EMPIRICAL ANALYSIS ON PERCEPTION AND PURCHASE DECISION OF ORGANIC PRODUCTS IN CALICUT DISTRICT

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Abstract
The green concept and the development of organic products are still progressing. As a result, there is a need to learn about customer perception about organic products. In particular, this study seeks to investigate consumer perceptions, and actual purchase decision, as well as the relationships between them, in the context of organic products. 20 items of five dimensions were constructed to measure the consumer's perception towards organic products , 4 items were engaged to determine the actual purchase decision of consumers. Data was collected in supermarkets and surrounding areas in the district of calicut, Kerala. A total of 100 completed questionnaires were gathered, using purposive sampling method. The result indicated that intention to purchase organic food was significantly influenced by the consumer's perception of Health and environment factor, Safety related factor, Product related factor,Price related factor and Promotional aspects.

Key words: Consumer's perception, Purchase decision, Organic products.

Introduction
Today, it is challenging to ensure environmental sustainability even though it is the ultimate demand from our next generation. According to Zepeda and Nie (2012)[1], one of the greatest threats to environment sustainability is conventional industrial agriculture due to the high energy and material cost necessary for it to function. The Green Revolution in the agricultural sector had led to the use of chemical fertilizers to increase yields without concern for environmental impact. As a result, organic agriculture is established to be the sustainable agricultural production system in order to cope with the social, ecological and economic impacts of industrialized agriculture.

Organic production, its trade have been evolved as an important sector in India and in other parts of the developing world. It is seen as an important strategy of facilitating sustainable development.. For boosting organic agriculture, marketing of organic products will be a main driving force. A country like India can enjoy a number of benefits from the adoption of organic production. Economic and social benefits like generation of rural employment, increased earning capacity of household, poverty alleviation, social uplifting, ensuring the health of young generations, women empowerment, sustainable development, prevention of disasters caused by the pesticides, improving the environmental conditions, conservation of the natural resources, improved soil fertility, prevention of soil erosion, preservation of natural and agro-biodiversity are the major benefits. The threat posed by the conventional food products to the human health and the damage done to the ecology are being viewed seriously. Efforts are made to produce healthy products and the demand for them is increasing.

Statement of the Problem
Marketing considerations are crucial for organic products. Opportunity to receive premium for organic products have heightened producer's interest in the organic production and marketing. Special marketing techniques and efforts are needed to grab ultimate consumers. Before entering into market, producers at least did research on potential market size, consistency and competition. It is necessary to match their production to their current market. Organic marketing is quite different from that of regular

marketing. Organic markets are still a niche segment in which specific buyers are targeted. Careful selection and development of target markets, distribution channels, certification, awareness creation etc., are important in the case of organic Marketing.

The demand for organic products is increasing day by day. Consumers are getting conscious and selective about healthy products. The increasing awareness has caused changes in consumers taste and preferences for organic products. Today consumers prefer to buy products that do not harm environment, health etc. and will be beneficial to them in the long term. This will resulted in mushrooming organic product stores in our modern markets. Therefore it is imperative to know consumer's perception and effect of perceptual factors on purchase decision of organic products.

Significance of the study
Society today has become more concerned with natural environment, people are now more conscious about eco friendly products or organic products and about their own safety & welfare which induced to consume organic products emergence of organic product consuming practices and it is developed the concept of organic marketing. The purpose of the study is to identify the importance given to various factors by the customers while purchasing and the purchase decision by the consumers based on these factors. The significance of the study is to help the manufactures and small stores dealing organic products to understand what exactly is the consumer looking for and the buying behaviour of the consumers.

Review of Literature
Aryal et al.(2009) In their research the simple framework was developed from and used to analyze consumers" perceptions and attitudes towards organic foods. Consumers decide whether to buy or not based on three main aspects: knowledge, attitude, and intention.

Bellows (2008) study made an attempt to understand the motivations behind consumer interest in organic food versus their actual purchasing behavior and he reported that there is a hierarchical structure of reasons for which people purchase organic food when deciding what food to consume.

Dr. N. Ragavan & Dr. R. Mageh (2013) talked about the concept the perceptions towards organic food product depict the strongest relationship with buyers' intention to buy organic food product followed by the buyers' belief that consuming organic food product is adding to preserving the environment. The perception towards organic food and belief that organic food is environmentally friendly are dependent. The availability of product information is also supporting the consumers' intention to purchase organic products.

Sarker (2007) observed that most of the consumers were aware of the 'harmful effects of pesticides or chemical fertilizer on human body and environment'. Due to the lack of knowledge about organic food, they have no option to normal food.

Asaduzzaman *et al* (2008) found that consumers were highly conscious regarding their personal health, had medium awareness regarding the environmental hazards caused by agro-chemicals, and a few had low awareness. But the supply of organic food items in the local market was insufficient; and most mentioned that organic rice, fruits, fish, shrimp, egg and chicken satisfied less than half of their family demand.

Justin Paul and Fyoti Rana (2012) studied that health, availability and education from demographic factors positively influences the consumer's attitude towards buying organic food. Overall satisfaction

of consumers for organic food is considered to be more than inorganic food but the satisfaction level varies due to different reasons.

