INDIAN INSTITUTE OF MANAGEMENT KOZHIKODE

04ᵗʰ International Conference on Marketing, Technology & Society 2020

Customer's Awareness Towards Organic Food Products: An Empirical Study

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Abstract

The aim of the paper is to determine customer's awareness level towards organic food products (OFP) in Kalaburagi City of Karnataka, India. A quantitative approach is adopted with the help of a structured questionnaire to get an insight into customer's knowledge regarding organic food products. A sample size of 384 respondents was selected through judgmental sampling method. The statistical tools applied for data analysis in this study are chi-square, f-test, and post hoc test. For the ease of the study, the awareness level is measured as aware, partially aware and unaware. The findings state that 41.1% of urban customers in Kalaburagi City are aware of OFP. The study also focuses on demographic factors that influence the awareness level of an individual. The findings of the study indicate that there is an association between the awareness level of organic food products and demographic variables such as age, household income and education. This article helps to comprehend the awareness level among OFP customers of Kalaburagi City. The level of awareness about organic farming and conventional farming is found to be significantly high among educated customers with high income and older age. Therefore, the result of the study suggests that organic food producers should increase awareness about OFP among customers.

Keywords: Awareness level, Customer's Awareness, Organic Farming, Organic Food, Organic Food Products.

1. Introduction

Nowadays, people across the globe are showing concern about ecological and environmental issues. These major issues arise due to rapid increase in population, varied food consumption habits, decrease in acres of arable land, use of chemical and toxic substances to yield more production, etc. As people are getting aware of the environmental and health issues associated with food products, they are demanding for chemical residues and pesticides free food. This leads to a shift in agriculture from conventional farming to sustainable and organic agriculture farming. Customers' interest in consuming organic food pProducts (OFP) is rising with the awareness level (Sangkumchaliang & Huang, 2012). This leads to increase awareness among customers about: what to buy and what to consume. Since 1990 the worldwide demand for OFP has escalated rapidly, and the market of OFP has reached $63 billion in 2012 (Muhammad, Fathelrahman & Ullah, 2016).

The organic market is a growing market throughout the globe and demand for organic food is steered by the conviction that they are better than conventional products in terms of more taste, more health and being environment-friendly (Lotter, 2003). Over the years it is observed that farmers are producing organic food (Muhammad, Fathelrahman & Ullah, 2016) but the marketing of the organic product is the main concern for producers. In 2000, nearly 16 million ha of land was certified organic worldwide and it is increasing constantly and Certified organic agriculture practices have reached over 130 countries (Lotter, 2003).

The article is constructed into four sections. The First section consist of introduction and related review of literature is described followed by methodology used for data collection and the statistical tools applied to independent variables in next section. The third section discusses empirical findings and results and the last section concludes the research study.

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2. Literature Review

2.1. Customer awareness towards organic food products (OFP)

From various literatures, researcher has found common factors that influences customers awareness towards organic food products (OFP) around the globe. Feeding to the growing population of the planet and conserving the environment at the same time, creates immense pressure on limited resources (Lotter, 2003). The people are unknowingly consuming food bearing high level of synthetic pesticides. They are not even aware of health hazards linked to these "chemical residues" which are present in "vegetables" and other food products (Coulibaly et al, 2007). Though conventional farming has high social and ecological costs, organic farming helps minimising it. Conventional farming means using of chemicals and pesticide for increasing production (Ponti, Rijk, & Ittersum, 2012).

The first step in creating demand for organic food is the consumer's awareness of OFP (Briz & Ward, 2009). The practice of Organic farming is a "win-win approach" for farmers, consumer's and most importantly for the environment (Misra & Singh, 2016). In Europe and North America demand of organic agricultural practices are in the mainstream and there is an awareness gap in the organic food system between the place of marketing system, value chain model, and the service delivery network (Hamzaoui-Essoussi & Zahaf, 2012). Awareness is a key element to lead an effective thought process that appears automatic in consumer behavior. The result of their study indicates that a significant relationship exists between awareness and consumer behavior. Sangkumchaliang & Huang, (2012) has described that in Thailand, organic agriculture is widely practiced and promoted extensively as one of the sustainable agriculture approaches. Their findings suggest that consumer awareness is the main barrier in increasing the market shares of OFP.

