

Certification of Organic food products: Is it making a difference?

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ABSTRACT

The organic food industry of India is in its inceptive stage and the government has been introducing ample stratagems to flourish this industry. One such initiative is the certification of organic food products in order to ensure the authenticity of the products that are sold under the organic label. This research attempts to check the awareness level and opinion of the organic food consumers about the certification of organic food products. There exists a lack of awareness about these initiatives among the organic food consumers. This study also provides the practical implications of research results for the producers, farmers and marketers and provides suggestions to improve and integrate the organic food market.

1. Introduction

The organic food industry is growing at an ever increasing pace in India. This industry is at its inceptive stage, hence Indian government is taking many initiatives to regulate this market and organise this into a better avenue for the benefit of society. With an already existing food industry, the organic food industry faces a challenge to establish itself in competition with the conventional food market. The major issue arises in differentiating the organic food from non-organic food products (Ernst & Young LLP, 2018). The Indian Government has been introducing many rules and regulations in order to distinguish the organic products from non-organic products and also ensure their authenticity through various certification programs for the organic food products.

The National Program for Organic Products (NPOP) lays down standards and rules and regulations for all the organic farmers/producers. This program currently has 28 accredited private agencies performing the certification process and providing their own logo along with the NPOP's 'India Organic' logo for the organic products. Participatory Guarantee Scheme (PGS) too is an initiative to help small organic farmers and markets (YES BANK, Ingenus Strategy, Creative Research, 2019) having 562 regional councils to conduct the certification process. Both the initiatives have different certification logo and structure but they must follow the same standards laid down under NPOP for the certification process. Recently, the government took another initiative to integrate the organic market with the introduction of 'Jaivik Bharat' logo for all the packaged organic food products. At this point, it becomes pivotal to know the awareness level of organic food consumers, for the benefit of whom initiatives are taken. Their understanding and opinion about the certification program will help the farmers/producers to take the decision whether to certify or not to certify.

2. Literature Review

Organic farming, in the recent years, is gaining popularity as a new method of sustainable farming but as a matter of fact,

Indian agriculture thrived on organic methods of farming for thousands of years before the food crisis in 1950-1960. During that period Indian population faced severe food shortage which gave way to green revolution post 1960. The revolution brought about a technological breakthrough, leading to short duration high yielding seed varieties, chemical fertilizers and pesticides. Extensive dependency on the green revolution techniques have led to depletion of soil fertility and extra toxic chemicals in the produce (P. Bhattacharya, 2005). Thus, consumers and farmers are ultimately moving back to organic farming. The decision of shifting back to the organic farming method is giving rise to the various issues in the organic food industry.

Currently most of the farmers depend on the government for supply of seeds because the seeds have lost the diversity. But all is not lost, there are many farmers who have realised the effects of it and moved to getting their farms ready for organic produce (Taylor, 2011). Organic farming can be one of the alternatives to achieve environmentally sound and sustainable food production (Gopalan, 2001). People are moving towards organic food because of the increase in toxic chemicals in other food produce; earlier the only customers, organic sellers had, were friends but later as the awareness increased the market for organic produce expanded. But it is not easy to increase production at once because organic farming requires a sensitive nature's balance (Parveen, 2008). A product can be called organic if it meets all the standards given by the organic food council. Many previous researchers have found that organic food with a certification logo have a better impact on the consumers and also providing a QR code on the product would help urban consumers get more product details by scanning the code (Sheikh Mohammed Rafiul Huque, 2016). It is important to follow the set standards by the organic food producers but more importantly the regulatory authorities have to take action if there is any non-compliance of the standards (Wilson, 2014). Organic food is perceived to be nutritionally superior (Parichard Sangkumchaliang, 2012) than conventional food products that are available in the market, but it has not been scientifically proven. There is no proof that organic food consumption provides any extra benefit to health over

conventional food for adults (Holzam, 2012). Children can eliminate agricultural pesticides from their bodies by eating 100 percent organic food but this does not prove or show any health benefits (Harder, 2005). The health conscious consumers always look out for the health related information published on the organic products before taking the purchase decision. Hence, the mere label representing the product as 'organic' does not really instigate a purchase behaviour in them (Hsiao-Ching Lee, 2018).

