



Consumer behavior and purchase intention for organic food: A review and research agenda



Jyoti Rana^a, Justin Paul^{b,*},¹

^a Dept. of Marketing & Management, DAVC College, Faridabad (University of Delhi), New Delhi, India

^b University of Puerto Rico, Graduate School of Business, San Juan, PR 00931, USA

ARTICLE INFO

Keywords:

Consumer attitude
Purchase intention
Organic food
Organic farming
Green products

ABSTRACT

In this article, we review and discuss the factors, which affect the change in the consumer behavior towards organic food. We extract findings from various studies conducted in different countries and analyze those factors and provide suggestions for future research. We find that health-conscious consumers show a growing preference for organic food over the conventionally grown food. This shift in the attitude of the modern consumers is greatly influenced by the rising incidence of lifestyle diseases, such as heart disorders and depression. The need to purchase organic food to improve the quality of life will have huge implications for the retail, distribution and marketing functions of business.

1. Introduction

In the late twentieth century, the world witnessed a paradigm shift in the reach of education and in the attitude of people towards life. As part of this shift, there was a marked increase in the preference for organic food. Traditionally, many farmers were unaware of the modern and scientific food production techniques and thus, they did not use synthetic fertilizers, pesticides or other crop-preserving chemicals in the process of food production. They used to grow pesticide-free food for self-consumption only. In fact, this consumption of organic food was symbolic of the ethical value system (Groszlik, 2016).

Then, a trend emerged between 1940s and 1960s when farmers shifted to more efficient and intensive food production techniques, which involved the use of advanced methods. This trend flourished despite the knowledge of the benefits of organic food. The reason for this is attributed to the increase in human population coupled with the devastating famines in certain parts of the world, which mandated higher production of food. Bolstered by Industrialization and improvements in agricultural chemicals, the farmers shifted to such forms of food production. As a result, organic farming took a backseat, and consumers began purchasing conventionally grown food because of its sheer abundance and lower prices (Mutlu, 2007).

Eventually, the indiscriminate use of chemicals led to environmental deterioration. Also, the commercial objectives, which led to the use of hazardous pesticides and chemical fertilizers in the farms and agricultural land meant that consumers were buying food and food

products without any nutritional value. The high incidence of lifestyle diseases, such as diabetes and heart disorders, raised an alarm which made consumers realize the importance of food quality and safety (Menrad, 2003; Roberfroid, 2002). Many consumers, these days, believe in the motto “You are what you eat” — a perception that has highly contributed to the increase in demand for organic food (Norman et al., 2000). With both consumers and farmers thinking about returning to organically grown and environmentally friendly products, organic food is gaining acceptance not only in developed countries of Europe and North America, but also in developing countries such as China and India (Patel et al., 2007; Paul et al., 2016).

The shift in consumer attitude occurred because organic food has fulfilled the expectations of modern consumers. Organic agriculture combines several practices including the application of organic fertilizers, locally adapted seeds/breeds, biological pest control and intercropping with nitrogen-fixing trees, or legumes, or with other synergistic crops (Adamtey et al., 2016). Also, consumers can afford to purchase organic food to attain better quality of life due to the commensurate growth in their disposable income (Kriwy and Mecking, 2012). All this has led some marketers to promote their products as being healthy which is different from the promotional efforts associated with the hedonic foods (Bublitz and Peracchio, 2015). They argued that adapting successful industry practices to promote a healthy shift in the eating habits of consumers will help businesses producing such healthy products to thrive. For this, marketers need to know about the prospective consumers to whom they can promote organic food. Moreover,

* Corresponding author.

E-mail addresses: jyotid_123@yahoo.co.in (J. Rana), justin.paul@upr.edu, profjust@gmail.com (J. Paul).

¹ Formerly, Faculty Member, University of Washington, Seattle, USA.

they want to know what factors will influence the purchase decisions of such consumers. But the above literature does not throw light on the consumer segments willing to purchase the organic food.

To identify and target the consumers of organic food, we need to understand their outlook and the factors, which affect their outlook. This will help to understand the most important considerations, which shape the behavior of organic food consumers. Moreover, it will provide a detailed analytical framework for the reasons, which cause change in attitude of consumers towards organic food. In this context, the objectives of the study can be specified as follows i) Assess the reasons which underlie the shift in the attitude of consumers towards organic food ii) Cluster the important factors that affect consumer attitude and behavior towards organic food. iii). Identify the factors, which are not given much importance in making positive the attitude of the consumer towards organic food. Identify the research gaps in literature and key issues to be researched in the future for making organic food more popular.

In order to address these objectives, this article is structured in sections given as follows: Section 2 deals with the objectives of the study. Methodology is outlined in Section 3. Overview and trends are given in Section 4. The findings are discussed in Section 5. A new framework is developed in Section 6 which could serve as a benchmark for organizations dealing with the organic food. Section 7 provides directions for future research. Section 8 carries the concluding observations.

2. Method

To address the objectives, we reviewed extant research to understand the primary factors behind the shift in the consumer attitude towards organic food. We adopted various steps in selecting the related literature for this review. First, we used the methods adopted in prior review articles (Canabal and White, 2008; Terjesen et al., 2016) and conducted a broad search for organic food and interdisciplinary literature published in the last 30 years (i.e., 1985–2015), which included online databases as well as reference lists of the articles. We used keywords such as organic food, consumers' attitude towards organic food, purchase intention for organic food, demand for organic food, etc. Further, we downloaded more than 400 articles published since 1985 from databases such as Google Scholar, EBSCO and Social Science Research Network. After careful consideration and selection, we short-listed core articles to be included in this review based on the criteria used in prior reviews and the discussion among the co-authors.

The final sample consists of 146 research articles, which identify organic food consumers and their attitudes, beliefs, purchase intention and behavior as published in journals which are either listed in the Social Science Citation Index, or in SCOPUS. As government reports are non-commercial and have greater authenticity, we also covered some government papers from websites such as United States Department of Agriculture. We chose the last three decades (1985–2015) as the time for the review to encompass all the important factors and variables that influence consumer behavior and purchase intention for organic food. We did not include research on associated areas such as soil fertility, chemical fertilizers, etc. so as to focus only on organic food. We reviewed and interpreted those research articles, which contributed to our understanding of organic food, consumers' attitude towards it and farmers' satisfaction level in producing organic food. For understanding the importance of factors identified in the context of various countries, we have highlighted some prior studies that have identified such factors contributing to the shift in consumers' attitude.

3. Literature and theory

This section provides an overview and general trends related to organic food, which will help us to understand the nature of organic food and its standing in the minds of consumers.

3.1. An overview

3.1.1. Organic food

Organic food encompasses natural food items which are free from artificial chemicals such as fertilizers, herbicides, pesticides, antibiotics, and genetically modified organisms. Additionally, organic food is not subjected to irradiation (Marwa and Scott, 2013). Thus, Organic food is considered healthy because synthetic chemicals are not used in its production (Suprpto and Wijaya, 2012). Literature shows that many terms are used to refer to organic food, such as “natural,” “local,” “fresh,” and “pure” (Chan, 2001). Organic farming has always been a healthy option to produce followed by at least some farmers all over the world (Canavari and Olson, 2007).

3.1.2. Consumer attitude and behavior

Attitude is the most important predictor of intention to buy organic food and the relation between attitude and intention has been found to be positive and significant (Kozup et al., 2003). Besides attitude, subjective and personal norms also influence the consumption of organic food (Aertsens et al., 2009a, 2009b). In the following text, some of the critical factors, which contribute to the formation of attitude and behavior of consumers have been described.

