



DEMOGRAPHIC ATTRIBUTES IMPACT ON ORGANIC FOOD PRODUCTS: A STUDY ON VISAKHAPATNAM CITY

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Abstract

Food is essential to human life and it can build the human body in an order to sustain entire lifespan. Organic food constitutes best nutrients to construct safe and healthy body. In the current era urban consumers have great awareness regarding organic food products. This increasing consciousness leads to purchase of organic products for their wellbeing. Most of them believe that the organic food products are expensive and scarce in availability. This study focuses on comprehension of the demographic attributes which influence the consumption of organic food products in Visakhapatnam city consumers. The demographic variables pursue and identify the several reasons for the popularity of the various customer groups. It may assess the size of the organic food market and the marketer can use them to reach efficiently in the Visakhapatnam city.

Keywords: Organic Food Products, Organic Food Market, Demographic Variables, Consumer Groups.

Introduction

Food market is the largest market on earth. Organic food market is grabbing the attention of the whole world. In India organic farming was practiced since thousands of years ago. The great Indian civilization flourished on organic farming and was one of the most successful countries in the world. In traditional India, the entire agriculture was practiced using organic techniques, where the fertilizers, pesticides, etc., were obtained from plant and animal products. In our India organic food market is rising day by day due to health consciousness among the consumers. The organic food products are embedded with nutrition, freshness, taste and quality. Organic sector in India represents our traditional and competitive strength in facilitating sustainable agriculture. The industry against heavy odds has been at the forefront of organic movement promoting organic farming and processing as well as promoting organic food and fiber in the domestic and international markets.

In India the demand for organic food products is on continuous upsurge, in export organic products worth \$ 515 million USD (Rs.3453 crore) in financial year 2017-18, from \$ 370 million in 2016-17 as per the Agricultural and Processed Food Products Export Development Authority (APEDA). It is noticed that an increase of 39%, the total volume of export during 2017-18 was 4.58 lakh tone. The main demands under the organic product category are for sugar, fruit juice concentrates, tea, spices, pulses, oil seeds, cereals & millets, dry fruits, medicinal plant products etc. The biggest buyers of organic products are USA, European Union member countries and Canada and also many new organic food buying countries like Israel, Vietnam, and Mexico are also taking interest recently. The equivalency granted by European Commission and Switzerland for unprocessed plant products and the conformity assessment granted by USDA has played key role in increased export to these countries. India is also negotiating with Canada, South Korea, Taiwan and Japan for equivalency with NPOP (National Programme for Organic production). India's strength as major hub for organic food products, ingredients, commodities and processed food. The demand for organic agricultural products produced is on constant increase worldwide as consumers were shunning the use of chemical fertilizers and pesticides. Now a days consumer can buy various organic food brands like Patanjali, Organic India, Amira, 24 Mantra, Down to Earth, Green Sense, Genera, The Organic Kitchen etc. through online Markets like Big Basket, IndiaMart, Amazon, fabindia and Nature Basket or over the Official Sites of Organic Food Brands or simply at your local market or supermarket.



Objectives of the study

The main objective of the article is

“The organic food market in India and the influence of consumer demographic factors on organic food markets.”

Methodology of the study

The total study is done through mainly primary data, however the secondary data also considered. The primary data is collected through questionnaire by random selection of the respondents. It is an empirical study by gathering of information. The primary data is collected from various parts of the city keeping the demographic aspects. The data is collected through specified questionnaire which can give right information for analysis and consumer perception regarding organic food products. The secondary data is collected through various literatures, like articles, internet sources, journals and research papers

Data analysis

The data is collected from 150 respondents through questionnaire analyzed by various simple statistical tools such as, mean, mode and median to understand the consumer demographic characters.

Review of Literatures

A Review of the literature is an evaluated report of information found in the literature, related to the selected study. The review should describe, summarize, evaluate and clarify this literature. It should give a theoretical base for the research and determine the nature of research.