2.2. Association Between Independent Variables and Awareness Level

Muhammad, Fathelrahman, & Ullah, (2016) finds gender, nationality, and education are influencing the awareness towards organic food in the UAE. In determining the consumers' buying decision of organic food products, demographic factors have played a significant part and these explanatory variables are analysed through multiple regression model. In Spain, Briz & Ward, (2009) has measured the customers' awareness level using a multinomial logistic regression model. They had taken age, education, income, gender and other general information as explanatory variables in the model. Education plays vital role in determining Organic food awareness level (Demirtas, Parlakay, & Tapki, 2015). The authors proved that these factors are positively correlated with customers' awareness about organic food. The context of the paper tries to focus on demographic factors that would influence the awareness level about OFP of each individual in the same geographical location. Hence, based on the above comments, the author has formulated the following hypothesis:

Ho1: "There is no significant association between age groups of respondents and awareness level towards OFP."

Ho2: "There is no significant difference between the gender of the respondents with the awareness level towards OFP."

Ho3: "There is no significant relationship between Household Income of respondents and their awareness level towards OFP."

Ho4: *"There is no association between different education qualification groups and awareness level towards OFP."*

## 3. Research Methodology

3.1 Method

The study is based on primary data, which is collected through structured questionnaire. The adopted methodology is quantitative in nature. For the study, 384 samples (at 0.05 significance level) are drawn as per the sample size determination (Krejice & Morgan, 1970). The adopted sampling method is judgmental non-random sampling technique (Kothari, 2004) as customers are easily available at shopping Malls (Big bazaar, Reliance Mart and super bazaar) and Grocery shops (local). The statements were prepared through discussions with shopkeepers, farm owners, and experts. The context of the paper tries to focus on demographic factors that would influence the awareness level (Aware, Partially Aware, Unaware) about OFP of each individual in the same geographical location. Rensis Likert five-point scale is used to measure

awareness with respect to eight statements describing OFP. The reliability and validity of the instrument is done on various stages.

3.2. Measurement of Customer's Awareness Level Towards Organic Food Products (OFP)

Awareness refers to knowledge about the various features, composition, benefits and ailments of the product (Kotler, 2000). OFP refers to cereals, pulses, fruits and vegetables, that are cultivated through biological pest control and natural fertilizers (Anish & Ramachandran, 2016).

Fig. 1 reveals that out of total 384 respondents, 41.1% are aware and 47.9% are partially aware about organic food products. The face and content validity of the questionnaire is checked. To test the internal consi-

Fig. 1: Respondents Awareness Level towards OFP

stency, Cronbach's α value should be more than 0.70 (Hair et al., 2010), so that data collection instrument can be said reliable and free from random error. The Cronbach's α value was found to be 0.905, it implies that data collection instrument is free from random error and reliable to measure the items consistently.
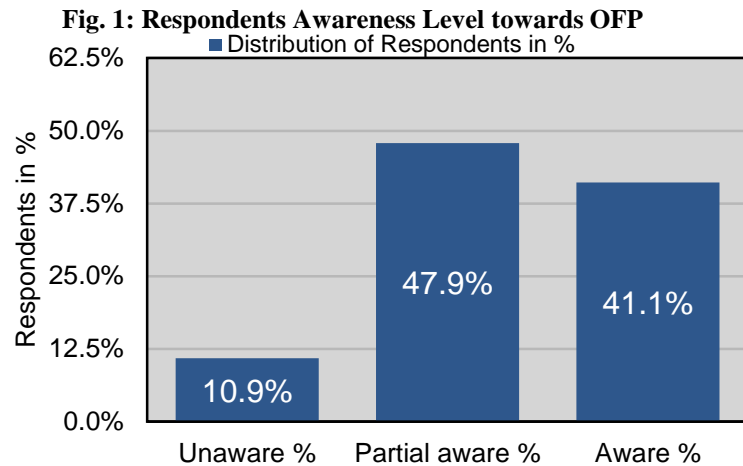
3.3. Association Between Independent Variables and Awareness Level

The researcher tries to determine the association between awareness level and the independent variables (demographic) related to sample respondents on OFP. The identified independent variables considered for the study are age, gender, educational level, and household monthly income which may influence the level of awareness towards OFP. To test the hypotheses, chi-square test, f-test, and post-hoc test are applied.