It appears that the power of labelling is such that it can mould the perception of consumers about any product and the amount of money that they are willing to spend on a product having any sort of label. It may not be necessary that the label conveys useful information but only the fact that it is present on the product will make the consumers perceive that product better than the product which does not have a label. The consumers will be willing to pay more for the product with a label (John C. Bernard, 2019).

The producers are taking advantage of such perception of consumers about labelling the products as 'Organic'. Only the 'organic' label does not guarantee that the products have been produced under the guidelines for organic food products. Therefore, certification of organic products is introduced. As the organic food industry is in its inceptive stage, it becomes very important to check whether the consumer is aware about this differentiation or not. Whether the consumer knows that there exists a certification that authenticates the products as organically produced products.

(Safdar Muhammad) has identified age, nationality, education, household size and income as determinants which influence a person's willingness to pay higher price for the organic food products. It is found that elderly people having high qualification and earnings are ready to pay extra money for organic food products. (Kamal P. Aryal, 2009) says that the percentage of price premium that a consumer is willing to pay varies between products and consumers due to the justification of high prices. There exists a difference between the attitude towards organic food products and the consumers' purchase decision to buy organic food products. Although both are driven by the same determinants; however the relative importance of those determinants differed (Janssen, 2018).

There is a need to initiate various programs that will provide knowledge about organic agricultural organic products and their benefits to the society to the less aware potential consumers (Ali Asadi, 2009)(M. Ghorbani, 2009). The government is providing various guidelines in order to develop this market yet there is an uncertain environment prevailing in the organic food industry which has given space for many unethical and deceitful practices in India. There are doubts in the minds of the consumers about the authenticity of the products that are sold in the organic stores. Since the organic food industry in India is in its inceptive stage, the government and other private players have to develop strong policy framework which will benefit in the industry's growth. As the industry's prospective growth rate is expected to become three times more by 2020 (Willer, 2018), there is immense scope for improvements. One such improvement could be communication of the existence of such

industry to the health conscious consumer and another is to ensure the authenticity of the products to be sold under the definition of 'organic'. According to (Lohr, 1998), certification provides three functions for organic food products. Firstly, it ensures that a product that is not visibly different from the non-organic products has been produced in compliance with the organic farming standards. Secondly, it assures that the producers get their reward for investing in the process of certification and consumers are not misguided just by the term organic. Thirdly, it facilitates free and efficient flow of information between the marketers and consumers of the organic food products. The government of India has taken various initiatives like NPOP (National Program for Organic Products), PGS (Participatory Guarantee Scheme)- India and Jaivik Bharat to support the authenticity in this market. So, all the organic products must be certified under at least one of these products and have their logo in order to be sold in the market under the label of 'organic'. There are many researches that have been conducted on the revolution of organic farming and its benefit to the society. From the consumers' viewpoint, only the perceptions about organic food have been focused. Currently, the focus needs to be on the consumers' level of knowledge and their ability to differentiate between genuine organic and non-organic food products. So, this research attempts to check the awareness level of the consumers about the certification of organic food products. The government has taken many initiatives to ensure the authenticity of the organic food products. One such step is certification of organic food products for the benefit of consumer. So, this research is undertaken to check the extent to which this step has served the purpose of benefitting the related parties.

3. Objectives

- a) To investigate the familiarity level of organic food consumer with the Indian organic food standards and certifications.
- b) To examine the understanding of the organic food consumers about the certification and their opinion about the certification.

