INSTITUTE OF MANAGEMENT, NIRMA UNIVERSITY

MINOR RESEARCH PROJECT

ON

Organic food products: A study on attitude towards buying behavior

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Table of Content

Chapter 1

Chapter 1

INTRODUCTION

1.1 Introduction

With the rapid economic growth across globe, there has been disruption in the balance of the ecological environment and overconsumption of natural resources, resulting in environmental issues like global warming, species extinction, ozone depletion and many more (Chen & Hung, 2016; Tanner & Kast, 2003). One of the major reasons for this ecological and environmental crisis is overpopulation (Kates, 2000). A growing global population will continue to use increasing amounts of agricultural products as food, feed and for industrial purposes. Much of the additional food demand over the coming decade will originate in regions with high population growth, in particular Sub‑Saharan Africa, India, and the Middle East and North Africa. World agricultural markets face a range of new uncertainties that add to the traditionally high risks facing agriculture. On the supply side, these include the spread of diseases such as African Swine Fever, growing resistance to antimicrobial substances, regulatory responses to new plant breeding techniques and responses to increasingly likely extreme climatic events. On the demand side, they include evolving diets, reflecting perceptions with respect to health and sustainability issues, and policy responses to alarming trends in obesity (OECD, 2019). India experienced a food deficit after independence, leading the government to invest in chemical fertilizers in order to raise farm yields. (Khare, 2017). One way to improve environmental sustainability is by green consumption. When green consumers are conscious of the deteriorating conditions; to build a more accountable approach towards the climate and safety, they will require their consideration in their buying decisions. This leads them to purchase goods that have low environmental effects. (Barr & Gilg, 2006)

Due to public awareness of the worsening effects of pesticide residues on the environment and human health in recent years, the old notion of organic farming has won back momentum. (Chandrashekhar, 2010). Organic food is described as

food that has been produced or cultivated without the use of pesticides, preservatives, or other chemicals that are hazardous to humans. Organic food is becoming increasingly popular among health-sensitive and environmentally aware customers. (Technopak, 2012). The conventional methods of farming usually affect the surroundings with the use of synthetic chemicals. The fact that organic farming methods abandon the use of synthetic chemicals makes this practice environment-friendly. Consuming food containing undesirable residues and microorganisms cause severe individual health problems, e.g., pain, illness and death. In addition, food-borne diseases result in medical costs and losses to the public health sector. Hence, promoting and accelerating the adoption of more sustainable food behavior is of the utmost importance for enhancing environmental sustainability as well as individual and public well-being (Nguyen et. al, 2019).

Consumer behavior involves the psychological processes that consumers go through in recognizing the needs, finding ways to solve these needs; collect and interpret information; make plans and implement these plans, making purchase decisions and post-purchase behavior. The emergence of organic shops in markets supports the same and creates awareness to stimulate the customer need, wants and demand. Promotion of organic food is not only beneficial for producers, but also will respond to consumers' desire for higher food quality and food production that is less damaging to the environment (Basha et. al, 2015). Environmental concern, Health consciousness, food safety, organic food knowledge, attitude towards purchasing organic food, green marketing practices, price barriers are the antecedent-attitude-behavior hierarchy with situational context factors of organic food attitudes (Nguyen et. al, 2019). From newspapers and leisure magazines to several online platforms have invested heavily in creating awareness about "healthy food" in particular. It was only this awareness and enthusiasm that caused a major shift in preferences and churned profits to business in this sector. The factors that contributed deeply to the growth of the organic food industry in India and still continue to do so are, namely: Awareness and demand, the growth of e-commerce, government support, etc. The global organic food market stood at $ 110.25 billion in 2016 and is projected to grow at a CAGR of 16.15%, in value terms, during 2017

– 2022, to reach $ 262.85 billion by 2022, as per TechSci's research report. The government's incessant support coupled with the increasing export market has made the organic market in India highly successful (Business world, 2019)

These findings clearly show that India's organic food sector is in an infant stage and has a lot of untapped potential, which presents a significant opportunity for both academics and practitioners. This study focuses on the factors that affect the purchase attitude and intention of the customers of organic food.

1.2 Organization of Research

According to world population review, Ahmedabad is the largest city of Gujarat state in India with estimated population of Ahmedabad in 2016 is over 7 million people in the city out of which 8 million in the urban agglomeration approximately. This makes Ahmedabad the fifth largest city in India and the seventh largest metropolitan area. The study tries to analyze factors that influence the purchase intention for organic food with respect to Ahmedabad city.

Chapter 2

Chapter 2

LITERATURE REVIEW

This chapter comprises of literature review done for various studies conducted on organic food and factors affecting the purchase intention of organic food. The flow of literature review is concept of organic food, market scenario for organic food, consumer attitude towards organic food and conceptual framework for the study.

2.1 Concept of Organic Food

Environmental awareness, rising consumer interest in organic goods, as well as a willingness to pay a premium for organic characteristics, have sparked business interest in organic marketing, resulting in rapid advancement. (Peattie and Crane, 2005).A growing global population will continue to use increasing amounts of agricultural products as food, feed and for industrial purposes. Much of the additional food demand over the coming decade will originate in regions with high population growth, in particular Sub‑Saharan Africa, India, and the Middle East and North Africa (OECD, 2019). Agriculture continues to be a significant contributor to global greenhouse gas emissions. Direct emissions of agriculture, mostly from livestock, as well as rice and synthetic fertilisers, are expected to grow by 0.5% p.a. over the coming decade, compared with 0.7% p.a. over the past ten years. This is lower than the growth in agricultural production, indicating a declining carbon intensity as productivity increases (OECD, 2019).

According to Jia et al. (2002) food is categorized as “organic” if the product does not contain artificial synthesized fertilizers, pesticides, livestock, growth regulators and poultry feed additives. In recent decades, the global organic market has been expanding in accordance to the increase of its agricultural cultivation area. According to Sheng et al. (2009), organic food industry has been rapidly growing in most of developed agricultural economies around the world with the total area of 30.5 million hectares. Regarding the total revenue on the global scale, organic

market has achieved 23 billion USD in 2003. Until 2005, this number has dramatically reached to 33 billion USD, continuously increased to 40 billion USD in 2006 (Sheng et al., 2009) and impressively achieved 60 billion USD in 2007 (Yang and Jie, 2008). This growing rate is expected to continuously increase in the coming years which indicate a potential development for this sector in the future (Sheng et al., 2009). The most widespread definitions of organically produced foods place a strong emphasis on the technology, production techniques, and principles employed, as well as the 'organic philosophy.' (Bourn and Prescott, 2002; FAO, 1999). Some definitions emphasize terms like "biological" or "natural production system." (Klonsky and Tourte, 1998) and 'green' or 'environmental friendliness' (Bhaskaran et al., 2006), while some other emphasize the limited use of artificial chemicals in organic production (FAO, 1999; Yi, 2009), or its general philosophy (Torjusen et al., 1999). According to Yi (2009), Instead of artificial ingredients, preservatives, and irradiation, organic foods are enhanced to retain food integrity. Simply said, organic food is food that has been produced/processed without the use of pesticides, mineral fertilizers, or any other sort of chemical. According to Organic Food Production Act (1990), "In terms of food that come from living animals- meat, eggs and dairy, the animal must not be fed antibiotics or growth hormones".

According to the National Organic Standards Board of the US Department of Agriculture (USDA) the term organic is the process of "using materials and practices that enhance the ecological balance of natural systems and that integrate the parts of the farming system into an ecological whole." This includes the absence of artificial pesticides and fertilizers, genetic engineering and modification, antibiotics, hormones, and irradiation (Ahmad & Judhi, 2008).

The organic food retail marketplace is clearly a varied one and a wide range of players are looking to meet growing consumer demands. Each of these players face their own specific strategic and operational management and marketing challenges but a number of general issues can be identified. The price of organic foods vis-a -vis conventional foods is an important issue (Jones et al., 2001).

2.2 Market scenario of Organic food

Agriculture has changed in a more mechanical and yield oriented way in the twentieth century after the World War II. Chemical adherence and intensive farming techniques have cause food safety and environment problems (Rehber and Turhan, 2002).

In the last 15 years, the market for organic products has increased fourfold. Organic food sales in 2015 at global level had a value of 81.6 billion US $ (an increase of 10%), with the largest growth in the North American market, which accounts for more than half the value of international sales of these foods. In 2012, organic food sales in the entire Europe had a value of 22.8 billion euros and in North America 24.1 billion euros (Willer & Schaack, 2015). Organic food production is performed by 2.4 million producers in 179 countries around the world. However, most of the sales take place in Europe and North America (around 90%). In terms of regional distribution, North America is the largest market, with a value of 39.5 billion euros, followed by Europe (29.8 billion euros) and, Asia, ranking third with a value of 6.2 billion euros. Consumers are eating more organic food and using more organic products than ever before, according to the 2020 Organic Industry Survey released by the Organic Trade Association.

In India, Agriculture was by default organic with negligible use of chemical inputs. However, the need to ensure food security led to the Green Revolution, which began in 1967. While India reached self-sufficiency in food grain production (Singh, 2000; Pearse, 1980), post-Green Revolution, the excessive use of chemical inputs resulted in the rapid degradation of soil (Murgai et al., 2001; Singh, 2000) and adversely impacted farmers' health (Mittal et al., 2014). In the 1970s and 1980s, Developed countries were shifting towards organic food products, the demand for products like organic tea and spices in key export markets such as the US, United Kingdom (UK), Germany, and Japan increased. As the consumers are willing to pay premium price some Indian companies are prompted to enter the organic food export business (Mukherjee et al., 2018).

India’s organic food and beverage consumption has grown in recent years due to its advanced demographic dividend, improved purchasing power and increased interest for the perceived health and wellness benefits of certain organic products. In market year (MY) 2019, organic food and beverage retail sales reached $69 million and is estimated to further rise by 12 percent to $77 million in MY 2020. Further propelled by a surge of demand in the wake of the COVID-19 pandemic, India continues to be an emerging market for organic food and beverages with robust prospects. With predicted favorable weather patterns, monsoons and a strong focus by the Indian government towards exports to fill U.S., European Union (EU) and South Asia demand, India’s certified organic cropland will likely increase (USDA, 2020).