3.4. Findings and Results

The samples are categorized based on their demographics and awareness level towards OFP. The table exhibits that majority of the respondents i.e. 76.6% respondents were young (18-30 Yrs.), among them nearly half are partially aware i.e. 148 respondents are partially aware about OFP. The samples are chosen equally between male and female. It is found that most of the respondents i.e. 282 belongs to group Post Graduation and they are partially aware towards OFP. The majority of sample respondents i.e. 55 respondents with a household income of 25-50k group are partially aware about OFP. As per the objective, four hypotheses are made and tested with statistical tools in the following Table 1. The table signifies that except gender other three demographic variables are significant. The calculated results of chi-square test and f-test are taken for hypothesis testing and the results of the study clearly states that age, education and household income are showing significant association with awareness towards OFP.

To know the significance difference among the groups, researcher has applied post hoc test. *Post Hoc test (Gabriel)* method is used to compare pair of each sample if the sample sizes are large for each pair of them (Field, 2000). This test signifies that respondents of age groups i.e. 18-30 Yrs. and 44-56 Yrs. have same level of awareness but 31-43 Yrs. of age group is significantly different from other age groups. Likewise, test signifies that respondents of education groups and Household income i.e. 10th /Diploma and PG; 12th and UG; 12th and PG; and 10k-25k and more than 75k are significantly different from other groups (refer Table 2).

Table 1: Consumer's awareness Level and Demographic variables (Analysis)

	Aware	Partially Aware	Unaware	Frequency	In %	Result of chi-square (χ^2)	Result of f-Test
Age Group							
Young (18-30 Yrs)	108	148	38	294	76.6	χ^2 = 20.54 p = **0.000***	F = 10.72 p= **0.000***
Middle (31-43 Yrs)	49	31	2	82	21.4		
Old (44-56 Yrs)	1	5	2	8	2.1		
Total	158	184	42	384	100		
Gender							
Male	73	93	27	192	50.0	χ^2= 4.340 p= 0.114	-
Female	85	93	15	192	50.0		
Total	158	186	42	384	100		
Educational Qualification							
10th/ Diploma	1	2	3	6	1.6	χ^2=19.63 p = **0.003***	F= 4.81 p = **0.003***
12th	0	2	2	4	1.0		
Under-Graduation	33	50	11	93	24.4		
Post-Graduation	124	132	26	281	73.2		
Total	158	186	42	384	100		
Household Income per Month							
Below 10k	18	16	1	35	9.1	χ^2= 31.85 p = **0.000***	F= 2.906 p= **0.022**
10-25k	27	53	11	90	23.6		
25-50k	40	55	13	107	28.0		
50-75k	21	40	4	65	16.8		
More than 75k	52	22	13	87	22.5		
Total	158	186	42	384	100		

Note: χ^2: chi-square, p: "significance", * Significant at 5% level

Table 2: Post Hoc Test

	(I) Age	(J) Age	Sig.
Post Hoc (Gabriel)	18-30 Yrs	31-43 Yrs	0.000
	(I) Education	**(J) Education**	
	10th/Diploma	PG	0.009
	12TH	UG	.047
		PG	.006
	(I) Household Income	**(J) Household Income**	
	10k - 25k	More than 75k	0.049

This study is supported by following studies which reveals similar result: "Organic food consumers tend to be older and more educated" (Ramesh & Divya, 2015). "Aware organic buyers are likely to be aged and higher educated" (Sangkumchaliang & Huang, 2012). The gender, nationality, and education has influenced awareness about organic food positively (Muhammad, Fathelrahman, & Ullah, 2016). The results reinforce the idea that low income people consume less fruits and vegetables than higher income groups (Crowder & Reganold, 2015). Therefore, the study states that if potential customers are aware about importance of organic food then it may increase the demand for the OFP.

4. Conclusion

The consumption and demand of organic food products are flourishing gradually around the globe. There is a small gap in customer's awareness and organic food products. At one end customers are acquiring knowledge through digital media sources and taking precautions to remain healthy; on other side farmers are not receiving enough demand to produce organic food crops. The urban customers in Kalaburagi City should be educated about organic food process, cultivation, health benefits, environment sustainability and the usage of toxic and chemical substance in food. The research concludes that consumer awareness plays a vital role in determining the buying behavioral aspect for selecting organic food products. If customers are aware about organic food it would lead to increased demand for OFP and thus it will ultimately change the cultivating habits of farmers to produce more organic food. The awareness about OFP could be spread through mass media advertisement, trade fair, and government initiated organic shops.

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