



Trust on Organic food Products and its impact on Buyers' Buying Behavior with Special Reference to Quality, Self fulfillment and Eco friendly Behavior

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ABSTRACT

The green concept and the developing of organic food are still in the infant stage in Punjab. Therefore, there is a need to gain knowledge about the consumer's behavior towards organic food products. Specifically, this study attempts to examine the trust on organic food products and its impact on buyers' buying behavior and the interrelationship between quality, self fulfillment and eco friendly behavior in the context of organic food products. Data was collected in main markets and surrounding areas in the district of Bathinda, Patiala, Ludhiana, Jalandhar and Amritsar. A total of 500 completed questionnaires were gathered, as it was personal and one to one distribution and collection of questionnaire the response rate was 100% by using convenient sampling method. The result indicated that intention to purchase organic food was significantly influenced by the buyers' perception of safety, health, environmental factors and self fulfillment from the products. Theoretically, this study supported the view of consumers' trust towards organic food products in context to quality, self fulfillment and eco friendly behavior. The findings proposed useful information to organic marketers to help them develop effective marketing strategies to convince organic-concerned segment to purchase the organic food products and to enhance the pro-environmental purchasing behavior in Punjab.

Key words: Theory of Planned Behavior, buyers' buying behavior, quality, self fulfillment, eco friendly behavior, Purchase intention, Actual purchase behavior, Organic food products.

I INTRODUCTION

Interest in organically produced products is growing throughout the world in response to concerns about conventional agriculture practices, food safety, human health concerns, animal welfare considerations and concerns about the environment. The demand for organic food products is dramatically rising in Punjab as the population becomes more affluent and more educated about health and wellness issues, leading to greater



consciousness in food choices. Therefore, it is important to carry out researches on understanding consumer's perception and organic food-related purchasing and consumption behavior to help organic producers enhance the development of organic foods in market of various major cities of Punjab. A green consumer is defined as consumers who are conscious of and interested in ecological issues (Soonthonsmai, 2007). They perceived and believed that all products and services have environmental impact and their initiative is to reduce the damage as much as possible. There are several factors contributing to the lack of organic food purchase by consumers; the main constraints to purchase organic foods are high price premiums, availability and to a lesser extent, lack of information, lack of trust in organic certification schemes and quality (Thompson, 1998). According to Gottschalk and Leistner (2013) the first criterion that plays a significant role when it comes to buying organic products is the consideration of price. Thus, it is necessary to explore how consumers' perceived organic food products and their behavioral intention and actual purchase behavior towards the product. Consumer's intention of organic foods is the first step in developing demand for organic food products. How they (Consumer) perceived and believed the information of products will have influence on them in the next stages, i.e. evaluation of alternatives and purchase decision. However, some researchers also indicate that socio-demographic and personality indicators have had only limited success in profiling consumers according to their pro-environmental purchasing behavior. Due to inconsistent agreement between previous researchers, it is significant to explore the influences of trust on organic food products and its impact on buyers' buying behavior. The purchasing and consumption behavior of consumers towards organic food products and impact of quality, self fulfillment and eco friendly behavior has limited researches investigating the appropriateness.

II IMPORTANCE OF THE STUDY

With rising concern of health issues and food safety, many consumers have turned their site to organic products. The increased consumers' interest in organic food has been attributed among others to the growing demand for food free from pesticides and chemical residues. The rationale for carrying out this study is that consideration for the environment could come only from well informed citizens who are aware of, and fully committed to their rights to a quality health and environment. Nevertheless, before any behavior can be changed, it is necessary to evaluate the current state of consumers' awareness and knowledge. Therefore impact of trust on organic food products on buyers' buying behavior in context to quality, self fulfillment and eco friendly behavior and intention to purchase organic food will be the main agenda of this study.

III REVIEW OF LITERATURE

Review of literature is an integral part of any research study as it shows the direction towards which more research is required. Review of existing literature also helps in avoiding duplication of efforts.

Torres-Moraga et al. (2008) reported that the relationship satisfaction-loyalty is significantly present when evaluating products alone albeit a weaker presence than when evaluating brand alone. Such unequal presence is



corroborated in both traditional (bottled wine) and innovative (electronic) products even though it is much stronger in innovative products.

Research was done on Indian consumers' purchase behavior toward US versus local brands by **Kumar et al. (2009)** and explained the direct and indirect effects of individuals' self-concept, product-oriented variables and brand-specific variables on purchase intention toward a US retail brand versus a local brand that are available in the Indian market.

