

A STUDY ON CUSTOMER BEHAVIOUR TOWARDS ORGANIC FOOD PRODUCTS IN CHENNAI

Submitted in partial fulfillment of the requirements for the award of

Master of Business Administration

by

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SCHOOL OF BUSINESS ADMINISTRATION

SATHYABAMA

**INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY)**

**Accredited with Grade "A" by NAAC | 12B Status by UGC | Approved by AICTE
Jeppiaar Nagar, RAJIV GANDHI SALAI, CHENNAI - 600 119**

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BONAFIDE CERTIFICATE

This is to certify that this Project Report is the bonafide work of Ms. Sumithra (39410210) who has done the Project work entitled, "A **Study on Customer behaviour towards Organic food products in Chennai**" under my supervision from December 2020 to February 2021.

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I, **Sumithra Y, (39410210)** hereby declare that the Project Report entitled, **“A Study On Customer Behaviour towards Organic food products in Chennai”** done by me under the guidance of Dr. S. Umamaheswari, MBA., M.Phil., Ph.D. is submitted in partial fulfillment of the requirements for the award of Master of Business Administration degree.

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ABSTRACT

This empirical research paper deal with an impact of demographic variable on customer behaviour towards organic food products in Chennai. This study throws light on how far the demographic variables such as age, gender, educational qualification, income, having an influence on customer preference towards buying of organic food products in Chennai. To identify the customer behaviour a set of questions were framed. The data were collected by using convenience sampling from 120 customers belong to Chennai city. Using SPSS, some of the relevant tests were carried out like, percentage analysis, Correlation, ANOVA. Based on the analysis made various finding were derived that will be useful, relevant and significant to determine the customer behaviour towards organic food products in Chennai.

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CHAPTER 1

INTRODUCTION

The term organic refers to an overall system of farm management and food production that aims at sustainable agriculture, high quality products and the use of processes that do not harm the environment, or human, plant or animal health and welfare.

The global demand for organic food products is growing at a very rapid rate. Ever since the environmentalists raised their concern regarding harmful effect of increasing use of chemicals in farming, the consumers are getting conscious and selective about edible products. This increasing awareness has caused shifts in consumers' tastes and preferences which have led to the domestic as well as global rise in demand for organic products.

In India, the farmers have followed the path for organic food production, but the share of India in the world organic market is less than one percent. In order to boost Indian agricultural products and capture significant share in global market, it is an imperative that India focuses on organic products which give it competitive edge in global market namely organic cotton, spices, essential oils, medicinal, aromatic plants, fresh fruits and vegetables.

Demand for organic food is growing. A public consultation on organic agriculture highlighted the public's concerns with environmental and quality issues, and showed a clear demand for strengthened and more uniform organic rules (86%), and improved control systems (58%). The report provides answers to the questions on how production and labelling regulated in Europe is and what are the benefits expected from organic food for the environment and for health.

Organically grown foods are not to be confused with foods sold as 'natural'. In the United States of America (USA) for example, the term organic can be used for certified organic products, while the label 'all-natural' is a legally unregulated expression.

The substantial variability in the quality and design of studies that compare organic and conventional foodstuffs in terms of nutritional, human health and environmental aspects makes it virtually impossible to compare findings and is the main difficulty to providing a clear-cut answer to this question.

The general view is that while the sustainable nature of organic farming is accepted and relatively well understood, the health and nutritional benefits of organic products are still widely debated. Studies show that organic foods have no significant difference in v C, magnesium, potassium, calcium, zinc and copper compared to conventional foods. By contrast, another study revealed 20% to 40% higher levels of antioxidants in organically grown crops, but it is still unclear whether antioxidants can improve human health.

The level of pesticide residues was found to be lower Amon produce but health and nutrition specialists stress that the endless debate on the benefits of organic produce is just a distraction from the real issue and more pressing concern at hand, which is that a majority of Europeans do not eat enough fruits and vegetables to reach the recommendations of the World Health Organization (WHO) of around 400g per day.

1.2 Definition of Organic food

Nowadays food consumption pattern is changing rapidly because of environmental influence, health issues and people concern about nutritional value of food. Issues such as safety and quality of food attract customers' interest in organic food which is perceived as free from pesticides and chemical residues (Fotopoulos & Krystallis, 2002; Zotos, Ziamou & Tsakiridou, 1999). 'Organic' is a labeling term that denotes products produced under the authority of the Organic Foods Production Act. The principal guidelines for organic production are to use materials and practices that enhance the ecological balance of natural systems and that integrate the parts of the farming system into an ecological whole (Goldman & Clancy, 1991). Various organisation define organic food according to their understanding such as:

The Department for Agriculture and Rural Affairs (DEFRA) states that “organic food is the product of a farming system which avoids the use of man-made fertilizers, pesticides, growth regulators and livestock feed additives”.

The use of genetically modified organisms (GMOs) or products are generally prohibited by organic legislation.

Organic food is perceived as food without chemicals, pesticides and growth hormones. According to international organic principles, the use of antibiotics and genetically modified organisms are restricted in animal husbandry and only 30 additives/ preservatives are acceptable with specific circumstances and also banned artificial colourings, synthetic sweeteners, flavourings, and hydrogenated fats (Soil Association, 2001).

Furthermore, In April, 1995 USDA National Organic Standards Board (NOSB) has quoted that “organic agriculture is an ecological production management system that promotes and enhances biodiversity, biological cycles and soil biological activity.

It is based on minimal use of off-farm inputs and on management practices that restore, maintain and enhance ecological harmony”. When it is discussed about nonvegetarian, organic poultry, eggs, meat and dairy products come from animals that are given no growth hormones or antibiotics. Organic food is grown without the use of synthetic fertilizers, pesticides and also restricted the use of bioengineering on farms (USDA, 2000). 1.4 Organic Food - A Healthy Aspect What Pesticides do to one's body is revealed in various studies which link pesticide.

1.3 Origin and Evolution of Organic Food

Transformation of human life from a hunter-gatherer to a farmer the food system is continuously evolving. With the time new inventions are taking place in different fields that leads to tremendous development in agriculture. The increase in population and advent of industrialization motivate researchers to introduce chemicals as fertilizers in agriculture for mass production (Alvares, 2009). Hence, to understand the philosophy of organic food, it needs to understand the origin of organic agriculture at first.

1.3.1 World Perspective

After second world war, armament companies started producing synthetic fertilizer and looking for new market in agricultural field. A rampant use of chemicals in agriculture as manure took place during industrial revolution (Ikerd, 2008).

At the dawn of 20th century the concept of green revolution came into existence. On one side inception of green revolution provided mass production for increasing population and on other side it had great benefits for western firms in agribusiness. This era of agriculture called as third world agriculture market with continuously use of chemicals and commercialization of farming (Grigg, 1989). Slowly farmers were shifted from traditional farm practice to chemical based farm practices.

Farmers were more depended on external farm inputs which increased the cost of production but there was no increase in farmers' income and it lead to increase the financial burden on farmers, and therefore, reducing this burden several farmers shifted from food to cash crop farming (Ikerd, 2008; Gliessman, Engles & Krieger, 1998).

This situation created scarcity and insecurity of food among farmers which forced them to use synthetic fertilizers in farms to increase the food production.

The continuous use of chemical in fields lead to many pertinent problems like soil erosion, soil degradation, low quality food, decline of crop variety, and decline in livestock feeds (Conford & Dimbleby, 2001). Chemical farming not only creates problem in soil fertility but also create health issue regarding famers' family and livestock (Lockeretz & Madden, 1987). An idea of alternative farming came into existence and known as organic farming. Shi-ming and Sauerborn (2006) divided organic food journey into three phases namely origin, growth, and development stage of organic agriculture practices.

First is origin stage from 1920 to 1960. The new idea and concept has been developed by researchers for improving the condition of agriculture during 1920s by reviewing the problems created by chemical based farming in Europe and United States.

Concept of organic farming was critical response to chemical agriculture on other hand its principles believed that nation depend on the health of their people and health of people depend on agriculture and agriculture development rely on soil fertility (Kuepper, 2010). Researchers and scientists use biological components of soil to improve the fertility that is called “humus”. Humus farming practices came into existence and contributed to origin of organic farming (Conford & Dimbleby, 2001; Heckman, 2006).

It was a scientific tactics for soil management and used traditional agricultural practices taken from the European and Asian farming models such as applying animal manures, composting, planting perennial forages in rotation with other crops, and adding lime and other natural rock dusts to conserve and rejuvenate the soil. Humus farming is simply worked on “feed the soil” mantra (Kuepper, 2010).

In 1942, on the basis of humus farming practices, Rudolf Steiner started biodynamic farming in Austria (Organicnet, 2016; Howard, 1947). In 1939, Walter Ernest Christopher James known by the name of “Lord Northbournem”, first time explored the term organic farming in his book “Look to the Land” (1940), out of his idea of “the farm as organism,” to describe a holistic, ecologically balanced approach to farming in contrast to what he called chemical farming,

Which relied on “imported fertility” and “cannot be self-sufficient nor an organic whole” (Scofield, 1986; United States Department of Agriculture National Organic Programme (USDA), 2000).

One more pioneer researcher Sir Albert Howard known as “Father of Organic Farming” had close connection with Indian farming when he was in Bengal (India) and took traditional organic agriculture practices from India to western world. He also explored about Indore method of compositing in his book “An Agriculture Testament (1943) which was taken from Indian traditional agricultural practices (Wire, 2012; Organicnet, 2016). Later on Balfour and Albert Howard established the British soil association in UK which is working for organic movement now a days (Heaton, 2001) and many more associations was founded like Rodale institute in USA, soil and health in New Zealand, Humus farming was replaced with organic farming in 1930s (Organic Farming Definition and History, 2012).

Second stage is growth stage (1960-1980). Slowly the concept of organic farming move towards western to other part of the world and growth period introduced polarization of farming into non organic and organic farm practices (Heckman, 2006). With the emergence of environmental concern among people, two biggest movements had substantial impact on growth of organic farming worldwide. First was in USA counterculture movement (1960-70) which provided strong visibility and support to organic farming at local and national front through politically and socially support (Haedicke, 2012).

Second biggest event was Silent Spring (1994) started by Rachel Carson. This movement highlighted the harmful impact of synthetic fertilizers, pesticides (DDT-Dichloro-diphenyl-trichloroethane) on environment.

Destructive impact on eco system raised questions before the chemical or industrial farming. Silent spring was the biggest environmental revolution to protect eco-system for present and future generation (Beyl, 1992). The impact of this movement forced counties to ban DDT (Dichloro-diphenyl-trichloroethane). In search of new market agribusiness firms started exporting DDT to developing countries (Lallanilla, 2016; Narayanan & Narayanan, 2005). Ideologies like organic farming, zero negligence, protecting eco system & resources and ensuring food safety was a little step towards sustainable agriculture practices like biodynamic, organic and ecological methods of farming (Kilcher, 2007; Niggli et al., 2009). Many social movements and social activists raised concerns and spread awareness regarding environmental protection later on, thus organic farming practices attained political and social acceptance. Socio- ecological revolution transformed the attitude of farmers towards eco-friendly farming that contributed to changing and shaping the era of organic farming (Willer & Zerger, 1999).

In 1972, International Federation of Organic Agriculture Movements (IFOAM) was founded by a farmers' group in Versailles (France) to support and promote organic farming across the world (Niggli & Lockeretz, 1996; Niggli, 1999). It is non-governmental international organic farming standards setting body accredited by International Organization for Standardization (ISO). In industrial chemical market, a concept of certification was introduced to maintain the status of organic products in the eyes of consumers.

Next stage was institutionalization of organic farming (1980-2000). In this stage more numbers of farmers from different countries have shown interest in organic farming.

Hence, in 1973, IFOAM brought all organisations and farmers from western countries under one umbrella and founded California Certified Organic Farmers (CCOF) which was first certification body for standardization of organic products (Guthman, 2002; Fetter & Caswell, 2002).

After 1980, the organic farming reached across the world. Mexico and Argentina from South America adopted organic farming practices and certification procedure. But in the history, Cuba plays very crucial role to improve their economy by adopting organic agriculture practices and take it to very high level. Cuba introduced development programme for organic farming, certifications and also gave training to farmers (Rosset, 1994). Cuba completely removed chemical fertilizer from their agricultural practices and use self pest management tactics based on organic farming. Import of chemical fertilizers completely collapsed in Cuba and made self-reliance country to completely adopt organic farming and way of sustainable agricultural system (Rosset & Benjamin, 1994). During 1990s, several researchers and agrarian argued that organic farming following the path of industrialized chemical market (Reganold & Wachter, 2016).

The expansion of organic market swiped the local organic venders with supermarkets and exported more products to fulfil the demand of developed countries. Now organic products are recognized through the certification, principles and standards. So IFOAM sets certain standards and principles to protect fertility of soil, high nutritional food, eco friendly farming practices (IFOAM, 2009; Lockeretz, 2007). Globally IFOAM introduced three certification systems named as third party certification, organic guarantee system and participatory system.

This is the era of inception of organic standards, inspections and implementations of farming practices, certification system, packaging and market set-up (Khosla, 2006; Luttikholt, 2007). Later on higher demand increased the hope of farmers for higher premium and have transformed complete prospective regarding organic food, now organic agriculture considered as an industry.

1.3.2 Indian Perspective

Organic agriculture is not a new phenomenon for India. Organic farming has been practiced since ancient times by the great Indian civilization. India was thriving until the British invaded and ruled it. Entire traditional Indian agriculture system used organic farming techniques. Agriculture system was the backbone of Indian economy and using domestic animal such as cows and buffalos in agriculture for bullocks and their dung and plant waste as a manure or fertilizer to improve the fertility of soil (“Organic farming in India”).

After independence, a drastic increase in population along with many natural calamities moved nation to the situation of food scarcity. So, the government needed to import food from other countries. As a result, central government forced to introduce the concept of green revolution in 1960s under the supervision of Dr. M. S. Swaminathan.

This was the historical decision taken by government to introduced hybrid seeds in agriculture system to increase the food production for millions of poor people (Chakravarti, 1973; Fujita, 2009). Chemical fertilizers replaced organic and natural manure and government established Rashtriya Chemical Fertilizers in 1978.

Rampant used of synthetic fertilizers increased the production of food and reduced import every passing year (Singh, 1972). On one side green revolution made surplus the food grains and became India exporter of food grains but on other side it shown harmful effects on atmosphere such as soil losing it fertility, contaminated ground water, increasing in nitrous oxide emission.

Famers required large quantity, stronger and costlier fertilizers for their field which badly effect environment and human health (Naithani, 2010; Lee, 2017). During 1970-80 chemical farming changes the agricultural system, and rural farmers depend on money lenders for costlier fertilizers.

The regular exploitation of farmers to use chemical fertilizers forced farmers to commit suicide then practitioners and farmer looked for alternatives and take decision to shift back to organic farming (Rao, Venkateswarlu, Surender, Eddleston & Buckley, 2005; Sebbby, 2010).

In Indian history, three main revolutionary movements have changed the face and shape the Indian organic agriculture system after green revolution. First was Chipko Movement in 1973 which was first non-violence movements to protect and conserve the tree and forest from industrialists. This event strongly affects the people and forced to think about environment issues (Shiva & Bandyopadhyay, 1986). The fire of movements reached to other part of the country and later on one of the activists of Chipko Movement vijay Jardhari from Uttarakhand started new movement with main focus to boycott the use of hybrid seeds and synthetic fertilizers and use traditional seeds and organic manure in farmland this movement is called “Beej Bachavo Andolan”. The group of farmers and activists used to collect traditional seeds from different villages and gave to other farmers (Singh & Jardhari, 2001).

This event created awareness among farmers to save environment and adopt organic farming with a slogans “Apni mitti apni khad, Apne beej apna swad Khet hamare beej tumhare; nahin chalega! Nahin chalega” (Our earth, our own manure; our seeds and own taste, ours are the fields, and the seeds are yours; no, this will not work, this will not do). This distinct event worked on protecting, conserving and collecting and distributing traditional seeds support small farmers and a hope of sustainable agriculture system (Singh & Jardhari, 2001; Das, 2011). In 1991, the third movement “Beej Satyagraha Movements” started by Navdhanya was similar as above event aim to save seeds (Virmani & Lepineux, 2015). In the dawn of 20th century commercialization of organic farming has been seen quantum change across the world.

Supermarkets and specialized organic store took place instead of local venders. Many social groups and organic farmers collectively established a formal organization named as Organic Farming Association of India (OFAI) in 2003. Government introduced many promotional schemes and programs to support organic farming. In 2003, National Institute of Organic farming (NIOF) was established in Ghaziabad (Uttar Pradesh) by the government of India.

Institutionalization of organic food started along with government and private players funded projects in different parts of the country such as Kerala, Gujarat, Madhya Pradesh, Himachal and Karnataka (Yadav, 2011). Now organic products need certification and standards required to sell in the international market and this was

adopted by many western nation. National programme for organic production was put into practice by the Indian government to encourage organic farming.

Furthermore, it also engaged with standards and practices of organic production and provides certificates through certification bodies for organic farming. This programme provides support and education to organic farmers and producers on regular intervals (Chakrabarti, 2010; Yadav, 2011).

The standards of NPOP are officially recognised by European Union, Switzerland, and United State of Agriculture department (USDA Organic) for production standards, unprocessed plant products, and for evaluation procedure of certification respectively. Recognition from these accredited bodies facilitates Indian certified organic food products to be easily accepted in the foreign market (APEDA, 2016).

1.4 Organic Food A Healthy Aspect

What Pesticides do to one's body is revealed in various studies which link pesticides exposure to cancer, birth defects, stillbirth, infertility, and damage to the brain and nervous system (including Parkinson's disease). Cancer seen in children include: brain cancer, leukemia, non-Hodgkin lymphoma, and soft tissue sarcoma. Similar types of cancer are found in adults, and some more including multiple myeloma, cancer of the pancreas, breast, prostate, kidney/bladder, eye, and colon-rectal cancer. Pesticides can aggravate asthma and allergies (Ali, 2010). Green revolution played significant role in Indian agricultural system but it also shown darken side that rampant use of harmful chemical in field which not only effect the fertility of soil but also badly effect the human health (Prabu, 2009).

However, organic farming is using eco friendly techniques and leading towards sustainable agriculture (Kotschi & Muller-Samann, 2004). Organic farming is best alternative idea than conventional (chemical) farming in terms of productivity and sustainability. The use of synthetic fertilizers is restricted in organic farms which improve soil fertility, water cycle (water content and water holding capacity) and biodiversity (Singh, 2004).