2.3 Consumer Attitude towards Organic Food

Despite large amounts of money spent on food, India's food retailing is unorganized. Traditionally, Indian consumers spent 90% of their food budget on home cooking, but this has now dropped to 80%. This is mostly due to a shift in Indian customers' attitudes and lifestyles, with dining out becoming more widespread than ever before. These customers are also willing to pay a higher price. (Sondhi and Vani, 2007). Intention to purchase a product can be considered as the best predictor of actual behavior and behavior is a function of compatible intentions and perceptions of behavioral control (Ajzen, 1991). For improved management of the organic food industry in India, a consumer-oriented approach to understanding the demand for organic products is required. Infrastructure, quality production, rules, certification, and the market environment all play a role in this complicated process. (Aryal, 2008). However, it is vital to understand consumer decision-making about organically produced foods and develop strategies for how customers' ideas, attitudes, and responses to organic goods, as well as their willingness to pay a premium price, influence consumption. (Dipeolu et al., 2009). Von Alvesleben (1997) proposed model on food consumer behavior which established that the forces driving consumer behavior are product information, product perception and attitudes. First, consumers’ behavior is determined by attitudes. The attitudes

towards the product are formed not only by nutritional and healthy needs, enjoyment, convenience, safety, transparency, environmental motives, etc. but also by the product perception.

Consumers perceive organic foods are said to be more nutritious, healthier, and environmentally friendly than conventional foods. As a result, they are moving to organic food items and are prepared to pay a higher price for them. Consumer attitudes toward organic food items are influenced by health consciousness, understanding of organic foods, subjective standards, and perceived price. However, along with the mentioned factors, one more important factor is necessary, i.e., availability of organic food (Singh and Verma, 2017). Consumers who are more willing to buy organic food products are more likely to buy a larger amount of those products. The intention to purchase depends on attitudes and organic product knowledge. Moreover, consumers' attitudes towards health and environmental benefits provided by organic foods are the most important factors explaining, both, the intention to purchase and the final decision (Gracia and Magistris, 2007).

Chen (2009) posits positive relationship between health consciousness and environmental attitudes on Taiwanese consumers' attitude towards organic foods. In another research on British consumers, Sirieix et al. (2013) compared consumers' perceptions and attitude towards sustainable and other label food brands. They were skeptical about unfamiliar brands and terminologies like 'climate friendly'. Trust and familiarity with brands were important criteria for buying organic food labels. A positive attitude towards sustainable products is a good starting point to stimulate sustainable consumption. Several studies concentrated on attitudes towards sustainability and sustainable consumption behaviour (Vermeir and Verbeke, 2004; Tanner and Kast, 2003; De Pelsmacker et al., 2003; Bissonette and Contento, 2001). Khare (2017) examined actual and verbal commitment attitude components impacted consumers' attitudes toward organic food purchasing, which were modified by demographic variables such as income, gender, and age. The findings may be useful to companies in India that advertise organic food brands. Consumers

can be profiled based on environmental attitudes and demographic characteristics such as income, age, and gender.

A majority of previous studies were carried out in developed countries where knowledge and awareness of food are high. The consumer awareness and preferences for organic food products in the developing world is mostly unknown. Therefore, there is an urgent need to investigate the demand status of organic food particularly in developing countries like India. The investigation of consumers' attitude and behaviours towards organic food products may help both consumers of organic interest and marketers to drive growth in the organic food market.

2.3.1 Theory of planned behavior

According to Ajzen (1985, 1991), "The TPB states that the three factors, namely; Attitude towards the behavior, subjective norms and perceived behavior control, all leads to the formation of behavioral intention. Attitude toward behavior refers to the 'degree to which a person has a favorable or unfavorable evaluation or appraisal of the behavior in the question' Subjective norm is defined as 'perceived social pressure to perform or not perform the behavior' Perceived behavioral control is 'an individual perceived ease or difficulty or performing the particular behavior'. The people having a higher degree of control over them are more likely to have strong intention to perform a particular behavior. Behavioral intention is defined as individual's readiness to perform a certain behavior and it is assumed as an immediate antecedent of the actual behavior".

2.3.1.1 Attitude (TPB)

"Attitude toward behavior refers to the degree to which a person has a favorable or unfavorable evaluation or appraisal of the behavior in the question" (Ajzen, 1991). More favorable the attitude toward the behavior of an individual, the more individual will be likely to perform a certain behavior. An individual tends to possess a favorable attitude when the outcomes are positively evaluated and, thus,

he/she is likely to engage in that specific behavior (Ajzen,1991; Han et al., 2010; Carfora et. al., 2021, Ahmed et. al., 2021).

H1: Attitude has a positive impact on Purchase Intention of organic food

2.3.1.2 Subjective Norm

Subjective norm is defined as 'perceived social pressure to perform or not perform the behavior' (Ajzen, 1991). In other words subjective norm is the opinion of others who are important to an individual and influence in one's decision making (Hee, 2000). If an individual believes that people significant to him/her approve or disapprove the behavior they are more or less likely intend to perform the behavior (Conner and Armitage, 1998; Carfora et. al., 2021; Ahmed et. al., 2021).

H2: Subjective Norm has a positive impact on Purchase Intention of organic food

2.3.1.3 Perceived Behaviour Control

According to Ajzen (1988) perceived behavioral control (PBC) is 'an individual perceived ease or difficulty or performing the particular behavior'. Those who have a higher degree of control over themselves have stronger intention to perform a particular behavior (Ajzen, 1991). PBC is an individual perception, whether the individual has all available means and opportunities to perform a certain behavior (Ajzen, 2005; Conner and Armitage,1998). TPB has been found very useful in predicting consumer intention and behavior in a wide range of fields (Sheppard et al., 1988; Carfora et. al., 2021) and it appears a very powerful model in explaining the environmental friendly behavior (Bamberg, 2003).

H3: Perceived Behaviour Control has a positive impact on Purchase Intention of organic food

2.3.2 Incorporating new constructs in TPB Theory

Ajzen (1991) suggested that TPB can be deepened and broadened by adding new variables or altering the path of the existing variables. There have been studies which included Environmental Concern, Health consciousness as other factors which can influence the intention to purchase of a customer. This study tries to include factors like Price Consciousness of a customer, Brand Consciousness and Environmental Knowledge of a customer as the factors which can influence the purchase intention of organic food for a particular customer.

2.3.2.1 Environmental Concern

According to Dunlap & Jones (2002), Environmental concern indicates "the degree to which people are aware of problems regarding the environment and support efforts to solve them or indicate the willingness to contribute personally to their solution". An individual's concern for the environment is fundamental to environmental research and has a direct relationship with the environmentally friendly behavior (Hines et al., 1987). Pagiaslis and Krontalis (2014) have also mentioned in their study that a consumer's concern for the environment has a direct and a positive impact on his intention to buy ecofriendly products. According to Zabkar& Hosta (2013), Tregear et. al. (1984), Watanbe et. al. (2021) and Smith & Paladino (2010), Environmental concern plays a significant role in determining the purchase intention of organic food as buying organic food is considered as pro environmental behavior

H4: Environment Concern has a positive impact on Attitude towards organic food

H5: Environment Concern has a positive impact on Purchase Intention of organic food

2.3.2.2 Environmental Knowledge

"Knowledge an individual is having about environmental issues is Environmental Knowledge" (Chan and Lau, 2000). Knowledge about environment changes

environmental attitude and individual buying behavior is affected by environmental knowledge, when an individual has concern about environmental issues. (Scott and Vigar-Ellis, 2014). According to Peattie (2010), Knowledge about environmental knowledge results into ecofriendly behavior. According to Mostafa (2007) environmental knowledge significantly influences the consumer attitude towards green products which further influences purchase intention. Yadav and Pathak (2016) studied the impact of Environmental Knowledge on attitude and purchase intention for consumers towards organic food. The discussion leads to forming the following hypothesis:

H6: Environment Knowledge has a positive impact on Attitude towards organic food

H7: Environment Knowledge has a positive impact on Purchase Intention of organic food

2.3.2.3 Health Consciousness

According to Jayanti & Burns (1998), "the degree to which health concerns are integrated into person's daily activities can be defined as Health consciousness". Health is considered as an important parameter by consumers while purchasing the food products and hence they are interested in issues related to food and health. (Wandel & Bugge, 1997; Rozin, Fischler, Imada, Sarubin, & Wrzesniewski, 1999). According to study of Pau; & Rana (2010), consumers who were more concerned about their health related issues had more favorable attitudes toward purchasing organic products and as per Lea & Worsley (2005) are generally perceived as a healthier option as compared to the conventionally grown foods. Health concern is considered as one of the major factors that motivates the consumer attitude and intention towards the purchase of organic foods (Chakrabarti, 2010; Davies, Titterington, & Cochrane, 1995; Magnusson, Arvola, Hursti, Åberg, & Sj€oden, 2003; Zanoli & Naspetti, 2002; Nagaraj, 2021).