Gupta (2012) studied the impact of globalization on consumer acculturation with respect to urban, educated, middle class Indian consumers indicates. It showed significant difference among various demographic segments with respect to predisposition towards foreign brands and consumer acculturation.

Dettmann (2008) reported that both industry and academic studies have investigated the demographic profile of the organic consumer, and to date, these studies have yielded conflicting results. This paper adds to the current body of literature by analyzing purchase and demographic data, in an effort to develop a demographic profile of the organic produce consumer.

Sangkumchalianga et al. (2012) has submitted to International food agribusiness review that the adoption of organic production and processing is highly determined by market demand. Therefore, this is reflected in consumers' perceptions and attitudes towards organic food products. Organic buyers tend to be older and higher educated than those who do not buy them. In addition, consumers' trust in the authenticity of the goods and price are also issues. However, the main barrier to increase the market share of organic food products is consumer information.

Bonti-Ankomah and Yiridoe (2006) concluded that a growing interest in organic agriculture has prompted numerous studies comparing aspects of organic versus conventional agriculture. A consumer-based approach to understanding organic agriculture is important not only in its own right, but also in terms of responses to changes in market dynamics. This study consolidated and reviewed the available literature, to provide an understanding of consumer preferences and attitudes toward organically-grown foods.

A study led by **Pál and Pápay (2010)** in accordance with other previous studies (Padel, Midmore, 2005; Padel, Foster, 2005), highlights the importance of verifying declarative knowledge in order to provide real data and relevant analysis on specific stages of the purchase decision or preparation stages of the consumers intention to adopt a product.

Díaz and García (2012) have investigated this issue in Spain, noting that there are few who know all aspects of production, packaging, labeling and marketing of organic food declared that they buy often, and most of them occasionally. All use as synonyms terms like bio, biological, eco, organic and natural, and the non consumers consider that traditional country foods are organic. Participants in focus groups distinguished two categories of organic products: the certified and sold in hyper- and supermarkets, and unintentionally organic products among which enter the country products too.



IV RESEARCH PROBLEM

Existing research studies on the similar topic gave an insight that not much has been written about the impact of trust on organic food products on buyers' buying behaviour in less developed countries (as compared to developed countries) in general and India in particular. Now when people are aware about the global warming and impact of synthetic fertilizers and pesticides, it is necessary to know the perception of buyers in context to quality, self fulfilment and eco friendly behaviour, who are shifting from conventional to organic food products and the buyers who are not shifting. There has been a lot of research done on buyers' perception and behaviour but the research regarding the linkages between trust on organic food products and its impact on buyers' buying behavior is missing. So this research has been planned to develop a conceptual framework to find the specific reasons behind impact of trust on organic product and its impact on buyers' buying behavior with special reference to quality, self fulfilment and eco friendly behavior.

V RESEARCH METHODOLOGY

For the purpose of conducting this study primary data was used. For Primary data a well -structured questionnaire was designed so as to take responses from consumers. And also literature was reviewed in very detail to analyze previous work done and to find out what limitations were remained in previous researches. Primary data was collected through questionnaire using a sampling technique. Samples were selected based on income group, education/qualification, and age group so that this study can have deep coverage and it should reflect absolute opinion of an average consumer. Data was collected through distributing questionnaire to the respondents and also purpose of the survey was discussed with them. The data was collected from the geographical area of major cities Punjab and Chandigarh from the consumers' who are already using the organic food products and also from the consumers who were checking shelves of organic food products and labels, also who were enquiring for the organic food products and their prices. Likert scale and ranking scale methodology was used and then specific relevant statistical tools were be applied to judge the reliability and validity of responses. A five point (1–5) Likert-type scale has been employed for all item measures in the 500 questionnaire. The questionnaire consists of five sections i.e. Section A, B, C and D. All Questions are multiple choice and close ended on a scale 1 to 5. The sample is represented by 239 females and 261 males. Moreover, the sample belongs to various age groups namely 'up to 30' (65.4%), 30-45 (24.8%), 45-60 (8%) and above 60 (1.8%). Sample is also scattered among the various income groups. 59.4 percent of the respondents have annual income up to 5 lakhs and 25.8 percent are in the category of 5 to 10 lakh and 9.2 percent were in 10 to 20 lakh and rest (5.6%) are in the category of rupees above 20 lakh. The sample is also spread over various education level groups. 2 % percent sampled individuals have attained the education up to the level of class 10 and 16.4 percent are from class 10+2 whereas 34.4 percent are having graduation. Rest of them 47.2 percent has acquired the post graduation and above level degrees. While collecting data from respondents their family size, decision



