IMPACT OF DEMOGRAPHICS ON CONSUMERS WILLINGNESS TO PAY PREMIUM: A STUDY OF ORGANIC FOOD PRODUCTS

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Abstract :

The study represents the data collected from the organic consumers of Bangalore City which is one of the major markets of organic products in South India. The study examined consumers' WTPP (Willingness to Pay Premium) for organic food products based on a sample of 150 consumers of Bangalore City during the year 2014. About 53% of the consumers are aware that organic produce is available in the market. Data were collected in supermarkets, organic food shops and departmental stores in different areas of Bangalore. The data collected during the survey were analyzed using percentage analysis and ANOVA. Result indicated that most of the consumers are eager to pay 20-30 per cent more for organic food products and are heavily influenced by the perception on organic product worth of pay for and the belief on the safety and health aspect of the product.

Keywords: *Willingness to pay, Organic food, Demographics,*

1. Introduction

Organic food is sold at higher price compared to non-organic food since the prime cost of organic food is higher. However, for a value conscious country like India this hampers the growth opportunities of organic food market. People in the developed nations are more inclined towards processed food items in comparison to the consumers in developing nations who prefer fresh fruits & vegetables. The case is quite similar with organic foods as well wherein these food items have a higher demand in developing nations where consumers are more quality conscious.

Consumers worldwide have become more concerned about the nutrition, health, and quality of food they eat. Consumers are increasingly considering factors beyond taste, convenience, and price when purchasing food. (Andrea k. Ballute 2014) [1].One of the primary ways of reflecting environmental and health consciousness is through purchase of organic products.

India is rapidly emerging as one of the fastest growing and largest market for organic food sector in the world. (Osswald. N and Menon M.K et.al)[14]. Domestic demand is supporting this growth. It is estimated that the overall market potential in the major cities of India is around INR 1,452 crore and the accessible market potential through modern retail is about INR 570 crore.(Rao et al. 2006;175) , [16] supported by a change in consumer behaviour and expenditure patterns. With increasing health awareness among the high income level of consumers, organic food will surely find an enduring place in Indian households.

The earlier studies stated that educated consumers may make purchases based on the impact that products have on the environment; for example, an educated consumer may choose organic cotton over conventional cotton (Nolan, 2006b; Speer, 2006) [4][15]. It is considered that consumers with a greater environmental awareness, demand for more environmentally friendly merchandise (Montoro et al., 2006) [13].

In this context, the present study aims to examine the impact of demographics on

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consumer's willingness to pay premium for organic food products.

Review of Literature

Various studies deal with price premiums that consumers are ready to pay for organic products across the world. Research has shown, however, that consumers' concern for environmental issues may not always correlate with their consumption behaviour (Harcar et al., 2006)[7]

In a study by Krystallis and Chryssohoidis (2005)[10], Greek respondents were asked to state how much more they were willing to pay to buy organic food products. The results show that consumer WTP was not influenced by organoleptic characteristics, prices or socio-demographic profiles.

Voon et.al (2011)[21], in their study, investigated the "Determinants of willingness to purchase organic food among consumers in a Malaysian city", using a questionnaire survey. Using structural equation modeling; attitude, subjective norms and affordability (behavioral control) were modeled to impact intention or willingness to pay (WTP) for organic food.

Shafi and Madhavaiah (2013)[20] aimed to investigate the inter relationship between the measure of brand equity and consumer behaviour in purchasing branded organic foods. The results revealed that all the four elements of brand equity have highest impact on consumer buying behaviour. However, results also showed that brand loyalty has the highest impact on consumer purchasing behavior.

Urena et. al(2007)[5] found that women have a more favorable attitude (directly related to their lifestyle) to the purchase and consumption of organic food than that of men, whereas men are inclined to pay a higher price for organic food than women. In general, men are disposed to pay a higher increase in price than women.

Canavari et al. (2003)[3] conducted a study on WTP for organic fruit and showed that two out of three respondents were ready to pay the proposed percolations between environmental shopping attitudes and willingness to pay more for organic cotton products, and environmental shopping behaviour and willingness to pay more for organic cotton products. In addition, a comprehensive profile of characteristics of potential organic cotton consumers was developed.

Gifford and Bernard (2010)[6], examined the effect of definitions for organic and natural foods on willingness to pay a premium for organic over natural chicken. After analysis, they found that there is a difference in the % willingness to pay to buy organic chicken before and after information was made available about the quality of chicken. After information, nearly 50% increased their premium, while 30% decreased their premium.

Sujatha et.al (2013) [17] indicated that most of the consumers are eager to pay 20 per cent high for organic food products and were heavily influenced by the perception on organic product worth of pay for and the belief on the safety and health aspect of the product.