H8: Health Consciousness has a positive impact on Attitude towards organic food

H9: Health Consciousness has a positive impact on Purchase Intention of organic food

2.3.2.4 Price Conscious, 'value for money'

According to (Janssen, 2018 and Zepeda & Deal, 2009), the perception of organic food as being expensive is one of the main barriers to (increased) organic food consumption. Sproles and Kendall (1986) developed an instrument on consumer style inventory (CSI) that focuses on consumer approach the market with some decision making styles that includes "Price consciousness" as one of the dimensions. Indian consumers are more conscious about the price, at the point they feel the same for organic food products (Prakas et al., 2018). On this basis, the following hypothesis is proposed:

H10: Price Consciousness has a negative impact onpurchase intention of Organic Food

2.3.2.5 Brand Consciousness

Sproles and Kendall (1986) defines Brand consciousness as consumers are concerned with getting the well-known and most expensive brands. According to Prakash et al. (2018) brand consciousness influences consumers' organic food purchase intention. Gan et al. (2008) found that consumers who are brand conscious are less likely to purchase green products if they are not from a brand that they are familiar with. On this basis, the following hypothesis is proposed:

H11: Brand Consciousness has a negative impact on purchase intention of Organic Food

2.3.2.6 Demographic factors

Demographic drive certain wants and needs. Segmenting potential consumer through their demographic factor will help marketers to be successful in targeting their potential customers. So, it is not surprising that socio-demographics have been the most widely used variable for profiling purpose. Indeed, there are some socio-

demographic differences in organic food beliefs and consumption behavior. To support the use of socio-demographic factors, Grunert and Juhl (1995) reported that young consumers are more likely to buy organic food. These outcomes can be explained by the notion that older consumers are characteristically more conservative in trying out new products compared to their more audacious younger cohorts (Govindasamy and Italia 1999).

According to study by Khare (2017), "Demographic factors like education and income affected attitudes and consumption of organic food. This was primarily driven by desire to protect the environment. Older consumers were more concerned about nutritional value of organic food than young consumers. Environmental and health related factors were motivating factors influencing consumers' perceptions, attitudes, and consumption of organic food". However, Geen and Firth (2006) in support concluded that committed organic consumers tend to be older than the average population in the UK. Shafi and Madhavaiah (2013) emphasized on the facts that affect the consumer decision making process on purchasing imported health food products, in specific demographic effects such as education, income, gender and marital status. Hence, it is necessary to examine the impact of consumer's demographic characteristic on purchase intention since there might be some socio-demographic differences in organic food acceptance and consumption behavior. Education level tends to increase likelihood for purchase organic food (Dimitri & Dattman, 2012). Socio-demographic characteristics were found to be significant in explaining the decision to buy organic foods mainly in empirical studies conducted in USA. Economic and socio-demographic consumers' characteristics included in the analysis were gender, income, occupation, age and education. These results indicates that socio-demographic characteristics have limited influence on organic food choice. Thus, consumers' income is still a factor limiting the growth of organic food purchases in urban southern Italy and therefore, the expansion of the organic food market (Gracia and Magistris, 2007).

Humanists, Food Phobic, Healthy Eaters, Environmentalists and Hedonists are indicators to show consumer's interest in organic food is influenced by their belief

that organically produced food is safe and better for health, environment and welfare of farmers and poor. The results indicates that potential Indian consumers' awareness of organic food is strongly and significantly affected by factors such as education, stream of education and use of ICTs. The awareness is only slightly affected by factors such as gender and income level. Gender and income groups plays a role to create awareness and knowledge in India (Kumar, S. & Ali, J., 2011).

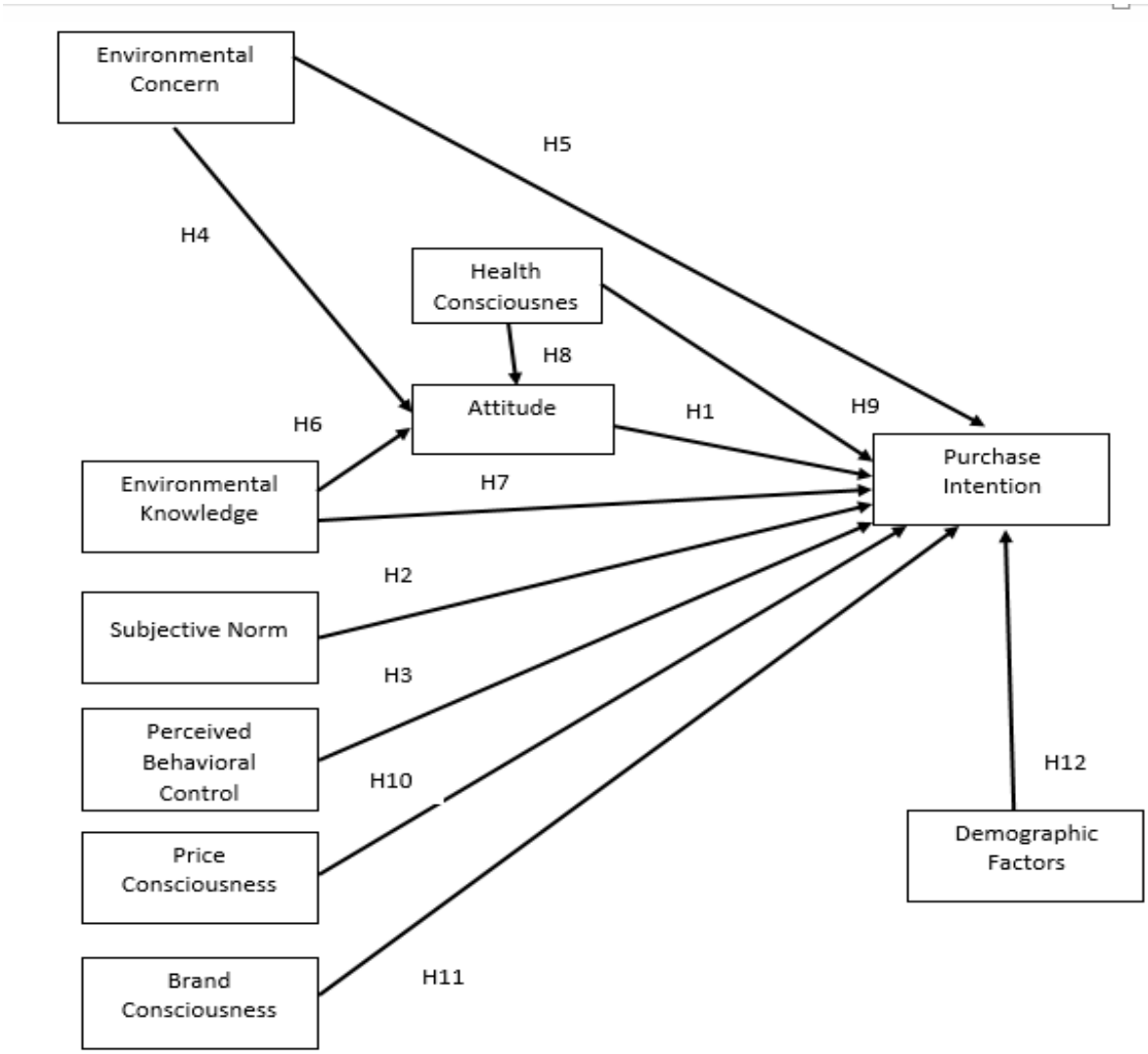
According to Magnusson et al. (2010), women hold positive attitudes towards organic foods than men and Lockie et al. (2002) and Storstad and Bjorkhaug (2003) mentioned that women are purchasers or consumers of organic foods. Income directly affects the proportion of people consuming organic food (Lockie et al., 2002)

H12: Demographic Factors have a significant impact on Purchase Intention of organic food

2.4 CONCEPTUAL FRAMEWORK

Intention to purchase a product can be considered as the best predictor of actual behavior (Ajzen, 1991). Attitude towards the behavior influences consumer's intention to purchase the product. The belief about the behavior and all the consequences of the behavior has affected the perceived attitude towards the product. Attitude determines final decisions in the consumers buying behavior. Hence, based on the importance of attitude in consumer buying decisions, a conceptual framework is evolved. Figure 1 represents the proposed model for the study. The proposed framework believes that the purchasing intention towards purchasing organic food products are strongly influenced by Environmental Concern (EC), Health Concern (HC), Brand Consciousness (BC), Price conscious, 'value for money' consumer (PC), Subject Norms (SN), Perceived Behavioral Control (PBC), demographic factors and Attitude (ATT). Also, the Environmental Concern (EC), Environment Knowledge (EK) and Health Concern (HC) influence the attitude of the consumer as well.

Figure 1: The proposed Research Framework



Chapter 3

Chapter 3

RESEARCH METHODOLOGY

3.1 Research Objectives:

1. To study the impact of customer attitude towards buying organic food products.
2. To study the impact of demographic factors (age, gender, income, education and marital status) on buying organic food products.

3.2 Research Design:

The research approach is descriptive and quantitative in nature. The entire research is based upon both the secondary as well as primary data. The secondary information has been collected from the various previous published data. The major focus is on primary research conducted through structured questionnaires. The primary data will be collected through questionnaires and analyzed using statistical tools and techniques.

- **Secondary Data:**

To get insight into the research area and develop the hypothesis, the literature from the following sources is reviewed:

a. E-libraries and Information available on the Internet.
b. Periodical, Newsletters, Magazines and report from Industry associations.

- **Primary Data:**

Primary data will be collected through structured questionnaire. The sample frame consists of people who purchase organic food from the organic stores located in

Ahmedabad and are residents of Ahmedabad. The data will be collected from the consumers of organic food through online survey using snowball sampling method.

- **Sampling Design:**

Target Population: For this study, the residents of Ahmedabad and Gandhinagar using organic food products will be taken as population as they both represent major cities of Gujarat.

Sampling Frame: The sampling frame is the representation of the elements of the target population. The study involves opinion of organic food consumers who are residents of Ahmedabad and Gandhinagar.

Sampling Technique: The sampling technique will be non-probability sampling method. Convenience Sampling will be used for this study, where consumers using the organic foods will be taken as sample though online survey.

Determination of Sample Size: Cochran's formula is considered especially appropriate in situations with **large populations.**

The Cochran formula is:

$$n_0 = \frac{Z^2 pq}{e^2}$$

Now let's say we want 95% confidence, and at least 5 percent—plus or minus—precision. A 95 % confidence level gives us Z values of 1.96, per the normal tables, so we get

$((1.96)^2 (0.5) (0.5)) / (0.05)^2 = 385.$

Total 385 respondents will be taken through a convenience sampling method from across Ahmedabad city through online survey. Due to the ongoing pandemic situation and the rise of 2nd wave in Ahmedabad and Gujarat a total 314 responses

of organic food consumers was received and hence the research is conducted on the basis of 314 participants.