maker for purchase of consumable goods in family, their purchase intentions, planning for purchase and their maximum expenditure on type of consumable goods were also recorded. Convenient sampling method has been used to design the sample. The data was collected through hard copy by meeting respondents face to face to increase the authenticity. The structured questionnaire was handed over to the respondents, discussed the purpose and requested to respond in the stipulated time. The unit of analysis is individual. This study belongs to the state of Punjab and capital city Chandigarh region. The study is based on the inductive approach, meaning thereby the response which is true for the sample is true for the entire region. The respondents are dispersed in the major cities of Punjab and capital city Chandigarh.

VI RESULTS AND FINDINGS

Since demography of the sample has considerable bearing on the buying of the consumer. Hence, the respondent has been enquired about his demography in terms of age, gender, education levels and income group. The age distribution of respondents has been presented in table given below. The table clearly shows that the sampled individuals are appropriately scattered in various age groups. The data has been divided into four age groups namely; up to 30 years, between 30 and 45, between 45 and 60 and above 60 years old. Out of 500 respondents, 65.4 % belongs to the category of up to 30 years of age and 24.8 % belongs to 30 and 45 also 8% of respondents were from 45 to 60 years of age whereas only 1.8% of the respondents were from age group of above 60 years. Therefore, more than 65% percent respondents are up to 30 years of age. Therefore, it is expected that they will adequately view of the organic products. People belong to the age group of 'up to 30 years' have substantial concern to new life style and buying is adequately represented in the survey. As education also has considerable impact on buying behavior of buyers.

Age wise distribution of respondents		
Age Group	No. of Respondents	Percentage
Up to 30	327	65.4
30-45	124	24.8
45-60	40	08
60 & above	09	01.8
Total	500	100



Gender wise distribution of sample respondents

Gender	No. of Respondents	Percentage
Male	261	52.2
Female	239	47.8
Total	500	100

Gender plays a remarkable role in the buying behavior. For, various decisions in the family regarding the purchase of various products are dictated by the gender.

More educated people are expected to have better knowledge regarding the organic products than the less educated. They may be more aware about the availability and uses of such products.

The different strata of society behave differently so far as the purchase of organic products are concerned. Moreover, higher income groups, generally, experience wide range of products. Therefore, they are expected to have better inclination towards organic food.

Education wise distribution of respondents

Level of Education	No. of Respondents	Percentage
Up to 10	10	2
10+2	82	16.4
Graduate	172	34.4
Post-Graduate & Above	236	47.2
Total	500	100

Income wise distribution of sample respondents

Income Group (Annual)	No. of Respondents	Percentage
Up to 5 Lakh	297	59.4
5 to 10 Lakh	129	25.8
10 to 20 Lakh	46	9.2
Above 20 Lakh	28	5.6
Total	500	100

That buyers' perception towards health consciousness for consumable goods, average scores of various factors are in a narrow range, from 73.76 % to 85.24%.



That respondents' perception towards eco friendly consumable goods, average scores of various factors are in a narrow range, from 77.92 % to 84.84%.

That respondents' perception towards eco friendly consumable goods, average scores of various factors are in a narrow range, from 75.68 % to 81.64%.

That respondents' perception towards status and use of consumable goods, average scores of various factors are in a narrow range, from 74.16 % to 82.88%.

That impact of product attributes in shifting from conventional to organic food products, average scores of various factors are in a narrow range, from 77.04 % to 86.72%.

That role of buyers' trust in shifting from conventional to organic food products, average scores of various factors are in a narrow range, from 78.92 % to 83.88%.

That role of life style in shifting from conventional to organic food products, average scores of various factors are in a narrow range, from 71.92 % to 78.72%.

That the impact of advertisement on buyers' buying behavior in shifting from conventional to organic food products, average scores of various factors are in a narrow range, from 75.32 % to 78.16%.

That the role of ethnocentric behavior impacting buyers' buying behavior in shifting from conventional to organic food products, average scores of various factors are in a narrow range, from 73.76 % to 78.52%.

That the role of easy availability of organic food products impacting buyers' buying behavior in shifting from conventional to organic food products, average scores of various factors are in a narrow range, from 68.24 % to 72%.