Marija Radman (2005) indicated that organically produced goods considered as healthy, tasty and of good quality. Ecologically grown organic food products in the market and effective marketing strategies makes customers to gain much knowledge on organic food products.

Magnusson et al. (2001) discovered that familiarity gave a partial explanation regarding why small numbers of customers purchased organic goods, despite the fact that they had positive attitudes regarding organic products. Various other researchers agree with this finding, and show that customers do not buy products that are organic because they are not familiar with them.

Hill and Lynchehaun (2002) portrayed that even though customers know the main factors of organic products, they do not have enough knowledge about the agricultural processes that are involved in organic production.

Objectives of the Study
The objective of this study is generally to understand the perception of local consumers on their purchase decision towards buying organic products. These consumers are among those who have experience consuming or buying organic products. Specifically the study aims to:
1. To study the consumers' perception towards organic products.
2. To understand the effect of different perceptual factors on consumers purchase decision

Methodology and Database
Research design
This study is designed as a descriptive and analytical one based on both secondary and primary data.

Sample design
The population of the study comprises of customers of organic products in Calicut district, the population is quite large and scattered over the district, so it is difficult to conduct the census survey. Hence sampling method is adopted. The study conducted a sample survey of 100 customers selected from Calicut districts through purposive sampling technique.

Primary data
Primary data includes those collected from the respondents with the help of the structured questionnaire and interview schedule.

Nature of the study
For the present study data collection from customers of sample population were done only on a single occasion and hence it has a cross sectional study nature. Opinions of customers taken and analysis done to arrive at the extent of influence of various perceptual factors on purchase decision

Scaling technique
Since most of the information collected is qualitative in nature, it becomes necessary to use scaling technique to quantify the qualitative information. For this purpose, five point likert scaling technique is followed for quantifying the various qualitative aspects of the study, namely perception and purchase decision.

Reliability analysis

In order to check the internal consistency of the scaled statements, reliability analysis using Cronbach Alpha reliability test was done. Cronbach Alpha for the scaled item were shown in table 1.1

Table No: 1.1,Reliability Statistics of Variables

Sl.No	Construct	No. of items	Cronbach Alpha
1	Product related factor	4	.856
2	Price related factor	3	.815
3	Promotional aspects	7	.837
4	Health and environment factor	4	.805
5	Safety related factor	2	.820
6	Purchase decision	4	.874

[Source: survey data]

Results and Discussion

To carry out the study 100 customers were selected as sample and data are collected by using a structured questionnaire consist of 20 statements relating to perception about organic products. For identifying underlying factors among these 20 perception measuring statements, exploratory factor analysis has been performed, based on the factor loading by principal component analysis five underlying factors identified and gave suitable names for these factors. Finally analysed the extent of influence of different factors on purchase decision of organic products. Result of factor analysis given in below table
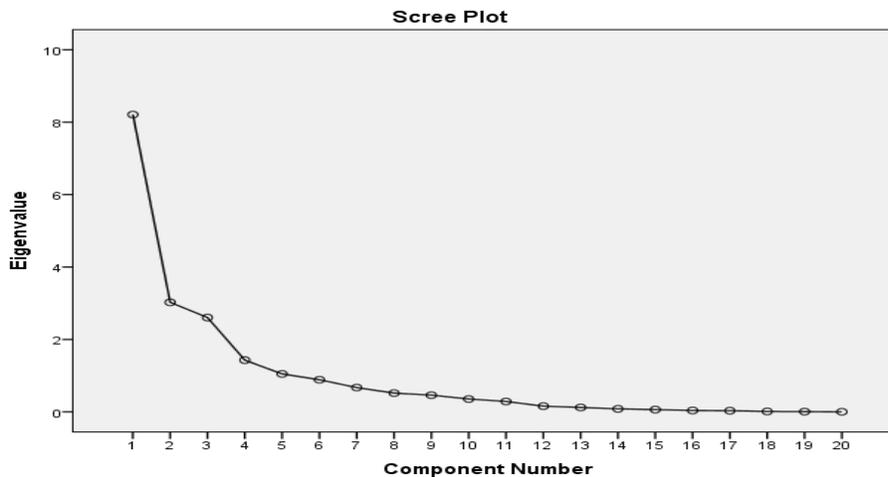
Table 1.2

Rotated Component Matrix[a]					
	Component				
	1	2	3	4	5
PRODUCT RELATED FACTOR					
Organic products are High in quality	**.877**	-.284	.015	.047	.250
Taste of the Organic product is good	**.847**	.163	.242	.232	.028
Several brands available to choose	**.846**	.026	.326	.179	-.072
Organic products are certified by related institution.	**.621**	.528	.230	.080	-.082
PROMOTIONAL FACTOR					
Giving discounts to regular buyers	.241	**.886**	.335	.268	-.478
Appealing store atmosphere and Decor	-.126	**.851**	-.164	.079	.171
Good Packing and Visual appearance	.131	**.839**	.274	-.139	-.124
Store sale only organic products	-.085	**.751**	.210	.250	.297
Popularity of the organic store as a distinguished shop	.548	**.689**	.203	.033	-.279
Using free home delivery to encourage purchase	.480	**.636**	.359	-.155	.026
Organic store is Conveniently located	-.028	**.594**	.260	.482	-.433
HEALTH AND ENVIRONMENT FACTOR					
Organic products are good for health	.172	.257	**.868**	-.036	-.054
Products are good to ensure our health	.141	-.080	**.781**	.491	.076
Organic product use less energy and produced, packaged, and transported environmental friendly.	.459	.401	**.688**	.112	.052
Organic products does not harm environment	.459	.147	**.642**	.127	.247