Proposed Hypothesis:

H1: Attitude has a positive impact on Purchase Intention of organic food

H2: Subjective Norm has a positive impact on Purchase Intention of organic food

H3: Perceived Behaviour Control has a positive impact on Purchase Intention of organic food

H4: Environment Concern has a positive impact on Attitude towards organic food

H5: Environment Concern has a positive impact on Purchase Intention of organic food

H6: Environment Knowledge has a positive impact on Attitude towards organic food

H7: Environment Knowledge has a positive impact on Purchase Intention of organic food

H8: Health Consciousness has a positive impact on Attitude towards organic food

H9: Health Consciousness has a positive impact on Purchase Intention of organic food

H10: Price Consciousness has a negative impact on Purchase Intention of organic food

H11: Brand Consciousness has a negative impact on Purchase Intention of organic food

H12a: Gender has significant impact on Purchase Intention of organic food

H12b: Age has significant impact on Purchase Intention of organic food

H12c: Marital Status has significant impact on Purchase Intention of organic food

H12d: Education Qualification has significant impact on Purchase Intention of organic food

H12e: Monthly Income has significant impact on Purchase Intention of organic food

H12f: Family type has significant impact on Purchase Intention of organic food

H12g: Number of children has significant impact on Purchase Intention of organic food

H12h: Organic Budget share has significant impact on Purchase Intention of organic food

- **Data Analysis**

The analysis of customer attitude towards organic food purchases based on consumers from Ahmedabad region. Structural equation modelling encompasses two major steps (Hair et al., 2010): 1. Specification and estimation of the measurement model with confirmatory factor analysis (CFA), i.e. defining and testing relationships between latent constructs and observable indicators, and 2. Specification and estimation of the structural model, i.e. defining and testing causal relationships between latent constructs.

The theoretical framework was analyzed using Systat13, SPSS (Statistical Package for Social Science) and AMOS (Analysis of Moment Structure) version 18. Two study model of SEM was followed in the study (Hair et al., 1998). Firstly the measurement model was used to test the validity and reliability of the model and later on structural model was tested for the model fit and hypothesis testing.

3.3 Constructs

Table 1: Constructs

Constructs	**Indicators**	**Source**
Environmental Concern (EC)	The environment is one of the most important issues facing the world today. Issues relating to the environment are very important for me Environment protection is great Indian ethos and very much relevant for all. It is important for me that we try to protect our environment for future generations We should devote some part of our national resources to environment protection	Zabkar and Hosta (2013) Kautish and Dash (2017)

	The benefits of environmental protection justify the costs involved	
Health Concern (HC)	I chose food carefully to ensure the good health. I didn't consider myself as health conscious consumer. I think often about health related issues.	Yadav R. (2016)
Brand Consciousness (BC)	I prefer buying well-known national brands. The higher the price of the product, the better its quality. Nice department and specialty stores offer me the best products. I prefer to buy the best-selling brands.	Praksh G. et al., 2018
Price conscious, 'value for money' consumer (PC)	I try to buy organic food products at sale prices. I usually choose lower priced products. I look carefully to find the best value-for-money.	Praksh G. et al., 2018
Subject Norms (SN)	Most people important to me, think that I should buy organic food. Most people, important to me, would want me to purchase organic food. People whose opinion I value would prefer that I shouldn't buy organic food (R)	Han, Hsu, and Sheu (2010) Yadav and Pathak (2016)
Perceived Behavioral Control (PBC)	To buy or not to buy organic food is entirely up to me. I am confident that if I want, I can buy organic food. I didn't have resources and time to buy organic food.	Han et al. (2010)
Attitude (ATT)	Buying organic food is a good idea. Buying organic food is a wise choice. I like the idea of buying organic food. Buying organic food would be pleasant.	Yadav R. (2016) Wang et al. (2013)

Purchase Intention (PI)	I am willing to buy organic food while shopping. I will make an effort to buy organic food in the near future. I will purchase organic food while shopping	Yadav and Pathak (2016)
Environmental Knowledge	I know that I buy products and packages that are environmentally safe. I know more about recycling than the average person. I am very knowledgeable about environmental issues. I understand the various phrases and symbols related to environment on product package. I know how to select products and packages that reduce the amount of waste dumping.	Mostafa (2007) Yadav and Pathak (2016)

Table 2: Socio-Demographic Variables

Gender	Male Female
Age	Up to 29 years 30-39 years 40-49 years 50-59 years 60-69 years 70 years and elders
Marital Status	Married Unmarried Widow
Education Qualification	Undergraduate Graduate Post graduate Professional Others
Monthly Income	< 50000 50000-100000 >100000

Family Type	Joint Nuclear
No of Childs	No Yes 1 child 2 child >2 child
Organic Budget Share (Monthly Budget)	0% < 10% 10% to 20% 20% to 50% >50%

Chapter 4

Chapter 4

DATA ANALYSIS AND DISCUSSION

4.1 Sample Profile

Table 3 presents the sample profile. Out of total 314 respondents, 52% were male and 48% were female. Majority of the respondents belonged to the age groups of "less than 30" (60%) followed by 30-39 years (24%). 63% of the respondents were unmarried. 60% of the respondents had education up to graduation or above it. The monthly income of 50% of the respondents was less than Rs. 50000 and that of 34% of the respondents was between Rs. 50000 – 100000. 60% of the respondents reported that they are living in a nuclear family. 64% of the respondents had no child whereas 19.7% and 13.7% of the respondents had 1 and 2 children respectively. 40% of the respondents reported that they spend 0-10% of their monthly budget on organic products, whereas 33% of the respondents spend 10-20% of monthly budget on organic products.

Table 3: Sample Profile

		Frequency	Percent
GENDER	Male	164	52.2
	Female	150	47.8
AGE	< 30 years	190	60.5
	30-39 years	75	23.9
	40-49 years	40	12.7
	50-59 years	6	1.9
	60-69 years	3	1.0
MARITAL_STATUS	Married	117	37.3
	Unmarried	197	62.7
EDUCATION_QUALIFICATION	Undergraduate	86	27.4
	Graduate	74	23.6
	Postgraduate	117	37.3
	Professional	32	10.2
	PhD	5	1.6
MONTHLY_INCOME	< 50000	158	50.3
	50000-100000	107	34.1

	> 100000	49	15.6
FAMILY_TYPE	Joint	127	40.4
	Nuclear	187	59.6
NUMBER_OF_CHILD	0	201	64.0
	1	62	19.7
	2	43	13.7
	3	8	2.5
ORGANIC_BUDGET_SHARE__MONTHLY_BUDGET_	0%	37	11.8
	0-10%	128	40.8
	10-20%	105	33.4
	20 - 50%	38	12.1
	> 50%	6	1.9
	Total	**314**	**100**

4.2 Confirmatory Factor Analysis

To check the reliability and validity of the scales adopted in the study, confirmatory factor analysis was performed using AMOS 18. Table 4 displays the results of the measurement model. The model fit indices for the measurement model provided sufficient evidence for the fit of the model (χ^2/df= 3.785, RMR = 0.053, SRMR = .0629, RMSEA = 0.094, CFI = 0.91. However, out of total 34 items, 7 items were dropped due to poor factor loadings and 27 items were retained in the final model. In the final model, 5 items for Environmental Concern, 4 items for Environmental Knowledge, 2 items for Health Consciousness, 3 items for Brand Consciousness, 2 items for Price Consciousness, 2 items for Subjective Norms, 2 items for Perceived Behavioral Control, 4 items for Attitude, and 3 items for Purchase Intention were retained. As shown Table 4, all the items loaded on their designated factors significantly, with minimum loading being 0.654.

Table 4: Results of Measurement Model

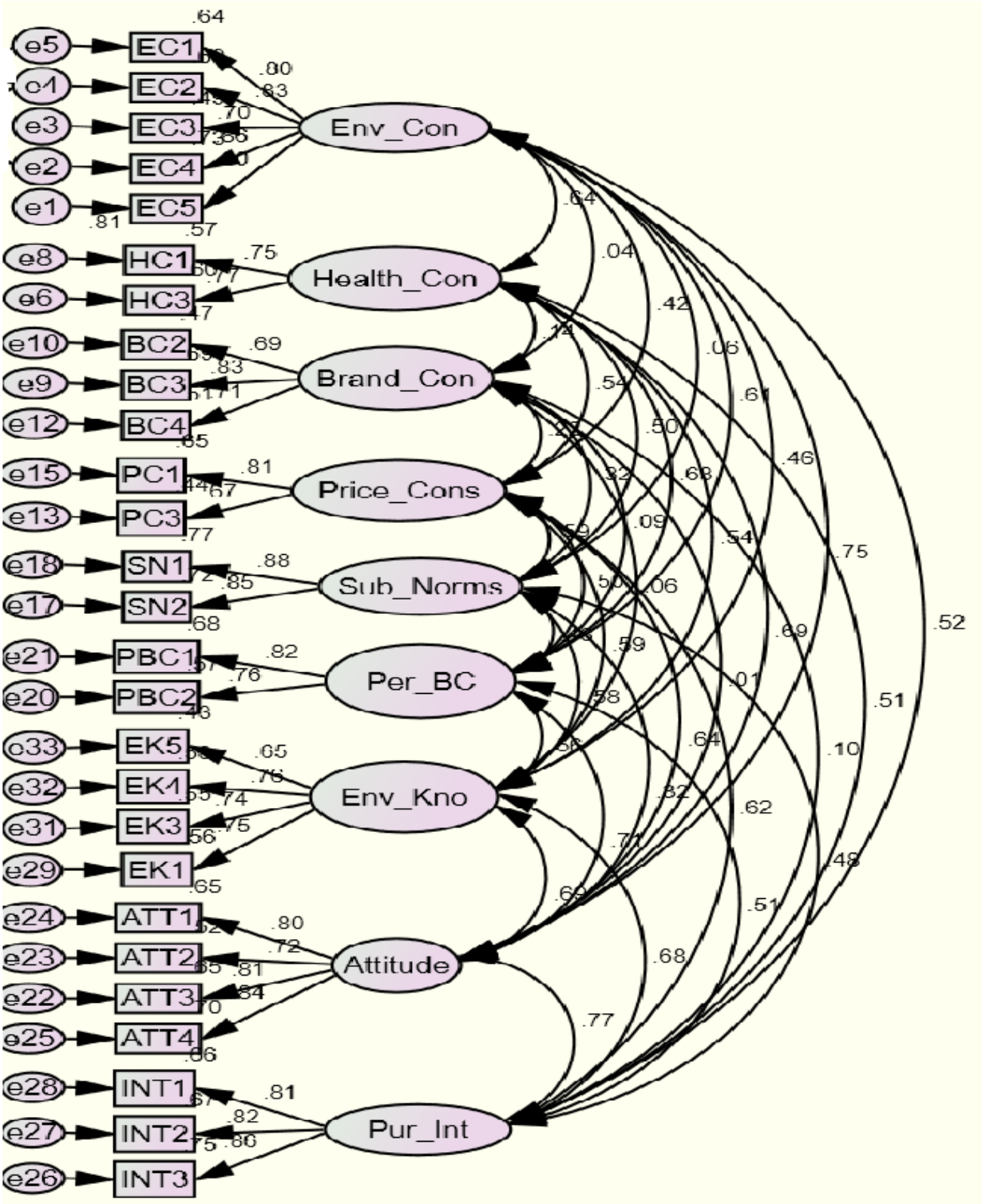
Constructs	Loadings	CR	AVE
Environmental Concern		0.911	0.673