Research Gap

Based on the literatures reviewed, it was learnt that there are many qualitative & quantitative factors vital to consume or adopt organic food. There is less number of researches in India to describe the impact of specific demographic factor on willingness to pay premium amount to consume organic food.

OBJECTIVES

1. To understand the demographic profile of organic food buyers
2. To study the influence demographic factors on organic food purchase.
3. To examine the willingness of the respondents to pay premium price for organic food products.

RESEARCH METHODOLOGY

The present study is based on the primary data collected during May & June 2014 in Bangalore city. Out of 180 Organic food outlets (which include exclusive organic food outlet and Retail shop selling organic food products as one of the category). All the stores were divided into North, South, East & west zones

and the data were collected from 10 stores in each zone. A questionnaire was issued randomly to consumers in all the 40 selected stores. 150 completed questionnaires were used for the analysis purpose resulting in 76% response rate.

One-way ANOVA was applied to find whether the consumers' willingness to pay premium for organic food product differs significantly between demographic variables.

Hypothesis

In order to identify the significance of demographic factors, each factor is considered and relevant hypotheses are designed for testing purpose.

RESULTS AND DISCUSSIONS

Table 1: Demographic Profile

DEMOGRAPHICAL FACTORS	CLASSIFICATION	FREQUENCY	PERCENTAGE
Age	18-30 Years	31	20.0
	31-40 Years	57	38.0
	41-50 Years	47	32.0
	>51 Years	15	10.0
Gender	Male	49	32.7
	Female	101	67.3
Marital Status	Married	114	76.0
	Unmarried	36	24.0
Literacy level	No formal Education	11	7.3
	School Level	32	21.3
	Metric Level	21	14.0
	Undergraduate	48	32.0
	Post Graduate	33	22.0
	Others	5	3.3
Occupational Status	Employee	57	38.0
	Professional	34	22.7
	Businessman	41	27.3
	Others	18	12.0
Family Type	Nuclear	116	77.3
	Joint	34	22.7
Family Size	1-3 Members	78	52.0
	4-6 Members	51	34.0
	> 6 Members	21	14.0
Monthly Income	<20000	26	17.3
	20001- 30000	39	26.0
	30001-40000	41	27.3
	40001-50000 14	9.3	
	>50000	30	20.0

Around 38% of them are in the age group of 31 - 40 years, 32 % of the respondents are in the age group of 41 – 50 years , 67% of them are female. It is implied that 76% of the respondents are married 32% of them are undergraduates, 22% of the respondents are postgraduates and 3% of the respondents fall under 'others' category. 38% of them are employees, 77% of the respondents belong to nuclear family and 23% of the respondents are in joint family. It is implied that, 52% of the respondents have 1 to 3 members in their family. It is found that, almost (27%) of the respondent's monthly income is ranging between Rs.20001- Rs.30000.

Consumer willingness to pay premium for Organic Food Products.

The table 2 describes the consumer willingness to pay high price for organic food products.

Table - 2 : Consumer Willingness to pay high for Organic Food Products

Willingness to pay high for organic food	No. of Respondents	Percentage
No, I don't like to pay extra	5	3
Yes, for Organic food, I shall pay between 1 to 10% high	25	17
20% high	35	23
30% high	40	27
40% high	18	12
50% high	12	8
For quality food products, I won't mind the money	15	10
Total	150	100

Source: Primary Data

Among the respondents, 3% of them do not wish to pay extra price to organic food products compared with non-organic products, 17% of them wish to pay high between 1 to 10%, 23% of them wish to pay 20% high, 27% of the respondents wish to pay high 30%, 8% of them wish to pay 40% and above, 8% of the respondents wish to pay 50% and above, and the remaining 10% of them wish to pay high for quality products and won't mind the cost.

It is implied most that, 27% of the respondents wish to pay 30% high for organic food products.

Similar study by Asadi et al. (2009) [2] in Iran reported that majority of the consumers are not willing to pay a price premium higher than 20%. The similar study by Millock (2002)[12] in Denmark reported that, 35% of the consumers are willing to pay more for any type of organic products compared to 18% of consumers who are not willing to pay for all kind of products.

Menon (2008) [11] on his paper organic agriculture and market potential mentioned that the organic product are gaining price premium from 5% to as high as 60% in some products.

Sandalidon et.al (2002) [18] has mentioned that health is the main reason for purchase of organic, followed by quality characteristic such as taste, colour and flavor.

One way ANOVA

Table 3 describes the willingness to pay high for organic foods among the demographic variables such as age, gender, marital status, Literacy Level, Occupational status and type of family, family size and monthly income of the respondents.