Shahraki, and Hamraz (2015) shows that factors such as old age, higher education and income have contributed to exaggerated the use of organic products. **Muralidhar and Vedhavalli**(2012) explain that gender had a positive impact on consumer perception towards organic food products while difference in educational qualifications does not have a significant impact. **Parichard et al** (2012) enlightens on the Thai consumers' shows that motive to purchase organic foods products is forhealth and environmental benefits. **Raghavan and Mageh** (2013) indicate that perception towards organic food product has the strongest relationship with the buyer's intention to buy organic food product. **Budi and Tony** (2012) examine the intention of consumers on buying organic food and point out that healthy consumption and life style are a good predictors for attitude towards organic food, meanwhile attitude towards organic food directly influences buying intention towards organic food products. **Huang and Lin** (2012) observe that consumers are willing to pay premium for organic products and socio-economic and demographic factors contribute to their willingness to pay for organic food. **Parichard et al** (2012) observes that the groups of buyers and non buyers have significant differences in demographic characteristics. **Budi and Tony** (2012)specify that the life style of consumer healthy food has a significant effect on purchase of organic food products.**Elif and Bulent**(2011) carry out a study on the urban consumers of organic food products and find that urban consumers have diverse interests and beliefs that motivate their organic food purchasing behaviour.

De Magistris and Gracia (2009) demonstrate that lifestyle represents one of the main factors explaining organic food decision-making. Organic food products are preferred by those consumers who are interested in maintaining a particular lifestyle associated with healthy eating habits. **Tsakiridou et al** (2008) on the Greek consumers' purchase behaviour of organic products finds that education and income are highly correlated with organic attitudes and consumption. The people with higher income indicate a strong preference towards organic products and elderly consumers are more concerned with their health issues. **Benjamin et al.** (2007) identifies that women and young people are the regular buyers of organic food products than the adult male consumers.

Annunziata and Vecchio (2011) observes that the factors that influence the consumers' attitudes toward functional foods in Italy, based on a primary data survey of 400 households. Cluster analysis reveals three groups of respondents, categorized on the basis of demographic characteristics with different confidence levels, satisfaction, and health perception of functional food. The study also indicate that the consumers were not very



clearly informed about the concept of functional foods and generally perceive them to be food items that are inherently healthy in themselves. The study stress the need for educating the consumers about functional foods by means of labeling information, education campaigns and clearly defined government policies to curb false health claims.

Badrie et al. (2007) focuses on the perception, opinions, choices and motives of the enthusiasts in West Indies, regarding improvement of health through the consumption of functional foods, using primary survey of 120 respondents through structured questionnaire. Results of the study indicate that only 50 percent respondents are aware about functional foods and they perceive these to be expensive, helpin prevention and cure of diseases, were important for elderly people, and are to be taken 35 after consultation with medical practitioners. The consumers attributed performance enhancement and health benefits to be the main drivers behind their consumption of functional foods. When the consumers’ response on their agreement with the manufacturers’ health-claims about functional foods areanalyzed, 39 percent respondents agree that the manufacturers exaggerate the health-claims about the products.

Bellows et al. (2008) in their study on consumer’s interest in organics, analyze the association between consumer attitudes about organic farming and their organic food purchase behavior, and the reasons why the consumer’s views about organic farming may not result in consequent consumption behavior with regard to organic food products. Results of the study showed that although people value organic farming methods, they actually do not end up buying organic food products. They postulate that the consumers who are non-buyers of organic food would buy organics if they do not face barriers like price, location of the store, availability of the products, availability of relevant information, doubts regarding authenticity of organic production, or indecisiveness to purchase due to availability of excessive and confusing information. They concluded that for devising effective marketing strategies and regulatory policies with regard to organic food products, it is important to identify the consumers who value organic production methods and systems. They suggest that the organic food market segment can be broadened by informing the consumers regarding organic foods and developing appropriate marketing and merchandising strategies

Data analysis and interpretation

The survey data is analyzed to understand the demographic characters of consumers and their willingness to purchase organic food products. The identified demographic factors of the respondents areage, gender, occupation, education, Monthly income and Monthly expenditure.

The respondents in this survey are categorized into four groups based on their age i.e. below 25 years,26 to 40 years, 41 to 55 years and above 55 years. Overall 66 percent respondents in this survey belong to the age group of above 40 years. The study covers respondents from all age groups. Hence data is considered more consistent. Table 1.1 shows that majority of respondents belong to the age group of 41-55 years 57 (38.0) followed by 56 years and above 42 (28.0), 26-40 years 30 (20.0) and below 25 years 21(14.0) percent. Hence opinion expressed by these age group are supposed to be mature and conclusions to be drawn are expected to be more valid and ripened.