The presence of packaged food labels which carry nutritional information and health claims strongly influences the attitude and purchase intentions. Consumers have a more favorable attitude toward products with detailed label descriptions and nutrition information (Kozup et al., 2003). Such efforts make today's consumers more aware and concerned about their healthy lifestyle. They wish to engage in healthy behavior and eat nourishing food (Gould, 1988; Baker et al., 2004).

Ethical issues form another important factor as it is believed that people guide their behavior on account of concern for environment and animal welfare. The greater the concern about such issues, the higher is the probability that people will consume healthy food (Honkanen et al., 2006). Most people have the impression that organic food is an ethical product (Crane, 2001). Despite Alwitt and Pitts (1996) indicating that positive attitude towards environment does not have any bearing on the purchase intention of buyers, many consumers not only believe in fair trade practices but also they wish to buy products that have been made by producers in an ethical manner. Such ethical considerations also affect suppliers as these factors determine both their market size and market segment (Moore, 2004).

Auger et al. (2003) focused on ethical consumerism that encompasses the importance of social components of a company's products. Consumers were interested to consume only those products, which were safe for the society. Doran (2009) emphasized that fair trade knowledge, perceived quantity and quality of fair trade information and overall concern influences buying behavior directly as well as indirectly. The important determinants of ethical consumption hinge on social standing, adoption of fair trade, environmental concern and a religiously cohesive outlook (Doran and Natale, 2011).

As a consequence of the above factors, consumers' interest in healthy food has increased manifold. Across product categories, there is still variation in the importance of motives and barriers relating to consumer behavior towards organic food (Padel and Foster, 2005).

3.1.3. Supply and demand

In the field of organic food, there have been imbalances in the supply and demand situation (Oger et al., 2001). These imbalances have to be dealt with in a suitable manner to ensure a stable ground for the marketing organic food in the future. We know that as the supply of organic food decreases, so does the demand (Gil et al., 2000). On the supply side, farmers are hesitant in adopting organic farming because of various reasons such as complicated and expensive certification process, poor financial viability, limited market size and lack of direct sales channels (Groff et al., 1993; Harris et al., 2000; Valerian et al., 2011).

On the demand side, there is a need to review the present literature to unearth the issues such as hurdles in the expansion of market, effective promotional strategies, and consumer attitude towards organic food.

3.2. Theoretical models and frameworks

There are diverse theoretical models and frameworks, which help everyone to better understand the purchase process for organic food. Well-established theories such as Theory of Planned behavior and Theory of Reasoned action have been used by researchers to predict and examine the demand for green products and organic food (Paul et al., 2016; Smith and Paladino, 2009; Tarkiainen and Sundqvist, 2005). Zapeda and Deal (2009) applied Value-Belief-Norm (VBN) theory and Attitude-Behavior-Context (ABC) to understand why consumers buy organic and/or local food. They presented a new theoretical framework called Alphabet theory based on the demographics associated with the interview data to explain the purchase behavior for organic and local food. Similarly, Zanolini and Naspetti (2002) used the means-end chain model to link attributes of products to the needs of consumers.

On the other hand, developed a five-stage model to understand the decision making in the buying process. The five stages include identification of need, search for related information, evaluation of various available alternatives, selection of the best alternative and post purchase behavior. Paul and Rana (2012) developed a theoretical framework that shows the relative importance of factors such as health benefit, ecological awareness, availability and freshness as determinants of the purchase intention for organic food. Sierra et al. (2015a, 2015b) offered a sequential choice process model of nutrition information usage, organic food brand tribalism, self-esteem, and feelings about shopping smart for healthy food. This model was then applied to study the intention to purchase soft drinks made with artificial sugar and the intention to purchase meat in which the cattle were raised on a corn diet (instead of grass diet) and explain meaningful variance in consumers' intention to purchase unhealthy food over organic food.

4. Findings and discussion

The prior researchers have discussed several factors, which affect the demand for organic food over a period of time. The need for self-esteem is one of the factors, which affect the change in attitude towards organic food (Haugtvedt et al., 1996). Some studies highlighted the food quality, safety and freshness as the drivers of demand (Loureiro et al., 2001; Botonaki et al., 2006; Kihlberg and Risvik, 2007). These studies also cited concern for environment as another driver of demand. This is because organic food is considered eco-friendly on account of being produced without the aid of pesticides and other crop-preserving chemicals. Even so, consumers tend to consider the health and safety spectrum of organic food as polluted due to the presence of even chemical residues, hormones and natural toxins (Honkanen et al., 2006). Nevertheless, the perceived higher nutritional value of organic food is an important demand driver (Kihlberg and Risvik, 2007; de Magistris and Garcia, 2008). Some studies have underscored health awareness as a factor, which contributes to the purchase decisions of organic food. In other words, the increased health consciousness enables consumers to distinguish between the nutritional values of conventional and organic food, and consequently lead them to buy organic food (Harper and Makatouni, 2002; O'Donovan and McCarthy, 2002). Even in developing countries, the consumers have shown increasing interest in organic food to safeguard and improve their health (Latacz-Lohmann and Foster, 1997).

In the context of brand tribalism, the rivalry between those who espouse organic food and processed food has been explored empirically in the extant literature (Sierra et al., 2015a, 2015b). Regardless of the food marketing objectives of different brands, practitioners and policy makers would benefit from a better understanding of the purchase determinants of consumers' unhealthy food and beverage choices

(Sierra et al., 2015a, 2015b). In the organic food market, brand equity has a strong influence on the perceived quality and consumer buying behavior. Some studies have placed emphasis on certain demand and supply deterrents, which have negative influence on consumer attitude towards organic food. These factors include expenditure incurred to reduce the agricultural chemical use, high price, low availability, and difficulty in producing organic manure. Insights provided by Bruschi et al. (2015) accentuate the attitudes and perceptions of urban Russian consumers towards organic food, as well as factors that facilitate or prevent them from purchasing those products. Based on investigations undertaken using a mixed-method approach, they found that consumption of organic food is mainly motivated by personal well-being and proportionally less by social or environmental concerns.

Over the years, some key factors have influenced consumer demand and sales of organic food in a positive manner. Yet, the market size of organic food remains relatively small (Gil et al., 2000; Stefanic et al., 2001; O'Donovan and McCarthy, 2002). Thus, it becomes imperative to acquire knowledge about the most and least impactful determinants of the consumer attitude towards organic food. This will allow in creating awareness about the most impactful factors to flourish a positive attitude towards organic food through marketing and promotion. At the same time, the negative connotations of certain inhibitory factors have to be downplayed carefully. The following content focuses on the shift in the attitude of consumers of organic food and the underlying factors for the same.

4.1. Factors influencing attitude of organic food consumers

In recent times, media has provided extensive coverage of health-related topics which has made consumers increasingly health conscious and desirous of a better quality of life. Also, the soaring environmental costs have given rise to "green" consumers (Peattie and Ratnayaka, 1992). In a geographical context, the consumers of Central and Eastern European countries are demanding safe and nutritious food items on account of increasing globalization, education and income levels (Anderson, 2000; Zakowska-Biemans, 2011). At the same time, Asian consumers are also gravitating towards organic food due to apprehensions about the commercially grown food as being risky (Williams and Hammitt, 2001) and partly responsible for the high incidence of lifestyle diseases, such as obesity and Type 2 diabetes (Cummins, 2001; Schmidt, 1999; Birchard, 2001; Hansen et al., 2002). Moreover, consumers do not mind paying a premium price for risk-free food (Zepeda and Li, 2007; Roitner-Schobesberger et al., 2008; Tsakiridou et al., 2008) and thus, many retail grocery stores have seized this opportunity to reserve sections and aisles exclusively for organic food items (Nasir and Karakaya, 2014).

