Analysis of Consumer Behavior Toward Organic Food Products in Sweden

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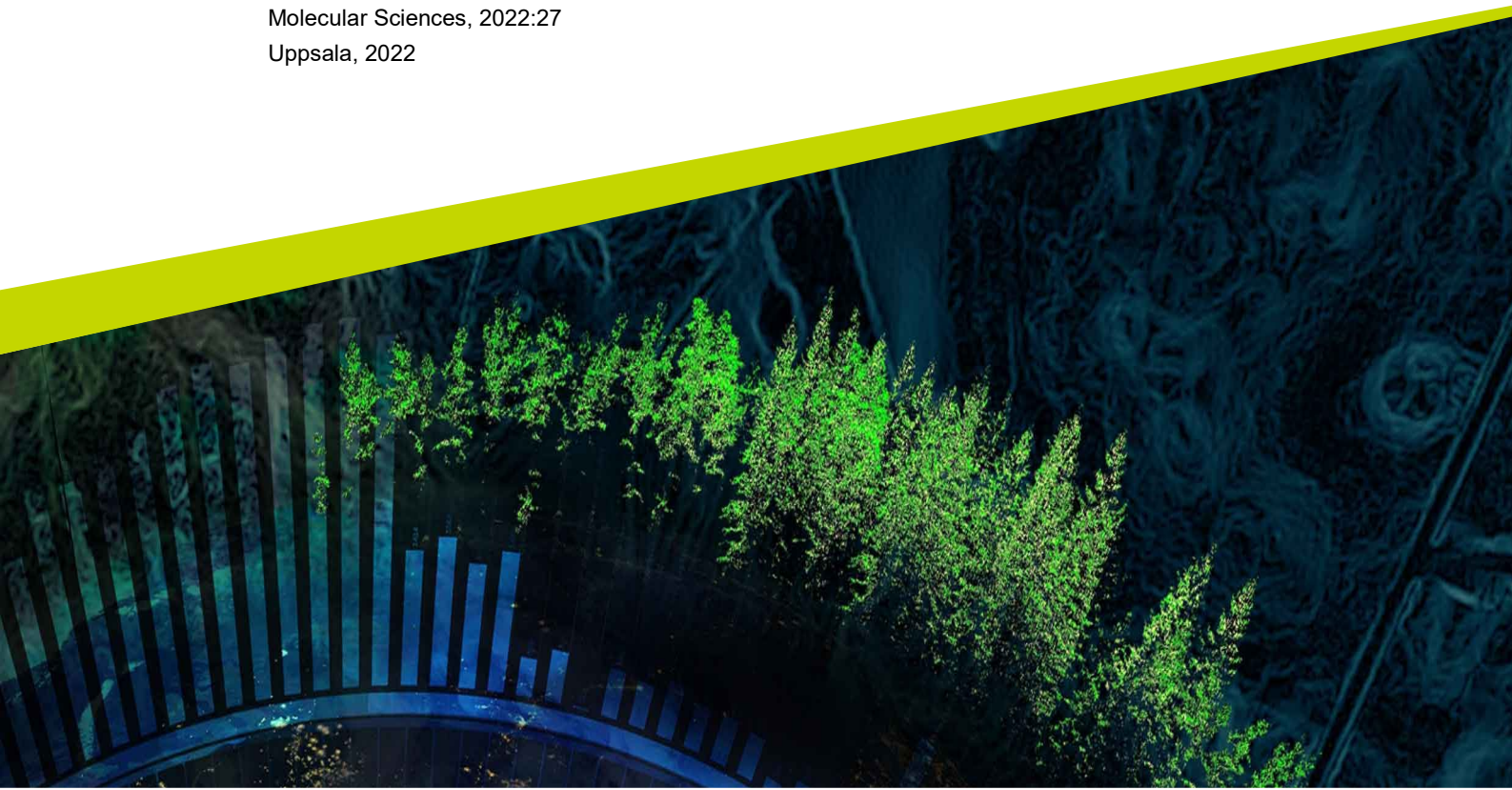

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Abstract

Organic food has attracted attention from many consumers in recent years, both in Sweden and internationally. Due to people's growing interest in sustainable production and consumption, many researchers have attempted to identify and explain the motives and barriers that influence the intention to buy and consume organic food. This study combines previous research on this topic with quantitative analysis to examine the factors that influence consumer intentions and behavior in Sweden. To understand the gap between purchase intention and behavior, as well as the motivating factors that lead consumers to purchase organic food, a conceptual model based on the Theory of Planned Behavior (TPB) was developed. The proposed model included not only all the standard relationships of the Theory of Planned Behavior but also the main motives and barriers identified in previous studies on this subject. Based on the responses from 110 Swedish consumers, the analysis using descriptive statistics, regression, ANOVA, reliability, and factor analysis shows that purchase intention and perceived behavioral control influence Swedish consumers' organic food purchase behavior, with intention having the strongest influence on behavior. Attitude has a strong influence on consumers' intention to buy organic food, followed by subjective norms and perceived behavioral control. The results also indicate that perceived environmental benefits, perceived health benefits, and good taste are the main motivational factors that lead to consumers' positive attitudes toward organic food and increased purchase intention for organic food. The two barriers, the perceived price of organic food and consumer purchasing habits, are the most important barriers that cause the gap between behavior and intention to widen. Academic and managerial implications are presented based on the findings of this study.

Keywords: Organic food, Sustainable consumption, Theory of Planned Behavior, Consumer behavior, Purchasing intention, Consumer attitude, Subjective norms, Perceived behavioral control, Behavioral intention gap

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Abbreviations

AB	Availability barrier
ANOVA	Analysis of variance
ATT	Attitudes
AW	Animal welfare
BEH	Particular behavior
CB	Cosmetic standards
EU	The European Union
FT	Fashion trends and unique lifestyles
FiBL	Forschungsinstitut für biologischen Landbau (Research Institute of Organic Agriculture)
FS	Food safety
GT	Good taste
HB	Habit barrier
IFOAM	International Federation of Organic Agriculture Movements
INT	Purchase intention
KB	Knowledge barrier
KMO	The Kaiser–Meyer–Olkin
MB	Mistrust of the food labels barrier
PB	Price barrier
PBC	Perceived behavioral control
PCA	Principle components analysis
PEB	Perceived environmental benefits
PHB	Perceived health benefits
SCP	Sustainable Consumption and Production
SDGs	The Sustainable Development Goals
SN	Subjective norm
SPSS	Statistical Package for the Social Sciences
TPB	The Theory of Planned Behavior
TRA	The Theory of Reasoned Action
VIF	Variance inflation factor

1. Introduction

The world today faces problems such as population growth, severe famine in certain regions, and an increase in chronic diseases. As the human population continues to grow, many food production systems are under increasing pressure to meet consumer demand. This raises concerns about the unsustainability of food systems and the future capacity of the planet to produce food. Between the 1940s and 1960s, due to the high productivity of conventional farming systems, farmers turned to conventional farming and producers turned to more intensive food production techniques and more advanced, efficient methods. This was because as the world's population grew, the need for food production became more pressing (Mutlu 2007; Rana & Paul 2017). Finally, the indiscriminate use of various chemical fertilizers and synthetic pesticides in food production led to various problems for human health and the environment. The increase in the incidence of lifestyle diseases such as diabetes, heart disease, and certain cancers made consumers suspicious of the safety and quality of conventional products (Roberfroid 2002; Menrad 2003). Thus, food systems must be radically transformed to achieve more efficient resource use to meet the food needs of an increasingly urbanized planet (Annunziata & Vecchio 2016).

In the late twentieth century, the world experienced a paradigm in terms of educational provision and people's attitudes toward life. One of the most important changes was the significant increase in people's preference for organic food (Grosglik 2017). The reason for the shift in consumer attitudes toward organic food was to meet the expectations of modern consumers and consumers' desire for sustainable food production and consumption (Padel & Foster 2005; Reisch et al. 2013; Rana & Paul 2017). Organic agriculture is a production system that combines a variety of ecological methods and practices. These include the use of organic fertilizers, locally adapted seeds, biological pest control, intercropping with legumes, nitrogen-fixing crops or with other plant species/crops that create synergies and crop rotations, and the prohibition of the use of herbicides, pesticides, hormones, and antibiotics (Adamtey et al. 2016). Global organic agriculture has experienced steady growth over the past decade. Nowadays, more than 180 countries in the world practice organic farming and produce organic food. Based on the recent study The World of Organic Agriculture, published by FiBL and IFOAM (2021), a total of 72.3 million hectares of cropland were managed organically at the end of 2019, an increase of 1.1 million hectares or nearly 1.6 percent compared to 2018. Oceania has about 50 percent of the world's organically farmed land (35.9 million hectares), Europe is second with 23 percent (16.5 million hectares), followed by Latin America with 11 percent (8.3 million hectares).

Worldwide, only 1.5 percent of agricultural land is managed organically. However, many countries have a higher percentage. Sixteen countries have 10 percent or more of their agricultural land managed organically. The five countries with the highest organic share of total agricultural land in 2019 were Liechtenstein (41.0 percent), Austria (26.1 percent), São Tomé, and Príncipe (24.9 percent), Estonia (22.3 percent), and Sweden (20.4 percent). According to the FiBL (2021), there were 3.1 million organic producers worldwide in 2019, a 13 percent increase over 2018. Most organic producers worldwide (about 51 percent) are in Asia, followed by Africa (27 percent) and Europe (14 percent). Sweden ranks twelfth in Europe with 5730 organic producers (FiBL 2021; Willer & Trávní 2021).

As businesses, policymakers, and researchers see organic agriculture as part of the solution to the Sustainable Development Goals, EU authorities are constantly working to improve sustainability in the food system by promoting the production and consumption of organic food (Reisch et al. 2013; Aschemann-Witzel & Zielke 2017). Many studies emphasize that organic food production offers public benefits and ethical values. The ethical value system of organic food is manifested in the four principles of organic agriculture such as health, ecology, fairness, and care as formulated by the International Federation of Organic Agriculture Movements (IFOAM) (Grosglik 2017; IFOM 2021). Organic practices lead to reduced environmental impacts, promotion of social well-being, and economic resilience through efficient use of natural resources, promotion of human and animal welfare, internalization of environmental costs, and minimization of external costs of agriculture (Mutlu 2007; Schader et al. 2015).

Ensuring sustainable consumption and production patterns is one of the key global goals of the 2030 Agenda for Sustainable Development (Goal #12). Food production and consumption are of great importance to sustainable consumption and production (SCP) policies because of their impact on the environment, social and economic cohesion, food security, and human health. Therefore, to achieve the goals of SCP, coordination and comprehensive modernization of stakeholders involved in the food supply are required (Reisch et al. 2013, Nemecek et al. 2016; Azzurra et al. 2019). In this context, consumers and their (potential) actions are considered important factors for achieving the Sustainable Development Goals (SDGs) and play a crucial role in the transition to sustainable food systems (Vittersø & Tangeland 2015). Growing consumer awareness of food safety, health, and environmental protection has led to an increase in consumer demand for organic foods (Setboonsarng & Gregorio 2017). Increasing consumer demand for organic food has transformed the organic food market from a niche market to a leading and established market (Hamzaoui-Essoussi & Zahaf 2012). Consumer demand for organic foods has also led many companies to change their governance, strategies, operations, and products to become more sustainable and competitive (Bhaumik et al. 2019; Singh et al. 2019). Widespread ethical movements in developed countries

advocating for animal health and welfare have led to the acceptance of organic agriculture and organic food in these societies and influenced consumer choices when purchasing dairy and meat products (Alrøe et al. 2004).
Promoting the consumption of organic food is often considered one of the pathways to a more sustainable food supply (Mørk et al. 2017; Azzurra et al. 2019) and an essential component of a more sustainable diet (Baudry et al. 2017; Seconda et al. 2017). One of the key targets in the EU's landmark Farm to Fork strategy published by the European Commission is the EU's commitment to increase the share of organic food and transform 25 percent of agricultural land to organic by 2030 (Council of the European Union 2022). However, various studies show that despite the apparent increase in consumer awareness of food sustainability issues, the attention paid to sustainability in daily food choices remains marginal (Verain et al. 2012; Sargant 2014). The heterogeneous changes in consumer preferences and the variety of foods that everyone buys during their lifetime pose challenges to fully understanding consumer behavior. In the case of organic food, understanding consumer food choices is complex, as consumers may have perceptions of the quality characteristics of organic food that are not guaranteed by food labeling, which is based on certification of the production process and not on the food characteristics (Hoffmann et al. 2015). There are a large number of consumers who buy organic food irregularly because they do not know the quality characteristics of organic food, do not have the necessary financial resources, and out of convenience and habit (Padel & Foster 2005). In this study, Sweden was chosen as the base because the overall objective of Swedish food policy is economically, socially, and environmentally sustainable production and consumption, and Swedish consumers can play an important role in achieving the Sustainable Development Goals.

1.1. Research problem

Sales of organic food have increased worldwide. In 2019, global sales of organic food and beverages totaled 106.4 billion euros, up from 95 billion euros in 2018 (FiBL 2021; Willer & Trávní 2021). The largest organic market in 2019 belonged to the United States with a value of 44.7 billion euros, followed by Germany (12.0 billion euros) and France (11.3 billion euros). The countries that had the highest organic market share of the total market in 2019 were Denmark (12.1 percent), followed by Switzerland (10.4 percent), Austria (9.3 percent), and Sweden (9 percent). Sweden is a country where organic products account for about 2 percent of global demand (OTA 2020).
Consumers were also found to have a positive attitude toward organic food (Ekelund 2003), However, the result of some studies shows that a positive attitude toward a specific product does not automatically lead to an actual purchase

(Warshaw & Davis 1985; Padel & Foster 2005; Sultan et al. 2020). These results can be attributed to the organic food market in Sweden, as academic studies and sales statistics have not been equivalent in recent years. The result of some research studies has shown that about 70 percent of the Swedish respondents have a positive attitude toward organic foods (Bosona & Gebresenbet 2018; Konsumentverket 2021). A survey conducted by the Swedish Consumer Agency shows that 76 percent of Swedish consumers have a positive attitude toward organic food and choose organic alternatives when the product, price, and brand are equivalent to those of conventional food. The survey shows that while the majority have a positive attitude toward organic food, only 25 percent of Swedish consumers believe that buying organic is important (Konsumentverket 2021). According to Bosona and Gebresenbet (2018), about 72 percent of Swedish respondents consider organic food production methods more sustainable than conventional methods. Based on the results of this study, sustainable production methods and organic production are the most important parameters for food quality assessment and purchasing decisions.

According to the EkoWeb (2020) report, the market share of organic food and beverages in Sweden has declined at all four major retailers, ICA, Coop, Axfood, and Bergendahls. EkoWeb's market report shows that while sales of organic food and beverages have increased by SEK 0.4 billion, in line with growth in the Swedish Food Price Index, the share of organic food in the total value of food sold has decreased by 0.3 percent in 2019. This has led to concerns about the impact on health and the environment (EkoWeb 2020).

According to these studies conducted in Sweden, there is a gap between Swedish consumers' attitudes and behavior (intention-behavior gap). This means that consumers' positive attitudes toward organic products and sustainable production and consumption are not reflected to the same extent in their purchasing behavior. When attempting to predict or influence consumer behavior change, consumer intention is a key element. In studies, the concept of intention is often seen as a constant concept in consumers' minds. However, some theories assume that intention is an unstable and flexible variable that does not necessarily transform into actual behavior when influenced by several factors. This view requires further consideration (Balau 2018). Therefore, in order to determine the reasons for the difference between consumers' willingness to purchase and their actual behavior, it is necessary to examine the values that underlie consumers' decisions to purchase organic foods.

1.2. Research question and purpose

To understand consumer purchasing behavior regarding organic foods, it is necessary to understand consumers' perspectives on organic foods and identify the key factors that influence consumers' purchasing decisions (Padel & Foster 2005). The purpose of this study is to incorporate motives and barriers to organic food purchasing into the Theory of Planned Behavior (TPB) framework and to investigate the factors that can improve the understanding of Swedish consumer behavior, provide implications for academic and management aspects, and expand the knowledge of TPB in relation to Swedish consumers' organic food purchasing behavior. Understanding the outlook of organic food consumers and identifying the factors that influence their outlook helps to identify and understand the factors that influence consumer behavior and provide an analytical framework for the reasons for changing consumer attitudes and behaviors toward the purchase and consumption of organic foods. Since the study of consumer behavior is a complicated task and involves multiple factors, consumer behavior is usually understood in research by analyzing purchase intentions (Doran et al. 1991; Solomon & Bamossy 2016). The aim of this study is to examine the factors that influence Swedish consumers' intention and behavior when purchasing organic food. Using the Theory of Planned Behavior (TPB), the study examines the relationships among intention, attitude, subjective norms, perceived behavioral control, and purchase behavior for organic food. The study also examines what consumers' main motives are for buying organic food in Sweden and what barriers prevent consumers from buying (more) organic food. The study addresses the following research questions:

1) In what way do attitudes, subjective norms, perceived behavioral control, and purchase intention influence Swedish consumers' behavior when buying organic food?
2) What are the main motives of Swedish consumers for buying organic food?
3) What are the barriers to buying (more) organic food among Swedish consumers?

From a theoretical perspective, this study is valuable because it will add to the research carried out in the past few years, which focuses on Sweden. The main contribution of this study is to apply the developed Theory of Planned Behavior (TPB) model to understand Swedish consumers' organic food purchasing behavior and to fill the knowledge gap about how decision determinants (the TPB constructs, motives, and barriers) influence consumers' purchasing behavior in Sweden. The results of this study can provide insight into Swedish consumers' attitudes toward buying organic food and thus help to identify the decision-making frameworks for

buying organic food. Existing studies on the purchase of organic food in Sweden were conducted to determine consumers' perceptions of the consequences of choosing organic food, identify important factors for predicting consumer attitudes, and determine parameters that influence organic food purchase decisions in Sweden (Magnusson et al. 2001, 2003; Bosona & Gebresenbet 2018).

The focus is on a sample of Swedish consumers, which adds a unique contribution to the literature. In recent years, Sweden has sought to implement various strategies and policy instruments to achieve sustainable production and consumption and has ensured food security through sustainable development in addition to protecting environmental values. Furthermore, this paper is a combination of other studies previously conducted to investigate consumer behavior toward organic foods using TPB.