We should devote some part of our national resources to environment protection	0.898		
It is important for me that we try to protect our environment for future generations	0.857		
Issues relating to the environment are very important for me	0.833		
The environment is one of the most important issues facing the world today.	0.798		
Environment protection is great Indian ethos and very much relevant for all.	0.701		
Environmental Knowledge		0.817	0.528
I understand the various phrases and symbols related to environment on product package.	0.759		
I know that I buy products and packages that are environmentally safe.	0.748		
I am very knowledgeable about environmental issues.	0.74		
I know how to select products and packages that reduce the amount of waste dumping.	0.654		
Health Concern		0.736	0.582
I think often about health related issues.	0.772		
I chose food carefully to ensure the good health.	0.754		
Brand Consciousness		0.788	0.555
Nice department and specialty stores offer me the best products.	0.828		
I prefer to buy the best-selling brands.	0.713		
The higher the price of the product, the better its quality.	0.686		
Price consciousness		0.706	0.548
I try to buy organic food products at sale prices.	0.808		
I look carefully to find the best value-for-money.	0.666		
Subject Norms		0.855	0.747
Most people important to me, think that I should buy organic food.	0.877		
Most people, important to me, would want me to purchase organic food.	0.851		
Perceived Behavioral Control		0.769	0.625
I didn't have resources and time to buy organic food.	0.824		
I am confident that if I want, I can buy organic food.	0.756		
Attitude		0.873	0.632
Buying organic food would be pleasant.	0.839		

I like the idea of buying organic food.	0.809		
Buying organic food is a good idea.	0.804		
Buying organic food is a wise choice.	0.724		
Purchase Intention		0.871	0.693
I will purchase organic food while shopping	0.865		
I will make an effort to buy organic food in the near future.	0.819		
I am willing to buy organic food while shopping.	0.812		

CR : Construct Reliability ; AVE : Average Variance Extracted
All factor loadings are significant at 5% significance level

Figure 2: Measurement Model



4.3 Reliability and Validity

As shown in Table 5, the Composite Reliability (CR) values for all the factors are > 0.7, demonstrating adequate reliability for all the constructs. To confirm construct validity, convergent validity, discriminant validity and nomological validity was assessed. Further, the average variance extracted (AVE) value for each factor is >0.5 indicating acceptable convergent validity. As per Fornell and Larcker (1981), to establish discriminant validity the square root of AVE for the construct should be greater than the inter-construct correlations. As shown in Table 5, square root of AVE (diagonal values) for each construct is greater than the correlation of the construct with other constructs. This provides evidence for the discriminant validity for the constructs. Nomological validity was evidenced by significant correlation between constructs. All inter-construct correlations were significant at 5% significance level.

Table 5: Discriminant Validity

	CR	AVE	PC	EC	HC	BC	SN	PBC	ATT	PI	EK
PC	0.706	0.548	***0.740***								
EC	0.911	0.673	0.425	***0.820***							
HC	0.736	0.582	0.542	0.644	***0.763***						
BC	0.788	0.555	0.219	0.045	0.138	***0.745***					
SN	0.855	0.747	0.587	0.060	0.502	0.321	***0.864***				
PBC	0.769	0.625	0.495	0.612	0.626	0.090	0.430	0.791			
ATT	0.873	0.632	0.641	0.752	0.688	0.008	0.321	0.707	***0.795***		
PI	0.871	0.693	0.620	0.521	0.507	0.098	0.478	0.511	0.774	***0.832***	
EK	0.817	0.528	0.595	0.458	0.537	0.060	0.578	0.555	0.690	0.682	***0.726***

Diagonal Values are square root of AVE; Off-diagonal values are Inter-Construct Correlations

All correlations are significant at 5% significance level

C: Composite Reliability; AVE; Average Variance Extracted

EC: Concern; EK: Environmental Knowledge; HC: Health Concern; BC: Brand Consciousness; PC: Price consciousness; SN: Subject Norms; PBC: Perceived Behavioral Control; ATT: Attitude; PI: Purchase Intention

4.4 Hypothesis Testing

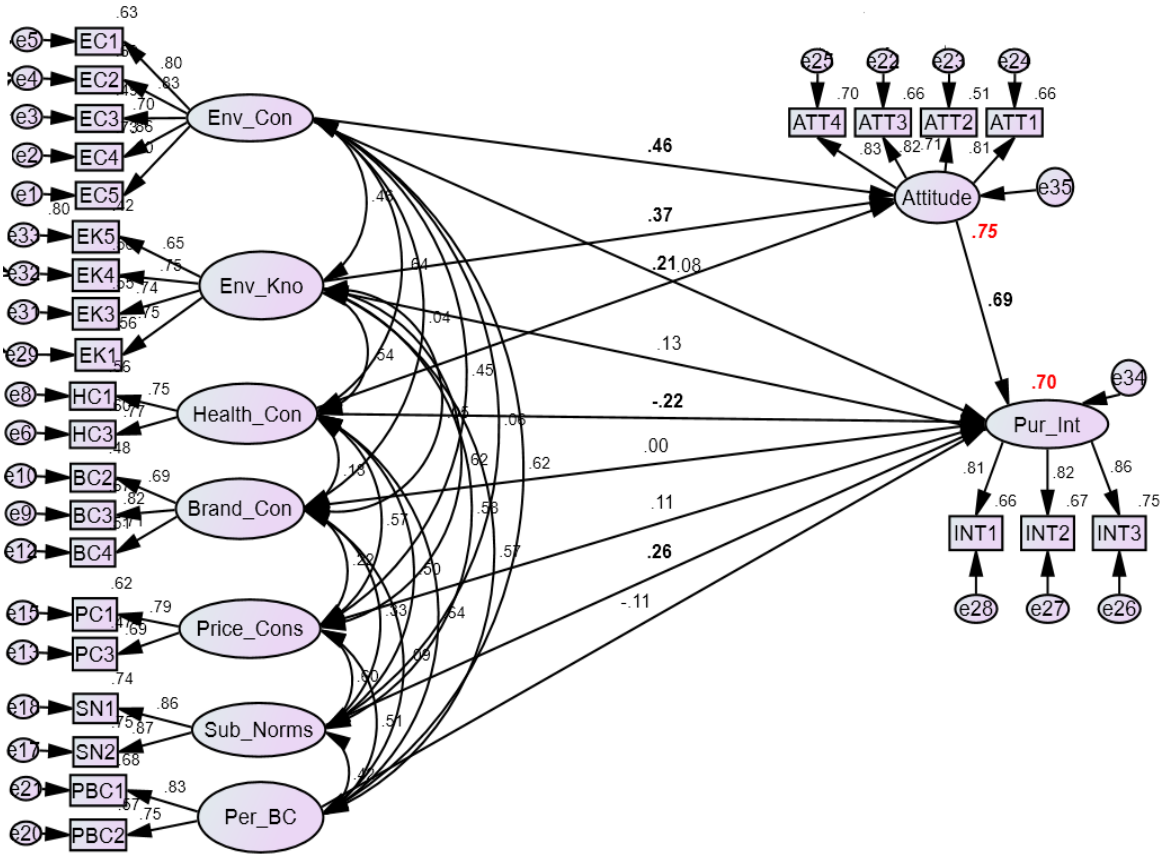
To test the proposed model and the hypothesized relationships among constructs, structural equation modeling was performed using AMOS 18. The results of the measurement model are shown in Table 6.