In tune with the above discussion, we now discuss how and to what extent these factors have contributed towards influencing consumer's attitude and purchase intention for organic food.

4.1.1. Health consciousness and expectations of well-being

A survey of 136 lecturers from Universiti Teknologi MARA in Malaysia by Salleh et al. (2010) found that health consciousness strongly motivates consumers to purchase organic food, while quality and taste are also significant considerations. Health consciousness necessitates inclusion of good nutritional food in consumer's diet and thus, it is linked with the purchase of organic food (Jolly et al., 1989; Buzby and Skees, 1994; Bonti-Ankomah and Yiridoe, 2006; Megicks et al., 2008; Kumar and Ali, 2011; Paul and Rana, 2012). Similar results were obtained by Zanolini and Naspetti (2002) using data on consumer perception and knowledge of organic food in Italy which suggested that pleasure and wellbeing are the foremost values in the minds of consumers. These factors were also confirmed in previous studies conducted in other countries, including America and Sweden (Groff et al., 1993). In fact, it was found that consumers will lap up the food marketed as rich in nutrients and micronutrients, even if such a claim is

unsupported by scientific evidence (Canavari and Olson, 2007).

4.1.2. Quality and safety

Based on several studies, food safety has been identified as a key motivator in increasing the consumption of organic food (Hay, 1989; Lane and Bruhn, 1992; Demeritt, 2002; Kumar and Ali, 2011; Thomas and Gunden, 2012; Van Loo et al., 2013). Organic food is produced without using pesticides and other crop-preserving chemicals, which are harmful for human health. Moreover, the escalating occurrences of food-related diseases, such as the Avian Influenza (commonly known as the “Bird Flu”) and Bovine Spongiform Encephalopathy (commonly known as “Mad Cow” disease) have shone the spotlight on consumption of safe food items (Canavari and Olson, 2007). Thus, food safety is actively promoted by governments, healthcare industry professionals, researchers etc. (Crutchfield and Roberts, 2000; Crutchfield and Weimer, 2000; Woteki et al., 2001).

4.1.3. Environmental friendliness and ethical consumerism

Consumer attitude has evolved over the years primarily due to ethical concerns towards the environment (McEachern and McClean, 2002). It is known that environmental concerns and social norms help in shaping and predicting individual behavior (Berkowitz, 1997; Laroche et al., 2001, Paul et al., 2016). Although some studies have given less importance to social norms in predicting human behavior (Krebs, 1970; Marini, 1984; Krebs and Miller, 1985), Schwartz (1973, 1977) found that social norms and environmental concerns have developed a feeling of moral obligation and created a positive attitude among consumers towards environment.

This evolution has fostered the development of “eco-friendly products,” also known as “green products,” which has paved the way for organic food in developed markets such as USA and Germany (Ottman and Terry, 1998). A survey conducted by McKinsey (2007) found that consumers are concerned about the harmful impacts of using pesticides and chemicals in the farms, concluding that most citizens harboring such concerns are from countries such as Canada, United States, China and India. Seyfang's (2006) also found that environment protection is a common motivator that has led to ethical consumerism.

Ethical consumerism falls under the umbrella of consumer activism which either involves purchasing ethical products with low social and environmental costs or institutes a moral boycott of unethical products (Giesler and Veresiu, 2014). Practicing ethical consumerism inspires consumers to buy green products in order to fulfill their ethical responsibility (Cho and Krasser, 2011). For many brands, the fact that the use of the green element and green innovations can improve the attitude of consumers toward them is positive news (Olsen et al., 2014; Kouba, 2003; Seyfang, 2006).

4.1.4. Willingness to pay

Many surveys conducted in the United States, China, Japan and India have highlighted that consumers are willing to pay a premium for socially responsible products (Makatouni, 2002; Pino et al., 2012; Canavari et al., 2007). Similarly, Inglehart and Welzel (2005) found that consumers are primarily concerned about two things: environment and quality of life. Occasionally, consumers may lead a more cautious lifestyle due to fear, risk factors and negative emotions. For instance, awareness of environmental pollution and fear of suffering from severe allergies due to consumption of conventional food have popularized health and environmentally friendly food consumption (Hoffmann and Schlicht, 2013).

4.1.5. Price and certification

Lack of awareness, low financial viability and high price of organic food are some challenges in the path to develop a positive attitude towards organic food (Grunet and Juhl, 1995; Maguire et al., 2001; Greene and Kremen, 2003). These factors discourage consumer demand but farmers can increase the consumer base by improving the

distribution channels of organic food supply (Canavari et al., 2007). Certification is another important factor which encourages consumers to buy organic food. In order to gain consumer trust, it is important for farmers to authenticate and validate their products through government's certification (Deliana, 2012). The middle to upper income groups constitutes the target market for organic food as these groups can pay higher prices (Deliana, 2012). Gil et al. (2000) confirmed through their study that farmers should aim to increase consumption among those segments that are appreciative of the positive attributes of organic food. They also found that farmers should focus on domestic markets because these markets have the potential to expand in the future.

4.1.6. Fashion trends and unique lifestyle

In an overview of the organic food sector in Italy and United States, Canavari and Olson (2007) indicate that certain foods are consumed as a status symbol. For this reason, serving organic food, which is expensive and exclusive has become the latest trend in elite society of some countries. It marks a show of the purchasing power and luxurious lifestyle of consumers with greater disposable income.

4.1.7. Social consciousness

Purchase behavior, choice of media and innovation are related to personality of individuals (Kassarjian, 1971). It is understood that each consumer behaves differently and consumes products that suit their personality. Some consumers are concerned about societal welfare, which cause them to be concerned about their food and health choices. Based on the theories of sustainable consumption and ecological citizenship, Seyfang (2006) used the first empirical investigation of Eostre Organics, an organic food producer cooperative in the United Kingdom, to show that 65.2% of respondents cited a desire to support and strengthen the local economy and community, including greater self-reliance and independence from global corporations and supermarkets. These aspirations encourage some prominent consumers to purchase organic food to set an example and inspire others to modify their consumption patterns for societal benefit (Canavari and Olson, 2007). Social influence is an incredibly broad area that affects one's emotions, opinions and behavior (Wood and Hayes, 2012).

4.2. Factors affecting demand for organic food in different countries

Both developed and developing countries are striving to improve demand encourage organic farming. The factors affecting demand and their priority levels may vary from country to country. Therefore, it is important to understand the status and pattern of studies undertaken in various countries. Table 1 reveals some important factors that influence the attitude of organic food consumers in some particular countries (See Table 1). From the Table 1, it can be inferred that ethical commitment, quality, safety, knowledge, and health are the important factors in the case of developed countries. Whereas, the important factors for developing countries includes availability, education, health, marital status, and family size. It is notable that health is the only factor that is considered important in both types of countries.