From a practical perspective, the study is useful for companies and marketers because by identifying the factors that influence consumers' intentions and behavior when buying organic food, they can develop strategies to expand the market for organic food, design targeted plans to influence consumers' actual buying behavior and increase demand for organic food and convert regular customers into loyal customers. These findings help marketers to become more aware of (potential) consumers' expectations, attitudes, and behaviors in order to promote organic food with a different approach than hedonistic food. Successful marketing practices to promote such healthy and sustainable food products will not only ensure the success and thriving of organic food companies, but also promote healthy shifts in consumers' eating habits (Bublitz & Peracchio 2015).

1.3. Scope and limitations of the study

This study focuses on consumer behavior toward organic food in Sweden. The focus is on irregular consumers who buy organic and non-organic food. Given the limited time and resources, this study is conducted with a non-probability sampling method, so the sample results may not be generalizable to the entire Swedish organic consumer population. It could be that the values and eating habits of different consumer groups differ in different cities in a country or even within a city. More importantly, the smaller sample size increases sampling error and reduces the power of the statistical test. Therefore, larger sample size is needed for a more meaningful study and generalization of the results to the entire population of Swedish organic consumers. The bias that may affect the research results is the respondent bias due to the desire to please, where respondents exaggerate their behavior out of social desirability to please both themselves and the researcher. Therefore, efforts are made to reduce this bias by emphasizing in the consent form the anonymity of the participants and the importance of the data to the research

findings. In accordance with research ethics, every measure should be taken to protect the privacy of subjects and to maintain the confidentiality of all data collected. This study does not examine all factors that influence consumer buying behavior, such as the influence of culture on subjective norms or the influence of the media on consumer attitudes. To keep the results manageable, the focus is only on the most important factors identified for customer behavior.

2. Theoretical Background

2.1. Definitions

Organic food is agricultural food that is not treated with chemical artificial fertilizers, pesticides, herbicides, antibiotics, hormones, irradiation, and genetically modified organisms during its production, processing, and storage (Gad Mohsen & Dacko 2013; Basha et al. 2015). Therefore, consumers consider organic foods healthy because no synthetic chemicals are used in their production (Suprapto & Wijaya 2012). Terms such as “environmentally friendly”, “eco-friendly”, “green”, “fresh”, “local”, “natural” and “pure” are often used to refer to organic food (Rana & Paul 2017; Shahriari et al. 2019; Li & Jaharuddin 2020). Although the term organic evokes positive perceptions of environmental protection, health benefits, and food safety among consumers (Vega-Zamora et al. 2013), many consumers are unfamiliar with organic farming practices, organic food standards (Hughner et al. 2007), and their attributes (Krystallis et al. 2006; Bezawada & Pauwels 2013).

2.2. Regulations

New regulation on organic production approved by the EU state that:

> Organic production is an overall system of farm management and food production that combines best environmental and climate action practices, a high level of biodiversity, the preservation of natural resources and the application of high animal welfare standards and high production standards in line with the demand of a growing number of consumers for products produced using natural substances and processes. Organic production thus plays a dual societal role, where, on the one hand, it provides for a specific market responding to consumer demand for organic products and, on the other hand, it delivers publicly available goods that contribute to the protection of the environment and animal welfare, as well as to rural development. (European Union 2018 Reg. EU 2018/848)

Organic certification requirements vary from country to country and are administered by each country's ministry of agriculture. According to Regulation (EU) 2018/848 of the European Parliament, the organic logo is used only for foods that meet strict requirements in terms of production, processing, transport, and storage. For a product to be labeled as organic, at least 95 percent by weight of the food's agricultural ingredients must be organically grown. In addition, other strict conditions apply to the remaining 5 percent, and this part may only consist of foods or be processed with additives that are on the approved list. Organic standards, which are objective and enforceable regulations for producers and meet consumer expectations, are constantly evolving.

2.3. Literature review

2.3.1. Socio-demographic profile

Today, consumers face a complex and sometimes confusing array of options and choices when purchasing organic foods. The consumer decision-making process is influenced by socio-demographic or socio-economic characteristics, attitudes, motivations and perceptions, and consumer preferences. Although many research studies have been conducted to develop the typography of organic consumers, we sometimes see contradictory results. In all these studies where, demographic profiles have been used, some consistent results can be found. In general, the studies that use demographic profiles show that the overwhelming majority of organic consumers are educated people with good economic circumstances and a higher social class. Most organic consumers are female, have a more positive attitude towards organic food and are willing to pay a higher price (Magnusson et al. 2001; McEachern & McClean 2002; Yazdanpanah & Forouzani 2015; Li & Jaharuddin 2020). Younger consumers have more positive attitudes toward organic food due to their awareness of the destructive impacts of conventional agriculture. However, studies show that the purchase of organic food is higher among older consumers (Magnusson et al. 2001). Younger age groups are less willing to pay price premiums, while older age groups find price premiums for organic foods affordable due to health concerns and are more willing to pay more (Fotopoulos & Krystallis 2002). The results of the studies show that demographic variables are not good predictors of organic food purchasing behavior. Organic food consumption is related to value systems and trade-offs between values (Lea & Worsley 2005; Padel & Foster 2005; Arvola et al. 2008).

2.3.2. Motives for buying organic food

Examining the results of previous studies shows that there are competing and contradictory discourses about organic food. The findings revolve around consumers' general attitudes and motivations toward health consciousness (Schifferstein & Oude Ophuis 1998; Magnusson et al. 2001, 2003; Chinnici et al. 2002; Zanoli & Naspetti 2002; Padel & Foster 2005; Yang et al. 2014; Asif et al. 2018; Shahriari et al. 2019; Molinillo et al. 2020; Pacho 2020; Mohammed 2021), environmental concerns (Schifferstein & Oude Ophuis 1998; Squires et al. 2001; Soler et al. 2002; Fang & Levy 2015; Nemecek et al. 2016), animal welfare concerns (Harper & Makatouni 2002; Hill & Lynchehaun 2002), nutritional concerns (Squires et al. 2001; Hill & Lynchehaun 2002; Roberfroid 2002; Li & Jaharuddin 2020), food safety (Magnusson et al. 2003), sensory appeal (Magnusson et al. 2001; Fillion & Arazi 2002; Kuhar et al. 2012), fashion (Hill & Lynchehaun 2002), and nostalgia (Chinnici et al. 2002), as well as competition among consumer

needs, wants, and preferences. Although the main reason for buying organic food is a general health trend, according to Ekoweb (2014), factors such as increasing concern for the environment, animal welfare, a positive media image of organic food, and a focus on chemical residues in conventional food are also driving consumers to buy organic food.

The vast majority of studies have found that perceived health benefits, including nutritional aspects, are the most important reason for buying organic food (Hoffmann et al. 2015). Some studies show that the health criterion of organic food is a quality parameter for many consumers (Wandel & Bugge 1997; Magnusson et al. 2001). Both out of concern for personal health (illnesses) and a general interest in healthy eating and promoting the health of society, consumers want to use higher quality foods and avoid foods that have been produced and processed using chemicals (Padel & Foster 2005; Hughner et al. 2007; Li & Jaharuddin 2020; Pacho 2020; Dorce et al. 2021). Studies show that consumers view organic foods as nutrient-dense (Squires et al. 2001; Hill & Lynchehaun 2002), even though this is not necessarily the case (Williams 2021). Although Magnusson et al. (2003) show in their study among Swedish consumers that egoistic motives related to perceived health benefits and food quality are stronger predictors and have a greater influence on purchase intention than altruistic motives, Shahriari et al. (2017) show in their study in the US that altruistic motives related to perceived environmental benefits and concern for sustainable production systems are better predictors and have a greater influence on consumer purchase intention than are egoistic motives.

Consumers who are more environmentally conscious distrust modern technology and consider the use of synthetic chemicals in the production of conventional foods to be environmentally harmful (Basha et al. 2015; Nemecek et al. 2016). Although environmental concerns have a major influence on consumer attitudes toward buying organic food, they are not a common motivating factor for buying organic food in many studies. A notable exception is Denmark, where environmental concerns are the most important motivating factor for consumers to purchase organic foods (Hughner et al. 2007). KRAV, a non-profit organization, is known as the control body for organic food in Sweden. KRAV certification is used to ensure that companies meet high standards in organic food products, environmental protection, and ethical sourcing of raw materials. According to surveys commissioned by KRAV and conducted by TNS Sifo, consumers believe that the KRAV label is associated with foods that do not contain pesticides, are better for the climate and are animal friendly (KRAV 2014).

Recent concerns about food safety violations such as salmonella, foot-and-mouth disease, etc., as well as the spread of some diseases caused by chemical additives

and non-organic food production methods, have led consumers to seek safer and more trustworthy diets. Therefore, consumers seem to be willing to pay more for safer food that does not contain harmful chemicals (Lockie et al. 2002; Magnusson et al. 2003; Basha et al. 2015). The high level of consumer concern about food safety and consumer dissatisfaction with food scandals may lead more consumers to purchase higher quality and safer foods, including organic foods (Fotopoulos & Krystallis 2002).

Several research studies have shown that the qualitative attributes of good taste and freshness are important criteria for consumers to purchase organic foods (Magnusson et al. 2001; Padel & Foster 2005; Kihlberg & Risvik 2007; Kuhar et al. 2012). Fillion & Arazi (2002) conducted a sensory analysis using a series of blind taste tests and concluded that a better taste of organic foods cannot be claimed across the board for all categories of organic foods, although organic food consumers understood the perceived taste advantages of organic foods over non-organic alternatives. Magnusson et al. (2001) showed that good taste was the most important criterion when buying food and that organicity of food was the lowest criterion among Swedish consumers. Some studies have shown that due to the importance of good taste for the purchase of organic food, businesses and marketers need to convince consumers with more evidence of the better taste of organic food (Chen 2009).

In general, research studies show that ethical considerations such as the environmental impact of conventional agriculture and animal welfare motivate consumers to purchase organic foods. Animal welfare, unlike environmental concerns, is a multifaceted construct that includes nutritional or physiological components as well as social or symbolic ones. Organic consumers are concerned about where animals are raised, and how they are fed, treated, and bred. Animal welfare standards are perceived by customers as an indicator of food safety and health (Harper & Makatouni 2002; Hill & Lynchehaun 2002). Ueasangkomsate & Santiteerakul (2016) have shown that animal welfare is the most recent attribute that consumers recognize in relation to organic food and that it is the second important factor influencing Thai consumers' purchase intention.
In terms of fashion trends and unique lifestyle motives, Canavari et al. (2007) show that certain foods, such as organic foods, are bought and consumed as status symbols. Therefore, buying, and consuming expensive organic food has become a new trend in some societies. This shows the purchasing power of consumers and the luxurious lifestyle of consumers with higher disposable income.

2.3.3. Barriers to buying organic food

According to the studies by Magnusson et al. (2003) and Shahriari et al. (2019), the high price of organic food is a challenge on the way to developing a positive attitude toward organic food. Interestingly, Molinillo et al. (2020), have found that a premium price for organic food leads to a higher willingness of consumers to buy organic food and increases the frequency of buying organic food. Although price is one of the barriers to purchasing organic food and influences purchase intention and the decision-making process, it is not an absolute barrier (Padel & Foster 2005). In economic terms, consumers consider price in the context of disposable personal income and value for money and need to be convinced by other benefits that it is a value-for-money choice. By justifying a price premium, consumers are willing to pay more for organic food. It has been found that there is a positive correlation between people's income and demand for organic food and that as income increases, the proportion of people consuming organic food increases (Torjusen et al. 2001; Lockie et al. 2002). Growing social awareness is leading to a greater willingness on the part of consumers to pay a price premium and to an increase in the frequency of organic food purchases (Molinillo et al. 2020). Lack of easy availability and/or low accessibility are important barriers to buying organic food. Availability and/or accessibility of organic foods are among the correlates associated with the diversity and proximity of these products. (Lockie et al. 2002; McEachern & McClean 2002; Magnusson et al. 2003; Hughner et al. 2007; Dean et al. 2008; Shahriari et al. 2019). Directly formed attitudes, based on personal experience, are stronger predictors of behavior than indirectly formed attitudes, which arise from others' experiences. An attitude will guide the evaluation of an object, but only if it is activated from a person's memory when they observe the object (Solomon & Bamossy 2016). Thus, when organic foods are offered in domestic markets, attitude will guide the evaluation of organic foods. Cosmetic defects in some organic foods make consumers unwilling to pay for these products. Some research has shown that the presence of blemishes, differences in appearance, size, and other imperfections cause consumers to be unwilling to accept these products (Thompson & Kidwell 1998). Some researchers have found that consumer satisfaction with conventional foods and lack of priority of food safety criteria are the reasons for not buying organic foods (Hughner et al. 2007). Lack of trust in organic labels and doubts about the validity of certification systems are other barriers to buying organic food. According to some studies, consumers do not have complete knowledge about organic food, and distrust of certification organizations has led to skepticism about the authenticity of organic food (Padel & Foster 2005; Hughner et al. 2007). Lack of consumer knowledge is another barrier to purchasing organic food, as consumers are unable to recognize the benefits of purchasing organic food. Ineffective marketing strategies are another factor that negatively affects consumer purchasing behavior (Hill & Lynchehaun 2002; Hughner et al. 2007).

2.4. Theory of Planned Behavior

The Theory of Planned Behavior (TPB) is a social psychological theory developed from the Theory of Reasoned Action (TRA) (Fishbein & Ajzen 1975). The TPB framework is one of the authoritative models approved for use in the fields of health-related behavior, health psychology, and pro-environmental behavior. To date, it has been used to study and understand a wide range of human behaviors related to food, diets, and food choices (Yazdanpanah & Forouzani 2015).

In the early 1980s, some critics argued that the TRA model, because of its limitations, performs poorly when it comes to behaviors over which people have incomplete volitional control (Liao et al. 2007). In contrast to TRA, TPB assumes that the concept of behavior should include both voluntary and involuntary aspects. The TPB model attempts to overcome the limitations of the original model by adding perceived behavioral control (PBC), which could potentially have a direct influence on purchase intention (Ajzen 1991). The goal of TPB is to explain the variance in individuals' voluntary and actual behavior (Ajzen 1991), and it has succeeded in doing so (Liao et al. 2007). According to the TPB, it is the will of the individual that mainly controls human behaviors (Zhang 2018). The framework that has been widely applied to understand organic food purchasing behavior and consumption is TPB (Chen 2007; Azam et al. 2012 ; Dorce et al. 2021). The TPB postulates that people's intention to perform a certain behavior is the best predictor of their behavior. According to TPB theory, purchase intention is in turn influenced by three social psychological constructs: attitude, subjective norm, and perceived behavioral control (Fig. 1).

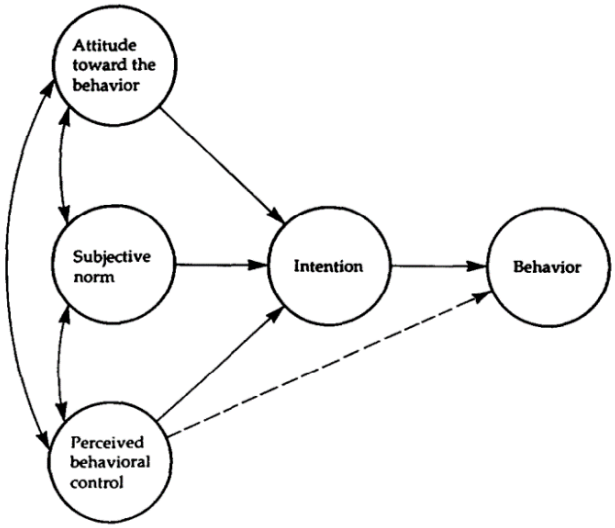

Figure 1. Theory of Planned Behavior. (Ajzen 1991:182)

According to the TPB, the stronger the intention toward a particular behavior, the more likely that behavior will be carried out (Ajzen & Schmidt 2020). In the first part of the equation, purchase intention (INT) is assumed to be the strongest predictor of actual consumer behavior (BEH). Therefore, actual behavior and purchase intention are considered to be nearly equivalent. In the second part, three socio-psychological constructs, attitude (ATT), subjective norms (SN), and perceived behavioral control (PBC), are found to influence purchase intention. The weights in this formula are calculated to find out how much each of these three factors (ATT, SN, and PBC) influences the consumer's purchase intention.

This study does not consider the influences of behavior on the three constructs (ATT, SN, and PBC), and also the crossover effect that indicates the possible interdependence of the constructs.

TPB can be shown as the following formula

$BEH \approx INT = ATT\ (\omega_1) + SN\ (\omega_2) + PBC\ (\omega_3)$

$\omega_1 \sim \omega_3$ = weights reflecting the relative influence of each factor on purchase intention.

2.4.1. Behavior (BEH)

BEH is defined by Fishbein & Ajzen as “observable acts that are studied in their own right” (1975:335). TPB assumes that “behavior is a function of salient information, or beliefs, relevant to the behavior” (Ajzen 1991:189). The behavior to be analyzed in this study is the purchase of organic food at a particular time and place.

2.4.2. Purchase Intention (INT)

INT indicates “how hard people are willing to try, of how much of an effort they are planning to exert, in order to perform the behavior” (Ajzen 1991:181). It is defined as “a person’s location on a subjective probability dimension involving a relation between himself and some action. A behavioral intention, therefore, refers to a person’s subjective probability that he will perform some behavior” (Fishbein & Ajzen 1975:288). The intention of individuals to engage in a particular behavior indicates their willingness or readiness to engage in that behavior. Ajzen (1991) and Chen (2007) claim that behavioral intention is also known as purchase intention. Purchase intention indicates the individual's potential intention to act, which can predict the consumer's purchase behavior in short-term future purchase decisions (Fandos Herrera & Flavian 2006). In general, the stronger the consumer's intentions are, the more likely they are to perform that particular behavior. However, when behavior is under the volitional control of the individual, and the individual can voluntarily decide whether or not to perform a behavior, the purchase intention can

express the behavior. Although some behaviors may well fulfill this needs, the achievement of the behavior and the performance of most behaviors depend largely on skills, abilities, and some non-motivational factors, such as ease of access, opportunity, and financial resources, in addition, to purchase intention. The Theory of Planned Behavior (TPB) suggests that behavior reflected by performers at a given time is a function of intention (INT) and perceived behavioral control (PBC). The first and second hypotheses of this study are therefore as follows:

H_1: Consumers' intention to purchase organic foods has a strong and significant positive relationship with their actual behavior in purchasing organic foods.