The current investigation developed eight hypotheses to test regarding the objectives of this study. Each hypothesis tested for significant differences between groups towards Willingness to pay premium for purchase of organic food.

H0: Consumer willingness to pay premium for organic foods does not vary significantly among the demographic variables of the respondents.

H1: Consumer willingness to pay premium for organic foods varies significantly among the Age Group of the respondents.

H2: Consumer willingness to pay premium for organic foods varies significantly among the Gender group of the respondents.

H3: Consumer willingness to pay premium for organic foods varies significantly among the Marital Status of the respondents.

H4: Consumer willingness to pay premium for organic foods varies significantly among the Literacy level of the respondents.

H5: Consumer willingness to pay premium for organic foods varies significantly among the Occupation level of the respondents.

H6: Consumer willingness to pay premium for organic foods varies significantly among the Family Type of the respondents.

H7: Consumer willingness to pay premium for organic foods varies significantly among the Family Size of the respondents.

H8: Consumer willingness to pay premium for organic foods varies significantly among the Monthly Income of the respondents.

Table 3: Significance of Demographic factors on Consumers' Willingness to Pay Premium for Organic food products in Bangalore City

	Source of Variation	Sum of square	Degree of freedom	Mean Square	F Value	F critical Value	Significance
Age	Between Groups	261.43	6.00	43.57	3.56	2.57	S
	Within Groups	257.00	21.00	12.24			
	Total	518.43	27.00				
Gender	Between Groups	591.86	6.00	98.64	2.09	3.87	NS
	Within Groups	331.00	7.00	47.29			
	Total	922.86	13.00				
Marital Status	Between Groups	707.86	6.00	117.98	1.22	3.87	NS
	Within Groups	679.00	7.00	97.00			
	Total	1386.86	13.00				
Literacy level	Between Groups	194.62	6.00	32.44	3.36	2.37	S
	Within Groups	337.67	35.00	9.65			
	Total	532.29	41.00				
Occupational Status	Between Groups	197.93	6.00	32.99	2.49	2.57	NS
	Within Groups	278.50	21.00	13.26			
	Total	476.43	27.00				
Family Type	Between Groups	688.86	6.00	114.81	1.25	3.87	NS
	Within Groups	642.00	7.00	91.71			
	Total	1330.86	13.00				
Family Size	Between Groups	509.24	6.00	84.87	3.61	2.85	S
	Within Groups	329.33	14.00	23.52			
	Total	838.57	20.00				
Monthly Income	Between Groups	223.09	6.00	37.18	3.16	2.45	S
	Within Groups	329.60	28.00	11.77			
	Total	552.69	34.00				

S= SignificantNS= Not Significant

One-way ANOVA was applied to find whether the consumers' willingness to pay premium for organic food product does not differ significantly between demographic variables. F-value is, less than the table value at 5 per cent level of significance in case of gender, Marital Status, Qualification & family type. (Table-3)This indicates that there is no significant difference among different groups of Gender, Marital Status and Qualification & Family type of the sample with their willingness to pay premium to buy organic food products.

Hence, in case of Age, Gender, Marital Status, Qualification & Family type the null hypothesis is accepted.

(Table- 3)Analysis shows that F-value is more than the table value at 5 per cent level of significance in case Literacy Level, Family size & monthly income level, indicating that there is a significant difference among different groups of Age, Literacy Level, Family size & monthly income level of the sample with their willingness to pay premium price to buy organic food products.

It is inferred that the the demographic factors ;

Age, Literacy level, Family size & monthly income level will largely impact the willingness to pay premium for the organic food.

Conclusion

Consumers have high positive attitude towards organic products and they exhibit an increased willingness to pay higher prices for these products. Few consumers don't mind to pay even 50 % high for organic food products as they look for good quality and healthy products. For such reason, marketing strategies for organic food products must be targeted towards those segments of consumers almost appreciative of the positive attributes of organic food.

Here is a strong relationship between income and willingness to pa premium. It can be expected that more affluent markets where consumers are aware about organic food products will purchase them and pay a price differential for organic over non organic products.

It is recommended that the organic sellers must match their pricing strategy to the value delivered by the organic product since the monthly income factor in the analysis as shown significant difference in preferring to pay premium price to buy the organic goods. Although consumers are preferring to buy organic products and willing to pay the additional cost, they often want some reassurance of the organic status of the products. Therefore, marketing organic products with standard packaging and a logo or statement confirming the organic status adds to the value of the products in terms of quality and social benefits, etc. Building consumer trust, in other ways, is also essential.