Trust on Organic food Products and its impact on Buyers' Buying Behavior with Special Reference to Quality, Self fulfillment and Eco friendly Behavior

A few questions in questionnaire were designed to get an idea of the role of buyers, (ranging from strongly agree to strongly disagree respectively on Likert scale of 1 to 5) in shifting from conventional to organic food products by the respondents. Based on the responses from all the 500 respondents, the average value (μ) and standard deviation (σ) were calculated. This score is plotted on a dot chart with respondents on X axis and score on Y-axis as shown in figure I below. The middle blue line corresponds to the average score (μ) of all the respondents, green line indicates the value $\mu + \sigma$ and the red line indicates the value $\mu - \sigma$. With the help of μ and σ , its respondent-wise status has been rated as follows:

Greater than ($\mu + \sigma$) : V. Good

Between μ and ($\mu + \sigma$) : Good

Between ($\mu - \sigma$) and μ : Fair

Below ($\mu - \sigma$) : Poor

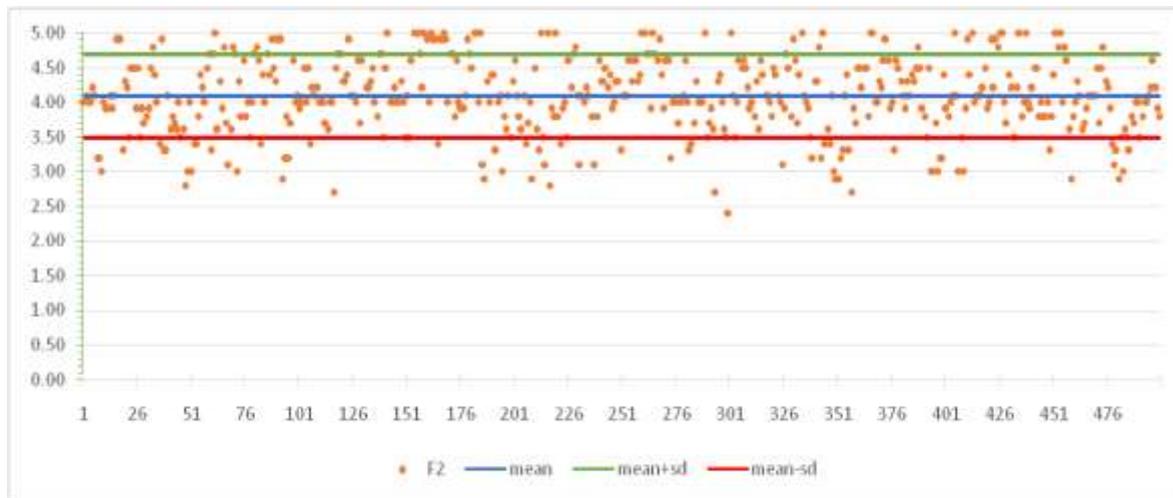


Fig I ROLE OF BUYERS' TRUST IN SHIFTING FROM CONVENTIONAL TO ORGANIC FOOD PRODUCTS

The dot chart in figure I shows these values for the role of buyers' trust in shifting from conventional to organic food products by the respondents. The overall score of respondents' trust towards use of organic food products is good. From this chart, it is clear that the role of buyers' trust towards organic food products has impact in shifting from conventional to organic food products is very good in about 16.6% of the respondents' trust for organic food products; good in 33.8% respondents whereas 36% are in fair range and remaining 13.6% are in poor range. The survey indicated that the role of buyers' trust in shifting from conventional food products to organic food products by the respondents plays an important role and result of this analysis is quite encouraging. Since all the respondents looking positively for their trust, quality consciousness, free from GMO, good for environment etc. towards use of organic food products along with healthy habits adoption depending upon their requirements or capabilities. There could be a vast difference between the respondents having good and fair response towards their trust in use of organic food products. The respondents having very good score indicates that they have considered all aspects of their use of organic food products while considering their health, alternate products, extensive analysis of trends, economic viability study, qualitative and quantitative analysis, consequential effects and responsibility towards self health and family's health. The poor bracket with 13.6% respondents indicates that while shifting from conventional to organic food products in relation to impact of their trust on organic food products with quality consciousness, these respondents get fascinated by its outlook and benefits, but do not go for its detailed analysis. There are a few respondents in which the score of role of buyers' trust in organic food products has impact on shifting from conventional to organic food products in regard to free from GMO, superior quality, grown in harmony with nature, free from chemical pesticides etc. is far below the average.