H_2: Consumers' perceived behavioral control toward purchasing organic foods has a positive relationship with their actual behavior in purchasing organic foods.

H_1 and H_2 can be expressed as the following equation:

Equation 1: $BEH = INT\ (\omega_1) + PBC\ (\omega_2)$

Where:

BEH is a particular behavior

INT is the intention to perform that particular behavior.

PBC is the perceived behavioral control. It refers to people's perceptions of their ability to engage in a particular behavior.

ω_1 reflects the effect of the weight of consumer intentions on consumer behavior.

ω_2 reflects the effect of the weight of consumer perceived behavioral control on consumer behavior.

The weights are calculated to find out how much these two factors influence the actual behavior of a consumer.

2.4.3. Attitude (ATT)

ATT refers to “the degree to which a person has a favorable or unfavorable evaluation or appraisal of the behavior in question” (Ajzen 1991:188). Various definitions have been proposed for the concept of attitude. Solomon and Bamossy (2016:283) explain that “an attitude is a lasting, general evaluation of people (including oneself), objects, advertisements or issues”. Research on purchase intentions regarding food choices and purchases using the Theory of Planned

Behavior has shown that in order to form an attitude, culture, individual factual knowledge, perceptions, and concerns that form a person's beliefs are required (Shahriari et al. 2019). Attitude is generally found to be a stronger predictor of purchase intention than subjective norms and perceived behavioral control (Armitage & Conner 2001; Fishbein & Ajzen 2009; Saba & Messina 2003), especially in the particular context of organic food purchase and consumption (Sparks & Shepherd 1992; Yang et al. 2014; Fang & Levy 2015; Scalco et al. 2017). The hypothesis for attitude is as follows:

H_3: Consumers' attitude toward purchasing organic foods has a positive relationship with their intention of purchasing organic foods.

2.4.4. Subjective Norm (SN)

SN refers to "the perceived social pressure to perform or not to perform the behavior" (Ajzen 1991:188). Subjective norms are seen as a source of normative influence that relates to what a particular group of important people (parents, spouses, teachers, colleagues, and friends) considers acceptable or unacceptable behavior (Chang 1998; Scalco et al. 2017). The more important the reference group is to consumers, the more they are motivated to meet its expectations. In terms of social influence on the purchase and consumption of organic food, family members and friends are the most important people who can play a key role in shaping purchasing behavior, while colleagues have the least social influence in this regard (Zagata 2012). The hypothesis for subjective norms is as follows:

H_4: Consumers' subjective norms toward purchasing organic foods have a positive relationship with their intention of purchasing organic foods.

2.4.5. Perceived behavioral control (PBC)

PBC refers to "the perceived ease or difficulty of performing the behavior and it is assumed to reflect past experience as well as anticipated impediments and obstacles" (Ajzen 1991:188). PBC is the extent to which a person considers a particular behavior to be under his / her voluntary control (Fielding et al. 2008). Ajzen argued that the term PBC "perceived behavioral control should be read as perceived control over performance of a behavior" (Ajzen 2002:668). The more a behavior depends on external circumstances, the less it can be controlled intentionally. Therefore, PBC, which is representative of actual behavioral control, can directly influence behavior in addition to influencing purchase intention (Kaiser 2006; Yazdanpanah & Forouzani 2015). PBC is a key structure of the TPB framework, which refers to an individual's perception of the obstacles and motivations for engaging in a behavior (Guido et al. 2010). Therefore, individuals who have positive attitudes toward buying and consuming organic foods are more

likely to feel it is easy to purchase and consume them and have stronger intentions to perform the behavior in this way (Fielding et al. 2008). The hypothesis for perceived behavioral control is as follows:

H_5: Consumers' perceived behavioral control toward purchasing organic foods has a positive relationship with their intention of purchasing organic foods. The equation for examining the purchase intention is as follows:

Equation 2: $BEH \approx INT = ATT\ (\omega_1) + SN\ (\omega_2) + PBC\ (\omega_3)$

Where:

BEH is a particular behavior.

INT is the intention to perform that particular behavior.

ATT is the personal attitude to perform this particular behavior.

SN is the subjective norm, i.e., the perceived social pressure (a person's environment/entourage) to engage in or not engage in a particular behavior.

PBC is the perceived behavioral control. It refers to people's perceptions of their ability to engage in a particular behavior.

$\omega_1 \sim \omega_3$ = weights reflecting the relative influence of each factor on purchase intention.

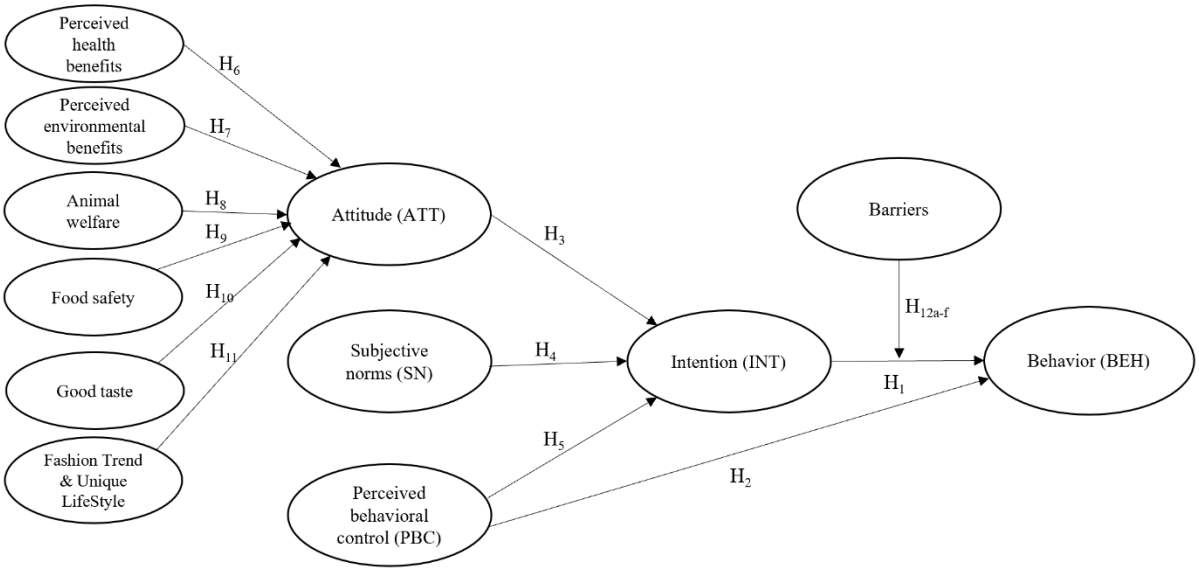

Figure 2. The developed TPB model. Adapted from Ajzen (1991), Tarkiainen & Sundqvist (2005), Ueasangkomsate & Santiteerakul (2016), and Dorce et al. 2021).

Although the success of the TPB model in predicting behavior has been established, its development has not stopped. Researchers in various research areas are attempting to extend the application of this model to specific behaviors and specific contexts by including additional variables. In this context, Ajzen (1991:199) stated, "The theory of planned behavior is, in principle, open to the inclusion of additional predictors if it can be shown that they capture a significant proportion of the variance in intention or behavior". Therefore, by summarizing the studies conducted on this subject, it was decided to design a modified TPB model and use it in this study. This model is used for the development of hypotheses and the design of the questionnaire (Fig. 2).

2.5. Expansion of the TPB model

2.5.1. Motives

Attitude is an important component in the TPB framework that allows us to predict consumers' future purchasing behavior (Ajzen 1991; Fishbein & Ajzen 2009). Attitudes toward a particular behavior are based on consumers' beliefs and the positive and negative consequences of that behavior. Positive beliefs about the attributes of organic foods and their sustainability benefits can predict consumers' future purchasing and consumption behavior (Grankvist & Biel 2001). Magnusson et al. (2003) found that Swedish consumers' attitudes were strongly influenced by

perceived health benefits. Shahriari et al. (2019) recognized the greater influence of perceived environmental benefits on consumer attitudes. Several studies have found that perceived health benefits and perceived environmental benefits are the most important factors influencing consumers' decision-making process and purchasing behavior by affecting attitudes (Lea & Worsley 2005; Tsakiridou et al. 2008; Basha et al. 2015; Rana & Paul 2017; Dorce et al. 2021). As discussed in Section 2.3.2, key factors that influence consumer behavior by influencing attitudes include concerns about health, the environment and animal welfare, food safety, sensory appeal, healthy lifestyles, and fashion trends. The hypothesizes for the motivational factors are as follows:

H_6: Perceived health benefits have a positive relationship with consumers' attitudes toward purchasing organic products.

H_7: Perceived environmental benefits have a positive relationship with consumers' attitudes toward purchasing organic products.

H_8: Concerns about animal welfare have a positive relationship with consumers' attitudes toward purchasing organic products.

H_9: Food safety has a positive relationship with consumers' attitudes toward purchasing organic products.

H_{10}: Good taste has a positive relationship with consumers' attitudes toward purchasing organic products.

H_{11}: Fashion trends and unique lifestyles have a positive relationship with consumers' attitudes toward purchasing organic products.

2.5.2. Barriers

Many studies examining consumer behavior have shown that intention and behavior are not the same. Aschemann-Witzel & Niebuhr Aagaard (2014) found that although the majority of consumers have positive attitudes toward organic foods, there appears to be a gap between attitude and behavior or between intention and behavior in consumer behavior when purchasing and consuming organic foods, meaning that consumer attitudes do not translate into actual behavior to the same degree. This means that consumers may have the intention to purchase organic products for health or environmental reasons but behave differently in stores and buy conventional products instead of organic products. Therefore, it is very important to identify the barriers and factors that influence consumers' actual behavior. Several studies in this field have shown that premium prices for organic products and lack of availability are the most important reasons for the attitude-behavior gap or intention-behavior gap (Magnusson et al. 2003; Aschemann-Witzel & Niebuhr Aagaard 2014; Shahriari et al. 2019). Some studies have found that

consumer distrust of food labels is one of the most important barriers to buying organic food (Lea & Worsley 2005; Padel & Foster 2005). Food purchases in grocery stores are made regardless of the advantages and disadvantages of the products and are mainly based on consumer habits (Magnusson et al. 2001, 2003; Tsakiridou et al. 2008). Thus, in addition to consumer habits, lack of knowledge is another barrier to buying organic food because consumers are not able to identify the advantages and disadvantages when buying food (Hill & Lynchehaun 2002; Hughner et al. 2007). Consumers are willing to pay more for foods that meet cosmetic standards (Thompson & Kidwell 1998). Factors such as appearance, size, shape, and color of some products influence consumers' food choices in grocery stores. As shown in the modified model, obstacles represent the gap between intention and behavior (the INT - BEH gap). The study of the obstacles in the form of a hypothesis is as follows.

H_{12a}: The price barrier (PB) has a positive impact on the gap between the intention to buy organic food and the actual behavior.

H_{12b}: The availability barrier (AB) has a positive impact on the gap between the intention to buy organic food and the actual behavior.

H_{12c}: The knowledge barrier (KB) has a positive impact on the gap between the intention to buy organic food and the actual behavior.

H_{12d}: The habit barrier (HB) has a positive impact on the gap between the intention to buy organic food and the actual behavior.

H_{12e}: The mistrust of the food labels barrier (MB) has a positive impact on the gap between the intention to buy organic food and the actual behavior.

H_{12f}: The cosmetic standards barrier (CB) has a positive impact on the gap between the intention to buy organic food and the actual behavior.

The equation for examining the gap between purchase intention and actual behavior is as follows:

Equation 3: $INT - BEH = PB (\omega_1) + AB (\omega_2) + KB (\omega_3) + HB (\omega_4) + MB (\omega_5) + CB (\omega_6)$

Where:

INT - BEH is the gap between the intention to perform that particular behavior and that particular behavior.

PB stands for Price Barrier; it indicates whether organic food is too expensive for a person.

AB stands for Availability Barrier; it indicates whether organic foods are not readily available in regular grocery stores.

KB stands for Knowledge Barrier; it indicates whether it is difficult for a person to obtain information about organic food.

HB stands for Habit Barrier; it indicates whether convenience and satisfaction with conventional foods are important to a person.

MB is the Barrier of Distrust in Food Labeling; it indicates whether the person does not trust organic food labeling.

CB is the barrier to cosmetic standards; it indicates how important the aspect of the visual appeal of organic food is to a person.

$\omega_1 \sim \omega_6$ = weights reflecting the relative influence of each factor on the intention-behavior gap.

The weights are calculated to find out how much these barriers influence the intention-behavior gap.

3. Research Method

This chapter describes the methodological aspects of this study and the reasons for the research methods chosen.

3.1. Research design

According to Zikmund (1997:48), a research design is defined as "a master plan specifying the methods and procedures for collecting and analyzing the needed information". Thus, the importance and indispensability of the research design in this study is due to the fact that this section provided a basic structure and framework for the techniques and methods that should be used and followed throughout the study process to achieve the aim of the study. In line with the aim of the study to identify the different motivations and barriers to buying organic food from a consumer behavior perspective, a mixed-methods approach was adopted using both quantitative and qualitative methods. The most common types of mixed methods designs are the convergent parallel design, the exploratory sequential design, the explanatory sequential design, and the embedded design. The method used in this study is an exploratory sequential design (Fig. 3) that follows the guidelines described by Bryman and Bell (2015:646).

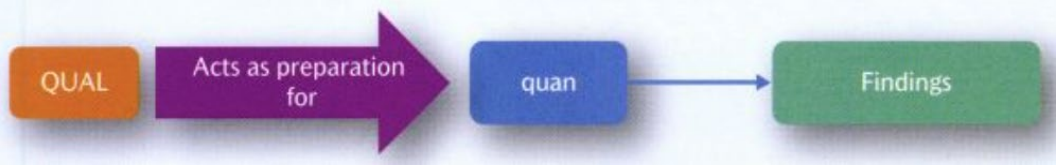

Figure 3. Exploratory sequential design (Bryman & Bell 2015:647)

This approach was chosen in order to develop an appropriate tool for investigating the factors that influence consumers' purchase intentions about organic food products. This means that the data collection phase of the qualitative study was followed by the collection and analysis of the quantitative study. The analysis of the text and the transcripts of the interviews provides an opportunity to understand what consumers "really" think, feel, and intend to do. "The text becomes a way to get "behind the numbers" that are recorded in a quantitative analysis to see the richness of real social experience" (Schutt 2012:321).

The qualitative study was conducted in the form of in-depth, semi-structured interviews (Bernard 2006; Adams 2015). Most of the questions were open-ended

and revolved around the main motivational factors and barriers to buying and consuming organic food.

There were two distinct objectives in conducting a qualitative study before a quantitative study: First, to examine whether the factors highlighted by previous researchers also apply to Swedish consumers, and second, to check whether there were additional factors that influence the purchase behavior of organic foods that have not been analyzed before. The qualitative data collected were used to develop the questionnaire questions for the quantitative study. After careful review and summarization of these data, the results were then applied to the main study, the consumer survey.

In addition to qualitative research, quantitative analysis was also conducted to obtain a large amount of data. After collecting data from previous studies on this topic and combining it with the findings from the interviews, the questionnaire was created. The quantitative study aimed to investigate which of the identified variables have a significant influence on Swedish consumers when they decide to purchase organic food.

3.2. Qualitative study

To find answers to the research questions, secondary data were first collected before the qualitative study was conducted. The secondary data were collected from important sources such as new published books, research institute websites, reports, and surveys. According to Denzin & Lincoln (1994:14), "The researcher has several methods for collecting empirical materials, ranging from the interview to direct observation, to the analysis of artifacts, documents, and cultural records, to the use of visual materials or personal experience", so in this study, the interview was used to collect empirical material. The qualitative interview was conducted to identify and understand consumers' motivations, attitudes, values, barriers, and subjective experiences related to organic food purchasing behavior. This study was completely exploratory in the sense that the interview was conducted without expectations or hypotheses. Asking open-ended questions allowed the interviewee to elaborate on their answers if they felt the need to do so.

3.2.1. Methods

Thematic analysis was defined by Braun and Clarke as "[...] is a method for identifying, analyzing, and reporting patterns (themes) within data. It minimally organizes and describes your data set in (rich) detail" (2006:79). Based on this definition, a thematic analysis was conducted in this study to attempt to gain a general understanding of the coded data based on the recurring use of the codes and the patterns associated with those codes. Thematic analysis was conducted based

on Braun and Clarke's (2006) six-phase process. The six phases of thematic analysis that were conducted in this study are 1) familiarising yourself with your data, 2) generating initial codes, 3) searching for themes, 4) reviewing themes, 5) defining and naming themes, and 6) producing the report.

Phase 1: Familiarisation with the data

After consent was obtained from the interviewees, all interviews were tape-recorded. All interviews were transcribed verbatim in order to become familiar with the data and to better understand the textual information. The transcribed interviews were then read several times to identify possible patterns through coding ideas.

Phase 2: Coding the data

To identify salient aspects of the information that could be the basis for repetitive themes, all information was examined with complete and consistent attention. Basic and comprehensive codes were created based on the data.

Phase 3: Generating initial themes

After creating a list of identified codes and selected keywords, the various codes were sorted into different initial and potential themes based on the interviews. The statements of each respondent were indicative of different themes. The themes were created based on the responses of the participants.

Phase 4: Reviewing and developing themes

After devising the initial themes and extracting the codes for a coherent pattern, the themes were reviewed for refinement. The themes were reviewed again to determine if the candidate themes were appropriate and sufficiently related to the encoded information. “Data within themes should cohere together meaningfully, while there should be clear and identifiable distinctions between themes” (Braun & Clarke 2006:94).

Phase 5: Refining, defining, and naming themes

In accordance with the purpose of the study, the material was sorted by themes. The unnecessary and inappropriate text was removed. After defining and naming the themes and comparing and contrasting them, the structure between the themes was determined.