Moreover, comparative analysis of previous researches explored that organic farming consist 30 percent more variety of species and 50 percent more favourable for insects like bees (Mader, Fliebbach, Dubois, Gunst, Fried & Niggli, 2002).

Organic farming also helps to decrease the greenhouse gas emission by improving sequestration of carbon and reducing nitrogen loss in soil through tight nutrient and energy cycle, crop rotation, agro forestry, inclusion of organic manure into soil (Kotschi & Muller-Samann, 2004). Except environmental advantages organic farming suppresses the use of chemical fertilizers.

Country like India considered as land of farmer but majority of farmers are small and poor. For more production many of these rely on expensive hybrid seeds and chemical inputs which make them in debt and cause thousand of death and illnesses among Indian farmers every year (Rao et al., 2005; Prabu, 2010).

In India, around 2.5 lakh farmers committed suicide in last ten years. Conversely, no use of external inputs and more use of natural manure in organic farming reduce operational costs. So that organic farming practices is more economical and efficient alternative to conventional farming (Kilcher, 2007; Lukas & Cahn, 2008; Adhavani, 2009).

1.5 International Organic Standards & Certifications

Earlier, the consumers interested in Organic food would look for non-chemically treated, fresh or minimally processed food. They mostly had to buy directly from growers: "Know your farmer, know your food" was the Motto. To be certified, organic products must be grown and manufactured in a manner that adheres to standards set by the country they are sold in: Australia ; Australian Organic Standard and NASAA Organic Standard, Canada ; Canada Gazette, Government of Canada., European Union; EU-Eco-regulation, United Kingdom; Department for Environment, Food and Rural Affairs (DEFRA).,Norway; Debio Organic Certification., Japan; JAS Standards., United States ; National Organic Program (NOP) Standards., India; NPOP,(National Programme for Organic Production) (Eischen, Prasertsri & Sirikeratikul, 2006; Mervin & Karpagam, 2012).

1.6 SCOPE OF THE STUDY

This study is primarily concerned about the customers buying behaviour towards organic food in Chennai and their buying decisions towards organic vegetables. It also includes their perception and intention of buying behaviour inside Chennai city.

1.7 Objectives of the study

The objective of the study will be as follows:

- To study the role of customer demographics (age, gender, education, etc.) in buying organic food products in Chennai.
- To study the customers purchase decisions and buying behaviour of organic food products.
- To analyze the influence of social, cultural and behavioural factors on buying organic food products among the customers.
- To identify the customers attitude and buying intention towards organic food products.

1.8 LIMITATIONS OF THE STUDY

- Due to time constraint only a reasonable sample size of 120 respondents were taken and analysed. Still a larger sample size could increase the accuracy in the result.
- The area of study is limited to CHENNAI DISTRICT only. Hence the result may not be true for other geographical area.
- Quality of information is highly dependent on the health and preferences of respondents.
- The period of study is 6 months only.

CHAPTER - 2

REVIEW OF LITERATURE

2.1 INTRODUCTION

In modern world, consumers are concerned about food safety and prior knowledge of food handling practices. Organic food fitted in this frame accurately because organic farming restricts the use of synthetic pesticides and chemical in certified croplands. Attitude of consumers can be studied by taking into account various factors like health consciousness, environmental effectiveness, safety parameters and accessibility of organic food. These variables put an important role in driving behaviour of customers. To better acquaint with the consumer perception about food safety and purchase intention of customers, these factors need to be developed and identified. Identification of these variables leads towards the formation of effective strategies for the organic food manufactures.

This chapter discusses the evolution of organic food term, its journey and how it came into existence of consumers. It also discusses the current status and relationship between organic food and consumers. A wide literature has been available regarding consumer perception and intention. On the basis of literature studied, hypothesis are also framed with respect to each factors concerning with the attitude of the customers for different variables.

2.2 Organic Farming and Consumer Perception

In 1965, the use of pesticide in farm was started and consumer attitude towards pesticide used in farm were explored (Bearler & Willits, 1968). Sach et al. (1987) found that the number of people concerned about consuming pesticide, increased the use of conventional produce. Consumers typically understand the broad issues about organic foods but not understood the complexities of organic farming practices and organic food quality attributes. Davies (1995) explores one more additional positive attribute that improved taste also associate consumers with organic food products. Number of reasons as well as some barrier grouped according to general and commodity-specific concerns. General concerns including food safety, human health, 2 environmental impact and the commodity-specific concerns like taste, freshness and packaging.

Organic mislabeling, product misrepresentation and non-uniform organic standards and certification procedures are some barrier which holds some consumer back from purchasing organic food (Yiridoe et al., 2005).

More information should be provided to consumer about organic food benefits which enhance consumer knowledge and influence consumers' attitude towards organic food (Magistris & Gracia, 2008).

Several researches have been carried out in organic food products area in order to analyse the consumer perception and purchasing intention towards organic food products. Organic food contains more nutritional value and also perceived as healthier and more favourable alternative to conventional food (Baker et al., 2004, Lea & Worsley, 2005; Lockie et al., 2004; Magnusson et al., 2001; Padel & Foster, 2005; Tregear et al., 1994). Consumers' belief that organic food is safer, good in taste, more pleasant and reliable than conventional food (Schifferstein & Ophuis, 1998; Baker et al., 2004; Fotopoulos et al., 2003). Consumers who are involved in green consumption

Practices are highly inclined to consume organic food products (Lockie et al., 2004). The study of Fillion and Arazi, 2002 found that organic orange juice was good in taste than conventional but there was no distinction in the taste of organic and conventional milk (Crinnion, 2010).

The profile of organic consumers identifies through their environmental concern attitude, lifestyle and demographics variables. The loyal consumer of organic food perceived to be wealthy, possess high-class status and well educated (Padel & Foster, 2005; Stobelaar et al., 2006). Highly educated female who belongs to higher income group were more aware and having enough knowledge regarding food risk (McIntosh et al., 1994; Torjusen et al., 2001; Stobelaar et al., 2006). There was a strong correlation between the level of formal education and increasing consumption of organic food (Lockie et al., 2002). Women are highly concerned to pay a premium price for natural processed food and environment-friendly goods (Soil Association, 2000).

A Study was conducted in Spain by Urena et al. in 2008 found that consumers are not ready to pay but willing to pay a premium price for organic food products. This study classifies organic food consumers into different categories specifically in the context of their consumption pattern. Further, on the basis of consumption pattern consumers are divided into three categories namely regular, occasional and non-buyer.

In this study, consumers who buy twice a week are considered as regular consumers (12 percent) and more conscious about health and food safety. Occasional consumers represent 42 percent and remaining 46 percent represent non-buyer. But in a non-buyer category almost 25 percent buyers were prospective consumers with a high intention to purchase organic food in near future.

The main barricades which suppress the demand for organic food are a premium price, non-availability, lack of accurate knowledge and awareness. Thus, these barriers develop negative perception in the mind of consumers, especially higher price shift potential consumers towards conventional food (Jolly, 1991; Tregear et al., 1994; Roddy et al., 1996) and consumers satisfied and happy to buy conventional food. Contrary to this, some studies revealed that consumers are ready to buy organic food but non-availability of organic food restricts them from purchasing (Roddy et al., 1996; Wandel & Bugge, 1997). All these kinds of obstacles continue to push back the demand for organic food in the market (Magnusson et al., 2001). The quality of food incorporates many attributes in its womb like nutritional value, sensory attributes (appearance, aroma, taste, and texture), free from pesticides and safety factors (Shafie & Rennie, 2012).

2.3 Consumer Perception about Health

Applications of biotechnology have been gaining success in commercial business and generating health and socio economic issues. Health is considered as commodity which deteriorates over time and further motivates a person to look after oneself by buying healthy food (Grossman, 1972). Perception of consumer regarding organic food depends upon the health factor. A positive relationship has been found between food quality and demand of consumer about healthy food practices.

Distinctiveness of organic food arouses interest of consumers regarding good health and consumers try to pay attention towards balanced diet. Health benefits from organic food create major differences from conventionally grown foods. Every individual wants to eat fresh and healthy food. Innovation of organic food has led them towards the fulfillment of this objective (Rimal, Moon & Balasuramanian, 2005; Hsu, Chang & Lin, 2016; Vieira, Bacellos, Hoppe & Da Silva, 2013). Consumers do not want to compromise with health benefits of eatables in any manner (Rimal, Moon & Balasuramanian, 2005).

Organic food seems to be well fitted in the frame of safe food due to stringent compliance of regulation & standards which restrict use of synthetic pesticides & chemicals in certified pasture and cropland (Roitner-Schobesberger, Dornhofer, Somosook & Vogl, 2008). Previous studies identify a relationship between food habits and health concerns. Consumers are worried about production of food by chemical fertilizers and prefer to buy food items which consist of less chemicals and pesticides (Baker et al., 2004; Lea & Worsley, 2005; Lockie et al., 2004; Tregear et al., 1994). Organic food is produced without use of pesticides and fertilizers, prepared with synthetic ingredients or sewage sludge or ionizing radiations. Frewer et al. (1995) concluded that the most important determinant of consumer acceptance of GM (Genetically modified) food was the perceptions of benefit resulting from application of the technology.

Additives and preservatives affect the nutritional value of the food. Nowadays consumers are health conscious and try to exclude non healthy items from their meal. Moreover, consumer perceives organic products healthier having high vitamins and mineral contents than conventional products (Barnes, Vergunst & Topp, 2009; Gam, 2011; Lea & Worsley, 2005; Verdurme, Gellynck & Viaene, 2002). Potential consumer's attitude and behaviour towards organic food affects the perception of consumers about healthy habits and organic food consumption (Hill & Lynchehaun, 2002; Hutchins & Greenhalgh, 1997; Radman, 2005). Organic food products are free from genetically modified attributes and artificial additives. Hence, due to absence of non-natural products, selection of organic food is considered as a best choice for health and safety concerns.

Although a long journey is still left to travel to change perception of consumers for buying organic food items because conventionally grown food products are not easy to replace from the market (Gam, 2011; Hill & Lynchehaun, 2002).

Conventional agriculture system has long term implication on the health of the users. Long term affect of conventionally grown food products on health of individuals creates health problems and serious disease (Hutchins & Greenhalgh, 1997; Sondhi, 2014; Verdurme, Gellynck & Viaene, 2002). Furthermore, organic food offers positive effects on human health. Production of organic food prevents the use of hazardous chemical and products.

Food scares has extended to a long period in many countries which results in production of healthy and safe food for consumers (Barnes, Vergunst & Topp, 2009; Bhattarai, Lyne & Martin, 2013; Sondhi, 2014).

2.4 Consumer Perception about Safety Concern

Food safety problems are increasing rapidly among globe and spreading worldwide. Food risks are posing negative effects on the human health and affect the consumption of food (Bhattarai, Lyne & Martin, 2013; Vieira, Bacellos, Hoppe & Da Silva, 2013). Perception of consumer about food safety is not only limited to developed nations only now developing countries also highlighted the importance of food safety.

Organic products are introduced in the markets of developing nations for encouraging consumers towards food safety measures (Tskiridou, Boutsouki, Zotos & Mattas, 2008; Tung, Shih, Wei & Chen, 2012; Zanolli, Gambelli, Solfanelli & Padel, 2014). In developing nations consumers are still unaware about food related practices and issues of food risks. They are habitual of using conventional food products with full of harmful chemicals and pesticides (Lea & Worsley, 2005; Vieira, Bacellos, Hoppe & Da Silva, 2013). Introduction of organic food products changes the scenario and awake consumers about food risks and food scares (Kottila & Ronni, 2008).

Wide variety of rivaling safe food labels available in the Market. The terms are written on these labels embrace such as safety food, hygienic food, non-toxic food, chemical free, pesticide free, healthy food (Eischen et al., 2006; posri et al., 2007; Zanolli, Gambelli, Solfanelli & Padel, 2014; Kramol et al., 2005) and health benefits claim by these labels seems to be akin as consumers expected from organic food. It creates ambiguous situation in the mind of the consumers (Bhattarai, Lyne & Martin, 2013; Heerwagen, Andersen, Christensen & Sandoe, 2014; Kottila & Ronni, 2008; Lea & Worsley, 2005). The study reveals that 43 percent of respondents believe that there is no dissimilarity between hygienic and organic produced food. That is why it is a very complex process and gigantic task to educate their potential consumers (Schobesberger, Dornhofer, Somosook, & Vogl, 2008). Consumption of organic food leads towards a favourable outcome for human health.

Most commonly reported outcome is activity of antioxidants which is a useful biomarker relevant for human health (Heerwagen, Andersen, Christensen & Sandoe, 2014; Kottila & Ronni, 2008; Radman, 2005). An important role is played by biomarkers in gauging diseases arose from food products. Indirect health benefits are associated in organic food products and serum concentrations and vivo mechanism also an important factor affecting health. Effects of use of antioxidants are combined and mixed with certain mechanisms (Aertsen, Mondelaers & Huylenbroeck, 2009; Andersen & Lund, 2013; First & Brozina, 2009; Klockner, Langen & Hartmann, 2013).

Organic food products has offered guarantee of being safe as these products are free from pesticides. Consumers using organic products are also believed that organic food products are certified (Essoussi & Zahaf, 2008; Teng & Wang, 2015; Tskiridou, Boutsouki, Zotos & Mattas, 2008). Certification of organic food products further guaranteed the quality of the products. Consumers have revealed their faith in the products grown from organic farming (First & Brozina, 2009; Klockner, Langen & Hartmann, 2013; Bhattarai, Lyne & Martin, 2013).

The above discussed review has postulated the use and importance of organic food products regarding consumer health.

2.5 Environmentally Concerned Beliefs, Attitudes and Government Intervention

Consumer perception for purchasing organic products is greatly affected by environment concern and consumer believes that protecting environment is a part of their duty towards saving natural resources. As mentioned by Goldman and Clancy (1991) environment concerns is at fourth place out of seven factors while selecting organic food products and regarded as a strong motivating factor by consumers (Lea & Worsley, 2005; Post, Shanahan & Jonsson, 2008). Organic food products are better for environment as they use human and chemical waste as fertilizers which are more environment friendly than conventional food products (Liang, 2014; Lin, 2009; Essoussi & Zahaf 2009; Padel & Foster, 2005; Zander, Padel & Zanolli, 2015).

Organic food items are grown in harmony with nature. For the environment, it is believed that organic products are safer than conventional food products. Not all consumers buy organic products but they are aware about usefulness of organic food products (Canavari, Bazzani, Spadoni & Regazzi, 2002; Hung, Lin & Chen, 2013; Post, Shanahan & Jonsson, 2008; Seyfang, 2007).

Consumers and producers who are not participating in organic market also believe that environment protection is major factor which encourages the consumption and sale of organic food products (Bhattarai, Lyne & Martin, 2013; Lea & Worsley, 2005; Zander, Padel & Zanolli, 2015).

Consumers believe that organic farming yield low output as compared to conventionally grown foods. Consumers' opinion regarding production of organic food products took more time and hard work as compared to chemical farming (Baker, Thompson, Engelken & Huntley, 2004; Jahn & Kunz, 2012; Mondelaers, Verbeke & Huylenbroeck, 2009; O'Donovan & McCarthy, 2002; Squires, Juric & Cornwell, 2001). Before starting organic farming, farmers need to revitalize their fields and make soil need to be done pesticides free and chemical free as well. This whole process takes 2-3 years for a field which is full of chemical and pesticide soil. Thus, consumers believe that government needs to motivate and encourage farmers for organic farming (Mondelaers, Verbeke & Huylenbroeck, 2009; Pandey & Khare, 2015).

Producers of organic farming needs to provide some extra benefits so that they can be motivate to start producing organic products (Hutchin & Greenhalgh, 1995; Kulmala, Mesiranta & Tuominen, 2013; Pandey & Khare, 2015). Government needs to take some action to make yield of organic food products viable because viable yield can influence farmers to save environment. Money concerns are effective way of attracting farmers to help in saving environment (Grubor & Djokic, 2016; Riefer & Hamm, 2011; Roddy, Cowan & Hutchinson, 1994; Vindigni, Janssen & Jager 2002).

Liberalization and privatization has opened many ways to organic producers for initializing a healthy production environment. Government policies are very few and restrictive towards organic production (Bernabeu, Diaz & Olmeda, 2010; Dalcin, de Souza, Freitas, Padula & Dewes, 2014; Hill & Lynchehaun, 2002; Nedra, Sharma & Dakhli, 2015; Truong, Yap & Ineson, 2012). Hence private sector is emerged as a major rousing institution in saving environment. Furthermore, protection of animals is also considered as prime concern by the private institutions (Fotopoulos & Krystallis, 2002; Lehner, 2015; Magistris & Gracia, 2008; McEachern & Willock, 2004; Tikkanen, 2012; Wiedmann, Hennigs, Behrens & Klarmann, 2014). Conventional food products and their waste material cause unfavourable effects on the breeds of animals. As organic food is free from pesticides and fertilizers, animal friendly products are preferred by the organic producers. Organic farming does not treat animal with synthetic growth drugs (Baruk & Iwanicka, 2016; Janssen & Ulrich Hamm, 2012; Olsen, Thach & Hemphill, 2012; Klockner & Ohms, 2009; Zhou, Thogersen, Ruan & Huang, 2013). 80 percent of world's annual deforestation is caused by animal agriculture produces. Using products grown in organic farms by supporting sustainable growth of dairy products. Organic farmers ensure that organically raised animals are not allowed antibiotics, genetically modified foods and other artificial drugs (Al-Swidi, Huque, Hafeez & Shariff, 2014; Crescimanno, Ficani, & Guccione, 2002; Gerrard, Janssen, Smith, Hamm & Padel, 2013; Hoefkens, Verbeke, Aertsens, Mondelaers & Camp, 2009). For producing organic dairy products, animals are raised in healthy environment and organic feed is provided and test tube animals are ignored completely. Organic farming stopped cannibals of animals and feed 100 percent organic feed to the animals.

Synthetic pesticides, fertilizers and chemicals such as DDT (Dichloro-diphenyl-trichloroethane), PCB (Polychlorinated biphenyls) concentrate in animal fat are not used in organic products (Schrock, 2014; Bernard, Hustvedt & Carroll, 2013; Bourn & Prescott, 2002; Klintman, 2002; Quah & Tan, 2009). Organic farming provides health balance of soil by using crop rotation method and improving soil fertility. Organic food products save environment by reducing exposure to these chemicals. Organic farms support ecological management for solving pest problems. Comparing to industrial farms, organic farms use approximately 70 percent less energy and preserved ground water (Quah & Tan, 2009).

