Intention to Buy Organic Food among Consumers in the Czech Republic

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Acknowledgments

Abstract

The purpose of the thesis is to investigate intention to buy organic food. The aim is to examine which determinants influence the intention to buy organic food among consumers in the Czech Republic. Moreover, the study focuses to find out which determinant influences consumers' intention the most. Based on the Theory of Planned Behaviour (TPB) and literature review a conceptual model was proposed. The model investigates the effect of several independent variables on the intention to buy: attitudes toward buying, subjective norms, perceived price, perceived availability, product knowledge, and demographic characteristics.

A survey of 263 consumers was carried out. Several techniques were used to analyse the model, such as descriptive statistics, independent t-test, one-way ANOVA, Pearson correlation, multiple regression analysis, and hierarchical multiple regression analysis. The results show that the proposed model explains 55.2 % of variance of the intention to buy organic food. Furthermore, the findings indicate that only attitudes toward buying and subjective norms are significant predictors of the intention to buy organic food. The variables perceived availability, perceived price, and product knowledge, appeared to be insignificant factors in predicting the dependent variable. Among demographic characteristics only gender was found to affect the intention to buy organic food.

Key words: Consumer behaviour, green marketing, organic food, Theory of Planned Behaviour, survey, Czech Republic.

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1. Introduction

The first chapter introduces the structure of the thesis, background of the study, problem definition, purpose of the study, and definition of key concepts of the conceptual framework.

1.1.   Structure of the Study

The thesis is divided into four sections. The sections refer to various parts of the research, such as the phenomenon, theories and empirical studies, methods and reality, and finally conclusion. The structure of the study is depicted in the Figure 1, where boxes represent the thesis sections. As can be observed, various sections are covered in several chapters. The following chapter focuses on the study phenomenon.

Phenomenon
(Chapter 1)

Intention to Buy Organic Food among Czech Consumers

(Background, Problem definition, Purpose of the study, Definition of the key concepts)

Theories/ Studies
(Chapter 2, 3)
Theory:
1) Marketing
2) Green Marketing
3) Consumer Behaviour
4) TPB

(**Variables**: attitudes towards buying, subjective norms, intention to buy)

Empirical Studies:
1) Consumer attitudes towards organic food
2) Intention to buy organic food
3) Influence of eco-labels on consumer behaviour

(**Variables**: perceived availability, perceived price, demographic factors, product knowledge)

Methods and Reality

(Chapter 4, 5, 6)

1) The Conceptual framework

2) Methodology (quantitative research approach, research method: self-completes survey, non-probability sampling method)

3) Analysis of the Czech organic market based on secondary data

4) Analysis of the conceptual framework based on primary data through a survey

Discussion/ Conclusion

(Chapter 7)

Figure 1: The Structure of the Study

1.2.   Background of the Study

In today's era of growing globalism and industrialization the world is facing increasing environmental problems. In general, an increased production and consumption causes serious earth destruction in terms of air, land and water pollution, biodiversity, climate change, ozone depletion, smog, etc. Moreover, the growing population imposes problem of sustainability. In the last decades, there has been seen a progressive increase in environmental consciousness of consumers, and the concern about the environment moved from a fringe to a mainstream issue (Kalafatis et al., 1999). With increasing concerns about environmental issues consumers have become more interested in their nutrition, health, and quality of food (Wier et al., 2002). They have become dissatisfied with conventional products and with intensive agriculture (Gil et al., 2000). Growing environmental awareness in combination with concerns about safer food led people to question modern agricultural practice such as use of pesticides and various additives (Chen, 2007). Marketers viewed this phenomenon as offering business opportunities to improve corporate reputation and to increase profit (Kalafatis et al., 1999). Some organizations have begun to change their strategy and have started to respond to the environmental pressures by developing green marketing activities. There has been increased production of organically grown food in the past decades (Gil et al., 2000; Lucas 2008). However, there is a possibility that some companies could take an advantage of this situation to promote their products as eco-friendly by misleading and false advertisement. Therefore, there have been introduced eco-labelling programmes to overcome information asymmetry and decrease consumer uncertainty about the environmental performance of products (Rex et al., 2006). Within the last 30 years an increasing number of eco-labels have been developed by governmental and non-governmental organizations to provide accurate information for purchasing decision (Rex et al., 2006).

The organic food market has become the fastest growing areas of the food market in Europe, North America, Australia, and Japan (Makatouni, 2002). In 2009 the value of European organic market was approximately € 16.2 billion (Sǿl Association, 2009). The largest organic markets in Europe according to their value in 2007 were in Germany, the UK, and France (Soil Association, 2009). The highest market share and the highest per capita spending are in Denmark, Switzerland, and Austria. The largest organic food market within Eastern European countries has the Czech Republic, with turnover of € 68 millions for 2008 (FFDI, 2010). (FFDI, 2010). In the Czech Republic, the growth in organic food consumption was 70 % in 2007 (The LOHASIAN, 2010).