Phase 6: Producing the report

Finally, the results were rechecked after the analysis material, the result of which is described below.

3.2.2. Sampling and Data collection

A total of five semi-structured in-depth interviews were conducted. In the semi-structured interview, a list of questions was first drawn up on specific topics to be covered. The listed questions only serve as a guide for the interview and the respondents have a lot of leeway in answering them (Appendix 1). The interviewees included three females and two males with different educational backgrounds and an average monthly income of 30,000 to 40,000 SEK. The age of the interviewees ranged from 27 to 51 years. All 5 participants followed an omnivorous diet. An omnivorous diet refers to a diet in which humans consume both plant sources, such as fruits and vegetables, and animal proteins, such as meat, milk, eggs, etc (Savgreenmak 2020). The face-to-face interviews were conducted at the respondents' places and lasted approximately 30-40 minutes each. For further analysis, the answers of the interviewees were recorded and transcripts of the collected data from the interviews were made (Bryman & Bell 2015). As the interview guide was divided into the sections of behavior, purchase intention, attitude, subjective norms, and perceived behavioral control, and the questions referred to each component, it was clear which data belonged to which component. In this way, it was possible to code the data appropriately and identify the relevant themes.

3.3. Quantitative study

In addition to the qualitative research, a quantitative analysis was also conducted to obtain a large amount of data. A deductive approach was used in the quantitative study. A deductive approach is used when the study starts from a known theory and applies it. “A deductive approach is concerned with developing a hypothesis (or hypotheses) based on existing theory, and then designing a research strategy to test the hypothesis” (Wilson 2010:7). This applies to this study because the researcher intended to investigate the hypotheses made in the theory section through a quantitative study. Detailed explanations of the equations and hypotheses examined in the quantitative study can be found in Appendix 2.

The purpose of this survey was to identify the factors that motivate consumers to purchase organic food and the factors that cause the gap between intention and behavior to widen. Quantitative research is a systematic and scientific research method that focuses on collecting quantifiable data and measurable variables of existing and potential phenomena in order to formulate facts and uncover relationships in research. This research method uses statistical or mathematical techniques after classifying and processing the information to model the behavior of phenomena and to explain and predict phenomena (Bernard 2006; Wilson 2010). Quantitative data is collected through various methods, such as online surveys,

paper surveys, mobile surveys, systematic observations, etc. In this study, data collection was conducted using a survey theory-derived questionnaire. In order to gain a comprehensive understanding of Swedish consumers' behavior toward organic food, a quantitative study was conducted using a structured questionnaire (Appendix 3). Most of the questions were matrix questions where respondents ranked a particular statement on a seven-point Likert scale from 1 to 7. This makes it impossible to give weight to any of the factors studied. In addition, several questions were asked with only one answer in order to obtain the respondents' background information.

3.3.1. Identify the target behavior and participants

Clearly identifying and defining a particular behavior is considered key to structuring an appropriate research instrument and avoiding poor prediction of that behavior (Ajzen 1991; Fishbein & Ajzen 2009). According to this line of reasoning, the behavior should be clearly defined in terms of the four concepts of Target (T), Action (A), Context (C), and Time (T) (Ajzen 1991; Kasprzyk & Montaño 2002; Han et al. 2010). This means that it should be clearly defined what kind of people do what, in what context, and at what time. In this paper, target behavior was determined by the purchase of organic food (dairy products, meat, beverages, and organic fruits and vegetables) in the coming week (See Table 1). The study is limited to residents of Sweden. The decision to limit the geographical scope of the survey was a matter of research gaps, limited resources, and convenience.

Table 1. TACT elements applied in consumer purchasing behavior toward organic food

Target	Consumers residing in Sweden
Action	Purchase
Context	Organic food
Time	Within the next week

3.3.2. Sampling and Data collection

In the quantitative study, the survey method was used to collect standardized data. Since the type of sampling method is non-probability sampling and individuals within the population did not have an equal chance of being selected, convenience sampling was used in the quantitative study. Due to time and cost constraints, the questionnaire was designed to collect standardized data by accessing a representative sample from a given society. The survey was conducted among Swedish consumers. Due to ease of access, the online questionnaire was sent via social media. In addition, a snowball sampling was used where friends were asked

to send a questionnaire to their friends. To get a more diverse population, people in public places were asked if they would like to participate in the survey. This means that another non-probability technique, self-selection sampling, was also used in the sampling of this study.

The survey questions were divided into two parts. In the first part, the questions were formulated based on theoretical concepts, which were designed as seven-point Likert statements. In the second part, socio-demographic questions were formulated. All questions were formulated as closed-ended. Closed-ended questions prevent respondents from making new comments, so the relevance of the study was ensured, and data analysis was possible based on the purpose of the study. For this survey, it was decided to use online surveys because this largely avoided possible bias due to the lack of direct communication between the respondents and the author. The data was collected online using the free survey program "google form". The use of this software enabled the administration of the survey data. The statistical package for social sciences IBM (SPSS, version 28.0.1.1 (15)) and Excel were used for data analysis. These programs were chosen because they are suitable for this quantitative research method and because they are a widely used statistical tool.

3.4. Survey Design

In this section, the survey design was compiled, including the operationalization, the questionnaire, the pretest procedure, the data transformation, and the selection of statistical tests.

3.4.1. Operationalization

The different variables discussed in the theory section, such as BEH, INT, ATT, SN, PBC, motives, and barriers, were translated into fixed, closed-ended questions. Each hypothesis was presented in the form of closed-ended questions, and the factors and their relative weights were indicated on a scale of 1 to 7 on the Likert item. This allowed the target audience to rank the questions based on their individual opinions. Therefore, the data were collected in a standardized manner and coded and recoded for analysis.

Table 2. Questionnaire development process

Existing TBP variables/Construct	Proposed by authors	Explanation of variables in accordance to authors	Question number	Examples of statements in the questionnaire that translated from each variable
Behavior	Ajzen (1991:189)	"behavior is a function of salient information, or beliefs, relevant to the behavior"	Question 3	I have been purchasing organic food on average every week.
Behavioral intention	Fishbein & Ajzen (1975:288)	"Behavioural intension refers to a person's subjective probability that he will perform some behaviour"	Question 2	I have the intention to purchase organic foods within the next week. I plan to purchase organic foods within the next week
Attitude	Fishbein & Ajzen (1975:216)	"An attitude represents a person's general feeling of favourableness or unfavourableness toward some stimulus object"	Question 4	I think that buying organic food is satisfying. The fact that buying organic food is satisfying is important to me.
Subjective norm	(Ajzen 1991:188)	"The perceived social pressure to perform or not to perform the behaviour"	Question 5	My family thinks I should buy organic foods when going grocery shopping. What my family thinks about my purchase choice is important to me.
Perceived behavioral control	(Ajzen 1991:188)	"The perceived ease or difficulty of performing the behavior and it is assumed to reflect past experience as well as anticipated impediments and obstacles"	Question 6	It is easy to find organic food in the grocery store where I live. The convenience of finding organic food is important for my choice of buying it.
Added Motivational variables				
Perceived health benefits	Magnusson et al. (2001, 2003); Padel & Foster (2005); Molinillo et al. (2020); Pacho (2020)	Consumer beliefs about the positive impacts associated with buying and consuming organic food in response to personal health issues and promoting the health of society.	Question 7	I think that eating organic food helps me to prevent disease. The fact that eating organic food helps me to prevent disease is important to me.
Perceived environmental benefits	Soler et al. (2002); Nemecek et al. (2016)	Consumer beliefs about the positive impacts of buying and consuming organic food in response to the environmental concerns of conventional agriculture.	Question 8	I think that the purchase of organic food is better than conventional food for the environment. The fact that the purchase of organic food is better than conventional food for the environment is important to me.
Animal welfare	Harper & Makatouni (2002); Hill & Lynchehaun (2002)	Consumer beliefs about the positive impact of buying and consuming organic food in response to animal welfare concerns.	Question 9	I think that the purchase of organic food is better for animals. The fact that the purchase of organic food is better for animals is important to me.
Food safety	Suprapto & Wijaya (2012); Magnusson et al. (2003)	Concerns about food safety violations and the spread of some diseases caused by chemical additives and non-organic production methods have led consumers to adopt an organic diet.	Question 10	I think that organic food contains the least amount of chemicals. The fact that organic food contains the least amount of chemicals is important to me.
Good taste	Magnusson et al. (2001); Fillion & Arazi (2002)	Good taste and freshness are the most important criteria for consumers when buying organic food.	Question 11	I think organic food tastes better. The fact that organic food tastes better is important to me.
Fashion trends and unique lifestyles	Hill & Lynchehaun (2002)	Organic food is bought and consumed as a status symbol in society.	Question 12	I think that buying and eating organic food has become a trend in society. The fact that buying and eating organic food has become a trend in society is important to me.

Added Barriers				
Price	Magnusson et al. (2003); Aschemann-Witzel & Niebuhr Aagaard (2014); Shahriari et al. (2019)	The likelihood of buying a particular product depends on how much the consumer pays for that product.	Question 13-1	I think organic food is too expensive. Expensive food makes me less likely to buy it.
Availability	Lockie et al. (2002); McEachern & McClean (2002); Magnusson et al. (2003)	Availability of a particular product in specific places for purchase and consumption.	Question 13-2	I think organic foods are not easily available at my regular grocery store. The poor availability of organic foods at the grocery store makes me less likely to buy them.
Habit	Magnusson et al. (2001, 2003); Tsakiridou et al. (2008)	Food purchases in grocery stores are often mainly based on consumer habits	Question 13-6	I am used to buying conventional foods and I am satisfied with them. Satisfaction with conventional foods makes me less likely to buy organic foods.
Information	Hill & Lynchehaun (2002)	to provide useful information for consumers to purchase and consume a certain product	Question 13-4	Information about organic foods is difficult to access. The lack of accessibility of information about organic foods makes me less likely to buy them.
Mistrust of the food labels	Padel & Foster (2005); Lea & Worsley (2005)	Lack of trust in a certain product labels and doubt about the validity of certification systems	Question 13-5	I do not trust the label on organic foods that are available in stores. My distrust of organic labels causes me to buy conventional food instead of organic foods.
Cosmetic standards	Thompson & Kidwell (1998)	Specific requirements for a particular product in terms of colour, shape and size.	Question 13-3	I do not like to buy foods that do not look attractive. The fact that I do not like to buy unattractive foods keeps me from buying organic products.

3.4.2. Testing

After the questionnaire was created, it was pretested on a small sample to check the validity of the questionnaire data, ensure proper layout, understand the questions, and reduce respondent burden. The purpose of the pretest was to add some additional explanations, delete, add, or change questions if necessary to make the questionnaire more understandable to all members of the community and to avoid participants feeling confused by the questions asked. Therefore, 4 people close to me were asked to provide honest feedback after receiving the questionnaire. The respondents were 2 females and 2 males ranging in age from 27 to 46 years, 3 of whom were employed, and one was a student. The questionnaire was also sent to the SLU university statistical consultant to ensure that the questions on the questionnaire reflected the purpose of the study and that the important points needed to answer the research questions were asked. The feedback was invaluable. Household size was added, the order of the questions was changed, and the socio-demographic questions were moved to the second part of the questionnaire. In addition, in some cases, some words were replaced with non-specialist words or given an additional explanation. After all, recommendations had been taken into account, the final version of the questionnaire was prepared and sent to respondents for answering.

3.4.3. Data Transformation

Following the main recommendations of Ajzen and Fishbein (1975; 1980), the responses were recoded to analyze the data collected. In line with the use of the seven-point Likert scale in the survey, the raw data (scales) ranged from 1 to 7 for both assertion responses and weighting responses, except for behavior (BEH) and purchase intention (INT), which contained only assertion responses. To intensify and strengthen the positive and negative responses, the assertion responses for each variable were recoded from +3 to -3 in SPSS. Thus, assertion responses were recoded as either “strongly agree” (+3) or “strongly disagree” (-3). The weighting of the responses and the importance of following each assertion for each variable was kept at the original score of 1 to 7 (Fishbein & Ajzen 1975; Ajzen & Fishbein 1980).

To prepare the data for analysis, the process of data transformation was carried out. For this purpose, the assertion responses and the weighting responses were paired together. Their values were calculated into one item by multiplication with SPSS. As explained earlier, the recoding of the assertion responses created a scale from +3 to -3 (e.g. I think that the purchase of organic food is better than conventional food for the environment) and the weighting of each assertion was kept in the range of 1 to 7 (e.g. The fact that the purchase of organic food is better than conventional food for the environment is important to me.), resulting in a new

combination of scores on the scale from +21 to -21. This was done for all variables except behavior (BEH) and purchase intention (INT) as these variables consisted of assertion responses only and their scale of +3 to -3 was maintained. This methodological choice reflects the original framework of the TPB model.

3.4.4. Data Analysis Method

To analyze the collected data in this study, the author applied statistical analysis in SPSS software and Excel. In this study, the following methods of analysis were used: descriptive statistics and frequency analysis, which show information about the respondents and the balance of gender, age, education level, income, and other aspects in the personal profiles.

To ensure that the questions asked, and the data collected were related to the construct being measured, factor analysis of SPSS was used. Factor analysis is a statistical method that attempts to reduce or summarise data from a large set of items into smaller groups of factors or components that are highly correlated. In this study, SPSS factor analysis was applied to test the validity of the TPB constructs, i.e., the attitude scale (ATT), the subjective norm scale (SN), and the perceived behavioral control scale (PBC).

The reliability and significance of all questions were tested using the reliability analysis of SPSS. Reliability analysis of SPSS was applied to test the internal consistency of the constructs of the TPB, i.e., the attitude scale (ATT), the subjective norm scale (SN), and the perceived behavioral control scale (PBC).

Regression analysis of Excel was applied to test the hypotheses between the motivational factors and attitude, to test how the independent factors affect the dependent factor, and to test the hypotheses between various barriers and the discrepancy between consumer behavior and purchase intention regarding the purchase of organic food.

3.5. Reliability and Validity

When selecting and designing appropriate measurement scales, the two most important factors to consider are validity and reliability. Validity and reliability are crucial for measuring the quality of the research (Bryman & Bell 2015).

The validation of respondents to ensure the reliability of the qualitative method was conducted according to the instructions of Creswell (2007). The summary of the interviewers' responses and their comments were submitted to check accuracy and validity and to confirm that their answers were correctly understood.

To ensure the reliability of the quantitative study method, a pilot test was conducted before uploading and sending the questionnaire (see 3.4.2 for details). Accordingly, some changes were made to the structure, arrangement, and fine-tuning of some questions to better understand the respondents. In addition, the construct of the questionnaire, the consistency of the concept, and the reliability of each of the main constructs were examined through factor analysis and reliability analysis. Cronbach's alpha coefficient measures and summarises the intercorrelations. A reliability value (Cronbach's alpha) above 0.7 is more reliable (Bryman & Bell 2015). Using SPSS statistics software, Cronbach's Alpha value of the intention was 0.951, the attitude scale was 0.932, the subjective norm scale was 0.888, and the perceived behavioral control scale was 0.785 which indicated the desirability of the internal consistency reliability of the data.

3.6. Concluding applied methods

In summary, this study used an exploratory sequential design, which means that by conducting an initial qualitative study, the main quantitative study was developed. Although in this study the qualitative study is a prerequisite for the quantitative study and the results of the quantitative study are directly related to the purpose of the study, the information from the qualitative study is as important for understanding this study as that from the quantitative study. The qualitative interviews were conducted in the form of face-to-face interviews at the respondents' premises, while the quantitative study was an online survey. For the presentation of the following chapter, the logical sequence is followed so that the results of the qualitative study are presented in the first part and the results of the quantitative study in the second part.

4. Results

4.1. Qualitative study

The interview began after a brief introduction to the subject of the study and its purpose. In order to better understand the interviewees, it was first explained to them that organic in Swedish means ekologiskt, and the difference between purchase and consumption was made clear to them. The interview began with a question about the current behavior of the respondents. In general, all participants consumed organic food at least once a month. Two of them consumed organic coffee and one participant consumed organic dairy products such as milk and yogurt daily. When asked about their general knowledge of organic food products, they all responded with general information about the conditions of organic production. The study found that personal motives, particularly health concerns, were highlighted by all respondents as the most important motivating factor for choosing organic food. Respondents seem to make conscious food choices when it comes to health. "...Organic meats do not contain antibiotics" or, "They are more nutritious...., they are free of chemicals and preservatives". Participants' association with organic foods was due to a variety of issues, including environmental concerns, food safety issues, and the absence or use of fewer synthetic fertilizers and pesticides. One of the respondents was encouraged to buy organic food after watching a documentary about raising animals in unhealthy living conditions without fresh air or sunlight and with inadequate space. He believed that raising animals in a species-appropriate manner would reduce stress and the need for antibiotics to treat illness. Although the main reason for buying more organic meat and dairy products was animal welfare, personal health was a more important factor for him in buying organic food. Two respondents believed that organic food products tasted better than their conventional counterparts, "… Although they taste better than conventional products, they do not necessarily look attractive" and three people felt that they could not detect any difference between the taste of organic foods and conventional foods. Two respondents stated that they pay attention to the word organic when buying food, and three respondents stated that they pay attention to the KRAV label when buying organic food products. They considered KRAV standards to be stricter than EU regulations. They considered the quality of food products with the KRAV label to be higher. When respondents were asked how their friends, colleagues, and family members influence their decisions to purchase organic food, four respondents indicated that they are influenced by their partners and that their colleagues do not influence their decisions. One respondent noted that in the past she bought organic products only to demonstrate her purchasing power and luxurious lifestyle because they were more expensive, but over time, factors

influencing her buying behavior changed. “I prefer to buy foods produced in Sweden, even if they are conventional, I prefer to buy conventional Swedish apples rather than organic apples from Argentina”. Another respondent believed that some consumers buy organic products without knowing the real value of the products just to show their luxurious lifestyle. The interviews with the participants showed that despite the availability of organic food and a positive attitude toward these products, consumers largely fail to control the barriers to buying organic products.
The barrier mentioned by all participants as the most important concern was the high price of organic products. “...I buy most organic foods when their prices are discounted”. They highlighted the differences in premiums between different categories of organic food. “…The price difference between organic and conventional dairy products is not large, while the price difference between meat products is very large”. They also pointed out the relationship between household disposable income and food choices. When asked about their intention to buy organic food products in the next month, participants indicated that if the price difference between organic products and conventional products was minimal, they would prefer to buy organic products rather than conventional products. Another obstacle raised by some participants was the lack of knowledge. Participants felt that conventional products could have a negative impact on the environment due to the use of pesticides and chemical fertilizers.