Lundqvist (2000) has conducted a survey to evaluate the working condition in organic farming. The mail-in survey has been carried out on experienced personnel of different departments such as agricultural organisations, agricultural schools, advisors and experts engaged in organic agriculture system in Sweden. The study tried to embrace with statements regarding working environment, consequences of job opportunity and need for future growth in organic farming (Rimal, Moon & Balasubramanian, 2005). People working in organic farms shown highly positive sense that they are not dealing with harmful chemical and synthetic fertilizers and also feel cheerful to work with nature. Meanwhile, more hour in field for fencing and weed control with poor design of tools create musculoskeletal problem in organic workers that leads to create negative aspects among people engaged in the organic farming (Fotopoulos & Krystallis, 2002; Nedra, Sharma & Dakhli, 2015). The country as a whole require to institute basic facilities like infrastructure, human resource requirements, appropriate working condition of farm workers, and also need to conduct the research and development programmes for imparting the new pace to organic farming in future (Olsen, Thach & Hemphill, 2012).

2.6 Price Consciousness

Price is the most important determinant which influences the buying behaviour of organic food consumers but it depends for whom price is considered as significant. Price premium, the excess price paid by consumer against fair price of the product that is justified the real worth of the product (Vlosky et al., 1999).

Fair price or true value predicts the demand of the organic products in the future market (Tse, 2001). There was a negative value perception towards organic food products and a major hurdle in buying organic food was the higher price as compared to conventional food products. Consumption of organic product is depended on few variables such as the type of food, the relative cost of comparable conventionally produced products and fair price of the items (Jolly, 1991).

While demand of organic food products is increasing, but a big obstacle has come in front of growth of organic food products. Added cost of sustainable practices is a major barrier in the intensification of organic food items (Fotopoulos & Krystallis, 2002; Onyango, Hallman & Bellows, 2007; Lehner, 2015; Tikkanen, 2012; Magistris & Gracia, 2008; Wiedmann, Hennigs, Behrens & Klarmann, 2014). Labour cost of organic production is comparatively high which further added its value in retail price of products. Intensive management of organic production enlarges the cost of products (Hoefkens, Verbeke, Aertsens, Mondelaers & Camp, 2009; Janssen & Hamm, 2012; Klockner & Ohms, 2009; Olsen, Thach & Hemphill, 2012; Via & Nucifora, 2002; Zhou, Thogersen, Ruan & Huang, 2013). Organic farming research foundation (OFRF) has proposed that the cost of organic food is higher than conventional food because the organic price tag more closely reflects the true cost of growing the food. Moreover, studies revealed that conventional food products incur indirect costs which affect the public health by releasing chemicals into air and water.

Ultimately, this indirect cost is same as organic food cost at point of purchase (Al-Swidi, Huque, Hafeez & Shariff, 2014; Bernard, Hustvedt & Carroll, 2013; Buder, Feldmann & Hamm, 2014; Crescimanno, Ficani & Guccione, 2002; Cochrane, 1995; Gerrard, Janssen, Smith, Hamm & Padel, 2013; Schrock, 2014).

Consumers who are concerned about healthy diet and environmental degradation prefer to buy organic food, and ready to pay high price for organic food (Henson, 1996; Gill et al., 2002; Laroche et al., 2001; Canavari, 2003).

Organic food buyers perceived greater benefits associated with organically grown produce and have significantly higher risk perception as compare to conventional buyers for food safety hazards associated with conventionally grown produce and organic buyers also to pay higher price for organic food products (Bourn & Prescott, 2002; Klintman, 2002; Williams & Hammitt, 2000).

Along with premium price, cost differential is also a major factor which increases the cost of organic products which are not directly mentioned to customers. Cost differential creates hindrance in selling organic products with respect to conventional products (Al-Swidi et al., 2014; Crescimanno, Ficani & Guccione, 2002; Hoefkens et al., 2009). Profit margin of organic products is low which influence retailers not to choose these products because conventional products yield high margin. Therefore, they might be not interested in putting large quantity of organic products in stock (Morgan et al., 1990). That is why marketing of organic food products is necessary to do in form of premium prices rather than placing products in hands of retailers as a whole.

2.7 Availability of Product

Consumers are thinking about green marketing and using eco-friendly products. As organic products have been grown using organic farming practices by not including pesticides and antibiotics, these should be available to consumers at nearest grocery stores. Organic products should be in the reach of every customer (Klockner & Ohms, 2009; Janssen & Hamm, 2012). Numerous food stores are offering variety of organic products. Different sections of food are maintained in stores. Dairy section contains organic milk and cheese products. Non vegetarian food mainly poultry is also available at lots of selling locations. It is assumed that animals are fed by organic grass and not raised by using hormonal antibiotics vaccination (Nedra, Sharma & Dakhli, 2015; Truong, Yap & Ineson, 2012).

Availability refers to the less difficulty faced by consumer while finding a specific products. Attitude might be positive towards organic products but low perceived availability of sustainable products results to low intention to buy (Lehner, 2015; Tikkanen, 2012). Another factor that can also influence a person intention towards purchasing sustainable food products is the situational factor. A person who came in to a store with an intention of buying organic food products may be disturbed with the promotion of conventional products or the non-availability of the organic food products. Interaction between consumers with positive belief and attitude and high market “mavenship” and high product availability might create a favourable attitude towards purchase behaviour, which would result in a stronger intention to purchase leading to buy organic food products (Vermeir & Verbeke, 2004).

Studies related to consumer attitudes and preferences for organic products are very hardly noticeable. But in recent decades, there has been a deep change that has taken place in family structure, in lifestyle and increase in disposable income.

Due to easy availability of products as well as increasing interest towards health and hygiene food products (Chinnici et al., 2002) consumers have positive attitude towards organic food product and one of the most common reason for purchasing organic products was it perceived as healthier than conventional food products (Aertsens et al., 2011; Harper & Makatouni, 2002).

Consumers do not always buy sustainable products. Issue of environmental concern or to benefit the community or due to personal beliefs but mainly to give priority to health and healthy products. As a part of the social group, consumers try to show themselves as different from others so that try out new technologies (Vermeir & Verbeke, 2004).

Further, it is being noticed that farmers themselves are engaged in selling their products and at many places farmers market is in limelight. Organic consumers believed that in spite of buying produce from wholesalers and retailers it is much better to develop a connection with farmers and local growers (Hutchins & Greenhalgh, 1997; Verdurme, Gellynck & Viaene, 2002; Sondhi, 2014).

Consumers are aware about the expensiveness of organic products that is why being familiarizing with the farmers would help them to get good quality and fresh food. Moreover, farmers also suggest them about the cooking parameters of unfamiliar food.

Direct relationship with farmers enhances the knowledge of consumers about maintenance of food products. Small family farms has arisen interest of urban consumers in the farmers market (Aertsens et al., 2011).

Furthermore, bakery goods have also found place in farmers market because these were made with organically produced whole grains and other products. For encouraging organic buying, farmers and marketers can take help of local artists and restaurants those serves natural food by organising weekly events and building trust in organic food products (Klockner, Langen & Hartmann, 2013; First & Brozina, 2009; Aertsens, Mondelaers & Huylenbroeck, 2009; Andersen & Lund, 2013). Consumption of organic food is also effected by image of store. High quality services are the prime criteria among consumers while buying. Stores offering quick and high quality services found more valuable in the eyes of customers. Although, high risk is involved with buying of organic food because of high prices. But availability of organic food products at the good stores proves very beneficial to both retailers and consumers.

2.8 Consumer knowledge

Organic food products are healthier and safer but consumers have limited knowledge regarding usage of products. Lack of substantive information about organic food among consumers considered as core barricade that holdback the consumers to purchase organic food. Moreover, majority of consumers do not describe exactly what organic mean (Klockner & Ohms, 2009; Janssen & Hamm, 2012). The lack of information might explain through two aspects; firstly, a negligible amount of information about the organic farming system and their cultivation methods. Secondly, consumers reflect the baffling state of mind regarding safe food 'labels and these labels also appear to assure to provide alike health benefits as organic food labels.

Even, consumers do not have primary information regarding organic farming like what kind of seeds, type and intensity of pesticides used and whether farmers take care of quality control methods during and after cultivation. But there is need to understand the requirement of the organic food production.

As compared to rural consumers, urban consumers have less basic understanding of agricultural practices (Eischen et al., 2006; Kramol et al., 2005; posri et al., 2007; Yiridoe et al., 2005). For the recognition of organic products to urban consumers, accreditations and affiliations are required. Organic production must be get accredited from recognized organisations in different countries. Getting safe food is the foremost necessity of the consumer. It is the duty of the retailers to differentiate between safe food and organic food. Many conventional food items depict higher safety level but organic food is over and above to all of this. Organic food is the safest food which requires no such labels. Products which are labeled as organic are positioned more clearly in market and attract a large number of customers. Consumers should be better informed about the hygiene factor of organic products.

Knowledge of consumers can be improved by organizing seminars and food festivals. Existing consumers can also be invited in such seminars so that they can interact with the potential buyers and can influence them and pursue them for purchasing. The people believe organic food to be healthier, tasty and better for the environment than conventional food. Stronger barriers are price and lack of availability of organic food in front of consumer which affect the buying behaviour towards organic food. Women are having more positive attitude towards organic food than men (Lea & Worsley, 2005). It is vital to inform to the consumer that organic food taste similar to conventionally grown foods. Organic food consumers believe that organically grown foods taste good and not destroy originality of products (Sparling et al., 1992). Moreover, study found that non organic food consumers have of different opinion about taste of products and did not find better alternative than conventional food products.

A series of beliefs and norms which may learn from family and society combine to create an attitude of the human being (Heberlein, 1981). The assumption of theory that human beings mostly behave in sensible manner where information is available to him but may not always perform intentional behaviour because of limitation such as information, skills and abilities and dependence on others (Ajzen & Fishbein, 1980). Consumer of organic food rated protection from pesticide in those food which produced under organic farming and another most important reason for supporting organic farming or product was environment consciousness (Goldman & Clancy, 1991).

Health motivation is the main factor which influence the purchasing intention of organic food besides the importance of other factors that have influence on consumer behaviour are conviction about utility of organic food, reputation of store and certification process related information (Chandrashekar, 2010; Padel & Foster, 2005; Squires et al., 2001; Tregear et al., 1994).

2.9 Purchase Intention

Purchase intention is the decision making of a customer to buy a product or a brand. Measuring purchase intention of a customer is quite complex process as it depends upon many factors. Various internal and external factors are responsible for making decision about purchasing. Thøgersen (2009) quoted that behaviour perception and attitude of consumers build the intention about buying. Purchase intention might be influenced by price of the product and attitude of consumers in relation to external and internal motivating factors. Ajzen (1991) has propounded the theory of planned behaviour which predicts the intention of individual on the basis of behavioural factors. Normative and control beliefs has measured through attitude, subjective norms and perceived behavioural control determinants. Theory of planned behaviour signified that behaviour intentions can be appraises through these three factors.

2.10 Attitude of consumers

Healthy life style is the desire of every human being. For attaining good health, a balanced diet and consumption of organic food is preferred. While consuming organic food or willing to buy the same, an attitude towards food is framed in mind of consumer.

Securing health creates an opinion that a good food means good health. And this mind set leads towards the purchasing of organic food (Posri et al., 2007; Kramol et al., 2006). Purchase intention about organic food is affected by the attitude of customers towards health and safety parameters related with the organic farming.

Organic products are grown in harmony with nature. Due to zero input of pesticides and chemicals, it is believed that consumption of organic food cause less diseases as compared to conventional food (Hutchins & Greenhalgh, 1997; Sondhi, 2014; Verdurme, Gellynck & Viaene, 2002).

In chemical trials conducted on animals, it was found that foodstuff feeded to animals is sensitive and creates health hazards. Feeding practices in relation to quantity and food stuff should be tested out and organic characteristics of food must be added in order to maintain a good health. So, intention of consumers has been formed on the basis of growing situations and production patterns of food.

Nowadays consumers are concerned about protecting environment. Production of organic food is primarily derived from this concept. Eco-friendly behaviour of consumers and producers encourage the consumers about buying organic products (Seyfang, 2007; Hung, Lin & Chen, 2013). Organic food is free from pesticides and chemicals. Intention of consumers is affected by this approach. Environment friendly behaviour is related with the nature of environment and consumption pattern of the consumers. It has been investigated by many studies that purchasing of organic food is significantly related with environmental behaviour and protecting the sources of 2 environment. Producers of organic food must assure that no preservatives and harmful chemicals are used in order to improve shelf life (Ajzen & Fishbein, 1980).

Attitude of consumers is also affected by the cost structure of food. Organic food is highly priced and less available in the market (Nedra, Sharma & Dakhli, 2015; Truong, Yap & Ineson, 2012). High price is proved as a hurdle for the middle class consumers who want to buy a full lot of household goods but not able to do the same. Pricing of the organic food structure compose the intention of consumers towards organic food items (Wandel & Bugge, 1997). Purchase intention of organic food is positively affected by the perception of consumers. Intention forms the direct behaviour towards purchasing and positive attitude has drawn with respect to taste and trust on the organic food.

2.10.2 Perceived Behaviour Control

Perceived behaviour control is related with the own judgment of person regarding a particular behaviour performed on the basis of his capabilities. Perceived behaviour control deals with the availability of resources and buying power of the consumer. Thøgersen (2009) has postulated that perceived barrier and perceived ability has a great role in forming perceived control behaviour.

Major barriers affecting perceived behaviour control are price and availability of organic products. Organic products are available at premium prices and customers' judgment is based on the capability of paying for the required products (Seyfang, 2007; Hung, Lin & Chen, 2013). Like conventional food products, organic food products are not widely available. Organic food products are available only to some outlets. Only exclusive food stores are offering variety of food.

Perceived control behaviour affected by the reach and accessibility of the products. If organic products are available to the consumers near to their home then purchasing frequency has also improved. If products are not in reach and customers has to travel to a long for getting fresh and healthy food, in these conditions judgment of consumer has changed (Post, Shanahan & Jonsson, 2008; Canavari, Bazzani, Spadoni & Regazzi, 2002) because consumption of organic food is greatly influenced by the distant location of stores. Theory of planned behaviour highlighted the variety of behaviour and justified when consumer is ready to purchase and perceive confidence in buying.

Perceived control behaviour is also depends upon the information collected by the individual regarding food safety and health standards. Subjective norms play a vital role in providing information to the customers. Although word of mouth is a good source of information but that type of information has less reliability content (Hutchins and Greenhalgh, 1997).

So customers need to visit organic stores and organic production units in order to acquaint with the desired information. Knowledge of organic products can make it easy for the customers to take decision independently without getting influenced by others (Sondhi, 2014).

Perceived control behaviour is affected by the financial capabilities of the individual. As discussed earlier, organic products have higher price than conventionally grown foods. Many studies have examined that consumer did not bought all organic items (Gam, 2011; Sondhi, 2014; Hill & Lynchehaun, 2002; Verdurme, Gellynck & Viaene, 2002). But they chose only those products which seek them essential to buy on the basis of their financial capabilities. Customers bought grains, pulses, fruits, vegetables and dairy products primarily. Other products are disregarded from the list due to availability of less financial resources (Chandrashekar, 2010). Perceived control behaviour is examined by keeping in account the time, money and information related decision by the buyer themselves.

CHAPTER - 3

RESEARCH METHODOLOGY

3.1 Introduction

Research methodology is a blueprint of methods and techniques used by researcher at different stages of research to accomplish the objectives of the study. A study without better planning may not provide desired results, so research methodology is imperative for achieving the required goals of the research. This chapter embraces research design, problem statement, research objectives, hypotheses, sample design, data collection instrument, statistical techniques, limitations and chapter plan of the study.

3.2 Research Design

Extant research is exploratory cum descriptive in nature. Exploratory research provides insight and understanding of the subject. It assists in identifying and defining the research problem, hypotheses development, designing data collection instrument, and formulation of objectives. Descriptive research is conclusive in nature and deals with analysis of data to examine the perception and purchase intention of sample units in this study.

3.3 SAMPLING TECHNIQUE

The study is a descriptive research based on survey method. The respondents were selected through convenience sampling.

3.4 SAMPLING AREA

The sampling has chosen an area **CHENNAI**.

3.5 SAMPLING SIZE

The researcher have a sample size of 120 respondents.

3.6 SAMPLING METHOD

- Primary data required was collected in the form of well-structured Questionnaire.
- Secondary data was collected through various journals, newspapers and websites.

3.7 SAMPLING TOOLS

- Percentage analysis
- Diagrammatic Representation

3.8 PERIOD OF STUDY

The researcher started the research work in the month of December 2020 to February 2021.

3.9 Tools used:

Data was analysed using statistical techniques such as correlation and ANOVA as per the requirement of data with the help of SPSS (Statistical Package for Social Science).

3.9.1 Correlation analysis:

Correlation analysis is a statistical method used to evaluate the strength of relationship between two quantitative variables. A high correlation means that two or more variables have a strong relationship with each other, while a weak correlation means that the variables are hardly related.

3.9.2 Analysis of variance (ANOVA):

Analysis of variance (ANOVA) is an analysis tool used in statistics that splits an observed aggregate variability found inside a data set into two parts: systematic factors and random factors. The systematic factors have a statistical influence on the given data set, while the random factors do not.

CHAPTER - 4 DATA ANALYSIS AND INTERPRETATIONS

4.1 PERCENTAGE ANALYSIS

TABLE 4.1.1: Showing Gender wise classification of respondents.

Options	No. Of Respondents	Percentage
Male	58	48.3
Female	62	51.7

Source: primary data

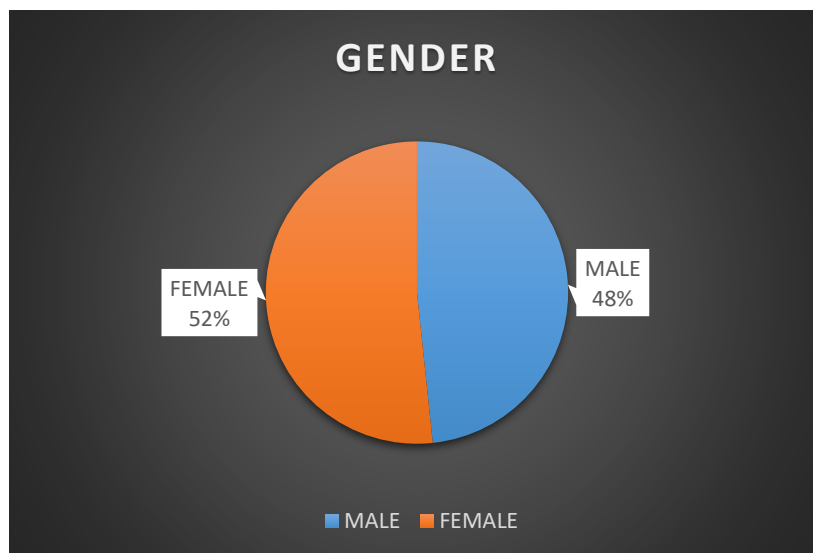


CHART 4.1.1: Showing Gender wise classification of respondents.