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SAFETY FACTOR					
Organic products are chemical free	.618	.200	.295	**.873**	.046
Organic products are safe to consume	.235	-.073	.127	**.869**	-.030
PRICE RELATED FACTOR					
Healthy product with reasonable price	.072	-.036	.057	-.154	**.863**
Price of organic product is high	.171	.259	-.023	-.096	**.824**
Quality of the product is related with price	.159	.128	.243	-.213	**.750**
Extraction Method: Principal Component Analysis.					
Rotation Method: Varimax with Kaiser Normalization.					
a. Rotation converged in 9 iterations.					

[source: primary data]

Rotated component matrix gives the factor loadings of each variable after rotation. The sum of square of loadings of each variable constitutes the communality of each variable. There are five components are extracted by the rotated component matrix. The relative correlation between variables (factor loadings) varies interchangeably. The factor loading values of first, second, fifth and fifteenth components are high and it has to be grouped under one single factor labelled as **product related factor**; third, fourth and seventh are belongs to second factor **as price related factor**; sixth, eighth, tenth, eleventh, twelfth, thirteenth and fourteenth constitute third factor which **is promotional factor**; ninth, seventeenth, eighteenth and nineteenth are placed as fifth factor named as **health and environment factor**; finally sixteenth and twentieth constitute the last factor as **safety factor**.

The graphical representation of the Eigen values of the variables of organic product perception is illustrated in the figure

Effect of perceptual factors on purchase decision
In regression analysis we fit a predictive model to our data and use the model to predict values of the dependent variable from one or more independent variable. It says how much one variable explained by another variable. Here analysed how the organic product purchase decision influenced by various independent variable. The independent variable taken for analysis were perceptual factors namely product related factor, price related factor, promotional factors, health and environment factor and safety factor.

Table no 1.3,Regression model results

Model Summary						
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**	**f**	**Sig value**
Product	.700[a]	.490	.485	.50568	94.088	.000[b]
price	.745[a]	.555	.551	.47211	122.375	.000[b]
promotion	.655[a]	.429	.423	.53519	73.483	.000[b]
Health and environment	.757[a]	.572	.568	.46300	131.129	.000[b]
	.546[a]	.299	.291	.59292	41.719	.000[b]

[Source: primary data]

The regression analysis of identified factors all shows the P value below 0.001 which is less than 0.05 therefore reject the all null hypotheses that, there is no significant effect of product related factor, price related factor, promotional related factor, health and environmental factor and safety factor on purchase decision regarding organic products. Which means there is significant effect all the identified factors on purchase decision.

Here the purchase decision has been taken as the dependent variable and product related factor of organic product taken as the independent variable. R explains the correlation; it shows the value of 0.700 which indicates a strong correlation. R square explains the proportion of variance that means 49% of the purchase decision influenced by product related factors of organic product and the remaining by some other factors. In second model, price related factor of organic product taken as the independent variable. Correlation shows the value of 0.745 which indicates a strong correlation. R square explains the proportion of variance that means 55.5% of the purchase decision influenced by price related factors of organic product and the remaining by some other factors. In third model , promotional factor of organic product taken as the independent variable. R shows the value of 0.655 which indicates a strong correlation. R square explains the proportion of variance that means 42.9% of the purchase decision influenced by promotional factors of organic product and the remaining by some other factors. In fourth regression model explain the effect of health and environmental factors on organic products purchase decision. Here health and environment factor of organic product taken as the independent variable. Correlation shows the value of 0.757 which also indicate a strong correlation. Proportion of variance R square explains 57.2% of the purchase decision influenced by health and environment factors of organic product and the remaining by some other factors. In the last regression model, safety related factor of organic product taken as the independent variable. R explains the correlation; it shows the value of 0.546 which indicates a moderate correlation. R square explains the proportion of variance that means 29.9% of the purchase decision influenced by safety related factors of organic product and the remaining by some other factors.

Conclusion

As a conclusion, perception of consumers is important in the purchase decision of organic products consumption. How consumers perceived the organic products is crucial because this will determine their purchase decision to buy and consume the products. Subsequently, this will lead to the actual behaviour of purchasing the product. This study was done to find out various factors under product, price, and place and promotion factors and organic principle factors like health, ecology, fairness, safety which impact consumer buying behaviour. Consumer buying behaviour was measured through the purchase decision. The study also identified 5 most important factors which is a combination of marketing mix

variables and organic principle factors through factor analysis. The product related factor, price related factor, promotional factor, health and environment factor, safety factor had significant effect on the purchase decision of organic products. Among these factors health and environment factor effect the purchase decision to great extent.

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