The following Table 3 lists all the findings of the interviews based on the TPB factors. It describes how each description of the interviewees was translated to each variable of the existing TPB variables. Table 4 lists the barriers presented by the respondents.

Table 3. Achievements of interviews based on TPB factors

Existing TBP variables/Construct	Translated descriptions of respondents from each variable	Number of respondents(N=5)
Behavior	I consume organic coffee every day.	2
	I consume organic dairy products such as milk or yogurt every day.	1
Purchasing intentions	I buy organic food occasionally.	2
	I do not plan to increase the number of times I purchase organic food.	3
Attitudes toward purchasing organic foods	Organic foods have positive effects on human health.	5
	Organic foods are free of chemicals and preservatives.	5
	Organic food has better nutritional value	3
	Organic food has a better taste	2
	Organic foods contain fewer antibiotics	1
	Organic foods have fewer calories and less structured fat	1
	Organic foods cause less pollution of water and soil	4
	Chemical fertilizers and pesticides are not used in their production.	4
	Hormonal and antibiotic treatments are not used in raising livestock.	1
	The KRAV label is a seal of quality for the strict control of organic products.	3
	Organic fruits and vegetables have a vibrant aroma and a strong smell	3
	Organic food is luxury	2
Subjective norms	The opinion of family members is important to me when it comes to buying food.	4
	If my partner finds a food product good, I am more willing to buy that product.	4
Perceived behavioral control	Despite the availability of organic food, I prefer to buy conventional foods.	5
	I am more likely to buy organic food that has the KRAV label.	1

Table 4. Barriers to purchasing organic food based on the interviews

Barriers	Number of respondents(N=5)
Organic food is more expensive than conventional food.	5
I do not trust organic food from other countries.	1
Organic foods are usually less visually appealing than their conventional counterparts.	3
I do not want to spend so much money on food	5
I do not know the principle of organic farming and production.	2

4.1.1. Data visualization

After the interview, a thematic analysis was conducted. All identified data and codes were organized and categorized to discover and generate relevant themes. Figure 4 shows the visualization and sorting of the data in the thematic analysis. In this model, the green and red squares represent the discovered themes, and the ellipses represent the highlighted codes in the participants' interviews.

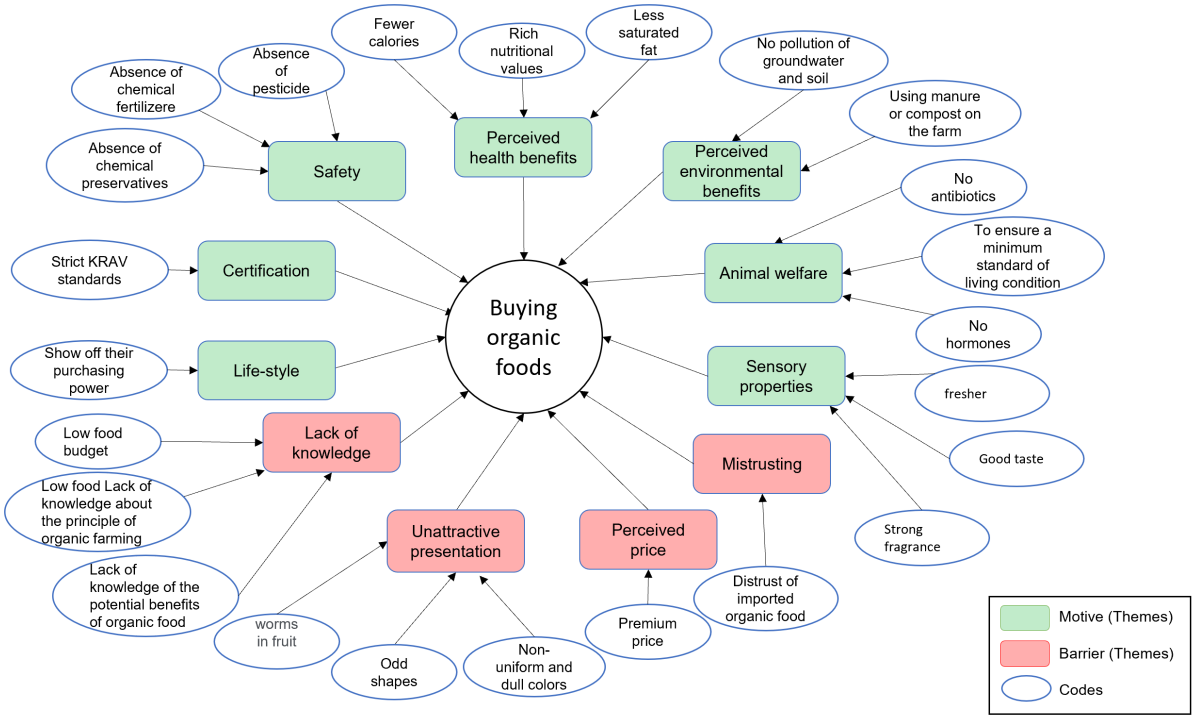

Figure 4. A model of the components in buying organic foods based on interviews conducted.

4.2. Quantitative study

After reviewing the findings of previous studies on this topic and linking them to the results of the interviews conducted, the questionnaire was created. After adapting the questionnaire, the survey was conducted on the basis of the TPB model developed, and in such a way that it was compatible with the subsequent analyses using SPSS and Excel.

4.2.1. Descriptive statistics

After reviewing similar studies that examined at consumer purchasing behavior, it was decided that the questionnaire should include six demographic characteristics: gender, age, occupation, education level, household size, and income (See Table 5).

Age is one of the most important demographic factors that influence not only consumer behavior but also marketing strategy, as lifestyle, tastes, consumption patterns, and needs, especially health needs, change drastically with age. Another important factor influencing consumers' purchasing decisions is gender. Numerous studies show that in most households it is women who have the greatest influence on the choice and purchase of products. Since organic foods are more expensive than non-organic food products, income can have a potential influence on consumer behavior. Moreover, people with different levels of education have different preferences and different levels of discretion in purchasing (Solomon & Bamossy 2016).

A total of 110 responses were received, all of which were valid, with a completion rate of 100%. The description of each consumer characteristic is presented below.

Gender:

Regarding gender, the question contained four alternatives: male, female, other, and do not want to reply/cannot reply. 34.5% (38 respondents) of the respondents were male, 64.5% (71 respondents) of the respondents were female and 1% (1 respondent) other, answered the questionnaire.

Age:

The age group is divided into six different ranges. “25-34 years old” and “35-44 years old” were the largest age groups, accounting for 29% and 26.3% (32 and 29 respondents) of the total respectively. 19.1% (21 respondents) of the total respondents were “18-24 years old”, 16.4% (18 respondents) belong to “45-54 years old”, 7.3% (8 respondents) to “over 55 years old” and 1.9% (2 respondents) to “under 18 years old”. The questionnaires covered almost all age groups.

Occupation:

There are five choices: “Studying”, “Working”, “Retired”, “Unemployed” and “Other”, which are part of the question on occupation. 54.5% of the respondents (60 respondents) were working, 39% of the respondents (43 respondents) were students, 4.5% of the respondents (5 respondents) were retired, 1% of the respondents (1 respondent) were unemployed and 1% of the respondents (1 respondent) chose "Other".

Education level:

86.4% (95 respondents) of the people who answered this questionnaire have a university degree as the largest group. 8.2% (9 respondents) had a high school diploma, 2.7% (3 respondents) have completed elementary school and 2.7% (3 respondents) did not want to answer.

Household size:

The question on household size contained six choices, with 14.5% (16 respondents) having 1 person per household, 28.2% (31 respondents) having 2 persons, 13.6% (15 respondents) having 3 persons, 26.4% (29 respondents) having 4 persons, 11% (12 respondents) having 5 persons and 6.4 (7 respondents) having more than 5 persons.

Monthly household income NET (SEK):

The last section of the demographic questions asked about monthly household income NET. 6 respondents (5.5%) had a monthly household income of less than 15000 SEK NET, 17 respondents (15.5%) had a monthly household income of 15000-30000 SEK NET, 39 respondents (35.5%) had a monthly household income of 30000-45000 SEK NET, 29 respondents (26.4%) had a monthly household income of 45000-60000 SEK NET, 14 respondents (12.7%) had a monthly household income of more than 60000 SEK NET and 5 respondents (4.6%) did not want to answer.

Table 5. Socio-demographic characteristics of the total sample

Sample properties for N=110

Socio-demographic characteristics	Item	Frequency	Percentage (%)
Gender	Female	71	64.55
	Male	38	34.55
	Other	1	0.9
Age	Under 18	2	1.8
	18-24	21	19.1
	25-34	32	29.1
	35-44	29	26.4
	45-54	18	16.4
	Over 55	8	7.3
Occupation	Studying	43	39.1
	Working	60	54.5
	Retired	5	4.5
	Unemployed	1	0.9
	Other	1	0.9
Education level	University degree	95	86.4
	Gymnasium	9	8.2
	Elementary school	3	2.7
	Do not want to reply/Cannot reply	3	2.7
Household size	1	16	14.5
	2	31	28.2
	3	15	13.6
	4	29	26.4
	5	12	10.9
	Above 5	7	6.4
Monthly household income NET (SEK)	≤ 15000 SEK	6	5.4
	≥ 60000 SEK	14	12.7
	15000 - 30000 SEK	17	15.5
	30000 - 45000 SEK	39	35.4
	45000 – 60000 SEK	29	26.4
	Do not want to reply/Cannot reply	5	4.6

4.2.2. Factor analysis

The statistical method of factor analysis is used to examine the correlation of variables in a larger set of variables and separates them from the groups that have less correlation. In this statistical method, all variables are considered simultaneously, and each variable is considered a dependent variable. A questionnaire (see appendix 3) designed to assess consumer behavior toward buying organic food consists of 3 items each for the original independent TPB variables attitude (ATT), subjective norm (SN), and perceived behavioral control (PBC), and 3 items for intention. To examine the factors causing the gap between intention and behavior and the motivational factors, 6 items for obstacles and 6 items for motivational factors were used. In order to build construct validity and organize the variables into the construct, all of these variables were subjected to factor analysis by conducting principal components analysis (PCA) and ordering the items based on their degree of correlation with each other. Thus, factor analysis was conducted to check all variables and all items.

Before conducting the component analysis, the adequacy of the statistical data was assessed using the Kaiser-Meyer-Olkin (KMO) test and Bartlett's Test of Sphericity. The KMO test is a statistical measure used to assess the adequacy of sample size, indicating the proportion of variance in the data that can be explained by factors. The recommended value is above 0.6 and the closer it is to 1, the better (Kaiser 1974).

In this study, the KMO index value is 0.807, Bartlett's sphericity test was used to determine whether the correlation matrix obtained was significantly different from zero and on what basis the factor analysis can be justified, and the chi-square value was doubled to 6365 with a degree of freedom of 1653 and $p < 0.001$ was obtained. If the p-value in Bartlett's sphericity test is less than 0.05, the validity of the data is confirmed. A significant statistical test (less than 0.05) means that the correlation matrix of each variable is not an identity matrix and is ideal for factor analysis. These two criteria are important indicators to confirm the adequacy of the number of samples and the functionality of the expressions. The result showed that the Kaiser-Meyer-Olkin value of all items was above the recommended value of 0.6 (Kaiser 1974). Bartlett's Test of Sphericity was significant for all items (See Table 6).

Table 6. KMO and Bartlett's test results

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.807
Bartlett's Test of Sphericity	Approx. Chi-Square	6365.772
	df	1653
	Sig.	.000

The KMO values show that the degree of information of the variables overlaps strongly.

The factor analysis was done to check whether each item measured the correct variable. Examination of the factor analysis showed that the factors had no apparent cross-loading, indicating that the sample was both adequate and appropriate for the solution. This four-factor solution presented four variables (INT, ATT, SN, and PBC) with eigenvalues greater than 1, which explained 91.11%, 74.79%, 64.48%, and 48.49% of the variance respectively (See Table 7). As shown in the Table. 7, the loading of all items was above 0.560 and thus significant, which means that both the discriminant validity and the convergent validity were very high (Hair et al. 2014).

Table 7. Rotated Component Matrix

Component	**Eigenvalue**	**Variance Explained**	**Item**	**Factor Loading**
Purchasing Intention	2.733	91.11%	Possible intention	0.948
			Planned intention	0.979
			Determined intention	0.936
Attitude	4.487	74.79%	Buying organic food is satisfying	0.866
			Buying organic food is wise	0.863
			Buying organic food is a good idea	0.864
Subjective Norm	3.869	64.48%	Family influence	0.704
			Friends influence	0.831
			Colleagues influence	0.859
Perceived Behavioral Control	2.91	48.49%	Easy to find in store	0.699
			Purchase control	0.652
			Affordability	0.721

Accordingly, four variables, namely the ATT component and the SN component, the PBC component, and the INT component, were checked for accuracy.

4.2.3. Reliability Analysis

A final test of the reliability of each of the components (INT, ATT, SN, PBC, motivational factors and barriers) was also carried out using reliability statistics. As shown in Table. 8, all items had Cronbach's alpha above 0.7, indicating that the components had good internal consistency reliability (Bryman & Bell 2015; Pallant 2020). The alpha coefficient (α) has the advantage of providing a summary measure of intercorrelations. Thus, the validity and reliability of the constructs were confirmed, and it was possible to use these components for the analysis.

Table 8. Reliability of Constructs

Contracts		**Cronbach's Alpha Value**	
Purchasing Intention		0.951	
Attitudes toward purchasing organic food		0.932	
Subjective norm		0.888	
Perceived behavioral control		0.785	
Motivational factors	Perceived Health Benefits	0.934	0.952
	Perceived Environmental Benefits	0.926	
	Animal welfare	0.931	
	Food safety	0.905	
	Good taste	0.903	
	Fashion trade & unique lifestyle	0.749	
Barriers	Price	0.818	0.836
	Availability	0.708	
	Knowledge	0.742	
	Habit	0.861	
	Mistrust of the food labels	0.868	
	Cosmetic standards	0.853	

4.2.4. Testing multicollinearity

Before we could understand whether multicollinearity needed to be mitigated, the data had to be transformed from the individual items into the three principal components of the TPB found in the factor analysis. As shown, after loading the items on the relevant components, and calculating the variables, they proved to be significant. Three outliers were found for the variable subjective norm (SN) but were retained due to the use of the 7-point Likert scale, as their exclusion could lead to misleading results (Hair et al. 2014). Examination of the variables showed that all variables were normal and within the range that the regression can handle, and the regression was therefore robust. To avoid multicollinearity and to measure the dependence between quantitative variables, the Pearson correlation matrix was examined with its coefficients in the Table. 9. The closer the value of the correlation coefficient is to 1 or -1, the stronger the linear relationship between the two variables is. The results showed that the intercorrelations between the variables were low and multicollinearity had no significant effect. Since the intercorrelations between the variables were between 0.26 and 0.69, it is confirmed that there is no perfect multicollinearity and multiple regression analysis is possible (Hair et al. 2014). Furthermore, the variance inflation factor (VIF) check for all the variables showed that the value is below 10 (all VIF-values in this study were below 1.7), so no multicollinearity was confirmed (James et al. 2021).

Table 9. Correlations

	INT	*ATT*	*SN*	*PBC*
INT	1			
ATT	0.692503	1		
SN	0.498115	0.479542	1	
PBC	0.486561	0.544349	0.256895	1
VIF-value		1.723742	1.298675	1.421138

4.2.5. Data analysis of Equation 1

Equation 1 (Equation 1: BEH = INT (ω_1) + PBC (ω_2)) tested H_1 to H_2, Hypothesis 1, which referred to the strong positive relationship between a person's intention to purchase organic foods and their actual purchasing behavior, and Hypothesis 2, which referred to the positive relationship between consumers' perceived behavioral control when purchasing organic foods and their actual purchasing behavior.

According to the questionnaire (see Appendix 3) and the structure of equation 1, there are two independent variables - purchase intention (INT) (see question 2) and

perceived behavioral control (PBC) (see question 6) - and one dependent variable – behavior (BEH) (see question 3).

After checking the coefficients of the three variables and the variance inflation factor (VIF) for them, the multiple regression analysis was activated. After testing the assumptions for the multiple regression, a linear multiple regression was performed to test hypotheses 1 to 2. The following multiple regression analysis included the independent variables of purchase intention (INT) and perceived behavioral control (PBC), which accounted for 70% of the variance in BEH ($F(2,107)=125.7458$, $p < 0.001$, $R^2= 0.701$). The equation, therefore, fitted the data well.

Hypothesis 1 tested whether consumer intention toward organic food is positively related to behavior to buy organic food. The standardized coefficient beta of INT was 0.28 ($p < 0.001$). This means that if INT were increased by 1 point, BEH would increase by 0.28 units. The results thus show that the purchase intention for organic food has a positive and significant influence on consumers' behavior to buy these products. H_1 was supported.

Hypothesis 2 tested whether consumers' perceived behavioral control toward purchasing organic products has a positive relationship with their actual behavior in purchasing organic foods. The standardized coefficient beta of PBC was 0.0145 ($p < 0.01$). This means that if PBC were increased by 1 point, BEH would increase by 0.0145 units. The results thus show that the perceived behavioral control toward purchasing organic food has a positive and significant influence on consumers' behavior. H_2 was supported.

In the result presented, the two coefficients of INT and PBC are 0.28 and 0.0145 respectively (See Table 10). These results confirm that it is possible to predict the behavior of organic consumers with the intention to buy organic food.