INTERPRETATION:

From the above table and chart it is understood that 52% of the respondents are female and 48% of the respondents are male and further it is concluded that majority (52%) of the respondents are female.

TABLE 4.1.2: Showing age wise classification of respondents

Options	No. Of Respondents	Percentage
Below 20	8	6.7
21 to 30	62	51.7
31 to 40	27	22.5
41 to 50	16	13.3
More than 50	7	5.8

Source: primary data

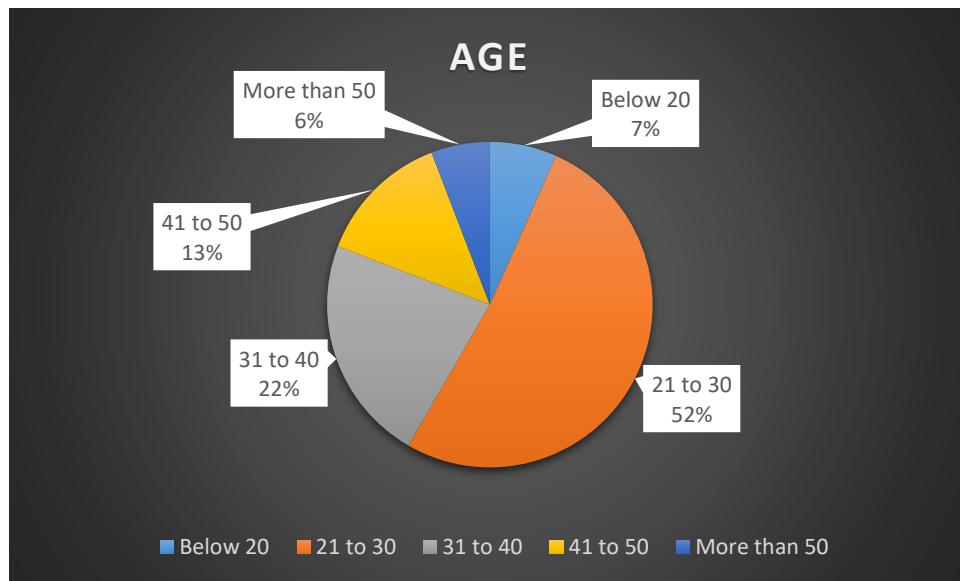


CHART 4.1.2: Showing age wise classification of respondents

INTERPRETATION:

From the above table and chart it is understood that it is understood that 7% of the respondents are aged below 20, 52% of the respondents are aged from 21 to 30, 22% of the respondents are aged from 31 to 40, 13% of the respondents are aged from 41 to 50, 6% of the respondents are aged above 50 and further it is concluded that majority (52%) of the respondents are aged from 21 to 30.

TABLE 4.1.3: Showing marital status wise classification of respondents:

Options	No. Of Respondents	Percentage
Married	64	53.3
Unmarried	56	46.7

Source: primary data

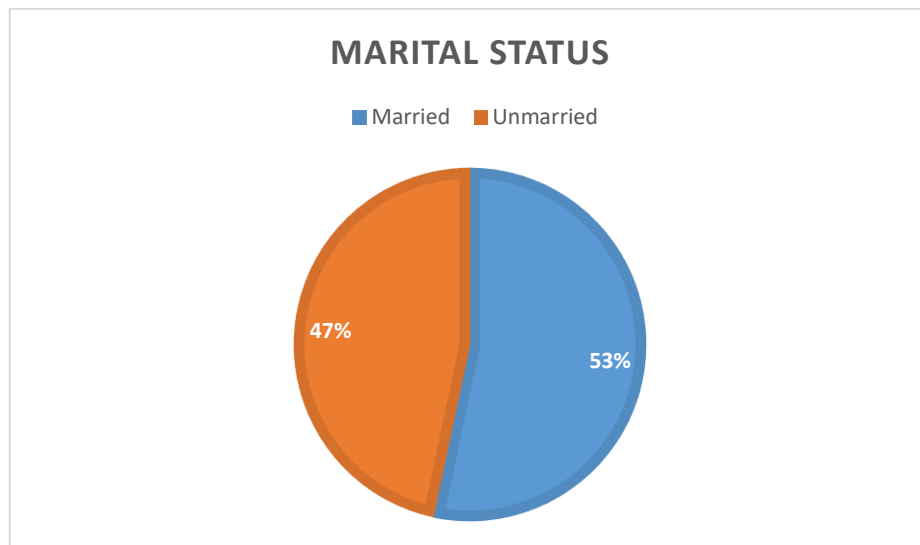


CHART 4.1.3: Showing marital status wise classification of respondents:

INTERPETATION:

From the above table and chart it is understood that 53% of the respondents are married, 47% of the respondents are unmarried and further it is concluded that it is concluded that majority (53%) are married.

TABLE 4.1.4: Showing occupation wise classification of respondents.

Options	No. Of Respondents	Percentage
Public sector	15	12.5
Private sector	37	30.8
Self employed	46	38.8
Others	22	18.3

Source: primary data

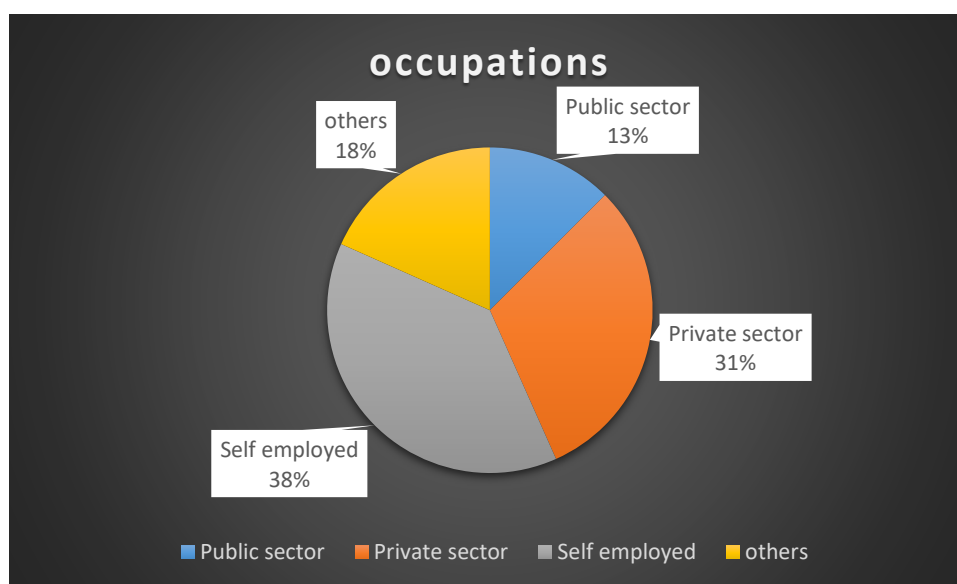


CHART 4.1.4: Showing occupation wise classification of respondents.

INTERPRETATION:

From the above table or chart it is understood that 13% of the respondents are working in public sector, 31% of the respondents are working in private sector, 38% of the respondents are self-employed, 18% of the respondents are others (students, unemployed, etc...) and further it is concluded that majority (38%) are self-employed.

TABLE 4.1.5: Showing family type wise classification of respondents

Option	No. Of Respondents	Percentage
Nuclear family	51	42.5
Joint family	69	57.5

Source: primary data

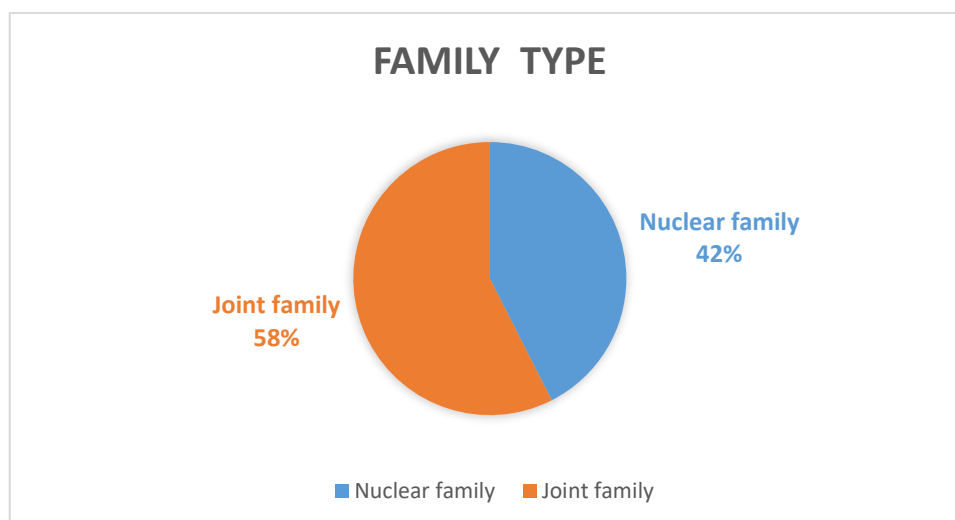


CHART 4.1.5: Showing family type wise classification of respondents

INTERPRETATION:

From the above table or chart it is understood that 42.7% of the respondents are nuclear family, 57.5% of the respondents are Joint family and further it is concluded that majority (57.5%) are joint family.

TABLE 4.1.6: Showing No. of family member wise classification of respondents

Options	No. Of Respondents	Percentage
Upto 4 (small size)	21	17.5
5 – 6 (medium size)	61	50.8
More than 6 (large size)	38	31.7

Source: primary data

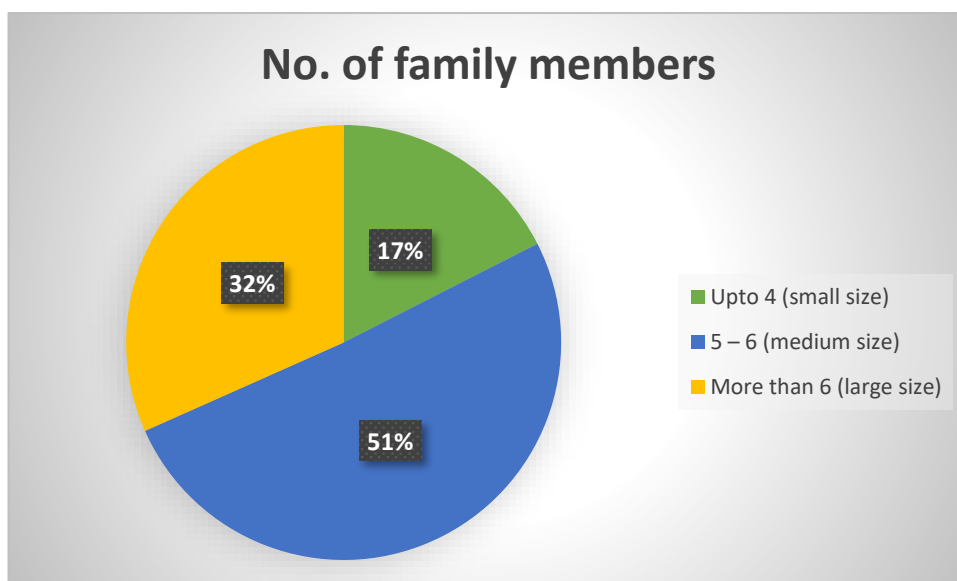


CHART 4.1.6: Showing No. of family member wise classification of respondents

INTERPRETATION:

From the above table or chart it is understood that 17.5% of the respondents are Upto 4 (small size), 50.8% of the respondents are 5 – 6 (medium size), 31.7% of the respondents are more than 6 (large size) and further it is concluded that majority (50.8%) are 5 – 6 (medium size).

TABLE 4.1.7: Showing No. of earning members in family wise classification of respondents

Options	No. Of Respondents	Percentage
Only one	9	7.5
Two	41	34.2
More than two	70	58.3

Source: primary data

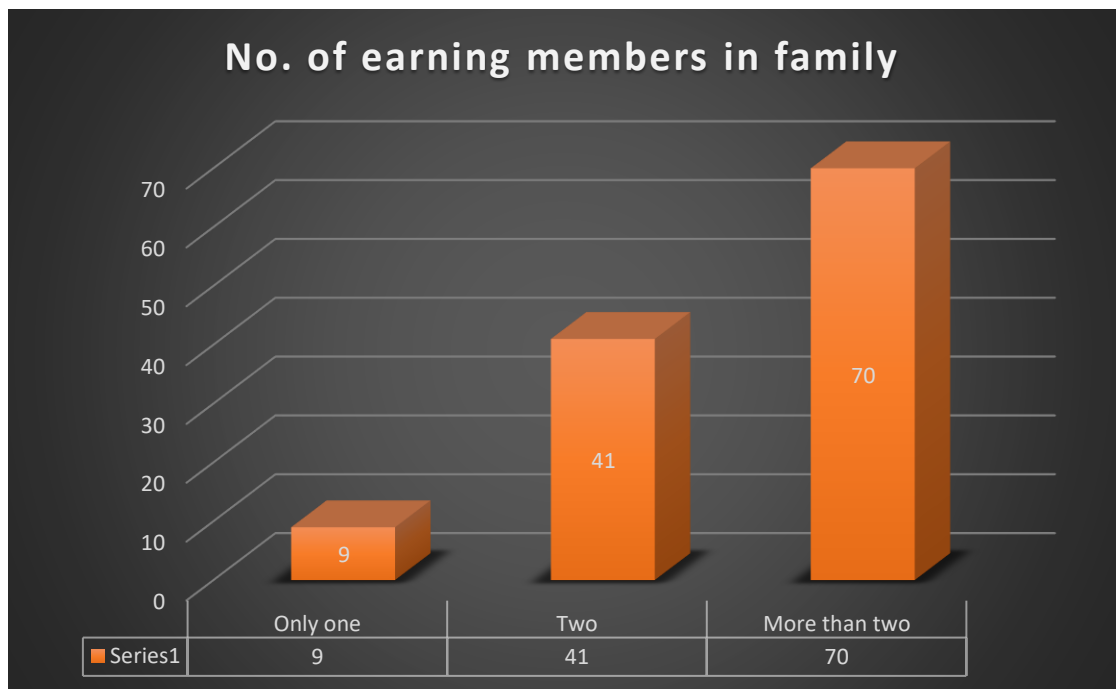


CHART 4.1.7: Showing No. of earning members in family wise classification of respondents

INTERPRETATION:

From the above table or chart it is understood that 7.5% of the respondents are only one, 34.2% of the respondents are two, 58.3% of the respondents are more than two and further it is concluded that majority (58.3%) are more than two.

TABLE 4.1.8: Showing monthly family income wise classification of respondents

Options	No. Of Respondents	percentage
Less than Rs.20,000	8	6.7
Rs.20,001 – 30,000	25	20.8
Rs.30,001 – 40,000	69	57.5
More than 40,000	18	15

Source: primary data

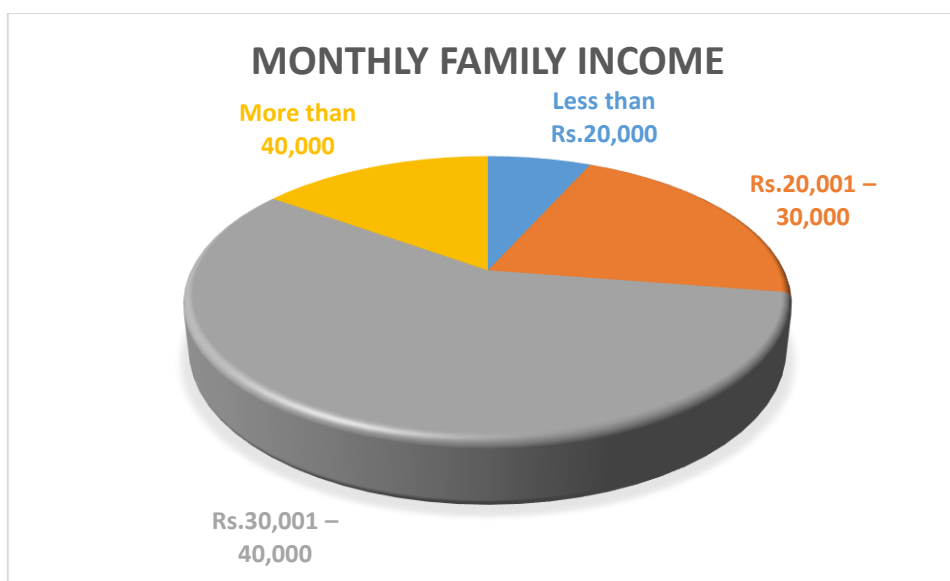


CHART 4.1.8: Showing monthly family income wise classification of respondents

INTERPRETATION:

From the above table or chart it is understood that 6.7% of the respondents are less than Rs.20,000, 20.8% of the respondents are Rs.20,0001 – 30,000, 57.5% of the respondents are Rs.30,001 – 40,000, 15% of the respondents are more than 40,000 and further it is concluded that majority (57.5%) are Rs.30,001 – 40,000.