4. Data Methodology

To achieve the objectives of this research, this study utilizes sample data and contemporary statistical techniques. The data was collected through primary source from the organic food consumers in Bangalore. A questionnaire was prepared for the organic food consumers and the responses were collected from a total of 120 consumers. For the purpose of finding the organic food consumers, the area of Bangalore was divided into 8 clusters with the help of BBMP's (Bruhat Bengaluru MahanagaraPalike) demographic division. By locating the organic food stores in these clusters, it was found by the researcher that most of the organic stores are situated in the South, East and West areas of Bangalore. So, these three areas were selected and the responses of 40 consumers from each of the areas were collected. Only the consumers who purchased an organic food product from the randomly selected stores in the selected areas were asked to fill the questionnaire. This method ensured and fulfilled the purpose of finding the genuine organic food consumers in the real time.

In order to analyse the data, SPSS version 23 was used. Crosstab, percentage analysis and chi-square test are used to check the awareness level among the collected responses. Kruskal Wallis test has been applied to know the relationship between the familiarity and opinion of consumers about the organic food certification. For performing the analysis, the normality of the data has been checked and the data is found to be non-normal. Therefore, non-parametric tests have been chosen for the analysis.

5. Findings and Analysis

The sample consists of 75% female and 25% male population of the age group between 20 years to 65 years. From the analysis, it was found that only 55% of the consumers are aware about the certification. When asked to identify the certification logos as per Table 1, 40% consumers identified one logo, 10% consumers identified two logos and only 5% consumers were able to identify three logos. None of the consumers were able to identify all the logos that are accepted by the government for certification.

Table-1
Identification of the certification logos

Number of Logos	Frequency	Valid Percent
None	54	45.0
One Logo	48	40.0
Two Logos	12	10.0
Three Logos	6	5.0
Total	120	100.0

This research is conducted with the purview of checking the depth of awareness level that the consumers have about the certification. For that reason, the questionnaire included questions checking the knowledge of consumers about the standards given by the NPOP that are to be met by producers/farmers to grow organic produce, the third party certification, the PGS scheme and the FSSAI guidelines and their logos. The following results show that out of the 55% consumers who responded that they are aware about the certification, only 30% of them are aware of the standards and guidelines provided by NPOP for the production of organic food products based on the figures shown in table 2A. There exists a number of consumers who are not aware about the certification but are familiar with the standards and guidelines. This familiarity with the standards will not fetch the consumers any benefit while making a purchase decision because certification is the key to ensure authenticity and genuineness of the product.

Table-2A

Crosstab between awareness of certification and organic food standards

		Aware about the Organic Standards		Total
		Yes	No	
Familiarity with the certification	Yes	36	30	66
	No	12	42	54
Total		48	72	120

In table 2B, the PGS Scheme has been considered to find out the level of awareness. The figures reveal that out of the 120 consumers only 6 consumers were familiar with the PGS. This scheme was introduced for the small farmers in order to save them from the huge costs involved in the third party certification. But, such low level of awareness among the consumers about this scheme will not help the small farmers compete in the organic food market to capture their market share.

Table-2B

Crosstab between awareness of certification and Participatory Guarantee Scheme (PGS)

		Aware about PGS Scheme		Total
		Yes	No	
Familiarity with the certification	Yes	6	60	66
	No	0	54	54
Total		6	114	120

In table 2B, the awareness about the third party certification of NPOP has been checked. The results reveal that only 25% of the consumers are aware about the existence of third party certification.

Table-2C

Crosstab between awareness of certification and third party certification (NPOP)

		Aware about Third Party Certification (NPOP)		Total
		Yes	No	
Familiarity with the certification	Yes	30	36	66
	No	0	54	54
Total		30	90	120

Finally, in an effort to integrate the organic food industry in India, FSSAI introduced various guidelines for the consumers to help them in choosing the genuine organic products and a common logo for all the organic food products to be sold whether certified under third party certification or PGS. The figures reveal that there exists a low level awareness for these too.

Table-2D

Crosstab between awareness of certification and Logos and Guidelines by FSSAI

		Aware about the logo and tagline by FSSAI		Total
		Yes	No	
Familiarity with the certification	Yes	30	36	66
	No	18	36	54
Total		48	72	120

For the purpose of studying the association between age and awareness, Chi-square test for association has been applied. Here, $H_0 =$ There exists no association between the age and awareness of the respondents. From the Pearson Chi-Square, we observe that $\chi^2(3) = 3.843, p = .279$. This suggests that there are no significant evidences to support the association between age and awareness. Hence, we fail to reject the null hypothesis based on table 3 and say that there is no association between age and awareness level.