Table 10. Results of the regression analysis of equation 1

Regression Statistics	
Multiple R	0.837572214
R Square	0.701527214
Adjusted R Square	0.695948283
Standard Error	1.020668336
Observations	110

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	2	261.9949042	130.9975	125.7458	8.07986E-29
Residual	107	111.4687321	1.041764		
Total	109	373.4636364			

	Coefficients	*s.e.*	*t Stat*	*P-value*
INT	0.279834516	0.022641056	12.35961	2.46E-22
PBC	0.014549873	0.00545514	2.667186	0.008837

4.2.6. Data analysis of Equation 2

To test hypotheses 3 to 5, the statistical test of equation 2 (BEH ≈ INT = ATT (ω_1) + SN (ω_2) + PBC (ω_3)) was carried out, the experiment was based on a questionnaire (see Appendix 3). Following the structure of equation 2, the three variables attitude (ATT) (see question 4), subjective norm (SN) (see question 5), and perceived behavioral control (PBC) (see question 6) were used in the questionnaire to predict the intention to purchase organic food.

Linear Multiple Regression

Examination of the Pearson correlation matrix showed that the correlation coefficients were low so that no violation of the perfect multicollinearity assumptions was found, and multiple regression analysis was possible. Furthermore, the variance inflation factor (VIF) check for all the variables showed that the value is below 10, so no multicollinearity was confirmed. After testing the assumptions for the multiple regression, a linear multiple regression was performed to test hypotheses 3 to 5. The following multiple regression analysis included the independent variables of ATT, SN, and PPBC, which explained 53% of the variance for INT ($F(3,106) = 40.28$, $p < 0.001$, $R^2 = 0.533$). The equation, therefore, fitted the data well (See Table 11).

Hypothesis 3 tested whether consumer attitudes toward organic food had a positive relationship with the intention to buy organic food. The standardized coefficient beta of ATT was 0.125 ($p < 0.001$). This means that if ATT is increased by 1 point, the intention to buy would increase by 0.125 units. The results thus show that attitudes toward organic food have a positive and significant influence on the intention to buy these products. H_3 was supported.

Hypothesis 4 tested whether subjective norms had a positive relationship with the intention to buy organic food. The standardized coefficient beta of SN was 0.065 ($p < 0.01$). This means that if SN is increased by 1 point, the intention to buy would increase by 0.065 units. The results thus show that subjective norms toward organic food have a positive and significant influence on the intention to buy these products. H_4 was supported.

Hypothesis 5 tested whether perceived behavioral control had a positive relationship with the intention to buy organic food. The standardized coefficient beta of PBC was 0.038 ($p < 0.05$). This means that if PBC is increased by 1 point, the intention to buy would increase by 0.038 units. The results thus show that perceived behavioral control toward organic food has a positive and significant influence on the intention to buy these products. H_5 was supported.

Table 11. Results of the regression analysis of equation 2

Regression Statistics	
Multiple R	0.729868815
R Square	0.532708487
Adjusted R Square	0.519483255
Standard Error	3.42604637
Observations	110

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	3	1418.38	472.7949	40.27970974	1.87299E-17
Residual	106	1244.21	11.73779		
Total	109	2662.59			

	Coefficients	*s.e.*	*t Stat*	*P-value*
ATT	0.125535804	0.02175	5.772799	7.84425E-08
SN	0.064886533	0.02268	2.860778	0.005091582
PBC	0.037833099	0.01907	1.983826	0.049860734

4.2.7. Data analysis of motivational factors

In this study, the statistical tests of the motivational factors in which we will test H_6 to H_{11}. The linear multiple regression was conducted to test the relationship between six factors and attitude. Six factors including perceived health benefits (PHB), perceived environmental benefits (PEB), animal welfare (AW), food safety (FS), good taste (GT), and fashion trends and unique lifestyles (FT) were considered as independent variables while attitude (ATT) was the dependent variable after checking the assumptions of multiple regression. Outliers and normality test for the attitude variable. The data were examined using the Pearson correlation matrix (See

Table 12). The coefficients were low, ranging from 0.593 to 0.244, indicating that there was no perfect multicollinearity, and that the data were suitable for multiple regression analysis (Hair et al. 2014).

Table 12. Correlations

	ATT	PHB	PEB	AW	FS	GT	FT
ATT	1						
PHB	0.593	1					
PEB	0.609	0.701	1				
AW	0.416	0.429	0.575	1			
FS	0.574	0.652	0.649	0.412	1		
GT	0.501	0.452	0.451	0.411	0.583	1	
FT	0.244	0.255	0.308	0.256	0.394	0.319	1

After testing the assumptions for the multiple regression, a linear multiple regression was performed to test hypotheses 6 to 11. The following multiple regression analysis included the independent variables of the driver variables (PHB, PEB, AW, FS, GT, and FT), which accounted for 48% of the variance in ATT ($F(6,103) = 15.69$, $p < 0.001$, $R^2 = 0.477$). The model, therefore, fitted the data well (See Table 13).

Hypothesis 6 tested whether perceived health benefits are positively related to consumers' attitudes toward buying organic products. The standardized coefficient beta of PHB was 0.3 ($p < 0.05$). This means that if PHB increased by 1 point, the ATT for buying organic food would increase by 0.3 units. Thus, the results show that perceived health benefits are positively related to consumers' attitudes toward buying organic food. H_6 was supported.

Hypothesis 7 tested whether perceived environmental benefits are positively related to consumers' attitudes toward buying organic products. The standardized coefficient beta of PHB was 0.35 ($p < 0.05$). This means that if PHB increased by 1 point, ATT would increase by 0.35 units for buying organic food. Thus, the results show that perceived environmental benefits are positively related to consumers' attitudes toward buying organic food. H_7 was supported.

Hypothesis 8 tested whether concern for animal welfare is positively related to consumer attitudes toward buying organic food.

Hypothesis 9 tested whether food safety is positively related to consumers' attitudes toward buying organic food. The standardized beta coefficients for animal welfare (AW) and food safety (FS) were 0.05 and 0.21 and p=n.s. This shows that the regression for the factors of animal welfare and food safety is not statistically significant. H_8 and H_9 were not supported.

Hypothesis 10 tested whether good taste has a positive relationship with consumer attitudes toward buying organic food. The standardized coefficient beta of GT was 0.24 ($p < 0.05$). This means that if GT is increased by 1 point, ATT will increase the willingness to buy organic food by 0.24 units. Thus, the results show that good taste has a positive relationship with consumers' attitudes toward buying organic food. H_{10} was supported.

Hypothesis 11 tested whether fashion trends and unique lifestyles have a positive relationship with consumer attitudes toward buying organic food. The standardized coefficient beta of the driver fashion trends, and unique lifestyles was -0.03. If the FT increased by 1 point, the ATT would decrease by 0.03 units. This was contrary to the hypothesis, as the statistical result showed that the factor fashion trends, and unique lifestyle had a negative influence on the ATT to buy organic food. H_{11} was not supported.

Table 13. Results of the regression analysis of the motivational factors

Regression Statistics	
Multiple R	0.690986
R Square	0.477462
Adjusted R Square	0.447023
Standard Error	14.73291
Observations	110

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	6	20428.42	3404.737	15.68579	1.02E-12
Residual	103	22357.04	217.0587		
Total	109	42785.46			

	Coefficients	*s.e.*	*t Stat*	*P-value*
Intercept	4.114076	2.640747	1.557921	0.122319
Perceived health benefits	0.304813	0.148789	2.048626	0.043042
Perceived environmental benefits	0.346975	0.156129	2.222354	0.028446
Animal welfare	0.049611	0.106144	0.467394	0.641206
Food safety	0.208996	0.165256	1.264686	0.208838
Good taste	0.244438	0.115916	2.10875	0.037391
Fashion trends and unique lifestyles	-0.03174	0.134387	-0.23619	0.813758

4.2.8. Data analysis of Equation 3

The statistical test of equation 3 (INT - BEH = PB (ω_1) + AB (ω_2) + KB (ω_3) + HB (ω_4) + MB (ω_5) + CB (ω_6)) was carried out to test H_{12a} to H_{12f} (see chapter 2.5 for the theory and hypotheses). Following the structure of equation 3, there were 6 barriers (see question 13) to predicting the gap (INT - BEH) between behavior (see question 3) and intention (see question 2) to buy organic food. The variables include the price barrier (PB), the availability barrier (AB), the knowledge barrier (KB), the habit barrier (HB), the mistrust of the food labels barrier (MB), and the cosmetic standards barrier (CB) (see question 13).

For the same reason as before, the assumptions of multiple regression were tested. The correlation coefficients between these variables were low, ranging from 0.69 to 0.37, indicating that perfect multicollinearity was not present and that the variables were suitable for multiple regression analysis (Hair et al. 2014). In addition, the variance inflation factor (VIF) was checked and was below 10 for all variables, indicating that multicollinearity is not an issue (Pallant 2020).

Hypotheses 12a to 12f were thus tested by linear multiple regression. In this model, the independent variables were price barrier, availability barrier, knowledge barrier, habit barrier, distrust barrier to food labeling, and barrier to cosmetic standards. It explained 59% of the variance for the behavior and purchase intention gap ($F(6,103) = 24.65$, $p < 0.001$, $R^2 = 0.5895$), so the equation fitted the data well (See Table 14).

H_{12a} tested whether the price barrier has a positive influence on the purchase intention gap. The standardized coefficient beta of the price barrier was 0.25 ($p < 0.001$). If the price barrier increases by 1 point, the distance between intention and behavior would increase by 0.25 units. This shows that the price barrier has a positive impact on the gap between purchase intention and actual behavior in buying organic food. H_{12a} was supported.

H_{12b} tested whether the availability barrier has a positive influence on the purchase intention gap. The standardized coefficient beta of the availability barrier was 0.03 (p=n.s). This shows that the regression for the availability barrier is not statistically significant. H_{12b} was not supported.

H_{12c} tested whether the knowledge barrier has a positive influence on the purchase intention gap. The standardized coefficient beta of the knowledge barrier was 0.041 (p=n.s). This shows that the regression for the availability barrier is not statistically significant. H_{12c} was not supported.

H_{12d} tested whether the habit barrier has a positive influence on the purchase intention gap. The standardized coefficient beta of the habit barrier was 0.13 ($p < 0.001$). If the habit barrier increases by 1 point, the gap would increase by 0.13 units. This shows that the habit barrier has a positive impact on the gap between purchase intention and actual behavior in buying organic food. H_{12d} was supported.

H_{12e} tested whether the barrier "distrust of food labels" has a positive influence on the behavioral intention gap. The standardized coefficient beta of the barrier "distrust of food labelling" was 0.037 (p=n.s). This shows that the regression for the barrier mistrust of food labeling is not statistically significant. H_{12e} was not supported.

H_{12f} tested whether the barrier of cosmetic standards has a positive influence on the behavioral intention gap. The standardized coefficient beta of the barrier of cosmetic standards was 0.068 (p=n.s). This shows that the barrier to cosmetic standards is not statistically significant. H_{12f} was not supported.

Table 14. Results of the regression analysis of equation 3

Regression Statistics	
Multiple R	0.767790153
R Square	0.589501719
Adjusted R Square	0.565589198
Standard Error	2.411667699
Observations	110

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	6	860.292	143.382	24.65243	6.10245E-18
Residual	103	599.0625	5.816141		
Total	109	1459.355			
Dependent variable: INT-BEH					
	Coefficients	*s.e.*	*t Stat*	*P-value*	
Intercept	-0.781417671	0.311835	-2.50587	0.013781	
Price barrier	0.251291008	0.043467	5.781231	7.99E-08	
Availability barrier	0.030425133	0.053561	0.568044	0.571241	
Knowledge barrier	0.041012791	0.050646	0.809787	0.419929	
Habit barrier	0.134075319	0.042525	3.15287	0.002118	
Mistrust of the food labels barrier	0.037456674	0.046616	0.803514	0.423528	
Cosmetic standards barrier	0.067903636	0.037552	1.808257	0.073484	

4.2.9. Summary of the quantitative study results

In the descriptive statistics, the results showed that all classifications were covered by the respondents. After factor analysis and reliability analysis, the 110 respondents were considered valid data for Swedish consumers. All regression equations reached statistical significance and Table 15 shows the summary of the results of the hypotheses in this study.

Table 15. Summary of the results of the hypotheses

Hypotheses	**Results**
H_1: INT has a positive effect on BEH	Supported
H_2: PBC has a positive effect on BEH	Supported
H_3: ATT has a positive effect on INT	Supported
H_4: SN has a positive impact on INT	Supported
H_5: PBC has a positive impact on INT	Supported
H_6: Perceived health benefits have a positive effect on ATT	Supported
H_7: Perceived environmental benefits have a positive effect on ATT	Supported
H_8: Animal welfare has a positive effect on ATT	Not Supported
H_9: Food safety has a positive effect on ATT	Not Supported
H_{10}: Good taste has a positive effect on ATT	Supported
H_{11}: Fashion trends and unique lifestyles have a positive effect on ATT	Not Supported
H_{12a}: Price Barrier has a positive effect on Gap (INT-BEH)	Supported
H_{12b}: Availability Barrier has a positive effect on Gap (INT-BEH)	Not Supported
H_{12c}: Knowledge Barrier has a positive effect on Gap (INT-BEH)	Not Supported
H_{12d}: Habit Barrier has a positive effect on Gap (INT-BEH)	Supported
H_{12e}: Mistrust of the food labels Barrier has a positive effect on Gap (INT-BEH)	Not Supported
H_{12f}: Cosmetic standards Barrier has a positive effect on Gap (INT-BEH)	Not Supported

5. Discussion

This chapter discusses the results of the statistical analyses and interprets the data collected. The results are linked to previous research studies and the possible explanation of the results in each section is explained.

5.1. Behavior, Purchase Intention, and Perceived Behavioral Control

The statistical analysis confirmed the validity of hypotheses 1 and 2, which were explained in the theory section. The statistical examination of equation 1 showed that intention and perceived behavioral control influence organic food purchasing behavior, with intention having the strongest influence on behavior. Although previous literature using the Theory of Planned Behavior as the underlying theory has found that purchase intention and perceived behavioral control are also important in other contexts, the relative influence of this relationship varied across studies (Saba & Messina 2003; Tarkiainen & Sundqvist 2005; Dean et al. 2008; Yang et al. 2014; Fang & Levy 2015).

5.2. Purchase Intention and Attitude

From the results of the statistical analysis, it appears that attitude, one of the original variables of the TPB model, plays a key role in determining purchase intention in the context of organic food. This result, therefore, suggests that consumers who have a positive attitude toward organic food are more likely to buy it. The statistical analysis showed that attitude is the strongest predictor of intention to buy organic food, which is consistent with the results of previous literature (Basha et al. 2015; Yazdanpanah & Forouzani 2015; Asif et al. 2018; Dorce et al. 2021). The finding that attitude plays an important role in predicting purchase intention and could influence intention is not surprising, as previous research using TPB as an underlying theory has found that attitude consistently influences intentions related to organic food purchase and consumption (Tarkiainen & Sundqvist 2005; Yang et al. 2014; Fang & Levy 2015; Asif et al. 2018; Dorce et al. 2021). This hypothesis was further confirmed by the model designed for this study.

5.3. Purchase Intention and Subjective Norm

Hypothesis 4 was confirmed by equation 2, as the statistical analysis showed that consumers' subjective norm has a positive influence on purchase intention. In other words, according to the results, aspects related to consumers' social relationships, including family, friends, and colleagues, which were included in the questionnaire under the subjective norm, could motivate the purchase of organic food. Regarding the influence of important people on purchasing behavior, Chang (1998) argued that the endorsement or disapproval of a behavior depends on how the people who are important to it think about the behavior in question. The results of this study suggest that subjective norm has a positive influence on purchase intention related to organic food. These results support findings from previous studies (Dean et al. 2008; Asif et al. 2018; Li & Jaharuddin 2020; Pacho 2020; Dorce et al. 2021). Although several studies observed the positive influence of subjective norms on organic food purchase intention, some research studies did not find a significant relationship between subjective norms and purchase intention related to organic food (Yazdanpanah & Forouzani 2015; Paul et al. 2016). The different results regarding the effect of subjective norms on purchase intention in the different studies may be due to the differences in the population studied, the behavior studied, and the context studied. As Shahriari et al. (2019), conducted a study between Iran (a developing country) and the United States (a developed country) and found that the relationship between subjective norms and intention to purchase organic food varies across societies.

5.4. Purchase Intention and Perceived Behavioral Control

Hypothesis 5 was also confirmed with equation 2, as the statistical analysis showed that consumers' perceived behavioral control has a positive influence on purchase intention. According to the statistical analysis in this study, after attitude, subjective norms have the greatest influence on the intention to purchase organic food, followed by perceived behavioral control. Since the construct of perceived behavioral control indicates the extent to which individuals believe they can perform a particular behavior and higher levels of perceived behavioral control indicate a stronger relationship between intention and behavior (Armitage & Conner 2001), the result of this study explains that consumers may believe that the behavior of purchasing organic food is under their volitional control. A review of previous literature reveals some inconsistencies in the extent to which perceived behavioral control influences purchase intention. While Azam et al. (2012) and Paul et al. (2016) demonstrated a positive and significant effect of perceived behavioral control on purchase intention, Tarkiainen & Sundqvist (2005), Yazdanpanah &

Forouzani (2015), and Pacho (2020) found no significant effect of perceived behavioral control on purchase intention. Pacho (2020) investigated organic food purchasing behavior in the developing country of Tanzania and showed that due to the export of organic food products, the availability of organic food in the local market is very low despite consumer demand. Dean et al. (2008) found that perceived behavioral control has no significant effect on the intention to buy organic pizza, while it is significant for the purchase of organic apples. In a cross-national study (Iran, Pakistan, and Turkey) by Asif et al. (2018), attitude and subjective norms had a positive and significant influence on intention to buy organic food, but the influence of perceived behavioral control on intention to buy organic food varied across countries. This means that although consumers have positive attitudes toward organic food, there are still barriers to buying and consuming it.

5.5. Concluding discussion of existing TPB variables

According to Ajzen (1990), attitudes, subjective norms, and perceived behavioral control are associated with a number of basic behavioral determinants, namely behavioral beliefs (people's affective responses to benefits or costs), normative beliefs (expectations of significant others), and control beliefs (required resources and other factors that facilitate or hinder the purchase and consumption of organic food). Therefore, one possible explanation for the contradictory results regarding the effect of the three TPB major components (ATT, SN, PBC) on purchase intention could be that these factors may be different in different situations, time periods, populations (different countries, samples with different socio-demographic characteristics), and behaviors (purchase or consumption) and that different factors are used to measure the three TPB predictors in each study (Ajzen 1991; Scalco et al. 2017), so these differences may influence the correlations between the structures.