TABLE 4.1.9: Showing place of residence wise classification of respondents

Option	No. Of Respondents	Percentage
Urban	59	49.2
Rural	61	50.8

Source: primary data

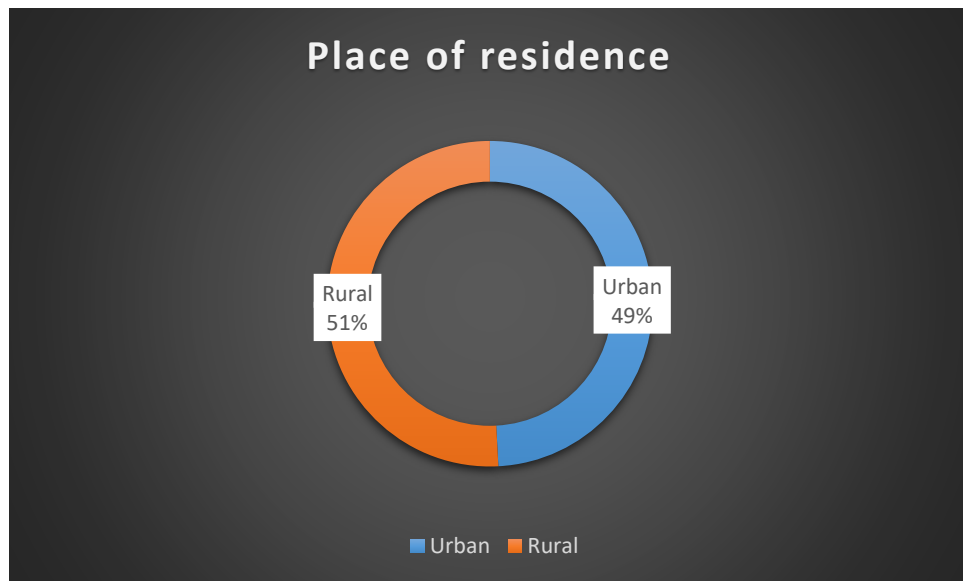


CHART 4.1.9: Showing place of residence wise classification of respondents

INTERPRETATION:

From the above table or chart it is understood that 49.2% of the respondents are urban, 50.8% of the respondents are rural and further it is concluded that majority (50.8%) are rural.

TABLE 4.1.10: Showing priority towards organic food products wise classification of respondents

Options	No. Of Respondents	Percentage
Brand	23	19.2
Price	57	47.5
Product differentiation	40	33.3

Source: primary data

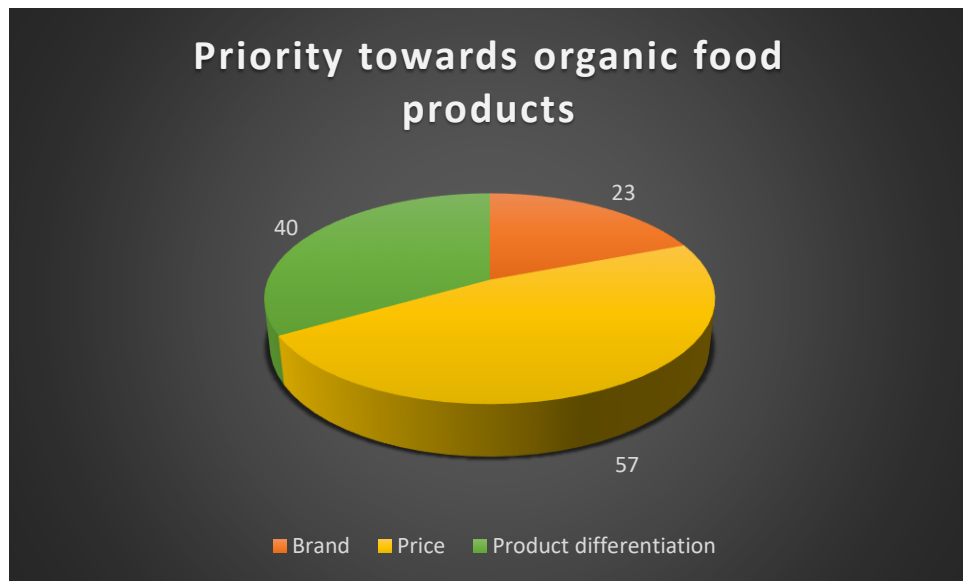


CHART 4.1.10: Showing priority towards organic food products wise classification of respondents

INTERPRETATION:

From the above table or chart it is understood that 19.2% of the respondents are brand, 47.5% of the respondents are price, 33.3% of the respondents are product differentiation and further it is concluded that majority (47.5%) are price.

TABLE 4.1.11: Showing to buy organic vegetables from wise classification of respondents

Options	No. Of Respondents	Percentage
Supermarket/ Retail market	39	32.5
Specific Organic store	81	67.5

Source: primary data

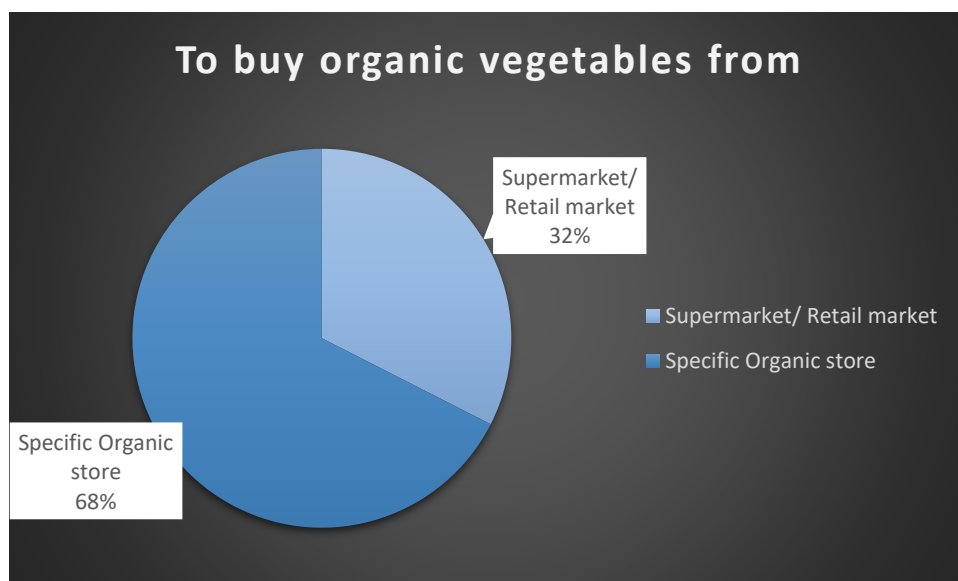


CHART 4.1.11: Showing to buy organic vegetables from wise classification of respondents

INTERPRETATION:

From the above table or chart it is understood that 32.5% of the respondents are supermarket/ retail market, 67.5% of the respondents are organic store and further it is concluded that majority (67.5%) are specific organic store.

TABLE 4.1.12: Showing how often you purchase organic vegetables wise classification of respondents

Options	No. Of Respondents	Percentage
Every week	18	15
Once in 15 days	52	43.3
More than 15 days	50	41.7

Source: primary data

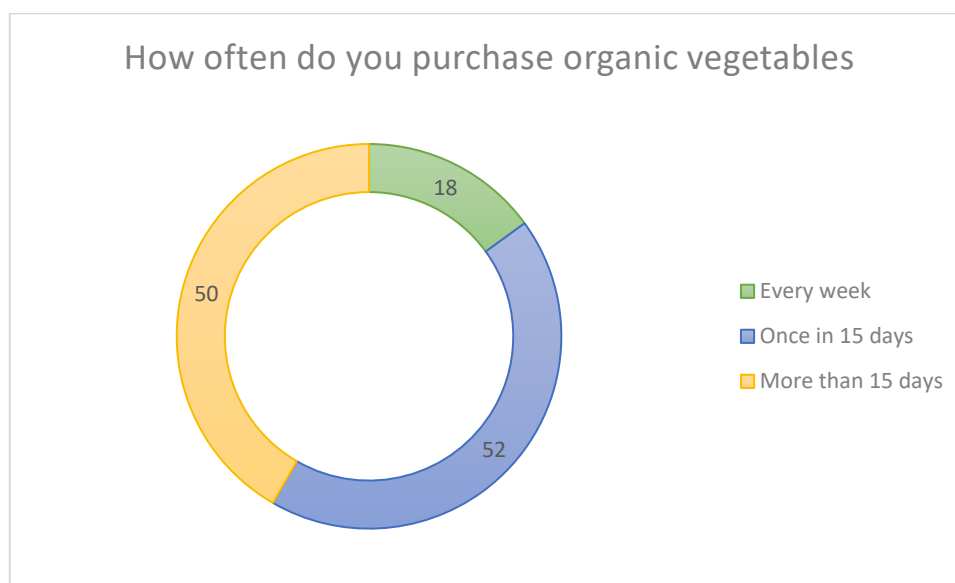


TABLE 4.1.12: Showing how often you purchase organic vegetables wise classification of respondents

INTERPRETATION:

From the above table or chart it is understood that 15% of the respondents are every week, 43.3% of the respondents are once in 15 days, 41.7% of the respondents are more than 15 days and it is concluded that majority (43.3%) are once in 15 days.

TABLE 4.1.13: Showing budget for purchase of organic vegetables wise classification of respondents

Options	No. Of Respondents	Percentage
Upto Rs.1,000	17	14.2
Rs.1,001-3,000	49	40.8
More than 3,000	54	50

Source: primary data

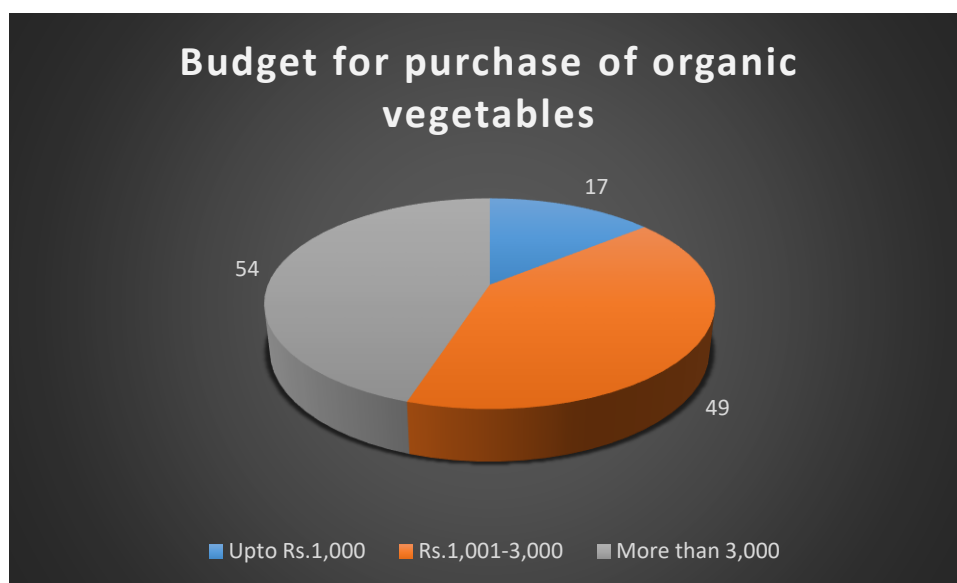


CHART 4.1.13: Showing budget for purchase of organic vegetables wise classification of respondents

INTERPRETATION:

From the above table or chart it is understood that 14.2% of the respondents are Upto Rs.1,000, 40.8% of the respondents are Rs.1,001 – 3,000, 50% of the respondents are More than 3,000 and it is concluded that majority (50%) are more than 3,000.

TABLE 4.1.14: Showing series of organic vegetables attributes on how important they are wise classification of respondents

Options	1	2	3	4	5
Quality	4.20%	5.90%	18.30%	33.30%	38.30%
Price	2.50%	7.50%	37.00%	33.00%	20%
Availability	2.50%	13.33%	26.66%	25.80%	32%
Absence of pesticide residue	5%	15%	27.50%	30.83%	21.66%
Produced in an environmentally friendly way	7.50%	7.50%	20.83%	35%	29.16%

Source: primary data

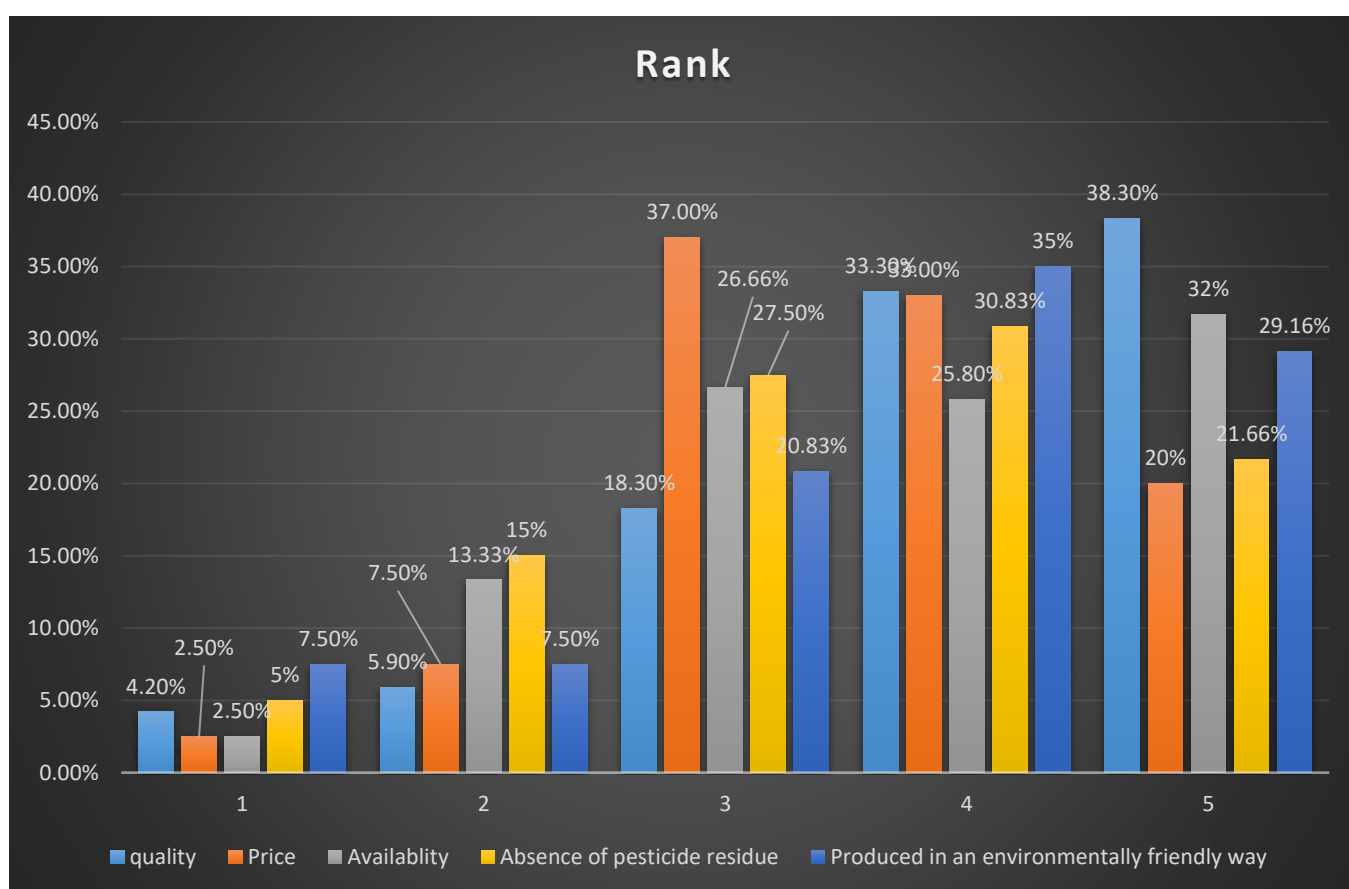


CHART 4.1.14: Showing series of organic vegetables attributes on how important they are wise classification of respondents

INTERPRETATION:

From the above table or chart it is understood that majority of the respondents are (38.30%) 5 rating for quality, (37.00%) 3 rating for price, (26.66%) 3 rating for availability, (30.83%) 4 rating for absence of pesticide residue, (29.16%) 5 rating for produced in an environmentally friendly way.

TABLE 4.1.15: Showing perception towards organic vegetables based on quality wise classification of respondents

Towards organic vegetables based on quality					
Options	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Organic vegetables have more nutrients than conventional vegetables	31.66%	35.00%	22.50%	9.17%	1.67%
Organic vegetables are tastier than conventional vegetables.	31.66%	32.50%	22.50%	9.17%	4%
Organic vegetables are less chemical residue than conventional vegetables	30.00%	37.50%	26.67%	3.33%	3%

Source: primary data

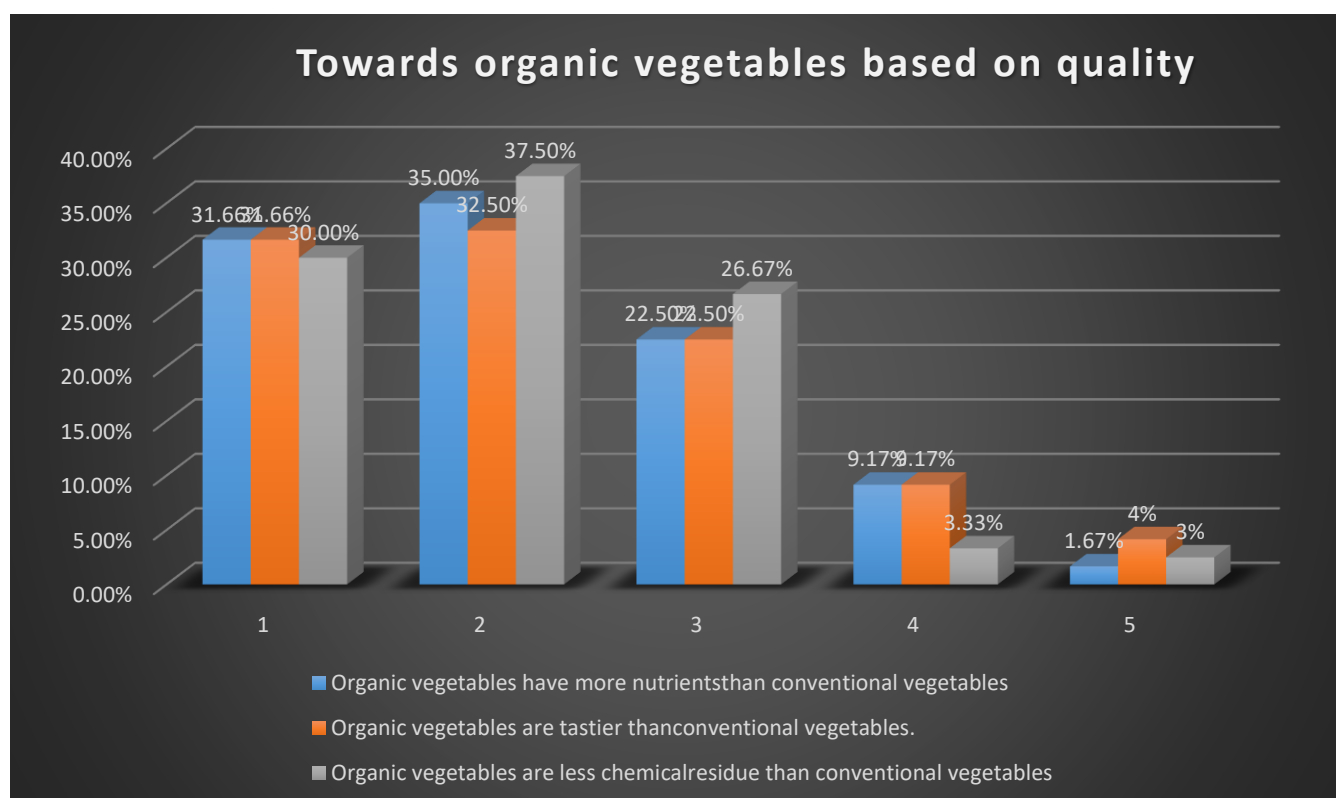


CHART 4.1.15: Showing perception towards organic vegetables based on quality wise classification of respondents

INTERPRETATION:

From the above table or chart it is understood that majority of the respondents are (35%) Agree rating for organic vegetables have more nutrients than conventional vegetables, (32.50%) Agree rating for Organic vegetables are tastier than conventional vegetables, (37.50%) Agree rating for Organic vegetables are less chemical residue than conventional vegetables.