Table 6: Results of Hypothesis Testing

Relationships	***Estimate (Direct Effect)***	***p value***	***Hypothesis***	***Indirect Effect***	***Total Effect***
Environmental Concern-->Attitude	0.456	***	supported		
Environmental Knowledge-->Attitude	0.375	***	supported		
Health Consciousness-->Attitude	0.207	0.004	supported		
Environmental Concern--> Purchase Intention	0.085	0.485	Rejected	0.315*	0.400*
Environmental Knowledge-->Purchase Intention	0.133	0.171	Rejected	0.259*	0.393*
Health Consciousness-->Purchase Intention	-0.223	0.049	supported	0.143**	-0.08 (ns)
Brand Consciousness-->Purchase Intention	-0.004	0.936	Rejected		
Price Consciousness-->Purchase Intention	0.107	0.229	Rejected		
Subjective Norms-->Purchase Intention	0.261	0.016	supported		
Perceived Behavioral Control-->Purchase Intention	-0.107	0.199	Rejected		
Attitude-->Purchase Intention	0.692	***	supported		

**significant at p=0.01, **significant at p=0.1, ns = not significant*

Figure 3: SEM output



As shown in Table 6, Attitude has a significant positive impact on purchase intention (β = .692, p < .05). Thus, H1 was supported. The results also supported H2, as subjective norms was found to have significant positive impact on purchase intention (β = .261, p < .05). However, perceived behavioral control was found to have no significant impact on purchase intention (β = -.107, p > .05). Thus, H3 was rejected. The result provided evidence for the relationship between environmental concern and attitude (β = .456, p < .05) and H4 was accepted. To check the impact of environmental concern on purchase intention, direct and indirect effect were analyzed using mediation analysis. As shown in the table, environmental concern had no significant direct effect (β = .085, p > .05) on purchased intention and H5 was rejected. However, it had significant indirect effect β = .315, p < .05) on purchase intention through attitude and the total effect was also significant (β =

.400, $p < .05$). Thus, it can be concluded that though environmental concern does not have direct effect on purchase intention towards organic food, it has indirect effect on purchase intention through attitude and attitude works as a mediator in the relationship between environmental concern and purchase intention. The results also supported the relationship between environmental knowledge and attitude ($\beta = .375$, $p < .05$) and H6 was accepted. Similarly, environmental knowledge was found to have insignificant direct effect ($\beta = .133$, $p > .05$) but significant indirect effect ($\beta = .259$, $p < .05$) on purchase intention. The total effect for this relationship was also significant ($\beta = .393$, $p < .05$) supporting the mediating role of attitude in the relationship between environmental knowledge and purchase intention. Thus, H7 was accepted. The results of the study supported the relationship between health concern ($\beta = .207$, $p < .05$) and attitude. Thus, H8 was accepted. However, health concern was found to have significant negative direct effect ($\beta = -.223$, $p < .05$) but significant positive indirect effect ($\beta = .143$, $p < .05$) on purchase intention. However, the total effect ($\beta = -.08$, $p < .05$) was not significant and thus H9 was rejected. Both, price consciousness ($\beta = .103$, $p > .05$) and brand consciousness ($\beta = -.004$, $p > .05$), were found to have no significant effect on purchase intention and H10 and H11 were rejected.

4.5 Impact of Demographic Variables on Purchase Intention

To test the impact of demographic variables on purchase intention of consumers, independent sample t-test and One-Way ANOVA were performed. Independent samples t-test was performed for demographic variables having two categories (i.e. Gender, marital status and type of family) and One-Way ANOVA was performed for other demographic variables, having more than two categories. Table 7 represents the results for the same. As shown in the table, demographic variables like Gender ($t=-2.243$, $p<.05$), Education ($F=3.763$, $p<.005$), No. of Children ($F=4.107$, $p<.05$) and organic budget share (9.767, $p<.05$) had significant impact on purchase intention of consumers. Further, from the results it can be deduced that females have stronger purchase intentions compared to males. Respondents with education up to graduation and post-graduation have stronger purchase intention

compared to respondents with lower education. Respondents having one or two children reported having stronger purchase intention compared to other groups. The organic budget share is also strongly associated with the purchase intention of the consumers. The consumers having higher organic budget share demonstrate stronger intention to continue purchasing organic products in future.

Table 7: Impact of Demographic Variables on Purchase Intention

Demographic Variable		N	Mean	test statistics (F/t)**	Sig.
Gender	Male	164	3.2961	-2.243*	.026
	Female	150	3.4533		
Age	< 30 years	190	3.3092	1.914	.108
	30-39 years	75	3.4682		
	40-49 years	40	3.5274		
	50-59 years	6	3.0718		
	60-69 years	3	3.3826		
Marital Status	Married	117	3.3946	0.512	0.609
	Unmarried	197	3.3572		
Education	Undergraduate	86	3.2001	3.763*	0.005
	Graduate	74	3.4807		
	Postgraduate	117	3.4777		
	Professional	32	3.2054		
	PhD	5	3.2619		
Income	< 50000	158	3.3465	0.272	0.762
	50000-100000	107	3.4036		
	> 100000	49	3.3800		
Type of Family	Joint	127	3.3678	0.006	0.937
	Nuclear	187	3.3735		
No. of Children	0	186	3.3711	4.107*	0.007
	1	68	3.4149		
	2	52	3.4278		
	3	8	2.6321		
Organic Budget Share	0%	37	3.0812	9.767*	0.000
	0-10%	128	3.2037		
	10-20%	105	3.5977		

	20 - 50%	38	3.5540
	> 50%	6	3.6097

* significant at .05, **t test for Marital Status and Type of Family & F test for other demographic variables

Dependent Variable: Purchase Intention

Chapter 5

Chapter 5

IMPLICATIONS AND CONCLUSION

Theoretical implications

The proposed conceptual model can be adapted or extended in future research in organic food with existing model of Theory of Planned Behavior (TPB). The study enhances the understanding of the association between attitude and purchase intention. It adds value to the existing literature by taking constructs and mediating effects of environmental concern, environmental knowledge and health consciousness.

Managerial implications

There is pressuring need to discuss retailing activities related to organic food. Such activities will depend on brand of the retailer, size of the store, space, price and availability of organic food at specific locations. On the supply side, O'Donovan and McCarthy (2002) considered availability of organic food as a critical factor in making it popular among consumers. It is because consumers tend to purchase certain food only if it is available on regular basis. In the last few decades, branded food categories have shown the high growths in the food industry (Pickett-Baker and Ozaki, 2008).Consumers are willing to pay higher prices for branded organic products and exhibit stronger brand involvement as compared to non-branded organic products (Mukherjee et al., 2012).Since, organic food market is still an emerging market, the retailor must take this factors into account while framing marketing strategy. Regulators in government and organic food interest group can strengthen the industry by providing incentives and marketing to increase the supply in organic food market.

Conclusion

Organic consumers are not homogeneous, they have different motivational factors to perform certain behavior. The study has taken Theory of Planned Behavior (TPB)

as base for conceptual framework development. Intention to purchase a product can be considered as the best predictor of actual behavior (Ajzen, 1991). The study has considered following factors like Environmental Concern (EC), Health Consciousness (HC), Brand Consciousness (BC), Price conscious (PC), Subject Norms (SN), Perceived Behavioral Control (PBC), Environmental Knowledge (EK), demographic factors and Attitude (ATT) to understand Purchase Intension of consumers. Also, the Environmental Concern (EC), Environment Knowledge (EK) and Health Consciousness (HC) influence the attitude of the consumer as well. The result shows that Environment concern (EC), Environmental Knowledge (EK) and Health Consciousness (HC) has significant relationship with attitude. Subject Norms (SN) has positive relation with purchase intention. Health Concern has direct negative relation with purchase intention. The study considered attitude as mediating analysis for Environmental Concern (EC), Environment Knowledge (EK) and Health Consciousness (HC) to check indirect relationship with purchase intension. Environmental concern and Environmental Knowledge have insignificant direct effect on purchase intention towards organic food but there is indirect effect on purchase intention through attitude as mediating role on purchase intension. Health concern has significant negative direct effect but it has significant positive indirect effect on purchase intention. Attitude has also significant positive impact on purchase intension. The study also check impact of demographic variables on purchase intension of consumers. Gender, Education, No. of Children and organic budget share had significant impact on purchase intention of consumers.

Overall, the study has proved the applicability of a well-established model (TPB theory) for measuring consumer attitude and purchase intension towards organic food in the context of developing nation – India. The study has contributed to the growing body of research in the field of organic food consumption with special reference to a developing nation by incorporating additional constructs such as environment concern, environment knowledge, health consciousness, price conscious, and brand consciousness. The study also check impact of demographic variables on purchase intention.

Limitations and Future scope of study

The study extends the current understanding of variables of organic food purchases. The study is limited to measuring the purchase intention of organic food. The future research may incorporate actual buying behavior along with the intention in future studies. Further, the study has measured the organic food in general. The future studies may test and compare the consumer intention towards various range of organic food products. The self-selection bias of respondents may also be a problem in the present research as those who are more health conscious, pro-environmental and knowledgeable about organic food may have participated in the study resulting in over-representation of such people in the sample (Hage, Soderholm, & Berglund, 2009).

REFERENCES

Research Articles:

1. Ahmad, S. N. B., & Juhdi, N. (2008). Consumer's perceptions and purchase intentions toward organic food products: An explorative study on attitudes of Malaysian consumers. 16th Annual Conference on pacific basin Finance, Economics, Accounting and management, Brisbane, Australia.
2. Ahmed, N., Li, C., Khan, A., Qalati, S. A., Naz, S., & Rana, F. (2021). Purchase intention toward organic food among young consumers using theory of planned behavior: role of environmental concerns and environmental awareness. Journal of Environmental Planning and Management, 64(5), 796-822.
3. Ajzen, I., (1985). From intentions to actions: a theory of planned behavior. In: Kuhl, J., Beckmann, J. (Eds.), Action Control: from Cognition to Behavior. Springer-Verlag, Berlin, Heidelberg, New York, pp. 11-39.
4. Ajzen, I., (1988). Attitudes, Personality and Behavior. Open University Press, Milton Keynes.
5. Ajzen, I., (1991). The theory of planned behavior. Organizational behavior and human decision processes, 50(2), 179-211.
6. Ajzen, I., (2005). Attitudes, Personality, and Behavior. McGraw-Hill International.
7. Aryal, K.P., (2008). General perceptions of producer, traders and consumers about organic products in Kathmandu valley. In P. Chaudhary; K. Aryal and D. Tharu (ed.), Proceedings of International Workshop on Opportunities and Challenges of Organic Production and Marketing in South Asia, NPG, Kathmandu, Nepal, pp.120-124.
8. Bamberg, S., (2003). How does environmental concern influence specific environmentally related behaviors? A new answer to an old question. J. Environ. Psychol. 23 (1), 21-32.
9. Barr, S., Gilg, A., (2006). Sustainable lifestyles: framing environmental action in and around the home. Geoforum 37 (6), 906–920.
10. Basha, Mohamed Bilal et al. Consumer Acceptance towards Organic Food. Global Journal of Interdisciplinary social sciences. 4(3) (2015) 29-32.