5.6. The main motives for purchasing organic food

The study investigated the motivational factors that lead consumers to buy and consume organic food. Out of the six factors presented, only three had an impact on attitudes. These three factors are perceived health benefits, perceived environmental benefits, and good taste. According to the results, health was a factor that influenced consumer attitudes, while food safety was not. The result of the statistical analysis showing that health benefits and environmental benefits are important to consumers is consistent with the results of the semi-structured interviews. The results show that perceived health benefits are positively related to

attitude. This means that the more consumers perceive the value of organic food and its potential benefits, the more likely they are to purchase it. The current pandemic, with high levels of consumer exposure to disease, could have a positive impact on consumer health awareness and explain the consumer attitudes to choosing the right foods to stay healthy. Awareness of the potential benefits of organic food products influences consumers' attitudes toward organic food. Previous studies have shown that consumers perceive organic food as more nutritious, although there is no research to support this view (Hill & Lynchehaun 2002; Williams 2021). Consumers' level of knowledge about organic food and health awareness has a strong influence on consumers' attitudes towards the acceptance of organic food. The provision of nutritional information to consumers significantly influences consumer attitudes towards buying organic food and induces them to buy organic food. Consumers' level of knowledge about organic food and health awareness has a strong influence on consumers' attitudes towards the acceptance of organic food. The provision of nutritional information to consumers significantly influences consumer attitudes towards buying organic food and induces them to buy organic food (Li & Jaharuddin 2020). So, one of the main reasons for buying organic food is its health benefits. A review of several studies shows that perceived health benefits are the most important factor in food purchasing in different countries (Basha et al. 2015; Dorce et al. 2021). Molinillo et al. (2020) study on the purchasing behavior of Millennial consumers in Spain and Brazil with two different cultures has shown that consumer awareness of health benefits rather than functionality has a significant influence on the regular purchase of organic food.

Hypothesis 7 was confirmed since the statistical analysis found that perceived environmental benefits indeed have a positive influence on attitude. The results of this study show that perceived environmental benefits are a stronger predictor of organic food purchase and consumption than perceived health benefits, which contrasts with the findings of the studies by Magnusson et al. (2003) and Molinillo et al. (2020). The result of this study is consistent with previous research that has shown that perceived environmental benefits are related to positive attitudes toward organic food and the purchase of organic food (Azam et al. 2012; Paul et al. 2016; Shahriari et al. 2019). Although some research has shown that consumers are very ambivalent when it comes to making ethical and healthy food choices (Sparks & Shepherd 1992; Solomon & Bamossy 2016), the results of this study have shown that consumers not only consider buying organic food as an environmentally friendly behavior but also seek the health benefits of organic food for themselves and their families. This finding contradicts the results of Magnusson et al. (2003). This could be because consumer attitudes have changed in recent years due to increasing consumer knowledge and information about environmental and social issues. This is supported by the study results of Bosona and Gebresenbet (2018),

which show that Swedish consumers have a positive attitude toward regional food, organic production, and sustainable food production. Promoting consumer knowledge and information about the consequences of food systems has led to the production and development of sustainable food and "eco-friendly products". By raising consumers' awareness of the impact of product attributes and improving attitudes towards organic food, green consumerism influences their purchase intention and encourages them to buy organic food (Solomon & Bamossy 2016).

Hypothesis 8 was not confirmed because the statistical analysis of this study showed that the relationship between attitude and animal welfare was not statistically significant. In this case, the results differ from previous studies, as Magnusson et al. (2003) and Ueasangkomsate & Santiteerakul (2016), for example, found that animal welfare has a significant impact on consumers' attitudes toward buying organic food. A review of previous studies addressing animal welfare issues in organic food products shows that there is no clear evidence that animal welfare in organic production systems is overall better or worse than in conventional production systems. Some studies have shown that animals in organic production systems are exposed to higher health risks and face greater challenges compared to conventional production because the animals are kept outdoors and are exposed to severe climatic variations and parasites (Hoffmann et al. 2015). This means that while organic livestock production offers clear health benefits for humans because fewer antibiotics, hormones, and chemicals are used, according to the result, a significant number of consumers still believe that organic production systems are not much better for animal welfare than conventional production systems.

To test hypothesis 9, the statistical analysis of this study showed that although the healthiness of organic food is one of the most important motivating factors for buying organic food, the relationship between food safety and attitude toward buying organic food was not significant. Thus, the results suggest that the food safety factor could not explain the overall attitude toward organic food when examining the purchase of organic food. Examination of various studies on the effect of organic food safety on attitudes suggests that the results might have been different if organic food had been reported separately. For example, the BSE crisis and the beef food safety scandals play an important role in the purchase of organic meat products (Fotopoulos & Krystallis 2002). While there have been no similar crises in the categories of fruit and vegetables or flour and bread and other food groups (Tarkiainen & Sundqvist 2005). Therefore, conventional food can generally be considered safe.

Hypothesis 10 was confirmed since the statistical analysis found that superior taste has a positive relationship with consumers' attitudes toward purchasing organic products. The finding provides support for the results from previous studies (Magnusson et al. 2003; Padel & Foster 2005; Hughner et al. 2007; Arvola et al. 2008). A review of the previous studies done on the subject shows different results

regarding the taste of organic foods compared to conventional foods. While according to the study by Magnusson et al. (2001) taste is the main motive for buying organic products, Zanoli et al. (2004) and Chen (2009) have shown that conventional food tastes better than organic products. On the other hand, Fillion & Arazi (2002) have shown through sensory analysis with trained panelists that the taste of conventional and organic foods differs in different food categories. According to Kihlberg and Risvik (2007), most consumers believe that organic food tastes better than conventional food. One possible explanation for why some consumers associate organic food with better taste is that taste is a subjective variable and depends on many factors such as product quality, consumer expectations of the product, and the way it is produced and processed. Consumers see price as a sign of food quality, i.e. a higher price is interpreted as an indicator of higher product quality (Hughner et al. 2007). In addition, consumers generally consider organic products to be healthier and more natural, which is why product evaluation is influenced by the organic label, and consumers generally consider organic products to be tastier and less artificial in taste.

Hypothesis 11 was not confirmed because the statistical analysis showed that the relationship between fashion trends and unique lifestyles and attitudes was not statistically significant. The findings of this study contrast with the studies by Fillion and Arazi (2002) and Canavari et al. (2007). Some objects serve as status symbols, i.e., consumers can show their high economic and social status by buying and consuming these objects (Solomon & Bamossy 2016). Thus, consumers' motivation to buy and consume organic food, which has a high price, might not only be to enjoy it, but also to show others their higher and economic social status. The results of this study show that although Swedish consumers view organic food products as healthy and environmentally friendly and have a positive attitude toward organic food, buying organic food has not become a trend in Sweden. It shows that buying organic food as a symbol of a luxurious lifestyle and consumer purchasing power has no significant relationship with Swedish consumers' attitudes. According to the interviews in the qualitative study, consumers buy organic foods because they care about public health and environmental damage, sustainable farming methods, and support for local producers, in addition to individual and family health.

5.7. The barriers to purchasing organic food

Equation 3 finally tested the barriers that prevent consumers from buying organic food if they already intended to do so. After statistical testing, it was found that of the six barriers introduced, 2 factors had an impact on the gap between purchase intention and behavior. The two significant barriers are the price barrier and the habit barrier. The fact that price is important to consumers is consistent with what

was found in the semi-structured interviews. Several studies on this topic have shown that the high price of organic food is an important challenge on the way to a positive attitude towards organic food. (Magnusson et al. 2001; Padel & Foster 2005; Shahriari et al. 2019), which is consistent with the findings of this study. Interestingly, Molinillo et al. (2020) found that organic food characteristics and perceived sustainability benefits increase consumers' willingness to pay price premiums and frequency of organic food purchases, even though consumers perceive organic food to be expensive. One possible explanation for this contradictory result is related to the income level or economic status of consumers. Consumers' propensity to buy is significantly related to their income level. Disposable income is defined as a source of purchasing power and has a significant influence on the willingness to buy organic food and plays a key role in shaping consumer behavior. Consumers with a high and satisfactory income are able to buy expensive products such as organic foods because they perceive the price of such food to be cheaper than consumers with an unsatisfactory income. If these consumers with a high and satisfactory income have a high purchase intention for organic food, their purchasing behavior will develop accordingly. This may not be the case for consumers with an unsatisfactory income, even if they have a high intention to buy organic food. Middle and low-income consumers would spend their income on essentials (Solomon & Bamossy 2016).

Availability was not significant in the statistical analysis. Availability of organic products to consumers means what organic products are offered to consumers, where they are offered and when they are offered to consumers. Other factors that can influence the availability of organic food are the size of the markets where organic food is offered and the different product groups that are offered to consumers. This barrier was taken from Magnusson et al. (2003) and Hughner et al. (2007), but the Swedish consumers' did not see it as a major influence. According to FiBL (2021a) and IFOM (2021), in 2019, Sweden was the fourth largest country in the world in terms of market share of organic products and more than 20% of agricultural land is farmed organically. Retailers in Sweden market organic products under their own brands, which has led to an increase in the availability of organic products and easier access to these foods for consumers. Thus, the fact that the availability barrier does not affect this study might be because organic food is easily available in conventional supermarkets in Sweden. Although organic foods have a smaller share of the Swedish food market than non-organic foods, organic foods are available to consumers in most supermarkets, according to this study.

For the knowledge barrier, the statistical analysis showed that the barrier has no significant impact on the intention-behavior gap. This result means that information about organic food is readily available and therefore people are not less likely to buy it due to a lack of knowledge. Although Hill & Lynchehaun (2002) and Padel & Foster (2005) cite the lack of consumer knowledge and information as a barrier

to buying organic foods, the results of this study show the benefits of the different categories of organic foods are well communicated to the Swedish consumers. This might be because today's environment offers the opportunity to provide information about the sustainability benefits of organic food in a variety of ways, including the internet, social media, print advertising, television, and word of mouth.

The habit barrier was found statistically to have a positive impact on the discrepancy between purchase intention and actual behavior related to organic food. Although the consumers have a positive attitude toward organic food and believe that organic foods are not only healthier and taste better but can also be an important element of environmental protection, they buy food out of habit rather than thoughtfully. These findings support previous studies that indicated that the element of habit is an important barrier to buying organic food (Magnusson et al. 2001; Tsakiridou et al. 2008). This might be because many consumers do not have the time to search for organic food and it is convenient for them to buy the conventional food they have been buying. According to Chen (2007), consumers who seek convenience are more likely to have negative attitudes toward organic food. Another issue that may lead consumers to settle for buying conventional food is the lack of expert consensus on healthy eating and the uncertainty about the positive and negative nutritional claims made by various researchers and experts about organic and conventional food. What should also be addressed in this discussion is the higher price of organic food compared to conventional food and the greater perishability of organic food, which could be other factors that lead consumers not to change their shopping habits. Following the arguments put forward, media coverage could change consumers' buying habits from conventional food to organic food. This is because, according to Ekoweb (2014), providing negative information about the production and consumption of conventional food and positive information about the production and consumption of organic food can influence the demand for organic food by creating a positive media image.

No statistical significance for distrust of food labeling could be found from the regression analysis. Contrary to what Hughner et al. (2007) and Padel & Foster (2005) mentioned, distrust of food labeling does not influence the intention-behavior gap in this study. This shows that the great majority of Swedish consumers trust the KRAV organic label. Swedish consumers' trust in organic food labeling can be attributed to the generally high level of trust among the Swedish population. Also, the growing market share of organic food can show that distrust of food labeling is less important than it was several years ago.

From the results, it appears that the barrier of cosmetic standards did not have a positive effect on the intention-behavior gap. This means that the cosmetic defects of organic food do not have a significant impact on the likelihood of buying organic food. According to the study by Thompson and Kidwell (1998), observable cosmetic defects, such as changes in the shape and appearance of organic food, have

a stronger impact on consumer choice and purchase intention than certain defects, such as worming of organic food or insect damage, which are rarely visible. On the other hand, Kuhar et al. (2012) showed that Slovenia consumers claim that if the taste of organic food is better than conventional food, they are willing to sacrifice visual attractiveness and buy it despite its cosmetic defects. Since, according to statistical analysis, the better taste of organic food was one of the most important motivating factors for the Swedish customers, Swedish consumers are likely to be willing to sacrifice the visual appeal of organic food for better taste and perhaps also for the perceived health and environmental benefits.

6. Conclusion

This chapter describes the general conclusions of the study and presents the main research findings, followed by the implications for theoretical and managemental aspects. Furthermore, the limitations of the study are highlighted and suggestions for future research are made.

6.1. General conclusions

The aim of this study was to examine the factors that influence Swedish consumers' intention and behavior when purchasing organic food. To this end, a conceptual model based on the Theory of Planned Behavior was developed. The proposed model included not only all the standard relationships of the Theory of Planned Behavior (TPB) but also the main barrier and motivational variables identified in previous studies on the subject. After applying and examining the developed TPB in this study, four conclusions could be made.

The first conclusion is that purchase intention and perceived behavioral control influence consumers' buying behavior for organic foods, with purchase intention having the strongest influence on behavior.

The second conclusion is that three TPB predictors influence consumers' purchase intention for organic food. The attitude variable was the strongest predictor of intention, Swedish consumers have very positive attitudes toward organic foods. The results show that eating with family, friends, and in the company of others is a social act in Sweden with the possibility of directly experiencing social pressure. About the perceived behavioral control variable analyzed in the study, showed that although consumers have positive attitudes toward organic food, there are still barriers to buying and eating it.

The third conclusion is that there is a positive and significant relationship between perceived environmental benefits, perceived health benefits, and superior taste. Perceived environmental benefits are the strongest predictor of attitude, followed by perceived health benefits and superior taste. The results of this study have shown that consumers in Sweden not only see eating organic food as a way to protect the environment, but they also believe that organic food is healthier than conventional food. So, when they buy food, they not only have altruistic motives

such as consideration for the environment, support for sustainable production and consumption, and protection of public health but also have egoistic motives such as personal health. Another important factor influencing Swedish consumers' attitudes is the better taste of organic foods, and they might ignore some of the barriers to buying organic food because it tastes better.

The fourth conclusion is that although the two factors of purchase intention and actual behavior are closely linked, there is nevertheless a gap between purchase intention and behavior. The discrepancy between intention and behavior among Swedish consumers is mainly due to two barriers that prevent consumers from buying organic food even if they have the intention to buy it. These barriers are the price barrier and the habit barrier. Swedish consumers cited price as the main barrier to buying organic food, followed by the barrier of buying habits. They believe that the price difference between conventional food and their organic counterparts is high in some food categories. They also generally buy the food they need out of habit, without considering its impact on sustainability.

6.2. Academic and Managerial Implications

The results of the study have several academic and managerial implications. The organic food system can provide a sustainable and long-term solution to achieve the Sustainable Development Goals (SDGs) by reducing negative environmental, economic, and social impacts (Setboonsarng & Gregorio 2017). This study provides scientific information and statistical analysis to show how consumers can be persuaded to buy and consume organic foods. Due to the complexity of consumer behavior, especially as it relates to organic food purchasing, there is a need for extensive research across multiple research disciplines. Although there has been extensive research on purchase intention, the studies that have examined consumer behavior are not yet comprehensive. Therefore, this study can contribute to academia by exploring a topic that has received little attention and providing facts and figures that show what factors and in what ways influence or prevent the purchase of organic foods. Due to the negative impact of conventional agriculture on sustainability, there is a need to research the acceptability of organic food. This study can provide valuable information in this area as it focuses on Swedish consumers. In addition, the conceptual model, based on the Theory of Planned Behavior, contributes to the scientific community on how motives can influence the intention to purchase organic products and how barriers can influence the gap between intention and behavior.

The findings of this study have several managerial implications. Firstly, according to the results of this study, the most important factor influencing the purchase intentions of Swedish consumers is attitude. The most important factors

that have a positive and significant impact on attitude are perceived environmental benefits, perceived health benefits, and good taste. These motivating factors lead customers to have a more positive attitude toward buying organic food. Therefore, companies and policymakers need to take action to inform the benefits of buying and consuming organic food to improve individual and societal health and promote sustainability. This is because consumers who better understand the benefits to personal, social, and environmental health will have a more favorable attitude toward buying and consuming these products. The benefits of organic foods can be communicated to consumers in shops, through various social media platforms, in advertising, or on food labels.

Secondly, as subjective norms have been shown to influence Swedish consumers' intention to buy organic food, companies and marketers can use word of mouth from key individuals (family, friends, colleagues, etc.) who are positive about buying and consuming organic foods and develop strategies that target not only end consumers but also the important people who can exert social pressure to buy organic food.

Thirdly, since perceived behavioral control influences consumers' intention to buy organic food, retailers, farmers, and organic producers can facilitate the purchase of organic food by improving distribution and production channels.

To overcome the price barrier, organic producers and companies can use a second brand strategy to reach different target groups. For example, consumers who intend to buy organic food but find the price too high can buy organic food by introducing a second brand of companies that produce organic products and bringing them to market (Dorce et al. 2021). In terms of buying habits, shops and companies can create a conducive environment for the presentation and design of organic food in the shop and provide appropriate and sufficient information to consumers on various social media platforms to highlight the sustainability of organic foods to customers and change their buying behavior. Organic food producers and companies can also identify consumers by seeking out influential people such as opinion leaders and reference groups to convince consumers to change their shopping habits to more sustainable food.

6.3. Limitations

This study has limitations that may limit the generalisability of its findings. First, future purchasing behavior was measured using self-reported past behavior, which may not a reliable indicator of a person's future behavior. This is because respondents' answers may be influenced by social desirability or the regulations and prescriptions that individuals place behind the word organic. Furthermore, due to the cross-sectional nature of this study, it is not possible to test whether a person's

past behavior is a reliable indicator of their future behavior. Second, the limited number of participants may affect the statistical analysis, such that the presence of a few outliers may directly affect the analysis of the normality of the data. Third, the implementation of the online survey and the fact that access to the internet is not the same for all people (it could be that older people are less likely to participate in the survey than younger people) could lead to a discrepancy between the socio-demographic characteristics of the sample and the official Swedish socio-demographic data, which could limit the generalisability of the study.

