organic farming on a big scale. Farmers' perception is also concerned with all other farmers involved, either directly or indirectly, in the production of organic farming and including opinion farmers and landlords. Research has shown that farmers' perception because of change in farmers' behavior as human beings is difficult to predict, even for experts in this field.

Analysis by IBM SPSS - Data Sheet

This section is an analysis of the survey done to know the farmers' perception towards organic farming. The answers of the respondents were recorded and are analyzed. All the aspects which can affect the farmers' perception of organic farming and that were covered in the questionnaire. Some of them can be changes in cost and neighbor's preference etc. This section tries to bring out the present perception of farmers which may be unknown to date.

1. Gender Frequency table

Table with 5 columns: Gender, Frequency, Percent, Valid Percent, Cumulative Percent. Rows include Male (82, 82.0, 82.0, 82.0), Female (18, 18.0, 18.0, 100.0), and Total (100, 100.0, 100.0).

2. Education Frequency table

Table with 5 columns: Education, Frequency, Percent, Valid Percent, Cumulative Percent. Row includes Illiterate (20, 20.0, 20.0, 20.0).



High School	48	48.0	48.0	68.0
Graduation	21	21.0	21.0	89.0
Post-graduation	9	9.0	9.0	98.0
Ph.D.	2	2.0	2.0	100.0
Total	100	100.0	100.0	

3. Occupation Frequency table

Occupation		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Main	54	54.0	54.0	54.0
	Secondary	46	46.0	46.0	100.0
	Total	100	100.0	100.0	

4. Correlations between education and know organic farming

Correlations		Education	Know organic farming
Education	Pearson Correlation	1	.046
	Sig. (2-tailed)		.652
	N	100	100
Know organic farming	Pearson Correlation	.046	1
	Sig. (2-tailed)	.652	
	N	100	100

** . Correlation is significant at the 0.01 level (2-tailed).

Table 4. displays the analyzed data concerning the correlation between education and know organic farming. The obtained value of the coefficient of correlation ‘r’ for 0.046. The minimum significant value of the coefficient of correlation ‘r’ as per the standard table of correlation should be 0.254 for n=100. Since the calculated value is less than the tabulated value of ‘r’ at 0.01 level of significance. It means that there is a high correlation definite between education and knows organic farming. Therefore, the null hypothesis (Ho-1) stated “There is no significant relationship between education and farmers’ is accepted.

5. Correlation between size of land and investment in organic farming

Correlations		Size of land	Do invest in organic farming
Size of land	Pearson Correlation	1	.043
	Sig. (2-tailed)		.673
	N	100	100
Do invest in organic farming	Pearson Correlation	.043	1
	Sig. (2-tailed)	.673	
	N	100	100

** . Correlation is significant at the 0.01 level (2-tailed).

Table 5. displays the analyzed data concerning the correlation between the size of land and investment in organic farming. The obtained value of the coefficient of correlation ‘r’ for 0.043. The minimum significant value of the coefficient of correlation ‘r’ as per the standard table of correlation should be 0.276 for n=100. Since the calculated value is less than the tabulated value of ‘r’ at 0.01 level of significance. It means that there is a high correlation definite between the size of land and investment in organic farming. Therefore, the null hypothesis (Ho-2) stated “There is no significant relationship between the size of land and investment in organic farming is accepted.



6. Correlation between investment in organic farming, Certified organic farmer, Use of government scheme

Correlations				
		Do invest in organic farming	Certified organic farmer	Use of government scheme
Do invest in organic farming	Pearson Correlation	1	.081	.276**
	Sig. (2-tailed)		.423	.005
	N	100	100	100
Certified organic farmer	Pearson Correlation	.081	1	.132
	Sig. (2-tailed)	.423		.191
	N	100	100	100
Use of government scheme	Pearson Correlation	.276**	.132	1
	Sig. (2-tailed)	.005	.191	
	N	100	100	100

** . Correlation is significant at the 0.01 level (2-tailed).

Table 6. Displays the analyzed data concerning the correlation between investment in organic farming and the use of government schemes. The obtained value of the coefficient of correlation ‘r’ for 0.276. The minimum significant value of the coefficient of correlation ‘r’ as per the standard table of correlation should be 0.254 for n=100. Since the calculated value is more than the tabulated value of ‘r’ at 0.01 level of significance. It means that there is a low correlation definite between the size of land and investment in organic farming. Therefore, the null hypothesis (Ho-3) stated “There is no significant relationship between investment in organic farming and use of government scheme is rejected.

Conclusion

The findings of this study come across a positive perception of organic farming with significant relationships between age, educational background, size of the farm, benefits of investment in organic farming, and social factors. This prevails that the farmers’ communities will have a high adoption rate of innovations related to organic farming and other agricultural policies. The concern, however, is that recent studies in the other geopolitical zone in M.P. report low practice of organic farming. This gap between knowledge or perception and practice can be bridged by a better understanding of the system and government provision of enabling environments (e.g., provision of credit facilities, training on technicalities) to farmers. This study also revealed some unexpected outcomes such as the cost associated with organic farming does not affect the farmer’s attitude. Maybe farmers' focus is on yield and profit (benefit aspect) but not the cost of inputs in agriculture. Other factors like knowledge, nature, and gender have no explanatory significance towards the attitude of the farmers. Descriptive statistics and factor analysis were used to present the findings of the study while the correlation used to find out the relation between education and know organic farming, the correlation between the size of land and investment in organic farming, and correlation between invest in organic farming, certified organic farmer, Use of the government scheme. The study revealed that respondents have a positive relationship between education level and known organic farming with r= 0.046 accepted significance. Respondents have a positive relationship between size of land and investment in organic farming with r= 0.043 accepted significance. At last, the respondents have a negative relationship between invest in organic farming, certified organic farmers, use of government schemes with r= 0.276 rejected significance. Concluded that farmers’ perception is negative towards organic farming in these specific villages of Bhopal district. As they choose to go with their old habits of doing chemical farming.

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