11. Bhaskaran, Polonsky, M., Cary, J., Fernandez, S., (2006). Environmentally sustainable food production and marketing. Br. Food J. 108 (8), 677-690.
12. Bisonette, M.M. and I.R. Contento (2001). "Adolescents' Perspectives and Food Choice Behaviors in Terms of the Environmental Impacts of Food Production Practices: Application of a Psychosocial Model". Journal of Nutrition Education 33(2), 72-82.
13. Bourn, D., Prescott, J., (2002). A comparison of the nutritional value, sensory qualities and food safety of organically and conventionally produced foods. Crit. Rev. Food Sci. Nutr. 42 (1), 1-34.
14. Carfora, V., Cavallo, C., Catellani, P., Del Giudice, T., & Cicia, G. (2021). Why Do Consumers Intend to Purchase Natural Food? Integrating Theory of Planned Behavior, Value-Belief-Norm Theory, and Trust. Nutrients, 13(6), 1904.
15. Chakrabarti, S. (2010). Factors influencing organic food purchase in India-expert survey insights. British Food Journal, 112(8), 902-915.
16. Chan, R.Y.K., Lau, L.B.Y., 2000. Antecedents of green purchases: a survey in China. J. Consumer Mark. 17 (4), 338-357.
17. Chandrashekar, H. M. (2010) Changing scenario of organic farming in India: an overview. International NGO Journal, 5(1), 34-39.
18. Chen, M. F. (2009). Attitude toward organic foods among Taiwanese as related to health consciousness, environmental attitudes, and the mediating effects of a healthy lifestyle. British Food Journal.
19. Chen, S. C., & Hung, C. W. (2016). Elucidating the factors influencing the acceptance of green products: An extension of theory of planned behavior. Technological Forecasting and Social Change, 112, 155-163.
20. Conner, M., Armitage, C.J., (1998). Extending the theory of planned behavior: a review and avenue for further research. J. Appl. Soc. Psychol. 28 (15), 1429-1464.
21. Davies, A., Titterington, A. J., & Cochrane, C. (1995). Who buys organic food?: a profile of the purchasers of organic food in Northern Ireland. British Food Journal, 97(10), 17-23.

22. de Morais Watanabe, E. A., Alfinito, S., & Barbirato, L. L. (2021). Certification label and fresh organic produce category in an emerging country: an experimental study on consumer trust and purchase intention. British Food Journal.
23. De Pelsmacker, P., Driesen, L. and G. Rayp, (2003). "Are fair trade labels good business? Ethics and coffee buying intentions". Ghent: Working Paper Ghent University, Faculty of Economics and Business Adminstration.
24. Dimitri and Dettmann. (2012) Organic food consumers: what do we really know about them? British Food Journal. 114 (8), 1157-1183.
25. Dipeolu, A.O., Philip, B.B., Aiyelaagbe, I.O.O., Akinbode, S.O. and Adedokun, T.A. (2009), "Consumer awareness and willingness to pay for organic vegetables in S.W. Nigeria", Asian Journal of Food and Agro-Industry, pp. S57-S65, Special Issue
26. Dunlap, R. E., & Jones, R. (2002). Environmental concern: conceptual & measurement issues. In Dunlap, & Michelson (Eds.), Handbook of environmental sociology, pp. 482-542.
27. Fornell, C., & Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics.
28. Gan, C., Wee, H. Y., Ozanne, L., & Kao, T. (2008). Consumers' purchasing behavior towards green products in New Zealand. Innovative Marketing, 4(1), 93-102.
29. Geen, N. & Firth, C. (2006) The Committed Organic Consumer. Joint Organic Congress, Odense.
30. Govindasamy, R., and J. Italia. 1999. Predicting willingness-to-pay a premium for organically grown fresh produce. Journal of Food Distribution Research 30 (2): 44–53.
31. Gracia, A., de Magistris, T. Organic food product purchase behaviour: a pilot study for urban consumers in the South of Italy. Span. J. Agric. Res. 5 (4) (2007) 439-451.
32. Grunert, S. C., & Juhl, H. J. (1995). Values, environmental attitudes, and buying of organic foods. Journal of economic psychology, 16(1), 39-62.

33. Hage, O., Soderholm, P., & Berglund, C. (2009). Norms and economic motivation in household recycling: empirical evidence from Sweden. Resources, Conservation and Recycling, 53(3), 155-165.
34. Hair, J. F., Anderson, R. E., Tatham, R. L., & Black, W. C. (1998). Multivariate data analysis. Upper Saddle River, New Jersey: Prentice-Hall.
35. Hair, J., Black, W., Babin, B., & Anderson, R. (2010). Multivariate data analysis (7th ed.). Upper Saddle River: Pearson Prentice Hall.
36. Han, H., Hsu, Li-Tzang, Sheu, Chwen, 2010. Application of the Theory of Planned Behavior to green hotel choice: testing the effect of environmental friendly activities. Tour. Manag. 31 (3), 325-334.
37. Hee, S.P., 2000. Relationship among attitudes and subjective norm: testing the theory of reasoned action across cultures. Commun. Stud. 51 (2), 162-175.
38. Hines, J., Hungerford, H., & Tomera, A. (1987). Analysis and synthesis of research on environmental behavior: a meta-analysis. Journal of Environmental Education, 18(2), 1-8.
39. Jansssen,M. 'Determinants of organic food purchases: Evidence from household panel data'. Food Quality and Preference 68 (2018) 19–28.
40. Jayanti, R. K., & Burns, A. C. (1998). The antecedents of preventive health care behavior: an empirical study. Journal of the Academy of Marketing Science, 26(1), 6-15.
41. Jia, N. X., Liu, H. F., Wang, X. P. and Liu, Y., "Discussion on the development of organic food, green food and hazard free food", Journal of China Agricultural Resources and Regional Planning, 23, 5, 2002, pp. 60-62
42. Jones, Peter et al. Retailing Organic Food. British Food Journal 103(5) (2001) 358-365.
43. Kates, R. W., (2000) Population and Consumption: What We Know, What We Need to Know, Environment: Science and Policy for Sustainable Development, 42:3, 10-19.
44. Khare, Arpita. Moderating Role of Demographics on Attitude towards Organic Food Purchase Behavior. IGI Global, 2017. DOI: 10.4018/978-1-5225-0902-8.ch020.

45. Klonsky, K., Tourte, L., 1998. Organic agricultural production in the United States: debates and direction. Am. J. Agric. Econ. 80 (5), 1119-1124.
46. Kumar, S., Ali, J., 2011. Analyzing the factors affecting consumer awareness on organic foods in India. In: 21st Annual IFAMAWorld Forum and Symposium on the Road to 2050: Sustainability as a Business Opportunity, pp. 1e12. Frankfurt, Germany during 20-23 June.
47. Lea, E., Worsley, T. (2005), Australians' organic food beliefs, demographics and values, British Food Journal Vol. 107 No. 11, pp. 855-869.
48. Lockie, S., Lyons, K., Lawrence, G., & Grice, J. (2004). Choosing organics: a path analysis of factors underlying the selection of organic food among Australian consumers. Appetite, 43(2), 135-146.
49. Magnusson, M. K., Arvola, A., Hursti, U. K. K., Åberg, L., & Sj€od_en, P. O. (2003). Choice of organic foods is related to perceived consequences for human health and to environmentally friendly behaviour. Appetite, 40(2), 109-117
50. Magnusson, M.K., Arvola, A., KoivistoHursti, U-K.,A ° berg, L. and Sjo¨de´n, P-O. (2001), "Attitudes towards organic foods among Swedish consumers", British Food Journal, Vol. 103 No. 3, pp. 209-26.
51. Mittal, S., Kaur, G., & Vishwakarma, G. S. (2014). Effects of environmental pesticides on the health of rural communities in the Malwa Region of Punjab, India: A review. Human and Ecological Risk Assessment: An International Journal, 20(2), 366-387.
52. Mostafa, M.M., 2007. A hierarchical analysis of the green consciousness of the Egyptian consumer. Psychol. Mark. 24 (5), 445-473.
53. Mukharjee, A., Kappor, A., Dutta, S. (2018), Organic Food Business in India: A Survey of Companies, Research in Economics and Management, Vol. 3, No. 2, pp. 72-90
54. Mukherjee, A., Satija, D., Goyal, T. M., Mantrala, M. K., & Zou, S. (2012). Are Indian consumers brand conscious? Insights for global retailers. Asia Pacific Journal of Marketing and Logistics, 24(3), 482-499.