Table: 1.1, Age Group of Respondents

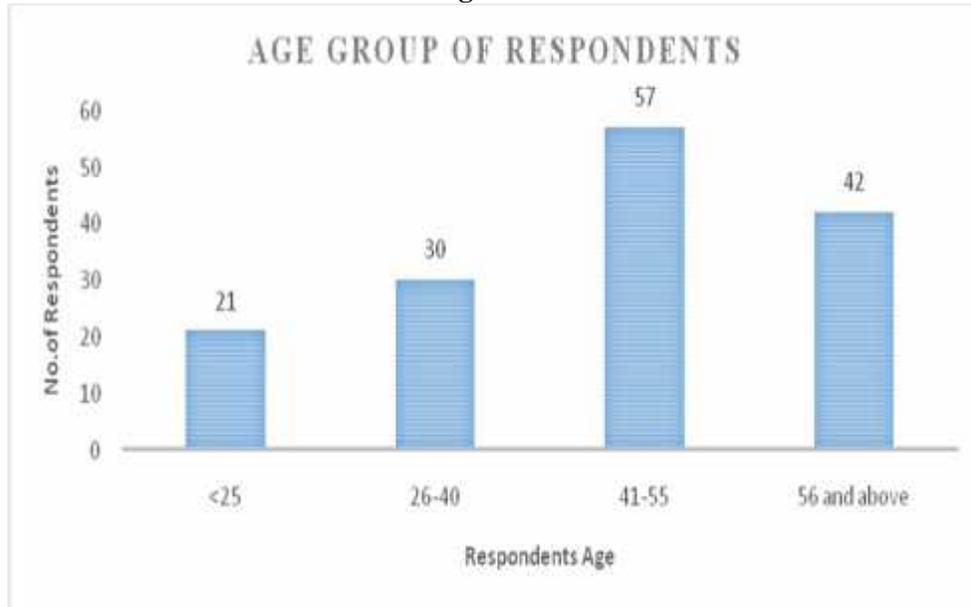
Respondents Age in Years	Frequency	Valid percent	Cumulative percent
<25	21	14.0	14.0
26-40	30	20.0	34.0
41-55	57	38.0	72.0
56 and above	42	28.0	100.0
Total	150	100.0	
Mean : 37.5 Median : 36 Standard deviation : 15.58,standard mean error :7.79			

Source: Field Survey.



The descriptive analysis of age distribution of 150 respondents shows values as mean 37.5, median 36, mode class all the values appear at once. Standard deviation is 15.58 with standard error of mean 7.79 reveal that the respondents fall in the high age category. The mode class is 41-55 years, 72 percent of total respondents belong to this age group. The study also reveals that age is an important determinants of buying behavior. The same trend is depicted in the Figure 1.1

Figure 1.1



Source: Field Survey

The table 1.2 shows that 79(53.0) percent of respondents are male and 71(47.0) percent are female. Hence male respondents are more in the group among the respondents of organic food products. But the decision and involvement about the organic food type and pattern is predominantly by female respondents. The data is depicted in figure 1.2. Respondents have been classified into five categories as per their occupation.