6.4. Suggestions for future research

This study provides the basis for future research on sustainable consumer behavior in purchasing and consumption. In this study, data was only collected in Sweden. As more attention should be paid to the production and consumption of organic food globally due to the Sustainable Development Goals (SDGs), it is recommended to test the TPB model and the conceptual model of drivers and barriers in developed and developing countries and compare the results to find out common and different factors that prevent and drive consumers to purchase and consume organic food. In addition, the model can focus on a specific category of organic food that could have the greatest impact on achieving the Sustainable Development Goals. Moreover, to increase the reliability of the measurement of consumer purchasing behavior, it is recommended that future studies use the actual purchase of organic foods in a specific context to investigate and predict the future purchasing behavior of individuals, e.g., to investigate the purchasing behavior of consumers in supermarkets. The use of random sampling is also recommended for a better understanding of trends in consumer behavior in different countries, as this sampling model improves the representativeness of the sample.

The popular science summary can be found in Appendix 4.

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Appendix 1

Interview Questionnaire
The interview was semi-structured, and the list of questions was designed to cover all specific topics. Respondents were allowed to speak freely to the questions for as long as they felt necessary.

- Describe your diet
- What is your average monthly income?
- How old are you?
- What is your level of education?

Think of your last grocery shopping trip. Try to remember what you bought.

Behavior

- Approximately how many things did you buy the last time you went shopping?
- Approximately how many of them were organic?
- Approximately how often do you consume organic food in a month?

Attitude

- Why did you buy these (organic foods) when you went grocery shopping?
- What is usually the reason you chose conventional food products?

Intention

- Do you plan to buy organic food more often?

Perceived behavioral control

- Among the conventional products you bought, was there an organic alternative?

- If No: Do you think you would have bought the organic alternative if it had been available?
- If Yes: Why did you choose the conventional rather than the organic product?

Subjective norms

- Do your friends prefer organic food to conventional food? What about your family? Your children?
- Is there anyone in your immediate environment who wants you to buy organic food?
- Do you think this might have influenced your attitude towards organic food?
- Do you think this has affected your buying habits regarding organic food?

Barriers

- Have you ever had the intention to buy an organic product but then decided to buy a conventional product? What do you think was the reason for this?
- What do you know about organic food?

Motives

- What factors motivate you to buy organic foods?
- Do you pay attention to labels (Fairtrade, sustainability, organic, local) or nutritional information?
- What role do you think labeling plays in buying organic food?

Thank you for your participation!

Appendix 2

Equation 1

H_1: Consumers' intention to purchase organic foods has a strong and significant positive relationship with their actual behavior in purchasing organic foods.

H_2: Consumers' perceived behavioral control towards purchasing organic foods has a positive relationship with their actual behavior in purchasing organic foods.

H_1 and H_2 can be expressed as the following equation:

Equation 1:

$$BEH = INT (\omega_1) + PBC (\omega_2)$$

Where:

BEH is a particular behavior

INT is the intention to perform that particular behavior.

PBC is the perceived behavioral control. It refers to people's perceptions of their ability to engage in a particular behavior.

ω_1 reflects the effect of the weight of consumer intentions on consumer behavior.

ω_2 reflects the effect of the weight of consumer perceived behavioral control on consumer behavior.

Equation 2

H_3: Consumers' attitude towards purchasing organic foods has a positive relationship with their intention of purchasing organic foods.

H_4: Consumers' subjective norms toward purchasing organic foods have a positive relationship with their intention of purchasing organic foods.

H_5: Consumers' perceived behavioral control towards purchasing organic foods has a positive relationship with their intention of purchasing organic foods. The equation for examining the purchase intention is as follows:

Equation 2:

$$BEH \approx INT = ATT\ (\omega_1) + SN\ (\omega_2) + PBC\ (\omega_3)$$

Where:

BEH is a particular behavior.

INT is the intention to perform that particular behavior.

ATT is the personal attitude to perform this particular behavior.

SN is the subjective norm, i.e., the perceived social pressure (a person's environment/entourage) to engage in or not engage in a particular behavior.

PBC is the perceived behavioral control. It refers to people's perceptions of their ability to engage in a particular behavior.

$\omega_1 \sim \omega_3$ = weights reflecting the relative influence of each factor on purchase intention.

Motives

H_6: Perceived health benefits have a positive relationship with consumers' attitudes towards purchasing organic products.

H_7: Perceived environmental benefits have a positive relationship with consumers' attitudes towards purchasing organic products.

H_8: Concerns about animal welfare have a positive relationship with consumers' attitudes towards purchasing organic products.

H_9: Food safety has a positive relationship with consumers' attitudes towards purchasing organic products.

H_{10}: Good taste has a positive relationship with consumers' attitudes towards purchasing organic products.

H_{11}: Fashion trends and unique lifestyles have a positive relationship with consumers' attitudes towards purchasing organic products.

Barriers

H_{12a}: The price barrier (PB) has a positive impact on the gap between the intention to buy organic food and the actual behavior.

H_{12b}: The availability barrier (AB) has a positive impact on the gap between the intention to buy organic food and the actual behavior.

H_{12c}: The knowledge barrier (KB) has a positive impact on the gap between the intention to buy organic food and the actual behavior.

H_{12d}: The habit barrier (HB) has a positive impact on the gap between the intention to buy organic food and the actual behavior.

H_{12e}: The mistrust of the food labels barrier (MB) has a positive impact on the gap between the intention to buy organic food and the actual behavior.

H_{12f}: The cosmetic standards barrier (CB) has a positive impact on the gap between the intention to buy organic food and the actual behavior.

The equation for examining the gap between purchase intention and actual behavior is as follows:

Equation 3: $INT - BEH = PB (\omega_1) + AB (\omega_2) + KB (\omega_3) + HB (\omega_4) + MB (\omega_5) + CB (\omega_6)$

Where:

INT - BEH is the gap between the intention to perform that particular behavior and that particular behavior.

PB stands for Price Barrier; it indicates whether organic food is too expensive for a person.

AB stands for Availability Barrier; it indicates whether organic foods are not readily available in regular grocery stores.

KB stands for Knowledge Barrier; it indicates whether it is difficult for a person to obtain information about organic food.

HB stands for Habit Barrier; it indicates whether convenience and satisfaction with conventional foods are important to a person.

MB is the Barrier of Distrust in Food Labeling; it indicates whether the person does not trust organic food labeling.

CB is the barrier to cosmetic standards; it indicates how important the aspect of the visual appeal of organic food is to a person.

$\omega_1 \sim \omega_6$ = weights reflecting the relative influence of each factor on the intention-behavior gap.

Appendix 3

Analysis of Consumer Behavior Towards Organic Foods in Sweden

In the following study, I analyze the barriers and motivations that influence the purchase and consumption of organic (sv. ekologisk) food among Swedish consumers. The word organic translates to Swedish ekologisk. The seven-point ranking scale was used for many statements. Please state your level of agreement with the following statements on seven-point Likert items, where 1 stands for strongly disagree and 7 stands for strongly agree. Some of the questions may seem similar, but they deal with slightly different issues. Therefore, please read each question carefully before answering it.

* Required

1. Do you currently live in Sweden? *

Mark only one oval.

- ◯ Yes
- ◯ No

2. Intention (sv. avsikt) *

Mark only one oval per row.

	strogly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly agree
I have the intention to purchase organic foods within the next week.							
I plan to purchase organic foods within the next week							
I will purchase organic foods within the next week.							

3. What is your behavior? *

Mark only one oval per row.

	strogly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly agree
I have been purchasing organic food on average every week.							

4. Attitude towards purchasing organic foods (What do you think?) *

Mark only one oval per row.

	strogly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly agree
I think that buying organic food is satisfying.	◯	◯	◯	◯	◯	◯	◯
The fact that buying organic food is satisfying is important to me.	◯	◯	◯	◯	◯	◯	◯
I think buying organic food is wise.	◯	◯	◯	◯	◯	◯	◯
The fact that it is wise to buy organic food is important to me.	◯	◯	◯	◯	◯	◯	◯
I think buying organic food is a good idea.	◯	◯	◯	◯	◯	◯	◯
The fact that buying organic food is a good idea is important to me.	◯	◯	◯	◯	◯	◯	◯

5. Subjective norm towards purchasing organic foods (What do other people think about your food choices?) *

Mark only one oval per row.

	strogly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly agree
My family thinks I should buy organic foods when going grocery shopping.							
What my family thinks about my purchase choice is important to me.							
My close friends think I should buy organic foods when going grocery shopping.							
What my close friends think about my purchase choice is important to me.							
My colleagues think that I should buy organic foods when going grocery shopping.							
What my							

colleagues think about my purchase choice is important to me

6. Perceived behavioral control towards purchasing organic foods(What is your perception of your ability to perform the behavior?) *

Mark only one oval per row.

	strogly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strong agre
It is easy to find organic food in the grocery store where I live.							
The convenience (bekvämlighet/enkelhet) of finding organic food is important for my choice of buying it.							
My choice of buying organic food is largely up to me.							
If purchasing organic food were largely up to me, I am confident that I will purchase organic food.							
I can afford to buy organic food.							
The fact that I can afford to buy organic food is important to me.							

7. Motivation factors towards purchasing organic foods-Helth benefits (What are the reasons to buy organic food?) *

Mark only one oval per row.

	strogly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly agree
I think that eating organic food is good for my health	◯	◯	◯	◯	◯	◯	◯
Purchasing organic foods that are good for my health is important to me	◯	◯	◯	◯	◯	◯	◯
I think that eating organic food helps me to prevent disease.	◯	◯	◯	◯	◯	◯	◯
The fact that eating organic food helps me to prevent disease is important to me.	◯	◯	◯	◯	◯	◯	◯

8. Motivation factors towards purchasing organic foods- Environmental benefits (What are the reasons to buy organic food?) *

Mark only one oval per row.

	strogly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly agree
I think that the purchase of organic food is better than conventional food for the environment	◯	◯	◯	◯	◯	◯	◯
The fact that the purchase of organic food is better than conventional food for the environment is important to me.	◯	◯	◯	◯	◯	◯	◯
I think that I can contribute to environmental protection by buying and eating organic food.	◯	◯	◯	◯	◯	◯	◯
Buying organic food that helps protect the environment is important to me.	◯	◯	◯	◯	◯	◯	◯

9. Motivation factors towards purchasing organic foods- Animal welfare (What are the reasons to buy organic food?) *

Mark only one oval per row.

	strogly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly agree
I think that the purchase of organic food is better for animals	◯	◯	◯	◯	◯	◯	◯
The fact that the purchase of organic food is better for animals is important to me.	◯	◯	◯	◯	◯	◯	◯
I think that buying organic food helps animals to be better off.	◯	◯	◯	◯	◯	◯	◯
Buying organic food that contributes to better animal welfare is important to me.	◯	◯	◯	◯	◯	◯	◯

10. Motivation factors towards purchasing organic foods- Food safety (What are the reasons to buy organic food?) *

Mark only one oval per row.

	strogly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly agree
I think that organic food is safer than conventional food.	◯	◯	◯	◯	◯	◯	◯
The fact that organic food is safer than conventional food is important to me.	◯	◯	◯	◯	◯	◯	◯
I think that organic food contains the least amount of chemicals.	◯	◯	◯	◯	◯	◯	◯
The fact that organic food contains the least amount of chemicals is important to me.	◯	◯	◯	◯	◯	◯	◯

11. Motivation factors towards purchasing organic foods-Taste (What are the reasons to buy organic food?) *

Mark only one oval per row.

	strogly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly agree
I think organic food tastes better.	⬭	⬭	⬭	⬭	⬭	⬭	⬭
The fact that organic food tastes better is important to me.	⬭	⬭	⬭	⬭	⬭	⬭	⬭
I think organic food has a great natural taste.	⬭	⬭	⬭	⬭	⬭	⬭	⬭
The fact that organic food has a great natural taste is important to me.	⬭	⬭	⬭	⬭	⬭	⬭	⬭

12. Motivation factors towards purchasing organic foods- Fashion trends and unique lifestyles (What are the reasons to buy organic food?) *

Mark only one oval per row.

	strogly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly agree
I think organic food demonstrates a purchasing power and luxurious lifestyle.	⬭	⬭	⬭	⬭	⬭	⬭	⬭
The fact that organic food is evidence of purchasing power and a luxurious lifestyle is important to me.	⬭	⬭	⬭	⬭	⬭	⬭	⬭
I think that buying and eating organic food has become a trend in society.	⬭	⬭	⬭	⬭	⬭	⬭	⬭
The fact that buying and eating organic food has become a trend in society is important to me.	⬭	⬭	⬭	⬭	⬭	⬭	⬭

13. Barriers towards purchasing organic foods (Why choose the conventionally produced instead of the organic?) *

Mark only one oval per row.

	strogly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly agree
I think organic food is too expensive.	◯	◯	◯	◯	◯	◯	◯
Expensive food makes me less likely to buy it	◯	◯	◯	◯	◯	◯	◯
I think organic foods are not readily available at my regular grocery store.	◯	◯	◯	◯	◯	◯	◯
The poor availability of organic foods at the grocery store makes me less likely to buy them.	◯	◯	◯	◯	◯	◯	◯
I do not like to buy foods that do not look attractive.	◯	◯	◯	◯	◯	◯	◯
The fact that I do not like to buy unattractive foods keeps me from buying organic products.	◯	◯	◯	◯	◯	◯	◯

Information about organic foods is difficult to access							
The accessibility of information about organic foods makes me less likely to buy them.							
I do not trust the label on organic foods that are available in stores.							
My distrust of organic labels causes me to buy conventional food instead of organic foods.							
I am used to buying conventional foods and I am satisfied with them.							
Satisfaction with conventional foods makes me less likely to buy organic foods.							

14. Age: *

Mark only one oval.

- Under 18
- 18-24
- 25-34
- 35-44
- 45-54
- Over 55

15. Gender: *

Mark only one oval.

- Male
- Female
- Other
- Do not want to reply/Cannot reply

16. Occupation: *

Mark only one oval.

- Studying
- Working
- Retired
- Unemployed
- Other

17. Education level: *

Mark only one oval.

- Elementary school (graduated from 9th grade)
- Gymnasium
- University degree
- Do not want to reply/Cannot reply

18. Household size: *

Mark only one oval.

- 1
- 2
- 3
- 4
- 5
- Above 5

19. What is the monthly household NET income (SEK) *

Mark only one oval.

- ≤ 15000 SEK
- 15000 - 30000 SEK
- 30000 - 45000 SEK
- 45000 – 60000 SEK
- ≥ 60000 SEK
- Do not want to reply/Cannot reply

Appendix 4

Why do people in Sweden buy organic food and why not?

With the growing human population, many food production systems are under increasing pressure to meet consumer demand. This raises concerns about the unsustainability of food systems and the future ability of the planet to produce food for future generations. The indiscriminate use of various chemical fertilizers, pesticides, and artificial ingredients in conventional production systems has led to various problems for human health and the planet. In recent years, the rise in chronic diseases has led consumers to increasingly doubt modern production methods and instead demand organic food. The question is: what makes people buy organic food and what prevents them from buying it?

As a decision-making force for sustainable food demand, consumers play a key role in achieving sustainability. Because consumer behavior varies from person to person, businesses, manufacturers, and marketers need to study consumer behavior to better understand consumer purchasing decisions and the factors that influence their choices, and how to shift consumer diets toward more sustainable options. With increasing consumer awareness of the environmental, social, and economic impacts of food production and consumption, and growing concerns about highly processed foods, artificial ingredients, and the effects of pesticides, hormones, and antibiotics, people's desire for organic food has increased significantly. Organic food has attracted the attention of many consumers in recent years, both in Sweden and internationally. Despite consumers' positive attitude towards organic food, the market share of organic food is still low. In order to increase market share and increase the purchase and consumption of organic food, it is necessary to identify the underlying motives and barriers that influence the intention to purchase organic food. The aim of this study was to examine the factors that influence Swedish consumers' intention and behavior when purchasing organic food.

Analysis of the responses shows that what people intend to buy and perceived control over the behavior influence how consumers act when buying organic food. Purchase intention had the strongest influence on behavior, suggesting that purchase intention predicts consumer behavior. Attitude has the strongest influence on consumers' intention to buy organic food. This reflects Swedish consumers' positive evaluations and feelings about buying and consuming organic food. Followed by subjective norms, such as social acceptance and the extent to which individuals feel social pressure to perform a certain behavior, and perceived behavioral control, have the greatest influence on the intention to buy organic food. The results confirm that Swedish consumers are supported by family,

friends, and significant others when buying and consuming organic food. The analysis of perceived behavioral control shows that although consumers have positive attitudes toward organic food, they face barriers and challenges that they have to overcome in order to buy organic food.

The most important motivating factors for buying organic food are the perceived environmental benefits, followed by the perceived health benefits and the better taste of organic food. Therefore, the purchase intention of Swedish consumers can be predicted by the influence of these three motivational factors on attitudes. Swedish consumers are aware of the negative impacts of conventional agriculture and the chemicals used in production, processing, and storage, and see buying and eating organic food as a way to protect the environment. They also believe that organic food is a healthy diet for themselves and their family members. Based on the results of this study, altruistic motives, which are mainly long-term in nature, seem to be a stronger predictor than egoistic motives. Consumers also find food that is organic and produced without the use of chemicals tastier. The better taste of organic products is another predictor of attitude.

Although a review of the results shows that purchase intention and behavior are closely linked, there is a gap between intention and actual behavior. The high price of organic food is the most important barrier to buying organic food in Sweden, followed by barriers to buying habits. The large price difference between organic food products and their conventional counterparts is the main barrier to a positive attitude towards and purchase of organic products. Buying habits are the second most important barrier to buying organic food. Although Swedish consumers are aware of the sustainability benefits of organic food, they tend to buy food without considering the environmental, social, and economic consequences due to lack of time and convenience.