TABLE 4.1.16: Showing price perceptions wise classification of respondents

Towards organic vegetables based on Price perceptions					
Options	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Organic vegetables is too expensive.	19.20%	39.17%	28.30%	7.50%	5.83%
Only customer with higher income can afford organic food	35.00%	25.00%	25.00%	10.84%	4%
Organic vegetables is beyond my budget	25.00%	35.83%	28.33%	8.33%	3%

Source: primary data

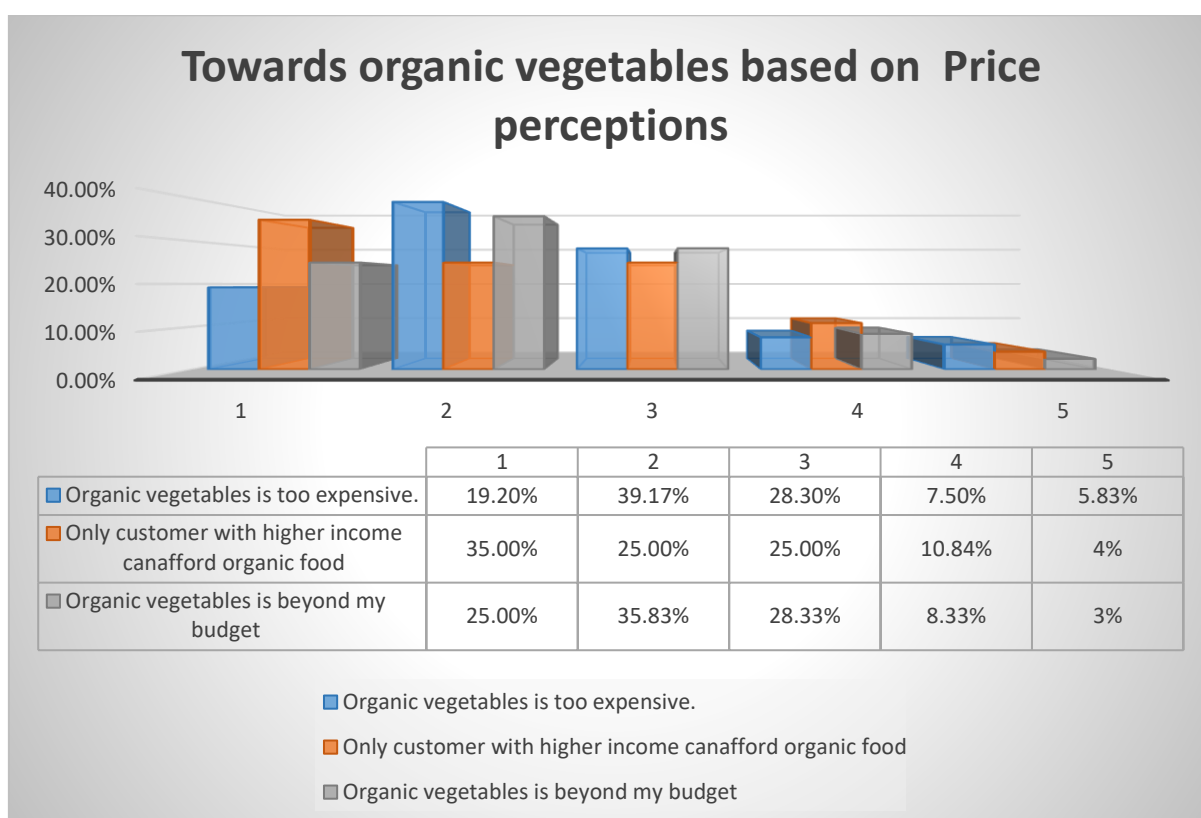


CHART 4.1.16: Showing price perceptions wise classification of respondents

INTERPRETATION:

From the above table or chart it is understood that majority of the respondents are (39.17%) Agree rating for organic vegetables is too expensive, (35%) Strongly agree rating for only customer with higher income can afford organic food, (35.83%) Agree rating for Organic vegetables is beyond my budget.

TABLE 4.1.17: Showing health benefits wise classification of respondents

Towards organic vegetables based on Health benefits					
Options	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Organic vegetables have more vitamins and minerals.	32.50%	37.50%	22.50%	4.17%	3.33%
Growing food organically and naturally is good for health.	28.33%	20.00%	41.67%	7.50%	3%
Organic vegetables are healthier than conventional food because it is produced without preservatives or artificial colour.	28.33%	47.50%	16.67%	5.83%	2%
Choosing organic vegetables are good to ensure our health.	33.33%	27.50%	22.50%	10.83%	5.84%

Source: primary data

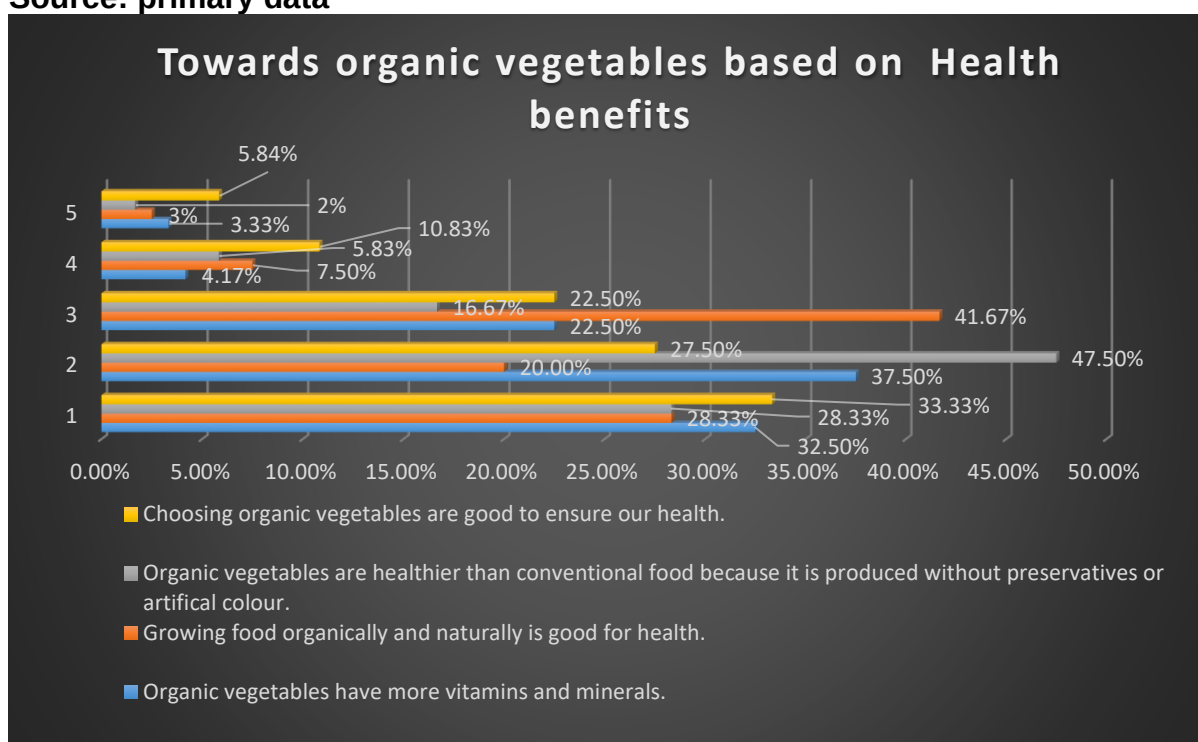


CHART 4.1.17: Showing health benefits wise classification of respondents

INTERPRETATION:

From the above table or chart it is understood that majority of the respondents are (37.50%) Agree rating for organic vegetables have more vitamins and minerals, (41.67%) Neutral rating for growing food organically and naturally is good for health, (47.50%) Agree rating for organic vegetables are healthier than conventional food because it is produced without preservatives or artificial colour, (33.33%) Strongly agree rating for choosing organic vegetables are good to ensure our health.

TABLE 4.1.18: Showing environmental benefits wise classification of respondents

Towards organic vegetables based on Environment benefits					
Options	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Organic farming is friendliness to the environment.	30.00%	41.67%	17.50%	5.00%	5.83%
Organic farming can prevent the contamination and pollution of soil, air, water, and food supply.	31.67%	20.00%	35.83%	7.50%	5%
Organic farming uses less energy.	24.16%	43.34%	20.00%	7.50%	5%
Organic farming protect the environment because it does not carry any harmful synthetic chemical pesticides and fertilizers.	22.50%	35.00%	29.16%	10.00%	3.34%

Source: primary data

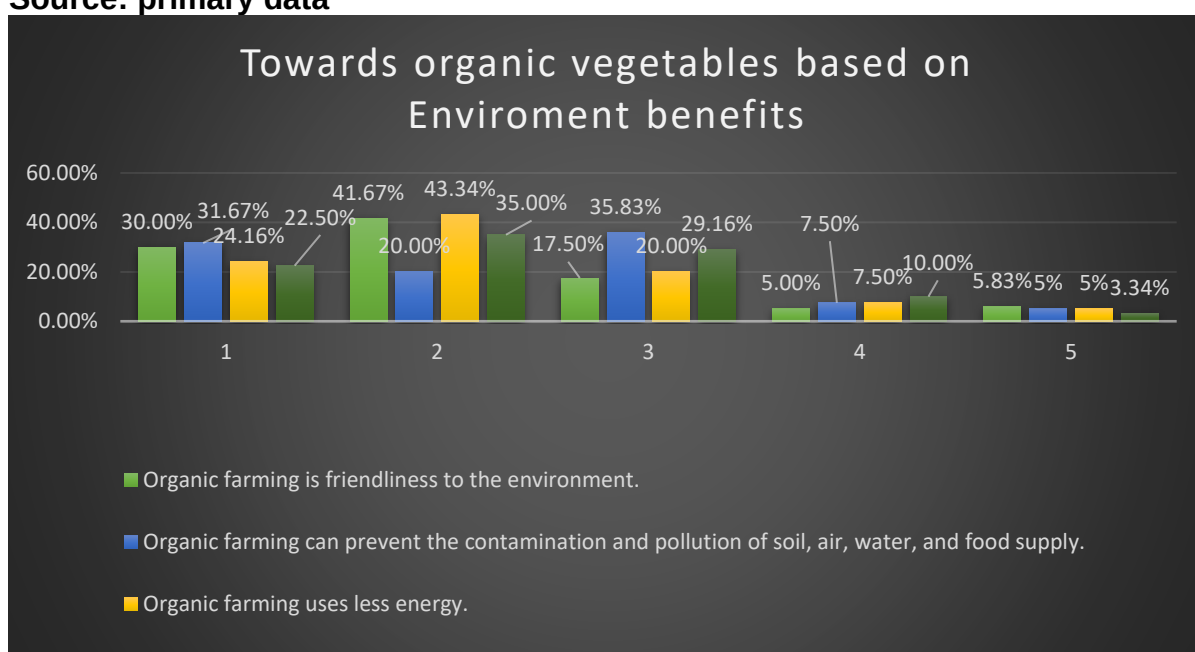


CHART 4.1.18: Showing environmental benefits wise classification of respondents

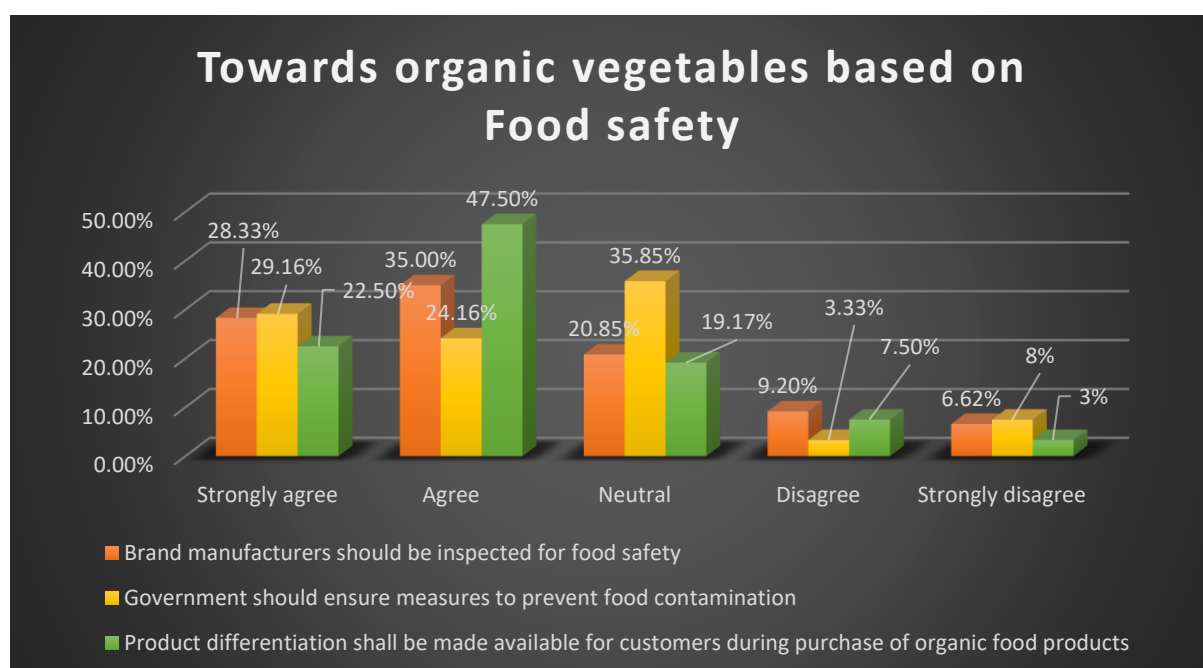
INTERPRETATION:

From the above table or chart it is understood that majority of the respondents are (41.67%) Agree rating for organic farming is friendliness to the environment, (35.83%) Neutral rating for Organic farming can prevent the contamination and pollution of soil, air, water, and food supply, (43.34%) Agree rating for Organic farming uses less energy, (35%) Agree rating for Organic farming protect the environment because it does not carry any harmful synthetic chemical pesticides and fertilizers.

TABLE 4.1.19: Showing Food safety wise classification of respondents

Towards organic vegetables based on Food safety					
Options	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Brand manufacturers should be inspected for food safety	28.33%	35.00%	20.85%	9.20%	6.62%
Government should ensure measures to prevent food contamination	29.16%	24.16%	35.85%	3.33%	8%
Product differentiation shall be made available for customers during purchase of organic food products	22.50%	47.50%	19.17%	7.50%	3%

Source: primary data

**CHART 4.1.19: Showing Food safety wise classification of respondents**

INTERPRETATION:

From the above table or chart it is understood that majority of the respondents are (35%) Agree rating for brand manufacturers should be inspected for food safety, (35.85%) Neutral rating for Government should ensure measures to prevent food contamination, (47.50%) Agree rating for Product differentiation shall be made available for customers during purchase of organic food products.