Table: 1.2, Gender of the Respondents

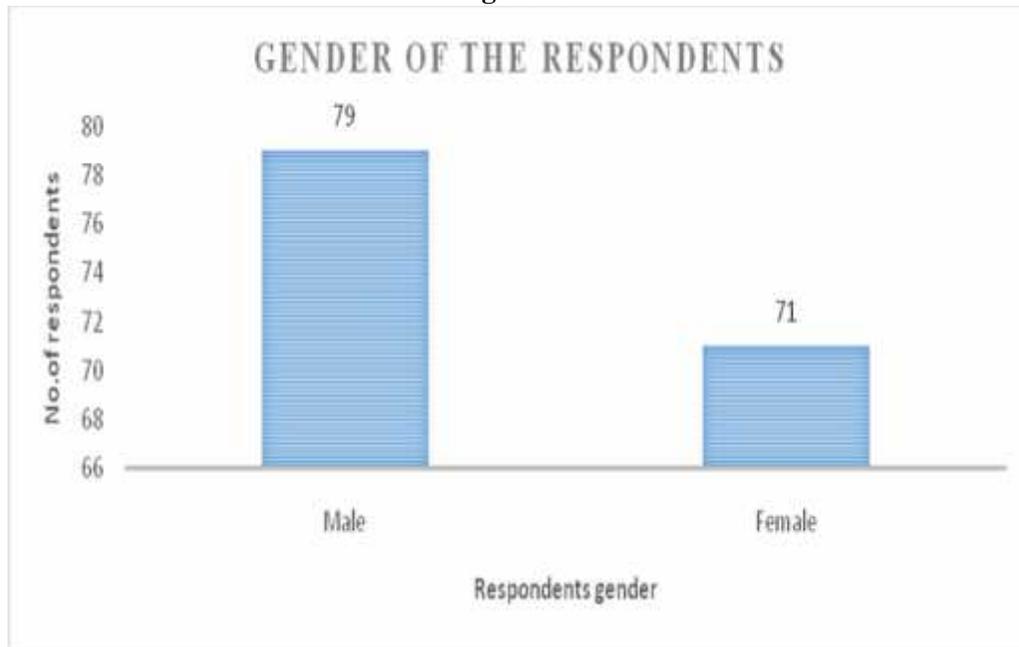
Respondents Age in Years	Frequency	Valid percent	Cumulative percent
Male	79	53.0	53.0
Female	71	47.0	100.0
Total	150	100.0	
Mean : 75 Median : 75 Standard deviation : 5.65, standard mean error : 4			

Source: Field Survey

The descriptive analysis of age distribution of 150 respondents shows values as mean 75, median 75, mode class all the values appear at once. Standard deviation is 5.65 with standard error of mean 4 reveal that the respondents most of them are male category. The study has also revealed that gender is one of the important determinants of buying behavior. The same trend is shown in the Figure 1.2



Figure 1.2



Source: Field Survey

The respondents have been classified into five categories as per their occupation. Table 1.3 reveals that (58)38.0 percent of the respondents belong to the employees of sample respondents which comprise of salaried employees of both government and private sectors. It is followed by business class 45(30.0), students 21(14.0) percent, Professionals 18(12.0)percent and other category respondents 8(6.0) percent.

Table:1.3,Occupation of the Respondents

Respondents Occupation	Frequency	Valid percent	Cumulative percent
Student	21	14.0	14.0
Employee	58	38.0	52.0
Businessman	45	30.0	82.0
Professional	18	12.0	94.0
Others	8	6.0	100.0
Total	150	100.0	
Mean : 75 Median : 75 Standard deviation : 20.72,standard mean error : 9.26			

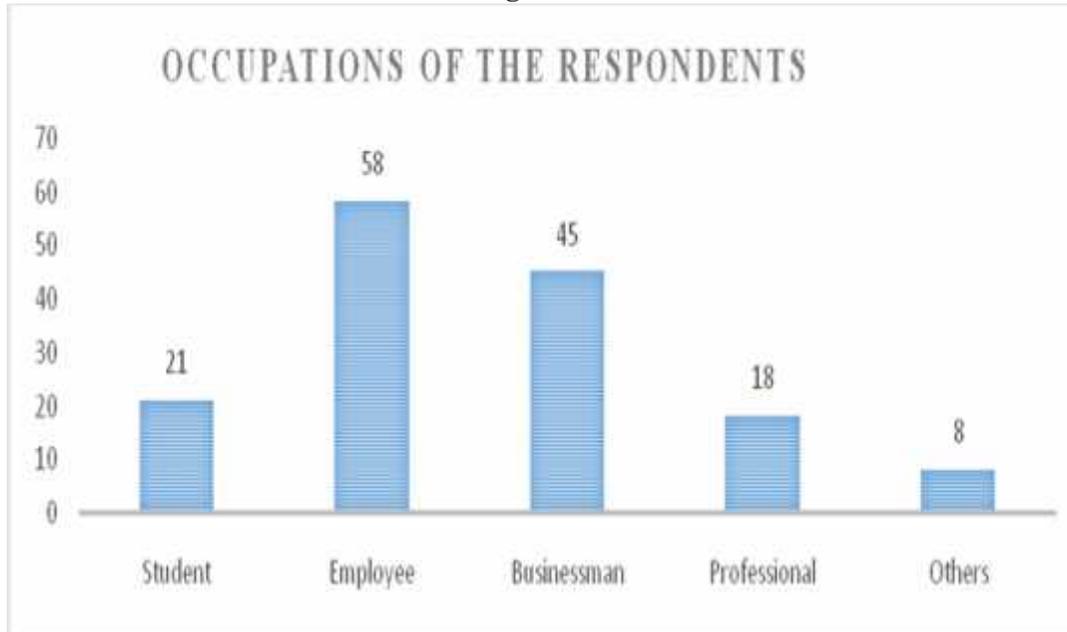
Source: Field Survey

The descriptive analysis of 150 respondents shows that the mean 30, median of 21, Mode: All values appear just once in Standard deviation: 5.65, standard mean error 4. Most of the respondents belong to employees and business category.