References

- Andrea k. Ballute, paul d. Berger (2014), The Perceptions Of And Motivations For Purchase Of Organic And Local Foods, Journal of Contemporary Issues in Business Research Volume 3, Issue No. 1, 2014.
- Asadi, A., M. Akbari, A. Sharifazadeh,and S.M. Hashemi, 2009. Analysis of Factors Affecting Agricultural Organic Products Diffusion among Consumers: Perception of Extension Workers. World applied science journal. 6 (3): 331-338.
- Canavari, M., Nocella, G. &Scarpa, R. (2003) Stated willingness-to-pay for environment-friendly production of apples and peaches: webbased vs. in-person surveys. Paper presented at the 83rd EAAE Seminar, Chania, 4–6 September.
- Essays, UK. (November 2013). Consumer Behaviour In Organic Clothes Marketing Essay. Retrieved from http://www.ukessays.com/essays/marketing/consumer-behaviour-in-organic-clothes-marketing-essay.php?cref=1
- Felix Ureña, Rodolfo Bernabéu and Miguel Olmeda(2007)Women, men and organic food: differences in their attitudes and willingness to pay. A Spanish case study-International Journal of Consumer Studies- ISSN 1470-6423.
- Gifford, K. and Bernard, J. C. (2011), The effect of information on consumers' willingness to pay for natural and organic chicken. International Journal of Consumer Studies, 35: 282–289. doi: 10.1111/j.1470-6431.2010.00929.x
- Harcar, T., Kara, A. and Kucukemiroglu, O. (2006), "Consumer's perceived value

and buying behavior of store brands: an empirical investigation", The Business Review, Vol. 5 No. 2, pp. 55-63.

- Jan P Voon, Kwang Sing Ngui and AnandAgrawal (2011), "Determinants of Willingness to Purchase Organic Food: An Exploratory Study Using Structural Equation Modeling" International Food and Agribusiness Management Review Volume 14, Issue 2.

- Katie Gifford and John C. Bernard (2010), The effect of information on consumers' willingness to pay for natural and organic chicken, International Journal of Consumer Studies ISSN 1470-6423.

- Krystallis, A. & Chryssohoidis, G. (2005) Consumers' willingness to pay for organic food: factors that affect it and variation per organic product type. British Food Journal, 107, 320–343.

- Menon, M.K., 2008. Organic Agriculture and Market Potential for Organic products in India. In P.Chaudhary; K. Aryal and D. Tharu (ed.), Proceedings of International Workshop on Opportunities and Challenges of Organic Production and Marketing in South Asia, NPG, Kathmandu, Nepal, pp.87-94.

- Millock, K., L.G. Hansen, M. Wier and L.M. Anderson., 2002. Willingness to Pay for Organic products: A Comparison between Survey Data and Panel Data from Denmark ,AKF Denmark.

- Montoro, F.J., Luque, T., Fuentes, F. & Canadas, P. (2006) Improving attitudes toward brands with environmental associations: an experimental approach. Journal of Consumer Marketing, 23, 26–33.

- Nina Osswald and Manoj Kumar Menon (2013), Organic food marketing in urban centres of India. Bangalore, ICCOA.

- Nolan, K. (2006b) Organic clothes grow past Woodstock crew.DSN Retailing Today, 45, 5–6.

- Rao, Kishore(2006), PGS A Market Perspective, Perceptions to Organic food and certification/labels/PGS Concept in India, New Delhi, Food and Agricultural Organisation (FAO).

- S.Sujatha,Dr.(Mrs.) N.Yesodha Devi, Mrs.R.Krishnakumari(2013), Indian Journal Of Applied Research, Volume : 3 | Issue : 12 | Dec 2013 | ISSN - 2249-555X, 327-329.

- Sandalidou, E., Baourkis, G. and Siskos, Y. 2002. Customers' perspectives on the quality of organic olive oil in Greece: A satisfaction evaluation approach. British Food Journal. 104(3/4/5):391-406.

- Shu-Hwa Lin (2010), A case study in Hawaii: who will pay more for organic cotton?, International Journal of Consumer Studies ISSN 1470-6423.

- Syed Irfanshafi and c. Madhavaiah (2013) The Influence of Brand Equity on Consumer Buying Behaviour of Organic Foods in India Journal of Marketing & Communication September - December 2013 Vol. 9 Issue 2.

- Voon, Jan P. and Ngui, Kwang Sing and Agrawal, Anand, Determinants of Willingness to Purchase Organic Food: An Exploratory Study Using Structural Equation Modeling (January 30, 2011). International Food and Agribusiness Management Review, Vol. 14, No. 2, pp. 103-120, 2011.