5. A new framework

The Section 5 revealed that health consciousness has been considered as the best predictor of consumer attitude and behavior towards organic food (Michael and Hassan, 2008; Dickieson et al., 2009; Lane and Bruhn, 1992; Shaharudin et al., 2010; Paul and Rana, 2012). The health factor creates a positive attitude about organic food consumption as a way to prevent diseases (Groff et al., 1993). Therefore, the healthcare industry can use this information and easily promote the use of organic food. Moreover, health consciousness forms the basis for purchase intention for many consumers and it is positively associated with the consumer buying behavior and attitude. Additionally,

Table 1
Notable research on factors affecting consumer attitude and demand for organic food.

| Topic of research | Citation | Country context | Methods | Factors (Very Important) |
|---|-------------------------------|---------------------------------------|---|---|
| Effect of situations on the purchase intention and behavior | Grimmer et al. (2015) | Australia | Empirical tests, using consumers (n=772) | <ul style="list-style-type: none"> ● Price ● Availability ● Ease of purchase |
| An extension of the benefit segmentation base for the consumption of organic foods | Gad Mohsen and Dacko (2013) | UK | Questionnaire (Correlation and Regression): | <ul style="list-style-type: none"> ● High perceived prior knowledge ● High levels of future orientation |
| Factors Influencing Purchasing Behavior of Organic Foods | Shamsolla et al. (2013) | Malaysia | Questionnaire (Descriptive Analysis, Correlation, Coefficient Analysis): | <ul style="list-style-type: none"> ● Knowledge & Education ● Environmental Concern ● Health Consciousness |
| Demand analysis of Organic Milk | | Germany | Price-elasticity estimates on a panel data set of 20000 households. | <ul style="list-style-type: none"> ● Demand is Price Inelastic. |
| Purchase Behavior and Influence of Socio Economic Factors with reference to Organic Food Products | Santhi et al. (2007) | India | Questionnaire (Descriptive statistics, Chi-square, ANOVA and Factor Analysis): | <ul style="list-style-type: none"> ● Marital Status ● Food Habits [vegetarian] of the respondents |
| Determinants of Regular and Occasional Consumers' Intentions to Buy Organic Food | Pino et al. (2012) | Italy | Survey and Structural Equation Model | <ul style="list-style-type: none"> ● Ethical commitment ● Food safety |
| Determinants of purchasing behavior for organic and integrated fruits and vegetables in Slovenia | Shamsolla and Juvancic (2010) | Slovenia | Questionnaire (Ordered Probit Model): | <ul style="list-style-type: none"> ● Availability ● Income ● Health and environmental considerations ● Visual attractiveness of products. |
| Quality, Safety and Consumer Behavior Toward Organic Food | Lucas et al. (2008) | Germany (Berlin) Portugal (Lisbon) | Questionnaire (Chi-square, ANOVA): | <ul style="list-style-type: none"> ● Quality and Safety |
| Community of organic food consumers: an exploratory study | Essoussi and Zahaf (2008) | Canada | Survey (Content analysis - verbatim transcripts of the audio-taped interviews): | <ul style="list-style-type: none"> ● Knowledge of organic content. ● Labeling and certification. |
| Attitudes and behavior toward organic products: an exploratory study | Tsakiridou et al. (2008) | Greece | Questionnaire (Descriptive statistics and non-parametric tests - Mann-Whitney and Kruskal-Whallis): | <ul style="list-style-type: none"> ● Health ● Environmental concern ● Animal welfare. |

Environmental concern is another crucial motivating factor and the primary reason for the formation of positive consumer attitude towards organic food (Brugarolas Mollá-Bauzá et al., 2005; Makatouni, 2002; Smith and Paladino, 2009; Valerian et al., 2011). Despite the improved demand, organic food production is not picking up steam due to the reason that farmers lack both the resources and agricultural knowledge required for the crop protection.

Our findings from this review can serve as the base for environmentalists, policy makers and non-governmental organizations to support and advance their arguments. To develop an improved organic food market, they could work on major aspects such as supply chain, distribution system, provision of necessary tools and technical know-how to farmers and procurement of certification from the government. Based on the findings from this review, we classify the factors which affect the consumer attitude towards organic food into three categories: very important, important and less important. These categories help us to draw a framework (see Fig. 1) which will enable the marketers to explore the impact of crucial factors on marketing of organic food.

6. Future research agenda

The Section 5 of this article was focused on identifying the factors which impact consumer's impulse to purchase organic food. The common thread which led to the evolution of consumers' attitudes towards organic food weaves together health, environmental and ethical concerns, quality and safety. Certain factors are given less importance while some others are deterrents, which hinder the growth of the market. Still some areas remain untouched and carry ambiguity. A new framework is developed in section six based on extant literature. In this section, we discuss some key issues for future studies. We present those ideas systematically by classifying the topics.

6.1. Cultural traditions and heritage

In some countries, organic food is consumed as a cornerstone of the tradition and culture practice. Some consumers buy products only from local farmers in order to maintain the sanctity of their cultural and heritage values (Thomas and Gunden, 2012). For instance, farmers in Uttarakhand, a rural state in Northern India, grow 40 varieties of red kidney bean, a very popular type of bean, which is the main ingredient of a traditional dish (<http://www.organicuttarakhand.org>). By default, the traditional food in the Indian subcontinent is grown organically and thus, patriotic Indian consumers prefer the organic food. This trend has also been seen in other countries, including Switzerland and Denmark (Pino et al., 2012; Govindasamy et al., 2010; Thomas and Gunden, 2012). There are opportunities for a single country as well as cross-country studies in this regard.

6.2. Going back to the roots

With the acknowledgement that their ancestors were healthier, mentally stronger, more religious and spiritual, consumers are returning to the ancient agricultural practices of food production. Chinnici et al. (2002) found that consumers associate consumption of organic food with the authentic tastes of the past. Hughner et al. (2007) and Idda et al. (2008) in Italy claimed that going back to the roots is a powerful element in raising consumers' awareness of organic food.

Even in the Indian subcontinent, the ancestors preferred Sattvic² or organic food, which was fresh, readily digestible, free from chemicals and facilitative in meditation. Organic food is considered as healthy and

² Sattvic is derived from Sattva which is a Sanskrit word. It means one that is "pure, essence, nature, vital, energy, clean, conscious, strong, courage, true, honest, wise, rudiment of life". Sattvic diet is thus meant to include food and eating habit that is "pure, essential, natural, vital, energy-giving, clean, conscious, true, honest, wise" (Gerson, 2002).

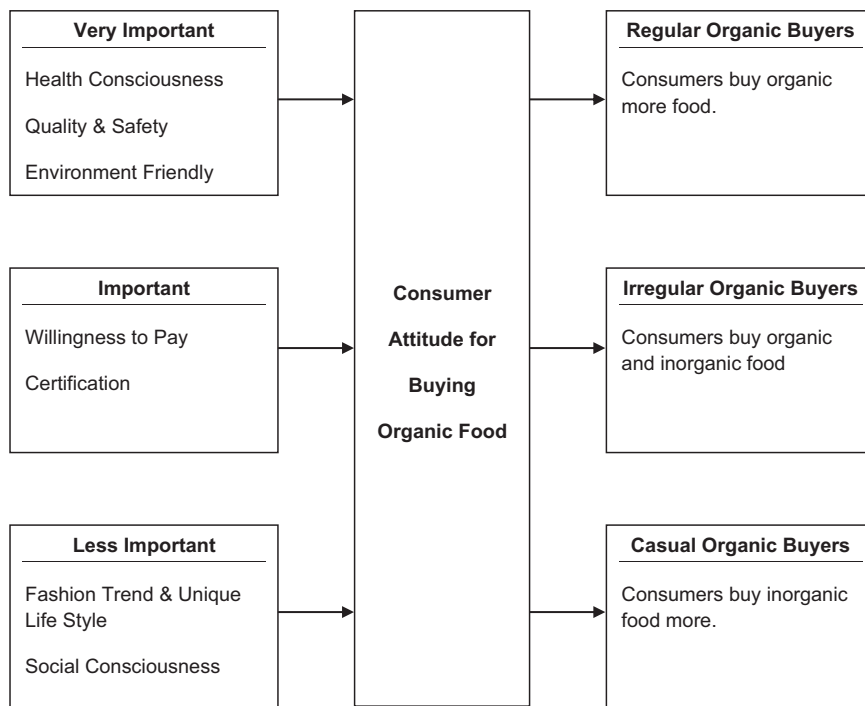


Fig. 1. Categories of factors influencing consumer attitude and their consequences.

a good source of energy (Ott, 1990; Misra et al., 1991; Lane and Bruhn, 1992; Bonti-Ankomah and Yiridoe, 2006). Conversely, many Indians have always avoided Tamasic³ or conventionally grown food because its ingestion was deemed to generate laziness, anger, and greed, resulting in stunted spiritual growth; and preferred organic food as it is synonymous with health and transcendence.