55. Murgai, R., Ali, M., & d Byerlee, D. (2001). Productivity growth and sustainability in pos—Green Revolution agriculture: The case of the Indian and Pakistan Punjabs. The World Bank Research Observer, 16(2), 199-218.
56. Nagaraj, S. (2021). Role of consumer health consciousness, food safety & attitude on organic food purchase in emerging market: A serial mediation model. Journal of Retailing and Consumer Services, 59, 102423.
57. Nguyen, Hoang Viet et al. Organic Food Purchases in an Emerging Market: The Influence of Consumers' Personal Factors and Green Marketing Practices of Food Stores. International Journal of Environmental Research and Public Health. 2019, 16, 1037.
58. O'Donovan, P., McCarthy, M., 2002. Irish consumer preference for organic meat. Br. Food J. 104 (3/4/5), 353–370.
59. Pagiaslis, A., & Krontalis, A. K. (2014). Green consumption behavior antecedents: environmental concern, knowledge, and beliefs. Psychology & Marketing, 31(5), 335-348.
60. Paul, J., & Rana, J. (2012). Consumer behavior and purchase intention for organic food. Journal of Consumer Marketing, 29(6), 412-422.
61. Pearse, A. (1980). Seeds of Plenty, Seeds of Want: Social and Economic Implications of the Green Revolution. Revisiting Sustainable Development, 139.
62. Peattie, K., 2010. Green consumption: behavior and norms. Annu. Rev. Environ. Resour. 35 (1), 195.
63. Peattie, K., Crane, A., 2005. Green marketing: legend, myth, Farce or Prophesy? Qual. Mark. Res. Int. J. 8 (4), 357-370.
64. Pickett-Baker, J., & Ozaki, R. (2008). Pro-environmental products: marketing influence on consumer purchase decision. Journal of consumer marketing,25(5), 281-293.
65. Prakash, G., Singh, P.K., Yadav, R., Application of Consumer Style Inventory (CSI) to predict young Indian consumer's intention to purchase organic food products, Food Quality and Preference (2018), doi: https://doi.org/10.1016/j.foodqual.2018.01.015

66. Rana, J., & Paul, J. (2017). Consumer behavior and purchase intention for organic food: A review and research agenda. Journal of Retailing and Consumer Services, 38, 157-165.
67. Rehber, E. and Turhan, S., 2002. Prospects and Challenges for developing countries in trade and production of organic foodand fibres- The case of Turkey, British Food Journal, Vol. 104 (3/4/5), pp. 371-390.
68. Rozin, P., Fischler, C., Imada, S., Sarubin, A., & Wrzesniewski, A. (1999). Attitudes to food and the role of food in life in the USA, Japan, Flemish Belgium and France: possible implications for the diet-health debate. Appetite, 33(2), 163-180.
69. Scott, L., Vigar-Ellis, D., 2014. Consumer understanding, perceptions and behaviours with regard to environmentally friendly packaging in a developing nation. Int. J. Consumer Stud. 38 (6), 642-649.
70. Shafi, S., & Madhavaiah, C. C. (2013). The Influence of Brand Equity on Consumer Buying Behaviour of Organic Foods in India.Journal Of Marketing & Communication, 9(2), 44-51.
71. Sheng, J., Shen, L., Qiao, Y., Yu, M.M., and Fan, B. (2009),"Market trends and accreditation systems for organic food in China", Trends in food science & technology, Vol. 20 No. 9, pp.396-401.
72. Sheppard, B.H., Hartwick, J., Warshaw, P.R., 1988. The theory of reasoned action: a meta-analysis of past research with recommendations for modifications and future research. J. Consumer Res. 15 (3), 325-343.
73. Singh, Anupam and Verma, Priyanka. Factors influencing Indian consumers' actual buying behaviour towards organic food products. Journal of Cleaner Production 167 (2017) 473-483.
74. Singh, R. B. (2000). Environmental consequences of agricultural development: A case study from the Green Revolution state of Haryana, India. Agriculture, ecosystems & environment, 82(1-3), 97-103.
75. Sirieix, L., Delanchy, M., Remaud, H., Zepeda, L., & Gurviez, P. (2013). Consumers' perceptions of individual and combined sustainable food labels: a

UK pilot investigation. International Journal of Consumer Studies, 37(2), 143-151.

76. Smith, S., & Paladino, A. (2010). Eating clean and green? Investigating consumer motivations towards the purchase of organic food. Australasian Marketing Journal, 18(2), 93-104.
77. Sondhi, N., Vani, V. An empirical analysis of the organic retail market in the NCR. Glob. Bus. Rev. 8 (2) (2007) 283-302.
78. Sproles, G. B., & Kendall, E. L. (1986). A methodology for profiling consumers' decision making styles. The Journal of Consumer Affairs, 20 (2), 267 -279.
79. Storstad, O. and Bjorkhaug, H. (2003), "Foundations of production and consumption of organic food in Norway: common attitudes among farmers and consumers", Agriculture and Human Values, Vol. 20, pp. 151-63
80. Tanner, C. and S.W. Kast, (2003). "Promoting Sustainable Consumption: Determinants of Green Purchases by Swiss Consumers", Psychology and Marketing, 20(10), 883-902.
81. Technopak. (2012). Organic Food Market in India. Retrieved on 22nd February 2014 from http://www/globalorganictrade.com/files/market_reports/OTA_India_Market_Report_2012.pdf
82. Tregear, A., Dent, J. B., & McGregor, M. J. (1994). The demand for organically grown produce. British Food Journal, 96(4), 21-25.
83. Vermeir, I. and Verbeke, W. (2004). Sustainable Food Consumption: Exploring the consumer attitude-behaviour gap. Ghent: Working Paper Ghent University.
84. Von Alvesleben R., Consumer behaviour. In: Agro-food marketing CAB Intnl assoc Mediterranean Agronomic Studies (CIHEAM), 1997.
85. Wandel, M., & Bugge, A. (1997). Environmental concern in consumer evaluation of wandelfood quality. Food Quality and Preference, 8(1), 19-26.
86. Willer, H., & Schaack, D. (2015). Organic farming and market development in Europe. In The World of Organic Agriculture. Statistics and Emerging Trends

2015 (pp. 174-214). Research Institute of Organic Agriculture (FiBL) and International Federation of Organic Agriculture Movements (IFOAM).

87. Yadav, R. and Pathak, G. (2016). Intention to purchase organic food among young consumers: Evidences from a developing nation. Appetite, Vol. 96, 122-128.
88. Yang, H. Q., & Jie, Y. L. (2008), " Recent development of organic farming in the world and the development strategy of organic horticulture in China". Acta Horticulturae Sinica, Vol. 35 No.3, pp. 447-454.
89. Zabkar, V., & Hosta, M. (2013). Willingness to act and environmentally conscious consumer behaviour: can prosocial status perceptions help overcome the gap?. International Journal of Consumer Studies, 37(3), 257-264.
90. Zanoli, R., Naspetti, S., 2002. Consumer motivations in the purchase of organic food: a means-end approach. Br. Food J. 104 (8), 643-653.
91. Zepeda, L., & Deal, D. (2009). Organic and local food consumer behaviour: Alphabet Theory. International Journal of Consumer Studies, 33(6), 697–705.

Reports:

- FAO, 1999. Guidelines for the Production, Processing, Labeling and Marketing of Organically Produced Foods, vol. 32. Joint/WHO Food Standards Program Codex Alimentarius Commision, Rome, CAC/GL, p. 49.
- Torjusen, Nyberg,Wandel, 1999. Organic Food; Consumers' Perceptions and Dietary Choices. SIFO-Report No. 5e1999 (Norway).
- USDA (2020). India: Indian Organic Foods Market Report retrieved from https://www.fas.usda.gov/data/india-indian-organic-foods-market-report accessed on 21st August, 2020.
- OECD (2019), OECD-FAO Agricultural Outlook 2019-2028, OECD Publishing. doi: 10.1787/agr_outlook-2019-en
- Organic Food Production Act, 1990. Title: Food, Agriculture, Conservation and Trade Act of 1990, Public Law 101-624; 104 Stat. 3359, 3935-3951, 7 U.S.C. 6501e6522 (Supp. 1991).

- Yi, L.K., 2009. Consumer Behaviour towards Organic Food Consumption in Hong Kong: an Empirical Study. Unpublished Honours Degree Project. Hong Kong Baptist University, Hong Kong.

Footnotes:

- Ahmedabad Population 2020 (Demographics, Maps, Graphs) retrieved from http://worldpopulationreview.com/world-cities/ahmedabad-population/ accessed on Fabruary 4, 2020.
- Changing Trends in the Indian Organic Food Industry retrieved from http://www.businessworld.in/article/Changing-Trends-In-The-Indian-Organic-Food-Industry/14-04-2019-169138/ accessed on January 25, 2020.

Annexure

Draft of Questionnaire

Sr. No.	Statements	1	2	3	4	5
1	The environment is one of the most important issues facing the world today.					
	Issues relating to the environment are very important for me					
3	Environment protection is great Indian ethos and very much relevant for all.					
4	It is important for me that we try to protect our environment for future generations					
5	We should devote some part of our national resources to environment protection					
6	The benefits of environmental protection justify the costs involved					
7	I chose food carefully to ensure the good health.					
8	I didn't consider myself as health conscious consumer.					
9	I think often about health related issues.					
10	I prefer buying well-known national brands.					
11	The higher the price of the product, the better its quality.					
12	Nice department and specialty stores offer me the best products.					
13	I prefer to buy the best-selling brands.					
14	I try to buy organic food products at sale prices.					
15	I usually choose lower priced products.					
16	I look carefully to find the best value-for-money.					
17	Most people important to me, think that I should buy organic food.					
18	Most people, important to me, would want me to purchase organic food.					
19	People whose opinion I value would prefer that I shouldn’t buy organic food (R)					
20	To buy or not to buy organic food is entirely up to me.					

21	I am confident that if I want, I can buy organic food.					
22	I didn't have resources and time to buy organic food.					
23	Buying organic food is a good idea.					
24	Buying organic food is a wise choice.					
25	I like the idea of buying organic food.					
26	Buying organic food would be pleasant.					
27	I am willing to buy organic food while shopping.					
28	I will make an effort to buy organic food in the near future.					
29	I will purchase organic food while shopping					
30	I know that I buy products and packages that are environmentally safe.					
31	I know more about recycling than the average person.					
32	I am very knowledgeable about environmental issues.					
33	I understand the various phrases and symbols related to environment on product package.					
34	I know how to select products and packages that reduce the amount of waste dumping.					

Socio-Demographic Variables

Gender	□ Male □ Female
Age	□ Up to 29 years □ 30-39 years □ 40-49 years □ 50-59 years □ 60-69 years □ 70 years and elders
Marital Status	□ Married □ Unmarried □ Widow
Education Qualification	□ Undergraduate □ Graduate

	□ Post graduate □ Professional □ Others
Monthly Income	□ < 50000 □ 50000-100000 □ >100000
Family Type	□ Joint □ Nuclear
No. of Child If Yes,	□ No □ Yes □ 1 child □ 2 child □ >2 child
Organic Budget Share (Monthly Budget)	□ 0% □ < 10% □ 10% to 20% □ 20% to 50% □ >50%