The details reveal that the employee category people are more in the respondents tally. That means they will be the one who normally make purchase decisions at homes. This infers that data is more dependable since the opinion of matured and different classes of occupations of consumers is included in the respondents. The same trend is shown in the Figure 1.3.



Figure 1.3



Source: Field Survey

The education demography has been divided into five groups on the basis of level of education of the respondents. It is evident from Table 1.4 .Most of the respondents are graduates 54(36.0) closely followed by post graduates 47(31.0) percent, Intermediate category 22(15.0) percent, below 10th class group 14(9.0) percent and professionals 13(9.0) percent.

The descriptive analysis shows that mean of the educational qualifications mean is 30, Standard deviation 19.19 and standard error is 8.58.The higher value of the mean shows that the most of the respondents belong to higher education. Median value justifies that they are graduation category.

Table: 1.4, Education qualification of the Respondents

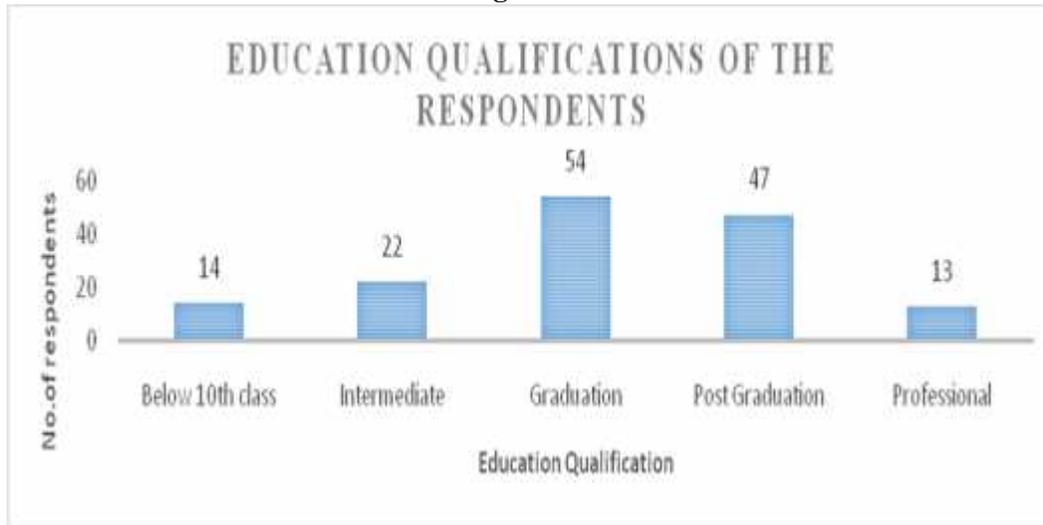
Education qualification	Frequency	Valid percent	Cumulative percent
Below 10 th class	14	9.0	9.0
Intermediate	22	15.0	24.0
Graduation	54	36.0	60.0
Post Graduation	47	31.0	91.0
Professional	13	9.0	100.0
Total	150	100.0	
Mean : 30 Median : 22Standard deviation : 19.19,standard mean error : 8.58			

Source: Field Survey

Most of the respondents are graduates. The opinions given by the respondents are most representative in character. The table depicts that there is a strong correlation between education level and consumers organic food products. Figure 1.4 represents the data.



Figure:1.4



Source: Field Survey

Table 1.5 shows that income level of the respondent families is divided in to six categories on the basis of the monthly income of the family. Highest number of respondents belong to Rs.20,001 to Rs.30,000 at 35.0 percent followed by Rs.10001 to Rs.20000 at 27.0 percent, Rs.30001 to Rs.40000 at 17.0 percent, Rs.40001 to Rs.50000 with 9.0 percent, below Rs.10000 at 7.0 percent and above Rs.50000 at 5.0 percent.