6.3. Mainstream or Niche

Organic food is an attractive proposition in a niche market where consumers are health conscious and want to consume safe, nutritious, and environmentally friendly products. But organic food does not belong to the mainstream product categories as it is not easily available. For consumers to become habituated to a particular kind of food, it should be easily available at retail outlets (Kim and Chung, 2011; Mirakzadeh et al., 2012; Kuhar and Juvancic, 2010). A wide range of products and different assortments of organic food items are needed to satisfy the various needs of consumers (Vlahović et al., 2011). There is scope for future research to be conducted to find out the ways to make organic food readily available in the market.

6.4. Reasons of purchase in developed and developing countries

Many studies in literature have reported different reasons for purchase of organic food in developed and developing countries. In developed countries where the market sizes are bigger, Environment, health, and knowledge influence consumer's buying behavior and purchase intentions significantly. In developing countries, the reasons might be different. Hence, there is a requirement of conducting comparative studies with data from developing as well as developed countries. These studies will help to understand if there is a relation between different levels of need and demand for organic food. In developed countries where consumers have fulfilled their social needs, the social influence in decision making is minimal. They may demand organic food to fulfill such needs as esteem and self-actualization.

³ In Sattvic system of dietary classification, foods and drinks that have destructive influence on the mind or body are considered Tamasic (Gerson, 2002).

Whereas in developing countries, the demand could exist to fulfill the need for safety. This needs to be justified with future research studies. Thus, there is immense potential in this area of research.

6.5. Distribution channels for organic food

There are some pertinent issues with respect to the distribution channels of organic food such as the types of retail stores established, the sourcing and procurement of organic food items etc. Studies should be conducted to reveal the status of retailers and the possibility of opening greater number of outlets of organic food. They should focus on identifying the barriers from retailers' and producers' sides and on finding the solutions so that there are no impediments in providing these food items to consumers.

7. Managerial implications and strategies for retailers

There is a pressing need to discuss the marketing and retailing activities related to organic food. To a great extent, 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. Tsakiridou et al. (1999) also suggested that less availability of organic food at retail stores remains as a key deterrent and barrier in generating sales and customer loyalty. On the demand side, retailers need to adopt a unique marketing strategy to make organic food popular which will encourage them to keep a wide assortment of organic products at their stores (Harris et al., 2000).

Several authors emphasized on the factors that influence consumers to consider organic food over conventionally grown food (Midmre et al., 2005). Since organic food market is still an emerging, innovative market, the retailers must take this factor into account while framing their marketing strategy. Ansoff (1957) and Danneels (2002) also contend that marketing new products in new markets usually requires special efforts from the retailers.

Some retailers can position themselves as providers of high-quality organic food items (Sans, 2003). This strategy will help them to attract

consumers who are willing to pay more for a better quality product and who like to shop in a better environment. They can highlight the sustainability dimension because the perceived environmental friendliness of organic food fits very well in this strategy (Aertsens et al., 2009a, 2009b).

Retailers can also open exclusive outlets for high-income consumer group who like to shop from exclusive stores. As far as promotion is concerned, word of mouth can be a very effective tool of promotion since advertisements can be expensive. Opinion leaders and Reference Groups must be identified because they are highly influential and can easily convince many people to adopt organic life styles. Certificates for authentic organic food could be displayed in the retail stores. It may be difficult for small retailers but the payoff in terms of goodwill and credibility can be earned in the long run (Tsakiridou et al., 1999). These strategies will create demand for organic food among consumers and push the retailers to increase the availability of organic food. For example, some retailers like Freshmart stores have exclusive stores and they run organic food restaurants at good locations.

8. Conclusion

Based on an extensive review of literature spanning three decades, our study indicates many areas like distribution, marketing, ethical consumerism etc. for future research that may be directly or indirectly helpful in developing the market and increasing the reach of organic food globally. Our research highlights that consumers in developing countries are keen to purchase organic food, which is quite popular in developed countries. The lack of effective distribution and promotion systems severely affects the availability of organic food and at the same time, presents an opportunity to improve the ease of availability of organic food.

A marketer needs to understand the factors influencing the demand for organic food. They should explore the identified factors in attracting consumers who do not buy organic food. Marketers can make strategies for retention, which can convert its regular consumers into loyal consumers. Our findings will also help managers to formulate their promotion strategies. Moreover, it will be useful for related businesses like packaging. Marketing managers can use the insights of this research to decide on their market segments so that they could target potential consumers. The farmers and those want to start a co-operative society for organic food production can use this information. Similarly, policy makers, professionals from food industry, tourism industry, and retailers could use the findings of the present research for better decision-making. Additionally, the insights on consumer purchase decisions will continually improve every stage of operations, right from customer acquisition through to retention. The present research puts forth specific questions of how organic food should be made available in different retail store formats, how it may be less expensive and how it may become an indispensable part consumers' life.

Acknowledgement

Authors thank Jose Davies Peliot, Jose Colon Villafine (University of Puerto Rico), Apoorva Ghosh (New Delhi) and Erik Mas Roman (Florida International University) for reading this manuscript and the constructive comments, which helped us to improve the quality of our paper. We are also thankful to Douglas McLachlan (Emeritus Professor, University of Washington) for his support and ideas for research.

References

Adamtey, N., Musyoka, M.W., Zundel, C., Cobo, J.G., Karanja, E., Fiaboe, K.K., Messmer, M.M., 2016. Productivity, profitability and partial nutrient balance in maize-based conventional and organic farming systems in Kenya. *Agric. Ecosyst. Environ.* 235, 61–79.

Aertsens, J., Verbeke, W., Mondelaers, K., Huylenbroeck, G.V., 2009a. Personal determinants of organic food consumption: a review. *Br. Food J.* 111 (10), 1140–1167.

Aertsens, J., Mondelaers, K., Van Huylenbroeck, G., 2009b. Differences in retail strategies on the emerging organic market. *Br. Food J.* 111 (2), 138–154.

Alwitt, L., Pitts, R., 1996. Predicting purchase intentions for an environmentally sensitive product. *J. Consum. Psychol.* 5 (1), 49–64.

Anderson, W.A., 2000. The future relationship between the media, the food industry and the consumer. *Br. Med. Bull.* 56, 254–268.

Ansoff, I.H., 1957. Strategies for diversification. *Harvard Bus. Rev.*

Auger, P., Burke, P., Devinney, T., Louviere, J., 2003. What will consumers pay for social product features? *J. Bus. Ethics* 42, 281–304.