The relationship has been further tested with the help of Phi and Cramer's V test. Both these tests tell about the strength of relationship between the variables. The weak relationship between the age and awareness of consumers about organic food products' certification is supported by the Phi and Cramer's V test.

Table-3
Chi-Square Tests

	Value	Df	Significance
Pearson Chi-Square	3.843	3	0.279
Phi	0.179		0.279
Cramer's V	0.179		0.279

The opinion of the consumers has been captured through the variables shown in Table 4. This test is performed to understand whether the awareness about the certification influences the consumers' opinion about it. The dependent variables for this test are shown in table 3, measured on a 5-point scale from "strongly disagree" to "strongly agree" for variables 1-3, "extremely unlikely" to "Extremely likely" for variable 4 and "always to never" for variable 5. The independent variables (grouping variable) to the test are response to awareness about the certification which has two groups: "Yes" and "No".

Table-4
Relationship between awareness and the opinion about certification

	1. Value Addition	2. Expensive	3. Confidence	4. Price Premium	5. Purchase from local vendor
Chi-Square	12.178	23.292	.095	6.617	46.279
Df	1	1	1	1	1
Sig.	.000	.000	.757	.010	.000

For checking this relationship, H_0 = There exists no difference of opinion captured through the various variables from the organic food consumers about the certification based on the awareness about it. It is found that there is a statistically significant difference in the opinion of consumers based on the consumers' knowledge except for variable 3. Based on the significance level, it can be reported that the only in case of variable 3, there is not enough evidence to support the alternate hypothesis. Irrespective of the awareness, the consumers directly related certification with the authenticity of the organic food products. It can possibly be inferred that the consumers perceive the process of certification to be reliable but their lack of awareness about its existence becomes an obstacle to avail the practical benefit of the certification for them.

6. Discussion and Conclusion

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Certification of organic products is mandatory and it is a costly process for the producers and farmers to get their produce certified. So, the certification must benefit the producers and farmers for the extra cost that they have to incur on the certification process. From the research results, it is evident that the farmers and producers are not getting the required benefit because the consumers are not aware about the certification, confirmed by the consumers themselves. This research unleashes three important aspects of organic food certification. Firstly, there exists more than one type of certification process for the same organic food products. Existence of more than one type of certification process is resulting in having more than one logo for the identity and authentication. Secondly, numerous certification processes are leaving space for ambiguities in the system. Thirdly, the entire focus of the organic standards and certification is on the producers and farmers. Retailers, main link between producers and consumers, do not fall under the purview of any certifying authorities. There are no guidelines or responsibilities defined for the sellers/retailers. In order to develop the organic food industry, structural changes in the standards are needed.

For the consumers, the government has been introducing ample stratagems to monitor and flourish this market. The government has taken various initiatives but there exists a lack of communication of these initiatives. This lack of awareness will result in the certified farmers and producers losing their market share to other local vendors and farmer who claim to be selling organic food products but they are not certified. Based on the existing literature, there exists no doubt about the influencing power of labelling any products. It has been proved that labelling the products can significantly impact the purchase behaviour of the consumers. There are farmers and producers in the industry, working towards building an ethical and sustainable organic market and on the flip side, others who are incongruous take advantage of such ambiguities. These ambiguities increase the chances of spurious food products in the organic industry and delude the consumers to purchase the products as 'organic' which are not actually been produced according to the guidelines for organic food products.

The organic food industry is going through a dynamic phase in India. There exists a group of consumers who are aware of the certification regulations but this familiarity is not beneficial to producers who are putting extra cost for the certification because the consumers are not able to identify the logos that are published on the packaging of the products. The recent introduction of 'Jaivik Bharat' logo for all the organic food products may bring the expected results of integrating the domestic organic food market in the country. The government has to take further steps in order to make the consumers aware about the certification process.

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