Table: 1.5 Monthly income of the Respondents

Monthly Income	Frequency	Valid percent	Cumulative percent
Below Rs.10,000	10	7.0	7.0
Rs.10,001 – 20,000	41	27.0	34.0
Rs.20,001-30,000	52	35.0	69.0
Rs.30,001-40,000	26	17.0	86.0
Rs.40,001-50,000	14	9.0	95.0
Above Rs.50,000	7	5.0	100.0
Total	150	100.0	

Mean : 25 Median : 20 Standard Deviation : 18.19, Standard Mean Error : 7.42

Source: Field Survey

Mean of the distribution is 25, median 20 standard deviation is 18.19 and standard mean error 7.42. This shows that the data is unbiased in analysis. The maximum number of respondents belongs to the income class average Rs.10000 and above per month. Most of the respondents' income is Rs.20001 to Rs.30000 per month.

The demography of the income group is most scattered and unbiased. Thus research covers all income groups of respondent consumers. When a product is demanded by consumer it must be proportionate with the capacity to afford it. Otherwise it becomes a dummy demand. The findings of the study are dependable to a great extent on the consumer attitude and buying behavior as far as the income effect is concerned. Figure 1.5 also depicts the same.



Figure: 1.5, Monthly income of the respondents



Source: Field Survey

Table 1.6 depicts the category of consumer by food habit of the Visakhapatnam respondents. Food habits of the consumers are dichotomous with vegetarian and non-vegetarian. Out of total respondents 94(63.0) percent are non- vegetarians and 56(37.0)percent of vegetarians.

Table: 1.6,Category of consumer by food habit

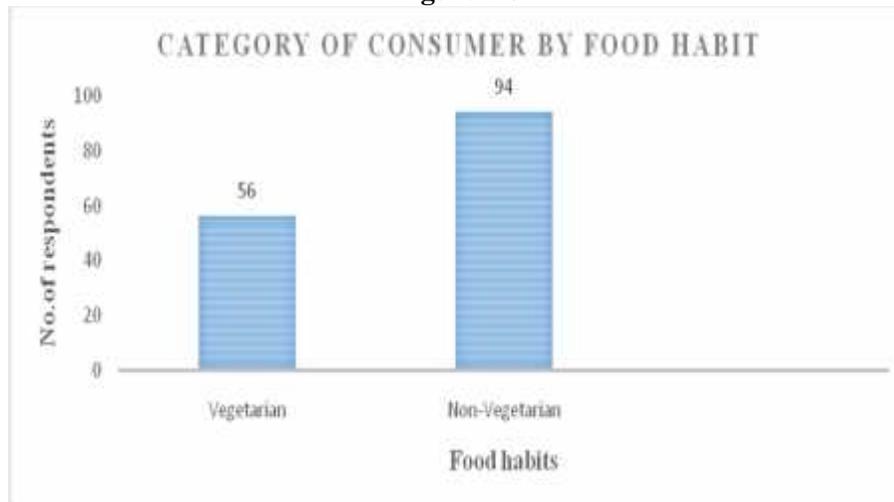
Food habit	Frequency	Valid percent	Cumulative percent
Vegetarian	56	37.0	37.0
Non-Vegetarian	94	63.0	100.0
Total	150	100.0	

Mean : 75 Median : 75 Standard Deviation : 26.87,Standard Mean Error : 19

Source: Field Survey

The food habit is a matter of culture and community of the consumer. Culture is a strong determinant of consumer behaviour as also in the case of organic food consumer also. When non-vegetarians consume organic food, this shows that they are slowly shifting towards adopting organic food as their diet. The same trend shown in Figure 1.6

Figure 1.6



Source: Field Survey



Monthly Food expenses are classified on the basis of monthly income of the respected consumers in the Visakhapatnam city. This includes grocery, milk, vegetables, snacks, beverages, hotel expenses etc. Maximum number of respondents belong to food expenditure group of Rs.6001 to Rs. 9000/- 64 (43.0) percent followed by the Rs.9001 to Rs. 12000 /- is 38(25.0) percent. Further followed by Rs.3001 to 6000 that is 18(12.0) percent, 5.0 percent respondents belong both up to Rs.3000 and above Rs. 15000 group. The details are shown in the Table.1.7