Baker, S., Thompson, K.E., Engelken, J., Huntley, K., 2004. Mapping the values driving organic food choice Germany vs the UK. *Eur. J. Mark.* 38 (8), 995–1012.

Berkowitz, L. Social Norms, Feelings, and Other Factors Affecting Helping and Altruism. In: Minton, Ann, P., Rose Randall, L., 1997. The effects of environmental concern on environmentally friendly consumer behavior: an exploratory study. *J. Bus. Res.*, vol. 40, pp. 37–48.

Birchard, K., 2001. Europe tackles consumers' fears over food safety. *Lancet* 357 (9264), 1217–1302.

Bonti-Ankomah, S., Yiridoe, E.K., 2006. Organic and Conventional Food: A literature Review of the Economics of Consumer Perceptions and Preferences, Final Report. Organic Agriculture Centre of Canada, (OACC) Canada, Toronto.

Botonaki, A., Polymeros, K., Tsakiridou, E., Mattas, K., 2006. The role of food quality certification on consumers' food choices: adequate marketing strategy for the effective promotion of certified food products. *Br. Food J.* 108 (2), 77–90.

Brugarolas Mollá-Bauzá, M., Martínez-Carrasco, L., Martínez-Poveda, A., Rico Pérez, M., 2005. Determination of the surplus that consumers are willing to pay for an organic wine. *Span. J. Agric. Res.* 3 (1), 43–51.

Bruschi, V., Shershneva, K., Dolgoplova, I., Canavari, M., Teuber, R., 2015. Consumer perception of organic food in emerging markets: evidence from Saint Petersburg, Russia. *Agribusiness* 31 (3), 414–432.

Bublitz, M.G., Peracchio, L.A., 2015. Applying industry practices to promote healthy foods: an exploration of positive marketing outcomes. *J. Bus. Res.* 68 (12), 2484–2493.

Buzby, J.C., Skees, J., 1994. Consumers want reduced exposure to pesticides in food. *Food Rev.* 17 (2), 19–22.

Canabal, A., White, G.O., 2008. Entry mode research: Past and future. *Int. Bus. Rev.* 17 (3), 267–284.

Canavari, M., Olson, K.D., 2007. Organic Food: Consumers' Choices and Farmers Opportunities. Springer Science + Business Mediapp. 171–181.

Canavari, M., Centonze, R., Nigro, G., 2007. Organic food marketing and distribution in the European Union. DEI Agra Working Papers No. 7002. Alma Mater Studiorum University of Bologna, Department of Agricultural Economics and Engineering.

Chan, R.Y.K., 2001. Determinants of Chinese consumers green purchase behavior. *Psychol. Mark.* 8, 389–413.

Chinnici, G., D'Amico, M., Pecorino, B., 2002. A multivariate statistical analysis on the consumers of organic products. *Br. Food J.* 104 (3–5), 187–199.

Cho, S., Krasser, A., 2011. What makes us care? The impact of cultural values, individual factors, and attention to media content on motivation for ethical consumerism. *Int. Social. Sci. Rev.* 86 (1/2), 3–23.

Crane, A., 2001. Unpacking the ethical product. *J. Bus. Ethics* 30 (4), 361–374.

Crutchfield, S.R., Roberts, T., 2000. Food safety efforts accelerate in the 1990's. *Food Rev.* 23, 44–49.

Crutchfield, S.R., Weimer, J., 2000. Nutrition policy in the 1990s. *Food Rev.* 23, 38–43.

Cummins, R., 2001. Frankenfoods, antibiotics, and mad cow: America's food safety crisis intensifies. *Bio Democr. News* 31, 1–5.

Danneels, E., 2002. The dynamics of product innovation and firm competences. *Strateg. Manag. J.* 23, 1095–1121.

De Magistris, T., Gracia, A., 2008. The decision to buy organic food products in Southern Italy. *Br. Food J.* 110 (9), 929–947.

Deliana, Y., 2012. Market segmentation for organic products in Bandung West Java, Indonesia. *Res. J. Recent Sci.* 1 (3), 48–56.

Demeritt, L., 2002. All Things Organic 2002: a Look at the Organic Consumer. The Hartman Group, Bellevue, WA.

Dickieson, J., Arkus, V., Wiertz, C., 2009. Factors that influence the purchase of organic food: A study of consumer behaviour in the UK.

Doran, C.J., 2009. The role of personal values in fair trade consumption. *J. Bus. Ethics* 84, 549–563.

Doran, C.J., Natale, S.M., 2011. Empatheia and Caritas. The role of religion in fair trade consumption. *J. Bus. Ethics* 98, 1–15.

Essoussi, L.H., Zahaf, M., 2008. Decision making process of community organic food consumers: an exploratory study. *J. Consum. Mark.* 25 (2), 95–104.

Gad Mohsen, M., Dacko, S., 2013. An extension of the benefit segmentation base for the consumption of organic foods: A time perspective. *J. Market. Manag.* 29 (15–16), 1701–1728.

Gerson, S., 2002. The Ayurvedic Guide to Diet. ISBN 978-0910261296, and Chapter 8: The Sattvic Diet, pp. 107–132.

Giesler, M., Veresiu, E., 2014. Creating the responsible consumer: moralistic governance regimes and consumer subjectivity. *J. Consum. Res.* 41, 849–867.

Gil, J.M., Gracia, A., Sanchez, M., 2000. Market segmentation and willingness to pay for organic food in Spain. *Int. Food Agribus. Manag. Rev.* 3 (2), 207–226.

Gould, S.J., 1988. Consumer attitudes toward health and health care: a differential perspective. *J. Consum. Aff.* 22 (1), 96–118.

Govindasamy, R., Puduri, V., Simon, J.E., 2010. Hispanic consumer's perceptions towards organically grown ethnic produce: a logistic analysis. *Afr. J. Agric. Res.* 5 (24), 3464–3469.

Greene, C.R., Kremen, A., 2003. US Organic Farming in 2000–2001: Adoption of Certified Systems (No. 33769). United States Department of Agriculture, Economic Research