TABLE 4.1.20: Showing Perceived behavioural control wise classification of respondents

Towards organic vegetables based on Perceived behavioural control					
Options	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
For me, buying organic vegetables would be possible	25.00%	38.33%	23.33%	6.60%	6.67%
If I wanted to, I could easily buy organic vegetables	33.33%	25.00%	34.16%	4.18%	3%
I believe that I have the resources and ability to buy organic food product	31.67%	39.16%	18.33%	5.00%	6%

Source: primary data

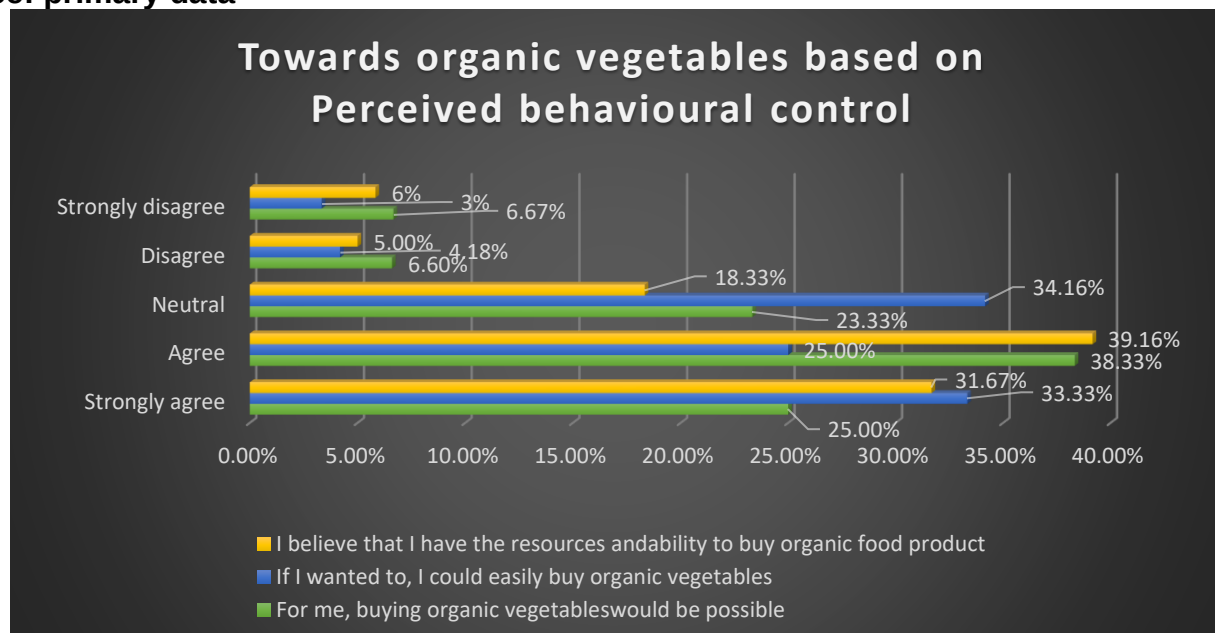


CHART 4.1.20: Showing Perceived behavioural control wise classification of respondents

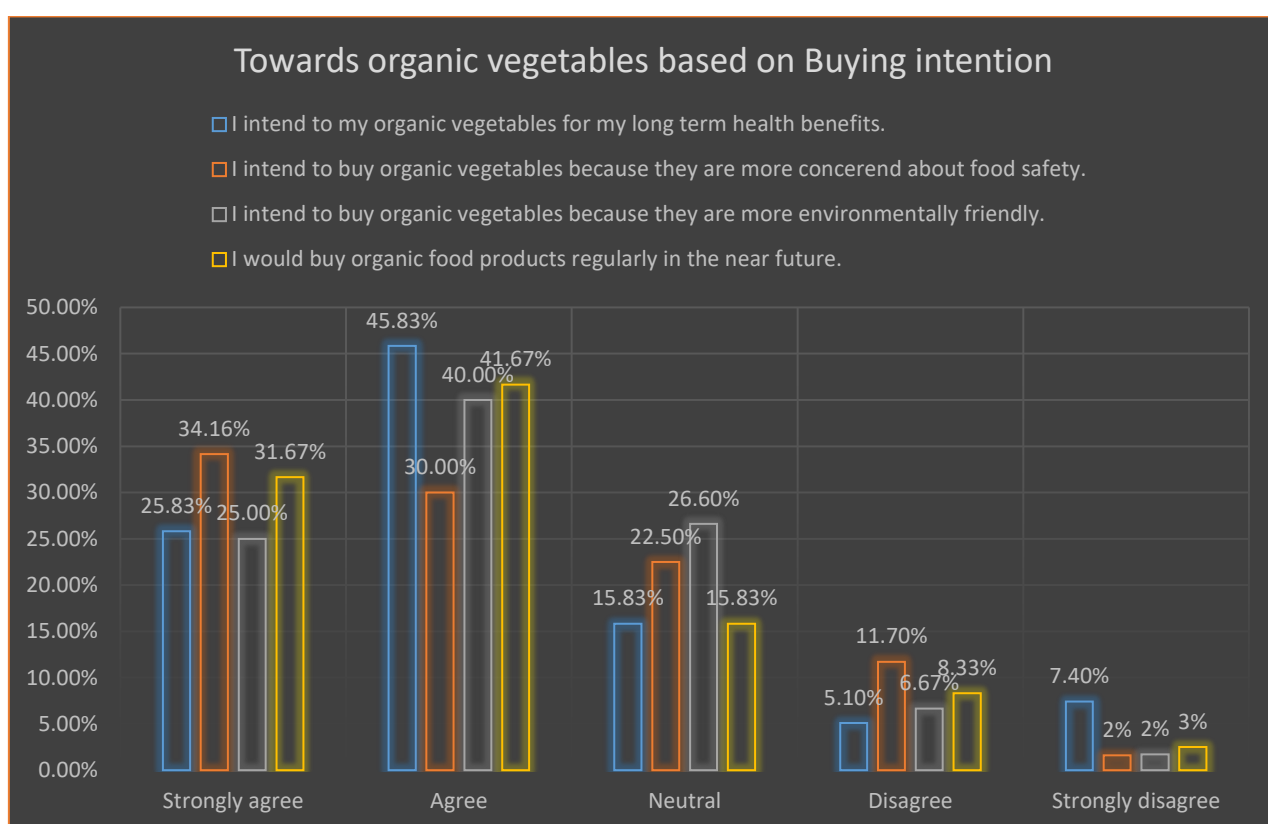
INTERPRETATION:

From the above table or chart it is understood that majority of the respondents are (38.33%) Agree rating for buying organic vegetables would be possible, (34.16%) Neutral rating for if I wanted to, I could easily buy organic vegetables, (39.16%) Agree rating for I believe that I have the resources and ability to buy organic food product.

TABLE 4.1.21: Showing buying intention wise classification of respondents

Towards organic vegetables based on Buying intention					
Options	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
I intend to my organic vegetables for my long term health benefits.	25.83%	45.83%	15.83%	5.10%	7.40%
I intend to buy organic vegetables because they are more concerned about food safety.	34.16%	30.00%	22.50%	11.70%	2%
I intend to buy organic vegetables because they are more environmentally friendly.	25.00%	40.00%	26.60%	6.67%	2%
I would buy organic food products regularly in the near future.	31.67%	41.67%	15.83%	8.33%	3%

Source: primary data

**CHART 4.1.21: Showing buying intention wise classification of respondents**

INTERPRETATION:

From the above table or chart it is understood that majority of the respondents are (45%) Agree rating for I intend to my organic vegetables for my long term health benefits, (34.16%) Strongly agree rating for I intend to buy organic vegetables because they are more concerned about food safety, (40%) Agree rating for I intend to buy organic vegetables because they are more environmentally friendly, (41.67%) Agree rating for I would buy organic food products regularly in the near future.

TABLE 4.1.22: Showing Actual purchase behaviour wise classification of respondents

Towards organic vegetables based on Actual purchase behaviour					
Options	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
I buy organic vegetables because they are reasonable on price	23.33%	37.50%	24.16%	10.84%	4.17%
I often buy organic vegetables on the regular basis	30.83%	31.67%	25.83%	9.17%	3%
I buy organic vegetables because they are safe to consume and good for health	25.82%	31.67%	26.67%	12.50%	3%
I often buy organic vegetables because they are more environmentally friendly.	34.17%	33.30%	15.00%	10.00%	8%

Source: primary data

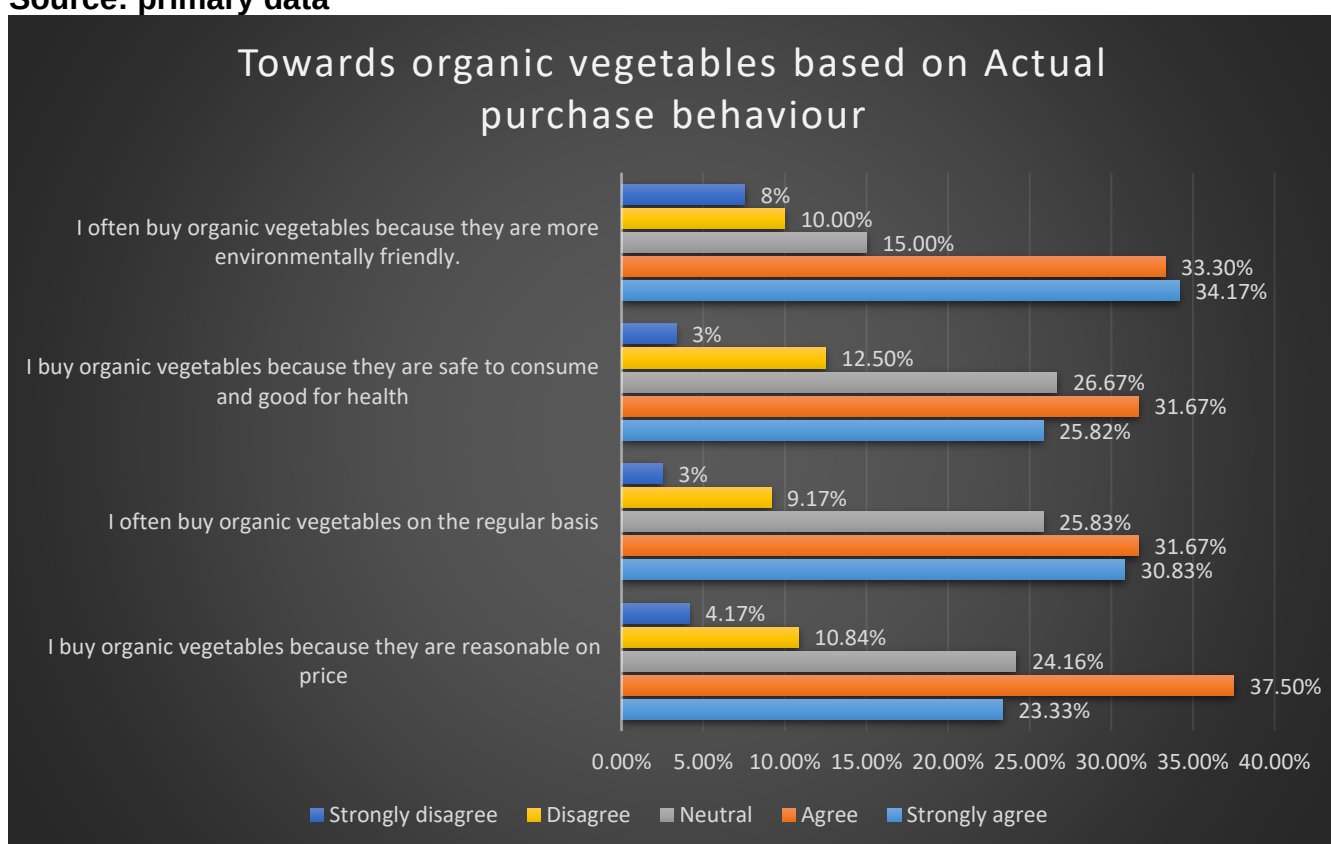


CHART 4.1.22: Showing Actual purchase behaviour wise classification of respondents

INTERPRETATION:

From the above table or chart it is understood that majority of the respondents are (37.50%) Agree rating for I buy organic vegetables because they are reasonable on price, (31.67%) Agree rating for I often buy organic vegetables on the regular basis, (31.67%) Agree rating for I buy organic vegetables because they are safe to consume and good for health, (34.17%) Strongly agree rating for I often buy organic vegetables because they are more environmentally friendly.

4.2 CORRELATION:

Table 4.2.1: Showing Descriptive Statistics of series of organic vegetables quality and what your priority towards organic food products is

Descriptive Statistics			
	Mean	Std. Deviation	N
Please rank the series of organic vegetables quality	3.96	1.088	120
What is your priority towards organic food products	2.15	0.718	120

Table 4.2.2: Showing Correlations of series of organic vegetables quality and what your priority towards organic food products is

Correlations			
		Please rank the series of organic vegetables quality	What is your priority towards organic food products
Please rank the series of organic vegetables quality	Pearson Correlation	1	.202*
	Sig. (2-tailed)		0.027
	N	120	120
What is your priority towards organic food products	Pearson Correlation	.202*	1
	Sig. (2-tailed)	0.027	
	N	120	120
*. Correlation is significant at the 0.05 level (2-tailed).			

INFERENCE:

The p-value is 0.027 which is lesser than the alpha value (0.05), hence alternate hypothesis (H1) is accepted. Therefore, there is a significant difference between series of organic vegetables quality and what your priority towards organic food products is.

Table 4.2.3 showing Descriptive Statistics of Organic vegetables attributes absence pesticide and more nutrients than conventional vegetables

Descriptive Statistics			
	Mean	Std. Deviation	N
Organic vegetables attributes absence pesticide	3.5	1.145	120
More nutrients than conventional vegetables	2.57	1.308	120

Table 4.2.4 showing Correlations of Organic vegetables attributes absence pesticide and more nutrients than conventional vegetables

Correlations			
		Organic vegetables attributes absence pesticide	More nutrients than conventional vegetables
Organic vegetables attributes absence pesticide	Pearson Correlation	1	.202*
	Sig. (2-tailed)		0.027
	N	120	120
More nutrients than conventional vegetables	Pearson Correlation	.202*	1
	Sig. (2-tailed)	0.027	
	N	120	120
*. Correlation is significant at the 0.05 level (2-tailed).			

INFERENCE:

The p-value is 0.027 which is lesser than the alpha value (0.05), hence alternate hypothesis (H1) is accepted. Therefore, there is a significant difference between Organic vegetables attributes absence pesticide and more nutrients than conventional vegetables.

Table 4.2.5 showing Descriptive Statistics of more nutrients than conventional vegetables and Tastier than conventional vegetables

Descriptive Statistics			
	Mean	Std. Deviation	N
More nutrients than conventional vegetables	2.57	1.308	120
Tastier than conventional vegetables	2.68	1.328	120

Table 4.2.6 showing Correlations of more nutrients than conventional vegetables and Tastier than conventional vegetables

Correlations			
		More nutrients than conventional vegetables	Tastier than conventional vegetables
More nutrients than conventional vegetables	Pearson Correlation	1	-.230*
	Sig. (2-tailed)		0.012
	N	120	120
Tastier than conventional vegetables	Pearson Correlation	-.230*	1
	Sig. (2-tailed)	0.012	
	N	120	120
*. Correlation is significant at the 0.05 level (2-tailed).			

INFERENCE:

The p-value is 0.012 which is lesser than the alpha value (0.05), hence alternate hypothesis (H1) is accepted. Therefore, there is a significant difference between more nutrients than conventional vegetables and Tastier than conventional vegetables.

4.3 ANOVA:

Table 4.3.1 showing Descriptive of more nutrients than more nutrients than conventional vegetables and how often do you purchase organic vegetables

Descriptives								
How often do you purchase organic vegetables								
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
1	3	2	1	0.577	-0.48	4.48	1	3
2	16	2.44	0.629	0.157	2.1	2.77	1	3
3	32	2.31	0.738	0.13	2.05	2.58	1	3
4	31	1.97	0.706	0.127	1.71	2.23	1	3
5	38	2.47	0.647	0.105	2.26	2.69	1	3
Total	120	2.28	0.712	0.065	2.15	2.41	1	3

Table 4.3.2 showing ANOVA of more nutrients than more nutrients than conventional vegetables and how often do you purchase organic vegetables

ANOVA					
How often do you purchase organic vegetables					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	5.113	4	1.278	2.66	0.036
Within Groups	55.254	115	0.48		
Total	60.367	119			

INFERENCE:

The p-value is 0.036 which is lesser than the alpha value (0.05), hence alternate hypothesis (H1) is accepted. Therefore, there is a significant difference between more nutrients than more nutrients than conventional vegetables and how often do you purchase organic vegetables.

CHAPTER – 5

5.1 FINDINGS:

- The majority of the respondents (52%) are female.
- Majority of the respondents (51.7%) under the age category of 21 – 30 years.
- Most of the respondents (53.3%) fall under the Married category.
- It is found that (38%) of respondents are occupation is self-employed.
- Majority of the respondents are (58%) were joint family.
- Majority of the respondents (50.8%) are 5 – 6 (medium size) of their family size.
- Majority of the respondents (58.3%) earning of their family is more than two persons in each family.
- It is found that (57.5%) of respondents getting Rs.30,001 – 40,000 money per month.
- Majority of the respondents (51%) are living in rural place.
- It is found that (47.5%) respondents were price is the first priority towards organic food products.
- Most of the respondents (67.5%) are buy the organic products in specific organic store.
- Most of the respondents (43.3%) buys organic food products once in 15 days.
- It is found that (50%) of respondents are spend money more than 3,000 for organic food.
- It is found that majority of the respondents for attributes how important they are (38.30%) 5 rating for quality, (37.00%) 3 rating for price, (26.66%) 3 rating for availability, (30.83%) 4 rating for absence of pesticide residue, (29.16%) 5 rating for produced in an environmentally friendly way.

- Majority of the respondents for based on quality are (35%) Agree rating for organic vegetables have more nutrients than conventional vegetables, (32.50%) Agree rating for Organic vegetables are tastier than conventional vegetables, (37.50%) Agree rating for Organic vegetables are less chemical residue than conventional vegetables.
- Majority of the respondents for price perceptions are (39.17%) Agree rating for organic vegetables is too expensive, (35%) Strongly agree rating for only customer with higher income can afford organic food, (35.83%) Agree rating for Organic vegetables is beyond my budget.
- Majority of the respondents for health benefits are (37.50%) Agree rating for organic vegetables have more vitamins and minerals, (41.67%) Neutral rating for growing food organically and naturally is good for health, (47.50%) Agree rating for organic vegetables are healthier than conventional food because it is produced without preservatives or artificial colour, (33.33%) Strongly agree rating for choosing organic vegetables are good to ensure our health.
- Majority of the respondents (41.67%) Agree rating for organic farming is friendliness to the environment, (35.83%) Neutral rating for Organic farming can prevent the contamination and pollution of soil, air, water, and food supply, (43.34%) Agree rating for Organic farming uses less energy, (35%) Agree rating for Organic farming protect the environment because it does not carry any harmful synthetic chemical pesticides and fertilizers.
- It is found that respondents for food safety are (35%) Agree rating for brand manufacturers should be inspected for food safety, (35.85%) Neutral rating for Government should ensure measures to prevent food contamination, (47.50%) Agree rating for Product differentiation shall be made available for customers during purchase of organic food products.

- Majority of the respondents for buying intention are (45%) Agree rating for I intend to my organic vegetables for my long term health benefits, (34.16%) Strongly agree rating for I intend to buy organic vegetables because they are more concerned about food safety, (40%) Agree rating for I intend to buy organic vegetables because they are more environmentally friendly, (41.67%) Agree rating for I would buy organic food products regularly in the near future.
- It is found that respondents for purchase behaviour are (37.50%) Agree rating for I buy organic vegetables because they are reasonable on price, (31.67%) Agree rating for I often buy organic vegetables on the regular basis, (31.67%) Agree rating for I buy organic vegetables because they are safe to consume and good for health, (34.17%) Strongly agree rating for I often buy organic vegetables because they are more environmentally friendly.

5.2 SUGGESTIONS

- Most of the customers are buying organic vegetables based on quality. So, providing quality vegetables are important to satisfy the customer.
- Price is expensive for organic vegetables compared to conventional vegetables. Decreasing the price for organic products may be easy to buy them for all types of customers.
- Health is the common factor that customers look on organic vegetables. So, always providing healthy organic products gives satisfaction to customer.
- Customers believe that organic vegetables and other organic products are environmentally friendly and good to use daily for their health benefits. Maintaining the organic farms environmentally friendly and avoiding harmful pesticides is good for organic farmers.
- Customer also believes that using of organic vegetables for their long term health benefits. So, providing chemical free, pollution free, additional health benefits on reasonable price to customers is necessary.