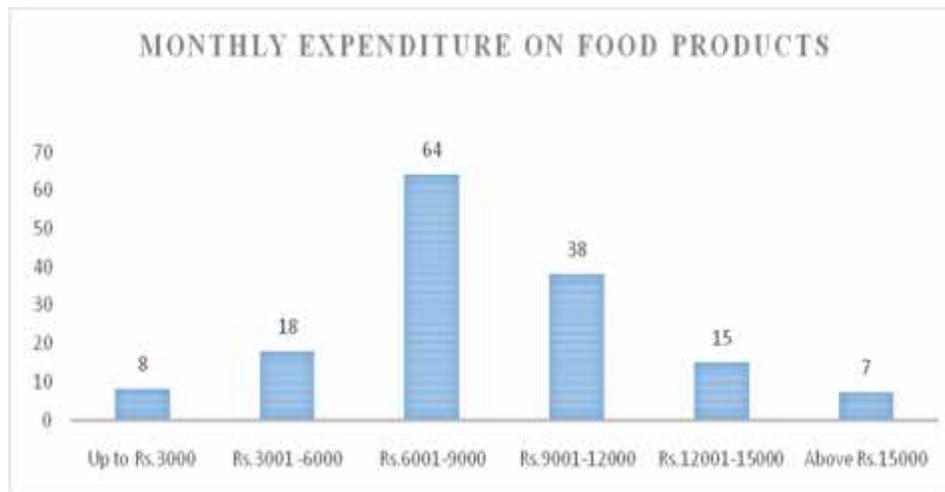
Table: 1.7 Monthly expenditure on food products

Monthly expenditure on food	Frequency	Valid percent	Cumulative percent
Up to Rs.3000	8	5.0	5.0
Rs.3001 -6000	18	12.0	17.0
Rs.6001-9000	64	43.0	60.0
Rs.9001-12000	38	25.0	85.0
Rs.12001-15000	15	10.0	95.0
Above Rs.15000	7	5.0	100
Total	150	100.0	
Mean : 25 Median : 16.5 Standard Deviation : 22.14 ,Standard Mean Error : 9.04			

Source: Field Survey

Statistical analysis show that mean is 25 and median 16.5 standard deviation 22.14 and the higher number of respondents belong to expenditure group of Rs.6001 to Rs.9000/- and Rs.9001 to Rs.12000 /- it shows that money spent on food expense per month belongs to the groups between Rs.6001 to Rs.12000/-. This shows that food is the one of the major expenditure for the family. The data trends depict in the Figure 1.7.

Figure 1.7



Source: Field Survey

Findings

1. The study highlights various findings and suggestions for assessing the consumer demographic factors towards organic products. The various findings that have emerged through the course of study have been presented as follows.
2. The demographic factor like age group reveals that the above 40 years group is more interested to buy organic food products.
3. The male fraternity is more in the group among the respondents of organic food products. But the decision on food and involvement regarding organic food type and pattern is predominantly by female respondents.



4. The demographic character of occupation depicts that most of the employee and business respondents purchase organic food products.
5. Respondents from degree and post graduates are more interested in purchasing organic products as per the data collected.
6. Most of the middle level income group respondents are aware and purchase organic food products according to the survey.
7. With regard to the food habits, most of the respondents in the Visakhapatnam city are non-vegetarians according to the survey.
8. It is revealed that money spent on food expense per month belongs to the groups between Rs.6001 to Rs.12000/-. This shows that food is the one of the major expenditure of the family.

Suggestions

1. Lower income and lower middle income group consumers should also be encouraged to buy more and more organic products. This is possible when more awareness programs are organized and prices of the products are set to reach the income level of these groups.
2. Buying of organic food products depend on the consumer's confidence over the seller. It may be a strong constraint for marketing organic food.
3. Organic cultivation should be encouraged further. The state government should take steps to promote organic farming.
4. The benefits of organic food in respect of health and safety should be made known to the consumers through the proper print and visual media. It will increase their confidence.

Conclusions

The analysis of the data depicts that the demographic factors relating to consumers have their significant impact on the purchase attitude towards organic food products. The data indicates that the health benefits of organic food have not been spread among the general public to the desired extent especially against the backdrop of growing incidences of risk of heart attacks and other health issues on account of consumption of non-organic food products. The information spread is more important and must be promoted by government as well as non-governmental agencies by making special provisions in the agricultural policies.

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