- Service.
- Grimmer, M., Kilburn, A.P., Miles, M.P., 2015. The effect of purchase situation on realized pro-environmental consumer behavior. *J. Bus. Res.* <http://dx.doi.org/10.1016/j.jbusres.2015.10.021>.
- Groff, A.J., Kreidlor, C.R., Toensmeyer, U.C., 1993. Analysis of the Delaware market for organically grown products. *J. Food Distrib. Res.* 24, 118–125.
- Groslik, R., 2016. Citizen-consumer revisited: the cultural meanings of organic food consumption in Israel. *J. Consum. Cult.* (1469540515623609).
- Grunert, S.C., Juhl, H.J., 1995. Values, environmental attitudes and buying of organic foods. *J. Econ. Psychol.* 16 (1), 39–62.
- Harper, G.C., Makatouni, A., 2002. Consumer perception of organic food production and farm animal welfare. *Br. Food J.* 104 (3/4/5), 287–299.
- Hansen, B., Alroe, H.F., Kristensen, E.S., Wier, M., 2002. Assessment of Food Safety in Organic Farming-DARCOF. Working papers no. 52, Danish Research Centre for Organic Farming, Denmark.
- Harris, B., Burress, D., Eicher, S., 2000. Demand for Local and Organic Produce: A Brief Review of the Literature (No. 254A). Institute for Public Policy and Business Research, University of Kansas, Lawrence, Kansas.
- Haugtvedt, C.P., Petty, R.E., Cacioppo, J.T., 1996. Need for cognition and advertising: understanding the role of personality variables in consumer behavior. *J. Consum. Psychol.* 1 (3), 239–260.
- Hay, J., 1989. The consumer's perspective on organic food. *Can. Inst. Food Sci. Technol. J.* 22 (2), 95–99.
- Hoffmann, S., Schlicht, J., 2013. The impact of different types of concernment on the consumption of organic food. *Int. J. Consum. Stud.* 37, 625–633.
- Honkanen, P., Verplanken, B., Olsen, S.O., 2006. Ethical values and motives driving organic food choice. *J. Consum. Behav.* 420–430.
- Hughner, R.S., McDonagh, P., Prothero, A., Shultz, C.J., Stanton, J., 2007. Who are organic food consumers? A compilation and review of why people purchase organic food. *J. Consum. Behav.* 6 (2-3), 94–110.
- Idda L., Madau F.A., Pulina P., 2008. The motivational profile of organic food consumers: a survey of specialized stores customers in Italy. In: Proceedings of the 12th Congress of the European Association of Agricultural Economists – EAAE 2008.
- Inglehart, R., Welzel, C., 2005. *Modernization, Cultural Change and Democracy: the Human Development Sequence*. Cambridge University Press, New York.
- Jolly, Desmond, Howard, A., Schutz, G., Katherine, V.D., Johal, J., 1989. Organic foods: consumer attitudes and use. *Food Technol.* 60–66.
- Kassarjian, H.H., 1971. Personality and consumer behavior: a review. *J. Mark. Res.* 8 (4), 409–418.
- Kihlberg, I., Risvik, E., 2007. Consumers of organic foods – value segments and liking of bread. *Food Qual. Prefer.* 18, 471–481.
- Kim, H.Y., Chung, J., 2011. Consumer purchase intention for organic personal care products. *J. Consum. Mark.* 28 (1), 40–47.
- Kouba, M., 2003. Quality of organic animal products. *Livest. Prod. Sci.* 80 (1–2), 33–40.
- Kozup, J.C., Creyer, E.H., Burton, S., 2003. Making healthful food choices: the influence of health claims and nutrition information on consumers' evaluations of packaged food products and restaurant menu items. *J. Mark.* 67 (2), 19–34.
- Krebs, D.L., 1970. Altruism: An examination of the concept and a review of the literature. *Psychol. Bull.* 73 (4), 258.
- Krebs, D.L., Miller, D.T., 1985. Altruism and aggression. *The handbook of social psychology* 2, 1–71.
- Kriwy, P., Mecking, R.A., 2012. Health and environmental consciousness, costs of behaviour and the purchase of organic food. *Int. J. Consum. Stud.* 36, 30–37.
- Kuhar, A., Juvancic, L., 2010. Determinants of purchasing behaviour for organic and integrated fruits and vegetables in Slovenia. *Agric. Econ. Rev.* 11 (2), 70–83.
- Kumar, S., Ali, J., 2011. Analyzing the factors affecting consumer awareness on organic foods in India. In: Proceedings of the 21st Annual IFAMA World Forum and Symposium on the Road to 2050: Sustainability as a Business Opportunity, Frankfurt, Germany.
- Lane, S., Bruhn, C.M., 1992. Organic foods: their demand will remain low. *Choices* 3.
- Laroche, M., Bergeron, J., Barbaro-Forleo, G., 2001. Targeting consumers who are willing to pay more for environmentally friendly products. *J. Consum. Mark.* 18, 503–520.
- Latacz-Lohmann, U., Foster, C., 1997. From Niche to mainstream strategies for the marketing of organic food in Germany and the UK. *Br. Food J.* 99 (8), 275–282.
- Loureiro, M.L., McCluskey, J.J., Mittelhammer, R.C., 2001. Assessing consumer preferences for organic, eco-labeled, and regular apples. *J. Agric. Resour. Econ.* 26 (2), 404–416.
- Lucas R.M., Röhrich K., Marreiros R., Fragoso R., Kabbert R., Clara, A.M., Martins I., Böhm S., 2008. Quality, Safety and Consumer Behaviour Towards Organic Food, CEFAGE-UE Working Paper.
- Maguire, E.A., Henson, R.N., Mummery, C.J., FrithNeuroreport, C.D., 2001. Activity in Prefrontal Cortex, Not Hippocampus, Varies Parametrically with the Increasing Remoteness of Memories, vol. 12(3), pp. 441–444.
- Makatouni, A., 2002. What motivates consumers to buy organic food in the UK? Results from a qualitative study. *Br. Food J.* 104 (3/4/5), 345–352.
- Marini, M.M., 1984. Women's educational attainment and the timing of entry into parenthood. *Am. Sociol. Rev.* 491–511.
- Marwa, G.M., Scott, D., 2013. An extension of the benefit segmentation base for the consumption of organic foods: a time perspective. *J. Mark. Manag.* 29 (15–16), 1701–1728.
- McEachern, M.G., McClean, P., 2002. Organic purchasing motivations and attitudes: are they ethical? *Int. J. Consum. Stud.* 26 (2), 85–92.
- Mckinsey, 2007. McKinsey and Company Inc.
- Megicks, P., Memery, J., Williams, J., 2008. Influences on ethical and socially responsible shopping: evidence from the UK grocery sector. *J. Mark. Manag.* 24, 637–659.
- Menrad, K., 2003. Market and marketing of functional food in Europe. *J. Food Eng.* 56, 181–188.
- Michael, N., Hassan, L.M., 2008. The role of health consciousness, food safety concern and ethical identity on attitudes and intentions towards organic food. *Int. J. Consum. Stud.* 32 (1), 163–170.
- Midmre, P., Naspetti, S., A-M, S., Vairo, D., Wier, M., Zanoli, R., 2005. Consumer Attitudes to Quality and Safety of Organic and Low Input Foods: A Review.
- Mirakzadeh, A.A., Akbari, M., Ghiasy, F.G., Hashimi, S.M., Rezvanfar, A., 2012. Attitudes of Iranian consumers' towards agricultural organic products (AOP). *Afr. J. Agric. Res.* 7 (20), 3088–3095.
- Misra, S.K., Chung, L.H., Stephen, L. Ott, 1991. Consumer willingness to pay for pesticide-free fresh produce. *West. J. Agric. Econ.* 16 (2), 218–227.
- Moore, G., 2004. The fair trade movement: parameters, issues and future research. *J. Bus. Ethics* 53, 73–86.
- Mutlu, N., 2007. Consumer Attitude and Behavior towards OrganicFood: Cross-cultural Study of Turkey and Germany (Master Thesis). UniversitätHohenheim, Institute for Agricultural Policy and Markets.
- Nasir, V.A., Karakaya, F., 2014. Consumer segments in organic foods market. *J. Consum. Mark.* 31 (4), 263–277.
- Norman, D., Bloomquist, L., Janke, R., Freyberger, S., Jost, J., Schurle, B., Kok, H., 2000. The meaning of sustainable agriculture: reflections of some Kansas practitioners. *Am. J. Altern. Agric.* 15, 129–136.
- O'Donovan, P., McCarthy, M., 2002. Irish consumer preference for organic meat. *Br. Food J.* 104 (3/4/5), 353–370.
- Oger, R., Woods, T.A., Jean-Albert, P., Allan, D., 2001. Food Safety in the U.S. Fruit and Vegetable Industry: Awareness and Management Practices of Producers in Kentucky. Working papers, Department of Agricultural Economics, University of Kentucky.
- Olsen, M.C., Slotegraaf, R.J., Chandukala, S.R., 2014. Green claims and message frames: how green new products change brand attitude. *J. Mark.* 78 (5), 119–137.
- Ott, S.L., 1990. Supermarket shoppers pesticide concerns and willingness to purchase certified pesticide-residue-free fresh produce. *Agribusiness* 6 (6), 593–602.
- Ottman, J., Terry, V., 1998. Strategic marketing of Greener products. *J. Sustain. Des.* 5, 53–57.
- Padel, S., Foster, C., 2005. Exploring the gap between attitudes and behaviour: understanding why consumers buy or do not buy organic food. *Br. Food J.* 107 (8), 606–625.
- Patel, J., Modi, A., Paul, J., 2007. Pro-environmental Behavior and Socio-demographic factors in an emerging market. *Asian J. Bus. Ethics.* <http://dx.doi.org/10.1007/s13520-016-0071-5>.
- Paul, J., Modi, A., Patel, J., 2016. Predicting green product consumption using theory of planned behavior and reasoned action. *J. Retail. Consum. Serv.* 29, 123–134.
- Paul, J., Rana, J., 2012. Consumer behavior and purchase intention for organic food. *J. Consum. Mark.* 29 (6), 412–422.
- Peattie, K., Ratnayaka, M., 1992. Responding to the green movement. *J. Ind. Mark. Manag.* 21 (2), 103–110.
- Pino, G., Peluso, A.M., Guido, G., 2012. Determinants of regular and occasional consumers' intentions to buy organic food. *J. Consum. Aff.* 46, 157–169.
- Roberfroid, M.B., 2002. Global view on functional foods: European perspectives. *Br. J. Nutr.* 88, 133–138.
- Roitner-Schobesberger, B., Darnhofer, I., Somsok, S., Vogl, C.R., 2008. Consumer perceptions of organic foods in Bangkok, Thailand. *Food Policy* 33 (2), 112–121.
- Salleh, M.M., Ali, S.M., Harun, E.H., Jalil, M.A., Shaharudin, M.R., 2010. Consumer's perception and purchase intentions towards organic food products: exploring attitude among academician. *Can. Social. Sci.* 6 (6), 119–129.
- Sans, P., 2003. La qualitédifférenciée de la viande bovine. La nécessairestratégieéd'innovation. *Biotechnol. Agron. Soc. Environ.* 7, 151–160.
- Santhi, P., Jerinabi, U., Gandhi, N.M., 2007. Green Consumerism-Issues and Implications. *Indian J. Market.* 37 (1).
- Schmidt, C.W., 1999. Safe food: an all-consuming issue. *Environ. Health Perspect.* 107A, 144–149.
- Schwartz, B., 1973. Maintenance of key pecking by response-independent food presentation: the role of the modality of the signal for food. *J. Exp. Anal. Behav.* 20 (1), 17–22.
- Schwartz, S., 1977. Normative Influences on Altruism. In: Minton, Ann P., Rose Randall, L., 1997. The effects of environmental concern on environmentally friendly consumer behavior: an exploratory study. *J. Bus. Res.*, vol. 40, pp. 37–48.
- Seyfang, G., 2006. Ecological citizenship and sustainable consumption: examining local organic food networks. *J. Rural Stud.* 22, 383–395.
- Shaharudin, M.R., Pani, J.J., Mansor, W.S., Elias, S.J., 2010. Purchase intention of organic food; perceived value overview. *Can. Social. Sci.* 6, 70–79.
- Shamsollahi, A., Chong, C.W., Nahid, N., 2013. Factors influencing On purchasing behaviour Of organic foods. *Human. Social. Sci. Res.* 1 (2), 93–104.
- Sierra, Jeremy J., Anna, M. Turri, Taute, Harry A., 2015a. Unhealthy food and beverage consumption: an investigative model. *J. Foodserv. Bus. Res.* 18 (5), 470–488.
- Sierra, Jeremy J., Harry, A. Taute, Turri, Anna M., 2015b. Determinants of intentions to purchase unhealthy food and beverage options: a dual-process theoretical perspective. *J. Food Prod. Mark.* 21 (5), 503–520.
- Smith, S., Paladino, A., 2009. Eating clean & green? Investigating Consumer motivations towards the purchase of organic food. *Australas. Mark. J.* 18 (2), 93–104.
- Stefanic, I., Stefanic, E., Haas, R., 2001. What the Consumer really wants: organic food market in Croatia. *Die Bodenkult.* 52 (4), 323–328.
- Suprpto, B., Wijaya, T., 2012. Intentions of Indonesian consumers on buying organic food. *Int. J. Trade Econ. Financ.* 3 (2), 114–119.
- Tarkiainen, A., Sundqvist, S., 2005. Subjective Norms, Attitudes and Intentions of Finnish Consumers in buying organic food. *Br. Food J.* 107 (11), 808–822.
- Terjesen, S., Hessels, J., Li, D., 2016. Comparative international entrepreneurship: A review and research agenda. *J. Manag.* 42 (1), 299–344.