5.3 CONCLUSION

- This study found that customers buy organic vegetables based on the quality and health. So, providing Customers healthy organic food products with no harmful pesticides is necessary. With all the suggestions listed above marketers could come up very well and could sustain in the longer run without much difficulties.

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APPENDIX-I (QUESTIONNAIRE)

DEMOGRAPHIC VARIABLES

Name (optional):_____

- 1) Please indicate your gender (tick one)
 - A. Male
 - B. Female
- 2) Please indicate your age group: (tick one)
 - A. Below 20 years
 - B. 21 to 30 years
 - C. 31 to 40 years
 - D. 41 to 50 years
 - E. More than 50 years
- 3) What is your marital status?
 - A. Married
 - B. Unmarried
- 4) Please specify the highest level of education you have completed:
(tick one)
 - A. Upto School Level (SSLC / H.Sc.)
 - B. Graduation (UG / PG / M.Phil.)
 - C. Professionals (Dr. / Ph.D., / CA / CMA, ACS)
 - D. Others (Technical Education, etc.)

5) What is your occupation?

- A. Public Sector
- B. Private Sector
- C. Self Employed
- D. Others (Unemployed / Student / Home maker / Retired, etc.)

6) Type of family?

- A. Nuclear Family
- B. Joint Family

7) Number of family members?

- A. Upto 4 (Small Size)
- B. 5 to 6 (Medium Size)
- C. More than 6 (Large Size)

8) Number of earning members?

- A. Only one
- B. Two
- C. More than two

9) What is your monthly family income?

- A. Less than Rs.20,000
- B. Rs.20,001-Rs.30,000
- C. Rs.30,001-Rs.40,000
- D. More than Rs.40,000

10) Please mention your place of residence?

- A. Urban
- B. Sub-Urban
- C. Rural

PURCHASE DECISIONS

11) What is your priority during organic food purchase?

- A. Brand Name
- B. Price
- C. Product differentiation

12) Where would you prefer to buy organic vegetables from?

- A. Supermarket / Retail Market
- B. Specific Organic Store

13) How often do you purchase organic vegetables products?

- A. Every week
- B. Once in 15 days
- C. More than 15 days

14) What is your budget for purchase of organic vegetables?

- A. Upto Rs.1000
- B. Rs.1001 to Rs.3000
- C. More than Rs.3000

15) Please rank the series of organic vegetables

Attributes	Rank
Quality (e.g. freshness, colour, nutrition)	
Price	
Availability	
Absence of pesticide residue	
Produced in an environmentally friendly way	

16) Perception towards organic vegetables based on quality

STATEMENTS	S	A	A	N	DA	SDA
Organic vegetables have more nutrients than conventional vegetables.						
Organic vegetables are tastier than conventional vegetables.						
Organic vegetables are less chemical residue than conventional vegetables.						

17. Price perceptions

STATEMENTS	SA	A	N	DS	SDA
Organic food is too expensive.					
Only customers with higher income can afford organic food.					
Organic food is beyond my budget.					

18. Health benefits

STATEMENTS	SA	A	N	DS	SDA
Organic food products contain more vitamin and mineral.					
Growing food organically and naturally is better for health.					
Organic food products are healthier than conventional food because it produces without preservatives or artificial color.					
Choosing organic food products are good for ensure our health.					

19. Environmental benefits

STATEMENTS	SA	A	N	DS	SDA
Organic farming is friendliness to the environment.					
Organic farming can prevent the contamination and pollution of soil, air, water and food supply.					
Organic farming uses less energy.					
Organic farming can protect the environment because it does not carry any harmful synthetic chemical pesticides and fertilizers.					

20. Food safety

STATEMENTS	SA	A	N	DS	SDA
Brand manufacturers should be inspected for food safety.					
Government should ensure measures to prevent food contamination.					
Product differentiation shall be made available for customers during purchase of organic food.					

21. Perceived behavioural control

STATEMENTS	SA	A	N	DS	SDA
For me, buying organic food would be possible.					
If I wanted to, I could easily buy organic food.					
I believe that I have the resources and the ability to buy food.					

22. Buying intention

STATEMENTS	S A	A	N	D S	SDA
I intend to my organic vegetables for my long-term health benefits.					
I intend to buy organic vegetables because they are more concerned about food safety.					
I intend to buy organic vegetables because they are more environmentally friendly.					
I would buy organic food products regularly in the near future.					

23. Actual purchase behaviour

STATEMENTS	S A	A	N	D S	SDA
I buy organic vegetables because they are reasonable on price.					
I often buy organic vegetables on the regular basis.					
I buy organic vegetables because they are safe to consume and good for health.					
I often buy organic vegetables because they are more environmentally friendly.					

APPENDIX - II (ARTICLE)

A STUDY ON CUSTOMER BEHAVIOUR TOWARDS ORGANIC FOOD PRODUCTS IN CHENNAI

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ABSTRACT

This empirical research paper deal with an impact of demographic variable on customer behaviour towards organic food products in Chennai. This study throws light on how far the demographic variables such as age, gender, educational qualification, income, having an influence on customer preference towards buying of organic food products in Chennai. To identify the customer behaviour a set of questions were framed. The data were collected by using convenience sampling from 120 customers belong to Chennai city. Using SPSS, some of the relevant tests were carried out like, percentage analysis, Correlation, ANOVA. Based on the analysis made various finding were derived that will be useful, relevant and significant to determine the customer behaviour towards organic food products in Chennai.

Key Words: Customer behaviour, Demographic variable, durable goods – Organic food products.

INTRODUCTION

The term organic refers to an overall system of farm management and food production that aims at sustainable agriculture, high quality products and the use of processes that do not harm the environment, or human, plant or animal health and welfare.

The global demand for organic food products is growing at a very rapid rate. Ever since the environmentalists raised their concern regarding harmful effect of increasing use of chemicals in farming, the consumers are getting conscious and selective about edible products. This increasing awareness has caused shifts in consumers' tastes and preferences which have led to the domestic as well as global rise in demand for organic products.

In India, the farmers have followed the path for organic food production, but the share of India in the world organic market is less than one percent. In order to boost Indian agricultural products and capture significant share in global market, it is an imperative that India focuses on organic products which give it competitive edge in global market namely organic cotton, spices, essential oils, medicinal, aromatic plants, fresh fruits and vegetables. Organically grown foods are not to be confused with foods sold as 'natural'. In the United States of America (USA) for example, the term organic can be used for certified organic products, while the label 'all-natural' is a legally unregulated expression.

The substantial variability in the quality and design of studies that compare organic and conventional foodstuffs in terms of nutritional, human health and environmental aspects makes it virtually impossible to compare findings and is the main difficulty to providing a clear-cut answer to this question. The general view is that while the sustainable nature of organic farming is accepted and relatively well understood, the health and nutritional benefits of organic products are still widely debated. Studies show that organic foods have no significant difference in v C, magnesium, potassium, calcium, zinc and copper compared to conventional foods. By contrast, another study revealed 20% to 40% higher levels of antioxidants in organically grown crops, but it is still unclear whether antioxidants can improve human health.

The level of pesticide residues was found to be lower among produce but health and nutrition specialists stress that the endless debate on the benefits of organic produce is just a distraction from the real issue and more pressing concern at hand, which is that a majority of Europeans do not eat enough fruits and vegetables to reach the recommendations of the World Health Organization (WHO) of around 400g per day.

REVIEW OF LITERATURE:

- In green consumption, Chen and Chai (2010)²², Suggests that based on environment customers attitude is often in buying decision towards organic food products.
- Gotschi, E., Vogel, et al (2010)²³ the knowledge plays a main role to influence customers attitudes and behaviours to buy organic foods.
- Dagmar Kozelová, Martina Fikselová, et al (2013)¹², To find out the percent of organic buyers, shopping frequency and monthly expenditure for the same. This research involves 271 subjects based on Questionnaire survey.
- Basker, D. 1992. Comparison of taste quality between organically and conventionally grown fruits and vegetables. American Journal of Alternative Agriculture.
- Beharrell, B. and MacFie, J.H. 1991. Study based on consumer attitudes towards organic foods. British Food journal.
- Ekelund, L. 1990. Vegetable consumption and consumer attitudes towards organically grown vegetables – the case of Sweden. Acta Horticulture.

RESEARCH METHODOLOGY

Research methodology is a blueprint of methods and techniques used by researcher at different stages of research to accomplish the objectives of the study. A study without better planning may not provide desired results, so research methodology is imperative for achieving the required goals of the research. This chapter embraces research design, problem statement, research objectives, hypotheses, sample design, data collection instrument, statistical techniques, limitations and chapter plan of the study.

Research Design

Extant research is exploratory cum descriptive in nature. Exploratory research provides insight and understanding of the subject. It assists in identifying and defining the research problem, hypotheses development, designing data collection instrument, and formulation of objectives. Descriptive research is conclusive in nature and deals with analysis of data to examine the perception and purchase intention of sample units in this study.

SAMPLING TECHNIQUE

The study is a descriptive research based on survey method. The respondents were selected through convenience sampling.

SAMPLING AREA

The sampling has chosen an area **CHENNAI**.

SAMPLING SIZE

The researcher has a sample size of 120 respondents.

SAMPLING METHOD

- Primary data required was collected in the form of well-structured Questionnaire.
- Secondary data was collected through various journals, newspapers and websites.

SAMPLING TOOLS

- Percentage analysis
- Diagrammatic Representation

PERIOD OF STUDY

The researcher started the research work in the month of December 2020 to February 2021.

Tools used:

Data was analysed using statistical techniques such a correlation and ANOVA as per the requirement of data with the help of SPSS (Statistical Package for Social Science).

OBJECTIVES OF THE STUDY

- To study the role of customer demographics (age, gender, education, etc.) in buying organic food products in Chennai.
- To study the customers purchase decisions and buying behaviour of organic food products.
- To analyze the influence of social, cultural and behavioural factors on buying organic food products among the customers.
- To identify the customers attitude and buying intention towards organic food products.

CORRELATION:

Table showing Descriptive Statistics of series of organic vegetables quality and what your priority towards organic food products.

Descriptive Statistics			
	Mean	Std. Deviation	N
Please rank the series of organic vegetables quality	3.96	1.088	120
What is your priority towards organic food products	2.15	0.718	120

Table showing Correlations of series of organic vegetables quality and what your priority towards organic food products is

Correlations			
		Please rank the series of organic vegetables quality	What is your priority towards organic food products
Please rank the series of organic vegetables quality	Pearson Correlation	1	.202*
	Sig. (2-tailed)		0.027
	N	120	120
What is your priority towards organic food products	Pearson Correlation	.202*	1
	Sig. (2-tailed)	0.027	
	N	120	120
*. Correlation is significant at the 0.05 level (2-tailed).			

INFERENCE:

The p-value is 0.027 which is lesser than the alpha value (0.05), hence alternate hypothesis (H1) is accepted. Therefore, there is a significant difference between series of organic vegetables quality and what your priority towards organic food products.

Table showing Descriptive Statistics of Organic vegetables attributes absence pesticide and more nutrients than conventional vegetables

Descriptive Statistics			
	Mean	Std. Deviation	N
Organic vegetables attributes absence pesticide	3.5	1.145	120
More nutrients than conventional vegetables	2.57	1.308	120

Table 4.2.4 showing Correlations of Organic vegetables attributes absence pesticide and more nutrients than conventional vegetables

Correlations			
		Organic vegetables attributes absence pesticide	More nutrients than conventional vegetables
Organic vegetables attributes absence pesticide	Pearson Correlation	1	.202*
	Sig. (2-tailed)		0.027
	N	120	120
More nutrients than conventional vegetables	Pearson Correlation	.202*	1
	Sig. (2-tailed)	0.027	
	N	120	120
*. Correlation is significant at the 0.05 level (2-tailed).			

INFERENCE:

The p-value is 0.027 which is lesser than the alpha value (0.05), hence alternate hypothesis (H1) is accepted. Therefore, there is a significant difference between Organic vegetables attributes absence pesticide and more nutrients than conventional vegetables.

Table showing Descriptive Statistics of more nutrients than conventional vegetables and Tastier than conventional vegetables

Descriptive Statistics			
	Mean	Std. Deviation	N
More nutrients than conventional vegetables	2.57	1.308	120
Tastier than conventional vegetables	2.68	1.328	120

Table showing Correlations of more nutrients than conventional vegetables and Tastier than conventional vegetables

Correlations			
		More nutrients than conventional vegetables	Tastier than conventional vegetables
More nutrients than conventional vegetables	Pearson Correlation	1	-.230*
	Sig. (2-tailed)		0.012
	N	120	120
Tastier than conventional vegetables	Pearson Correlation	-.230*	1
	Sig. (2-tailed)	0.012	
	N	120	120
*. Correlation is significant at the 0.05 level (2-tailed).			

INFERENCE:

The p-value is 0.012 which is lesser than the alpha value (0.05), hence alternate hypothesis (H1) is accepted. Therefore, there is a significant difference between more nutrients than conventional vegetables and Tastier than conventional vegetables.

ANOVA:

Table showing Descriptive of more nutrients than more nutrients than conventional vegetables and how often do you purchase organic vegetables

Descriptive statistics								
How often do you purchase organic vegetables								
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
1	3	2	1	0.577	-0.48	4.48	1	3
2	16	2.44	0.629	0.157	2.1	2.77	1	3
3	32	2.31	0.738	0.13	2.05	2.58	1	3
4	31	1.97	0.706	0.127	1.71	2.23	1	3
5	38	2.47	0.647	0.105	2.26	2.69	1	3
Total	120	2.28	0.712	0.065	2.15	2.41	1	3

Table showing ANOVA of more nutrients than more nutrients than conventional vegetables and how often do you purchase organic vegetables

ANOVA					
How often do you purchase organic vegetables					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	5.113	4	1.278	2.66	0.036
Within Groups	55.254	115	0.48		
Total	60.367	119			

INFERENCE:

The p-value is 0.036 which is lesser than the alpha value (0.05), hence alternate hypothesis (H1) is accepted. Therefore, there is a significant difference between more nutrients than more nutrients than conventional vegetables and how often do you purchase organic vegetables.

FINDINGS:

- The majority of the respondents (52%) are female.
- Majority of the respondents (51.7%) under the age category of 21 – 30 years.
- Most of the respondents (53.3%) fall under the Married category.
- It is found that (38%) of respondents are occupation is self-employed.
- Majority of the respondents are (58%) were joint family.
- Majority of the respondents (50.8%) are 5 – 6 (medium size) of their family size.
- Majority of the respondents (58.3%) earning of their family is more than two persons in each family.
- It is found that (57.5%) of respondents getting Rs.30,001 – 40,000 money per month.
- Majority of the respondents (51%) are living in rural place.
- It is found that (47.5%) respondents were price is the first priority towards organic food products.
- Most of the respondents (67.5%) are buy the organic products in specific organic store.
- Most of the respondents (43.3%) buys organic food products once in 15 days.
- It is found that (50%) of respondents are spend money more than 3,000 for organic food.
- It is found that majority of the respondents for attributes how important they are (38.30%) 5 rating for quality, (37.00%) 3 rating for price, (26.66%) 3 rating for availability, (30.83%) 4 rating for absence of pesticide residue, (29.16%) 5 rating for produced in an environmentally friendly way.

- Majority of the respondents for based on quality are (35%) Agree rating for organic vegetables have more nutrients than conventional vegetables, (32.50%) Agree rating for Organic vegetables are tastier than conventional vegetables, (37.50%) Agree rating for Organic vegetables are less chemical residue than conventional vegetables.
- Majority of the respondents for price perceptions are (39.17%) Agree rating for organic vegetables is too expensive, (35%) Strongly agree rating for only customer with higher income can afford organic food, (35.83%) Agree rating for Organic vegetables is beyond my budget.
- Majority of the respondents for health benefits are (37.50%) Agree rating for organic vegetables have more vitamins and minerals, (41.67%) Neutral rating for growing food organically and naturally is good for health, (47.50%) Agree rating for organic vegetables are healthier than conventional food because it is produced without preservatives or artificial colour, (33.33%) Strongly agree rating for choosing organic vegetables are good to ensure our health.
- Majority of the respondents (41.67%) Agree rating for organic farming is friendliness to the environment, (35.83%) Neutral rating for Organic farming can prevent the contamination and pollution of soil, air, water, and food supply, (43.34%) Agree rating for Organic farming uses less energy, (35%) Agree rating for Organic farming protect the environment because it does not carry any harmful synthetic chemical pesticides and fertilizers.
- It is found that respondents for food safety are (35%) Agree rating for brand manufacturers should be inspected for food safety, (35.85%) Neutral rating for Government should ensure measures to prevent food contamination, (47.50%) Agree rating for Product differentiation shall be made available for customers during purchase of organic food products.

- Majority of the respondents for buying intention are (45%) Agree rating for I intend to my organic vegetables for my long term health benefits, (34.16%) Strongly agree rating for I intend to buy organic vegetables because they are more concerned about food safety, (40%) Agree rating for I intend to buy organic vegetables because they are more environmentally friendly, (41.67%) Agree rating for I would buy organic food products regularly in the near future.
- It is found that respondents for purchase behaviour are (37.50%) Agree rating for I buy organic vegetables because they are reasonable on price, (31.67%) Agree rating for I often buy organic vegetables on the regular basis, (31.67%) Agree rating for I buy organic vegetables because they are safe to consume and good for health, (34.17%) Strongly agree rating for I often buy organic vegetables because they are more environmentally friendly.

SUGGESTIONS

- Most of the customers are buying organic vegetables based on quality. So, providing quality vegetables are important to satisfy the customer.
- Price is expensive for organic vegetables compared to conventional vegetables. Decreasing the price for organic products may be easy to buy them for all types of customers.
- Health is the common factor that customers look on organic vegetables. So, always providing healthy organic products gives satisfaction to customer.
- Customers believe that organic vegetables and other organic products are environmentally friendly and good to use daily for their health benefits. Maintaining the organic farms environmentally friendly and avoiding harmful pesticides is good for organic farmers.

- Customer also believes that using of organic vegetables for their long term health benefits. So, providing chemical free, pollution free, additional health benefits on reasonable price to customers is necessary.

CONCLUSION

- This study found that customers buy organic vegetables based on the quality and health. So, providing Customers healthy organic food products with no harmful pesticides is necessary. With all the suggestions listed above marketers could come up very well and could sustain in the longer run without much difficulties.

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