S.No.	Item measures the role of buyers' trust in shifting from conventional to organic food products	Number of responses (Ni) with each score choice (Si)					Total Score	% age
		1	2	3	4	5		
1	Organic food has superior quality	2	11	67	228	191	2092	83.68
2	Experience of the benefits of using organic foods is great	3	8	86	246	157	2046	81.84
3	The overall quality of organic food is good	2	11	71	249	168	2073	82.92
4	Organic food has no harmful effects	2	24	98	234	142	1990	79.6
5	Organic food does not contain artificial preservatives	1	27	94	218	160	2009	80.36
6	They are grown in harmony with nature	8	13	75	251	154	2033	81.32
7	They are free from chemical pesticides and fertilizers	2	17	62	220	199	2097	83.88
8	They are produced with environmentally / animal friendly techniques	3	13	96	248	140	2009	80.36
9	They are free from Genetically modified organisms (GMO)	5	11	101	272	111	1973	78.92
10	Organic food is good for environment	3	10	69	258	160	2062	82.48

TABLE: I ITEM MEASURE FOR ROLE OF BUYERS' TRUST IN SHIFTING FROM CONVENTIONAL TO ORGANIC FOOD PRODUCTS

Table I shows that role of buyers' trust in shifting from conventional to organic food products, average scores of various factors are in a narrow range, from 78.92 % to 83.88%. The highest score is awarded for they are free from chemicals and pesticides. The responses to these sub-factors were averaged to assess the overall status of role of buyers' trust in shifting from conventional to organic food products.

S.No.	Ranking→ Understanding Parameter↓	No. of Respondents					Average Rating	Standard Deviation in Rating
		1	2	3	4	5		
1	Organic food has superior quality	2	11	67	228	191	4.268	1.987



2	Experience of the benefits of using organic foods is great	3	8	86	246	157	4.092	0.772
3	The overall quality of organic food is good	2	11	71	249	168	4.136	0.763
4	Organic food has no harmful effects	2	24	98	234	142	4.058	1.936
5	Organic food does not contain artificial preservatives	1	27	94	218	160	4.018	0.861
6	They are grown in harmony with nature	8	13	75	251	154	4.056	0.837
7	They are free from chemical pesticides and fertilizers	2	17	62	220	199	4.194	0.810
8	They are produced with environmentally / animal friendly techniques	3	13	96	248	140	4.018	0.794
9	They are free from Genetically modified organisms (GMO)	5	11	101	272	111	3.946	0.774
10	Organic food is good for environment	3	10	69	258	160	4.124	0.759

TABLE II UNDERSTANDING ROLE OF BUYERS' TRUST IN SHIFTING FROM CONVENTIONAL TO ORGANIC FOOD PRODUCTS

Dependent Variable			R	R square	Adjusted square	R	F Significance	Durben Statistic	Watson
Trust (F2)			0.579	0.335	0.331		0.000	1.728	
S. No	Independent Variable	B	Beta	Standard error	t-value		Significance	Tolerance	
1	P4	0.337	0.297	0.54	6.227		0.000	0.591	
2	P2	0.237	0.212	0.51	4.630		0.000	0.638	
3	P3	0.236	0.190	0.54	4.345		0.000	0.700	

TABLE III MULTIPLE REGRESSION ANALYSIS FOR TRUST (STEP-WISE)

Table III shows that the multiple correlation coefficient (R), using these four independent variables simultaneously in stepwise method, is 0.579 ($R^2 = 0.335$) and the adjusted R^2 is 0.331, meaning that 35.1% of the variance in trust for the organic food products can be predicted from four variables combined. As the results indicate that, status, eco friendly and quality consciousness are significant, but the other variables will always add a little to the prediction of the respondents. The corresponding f-significance = 0.000 is significant. This



indicates that this combination of independent variables significantly predict the trust on organic food products. The standardized beta coefficients are interpreted similarly to correlation coefficients or factor weights. The t value and the significance opposite each independent variable indicates whether that variable is significantly contributing to the equation for predicting dependent variable from the whole set of predictors. Thus, the status, eco friendly and quality consciousness, in this case, are the variables that are significantly adding anything to the prediction when the other variables are already considered. It is important to note that deleting any one of the independent variable, that is not significant, can affect the levels of significance for other predictors. The tolerance for each of these variables is > 0.669 ($1-0.331$), indicating that there is no problem of multicollinearity (overlap between independent variables).

CONCLUSION

Trust on organic food products because of their overall quality, grown in harmony with nature, free from pesticides, chemical fertilizers and GMO. Good for environment and has no harmful effects results in shifting from conventional to organic food products.

Keeping in consideration the above given results and findings along with discussion on them can help producers and marketers to well understand their prospective buyers and to formulate future marketing strategies to retain their buyers and to penetrate into new markets.

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