- Thomas, T., Gunden, C., 2012. *Investigating consumer attitudes toward food produced via three production systems: conventional, sustainable and organic*. *J. Food Agric. Environ.* 10 (2), 132–135.
- Tsakiridou, E., Boutsouki, C., Zotos, Y., Mattas, K., 2008. Attitudes and behaviour towards organic products: an exploratory study. *Int. J. Retail Distrib. Manag.* 36 (2), 158–175.
- Tsakiridou, E., Ziamou, P., Zotos, Y., 1999. Marketing organically produced Foodproducts in Greece. *Greener Manag. Int.* 25, 91–104.
- Valerian, J., Domonko, E., Mwitwa, S., Shirima, A., 2011. Assessment of the willingness to pay for the organic products amongst the households in Morogoro Municipal. Report to sustainable agriculture in Tanzania. Retrieved from <<http://kilimo.org/WordPress/wp-content/uploads/2012/01/Assessment-of-the-Willingness-to-Pay-for-Organic-Products-amongst-in-Morogoro-Households-in-Morogoro-Municipal.pdf>>.
- Van Loo, E., Diem, M.N., Pieniak, Z., Verbeke, W., 2013. Consumer attitude, knowledge, and consumption of organic yogurt. *J. Dairy Sci.* 96 (4), 2118–2129.
- Vlahović, B., Puškarić, A., Jeločnik, M., 2011. Consumer Attitude to Organic Food Consumption in Serbia. *Petroleum-Gas University of Ploiesti BULLETIN*, LXIII (1).
- Williams, P., Hammit, K., 2001. Perceived risks of conventional and organic produce: pesticides, pathogens and natural toxins. *Risk Anal.* J. 21 (2), 319–330.
- Wood, W., Hayes, T., 2012. Social influence on consumer decisions: motives, modes, and consequences. *J. Consum. Psychol.* 22 (3), 324–328.
- Woteki, C.E., Facinoli, S.L., Schor, D., 2001. Keep food safe to eat: healthful food must be safe as well as nutritious. *J. Nutr.* 131, 502S–509S.
- Zakowska-Biemans, S., 2011. Polish consumer food choices and beliefs about organic food. *Br. Food J.* 113 (1), 122–137.
- Zanoli, R., Naspetti, S., 2002. Consumer motivations in the purchase of organic food. *Br. Food J.* 104 (8), 643–653.
- Zepeda, L., Li, J., 2007. Characteristics of organic food shoppers. *J. Agric. Appl. Econ.* 39 (1), 17–28.