Green marketing is becoming one of key business strategies of the future, since consumers are concerned about their everyday habits and their impact on environment (Kalafatis, 1999; McDaniel et al., 1993). In former research there has been found that consumers in general have positive attitudes towards organic food (Magnusson et al., 2001). Although there is the increased consumers' concern about organic food, it is not translated into purchasing behaviour (Bonini et al., 2008). This indicates that having positive attitudes towards organic food does not necessarily lead towards actual purchase (Tarkiainen et al., 2005). There exist several issues which make purchasing decision difficult. It is important to address these barriers and increase our understanding of consumer behaviour with respect to organic food. Therefore, this thesis examines the determinants of the intention to buy organic food. The thesis focuses on the market in the Czech Republic. The Theory of Planned Behaviour (TPB) is applied in this study to provide a theoretical background and to interpret the results.

1.3. Problem Definition

The TPB provides a theoretical base for this study. The TPB is one of the most influential theories for studying human action (Ajzen, 2002). The central factor in this theory is an intention to perform certain behaviour. The intention can be used as a proximal measure of behaviour since there is not a perfect relationship between intention and actual behaviour (Francis et al., 2004). There is a general rule, the stronger the intention to engage in behaviour, the more likely there will be its performance (Ajzen, 1991). The TPB model is designed to capture the individual's attitudes toward behaving or acting with respect to an object (Schiffman et al., 2007). The reason for this approach is that trying to predict behavioural intention from attitudes is much easier than trying to predict actual behaviour. The prediction of actual behaviour is a complex task since many situational factors could cause a consumer not to engage in an intended behaviour (Hoyer et al., 2007). The TPB incorporates the principle of attitude specificity. This principle suggests that consumers' attitudes toward buying a product predicts purchase behaviour better than the attitudes toward an object itself (Hoyer et al., 2007). Thus, to study only the attitudes toward object is not sufficient. For instance, a consumer can possess positive attitudes toward object but negative attitudes to purchase this product. Therefore, models of attitudes toward behaviour correspond more closely to actual behaviour than models of the attitudes toward object (Schiffman et al., 2007).

There is a number of studies examining the intention to buy organic food applying the TPB model (Chen, 2007; Lodorfos et al., 2008; Magnusson et al., 2001; Robinson et al., 2002; Tarkiainen et al., 2005; Vermeir et al., 2007). However, within the European region most of the studies have focused on markets of North (Magnusson et al., 2001; Tarkiainen et al., 2005), Western (Kalafatis et al., 1999; Lodorfos et al., 2008; Vermeir et al., 2007), or South Europe (Gracia et al., 2007; Kalafatis et al., 1999). To the best knowledge of the researcher and based on a literature review there have not been found any studies investigating markets of Middle or Eastern Europe. Experts are predicting a bright future for the organic industry in some Eastern European countries (The LOHASIAN, 2010). The Czech Republic has the largest organic food market within Eastern European countries (FFDI, 2010). However, despite the growth in consumer demands and sales in the Czech Republic, the organic food market is still relatively small (Hughner et al., 2007). Thus, exploring the intention to buy organic food in the Czech organic market is valuable contribution within the field of consumer behaviour.

Former research within this topic has suggested that the intention to buy organic food vary between consumers according to their demographic characteristics, such as age, gender, income, marital status, educational level, etc. (Lodorfos et al., 2008; Magnusson et al., 2001; O'Donovan et al., 2002; Robinson et al., 2002). Therefore, the target population of the research are consumers buying food who differ in gender, age, education level, family annual net income, number of children, and marital status.

1.4.   Research Questions

The important part of research is to define a research question. Defining a research question enables a researcher to specify research objectives, hypothesis to be tested, information needs, and to determine the appropriate research design (Hair et al., 2008). This study attempts to answer the following **research question**:

"Which determinants do influence the intention to buy organic food among Czech consumers?"

The main research question is divided into seven sub-research questions that correspond with hypotheses investigated in this study:

1) *"How do consumers' attitudes toward buying organic food influence their intention to buy organic food of Czech consumers?"*

2) *"How do subjective norms of consumers influence the intention to buy organic food of Czech consumers?"*

3) *"How does perceived price of organic food influence the intention to buy organic food of Czech consumers?"*

4) *"How does perceived availability of organic food influence the intention to buy organic food of Czech consumers?"*

5) *"How does consumers' product knowledge influence the intention to buy organic food of Czech consumers?"*

6) *"How do consumer demographic characteristics influence the intention to buy organic food?"*

7) *"Which variable does influence the intention to buy organic food of Czech consumers the most?"*

1.5. Purpose of the Study

The purpose of the study is to examine determinants that influence consumers' *intention to buy* organic food in the Czech Republic. Based on a literature review, there are proposed factors influencing the *intention to buy* organic food. The TPB provides a theoretical background of this study. The TPB model is widely used to predict consumer behaviour (Lodorfos et al., 2008). This study investigates consumers' *attitudes towards buying* organic food and its effect on the *intention to buy*. Furthermore, there is examined a relationship between *subjective norms* and consumers' *intention to buy*. Existing research suggested that *perceived price*, *perceived availability* and *product knowledge* are other important determinants of consumers' *intention to buy organic* food (Lodorfos et al., 2008; Michaelidou et al., 2000; Vermeir et al., 2007). Therefore, the effect of these variables is investigated. Finally, *demographic characteristics* are investigated with relation to the *intention to buy* organic food. The findings are expected to offer explanation of the *intention to buy* organic

food in the Czech Republic. Moreover, the results of the study are expected to offer implications for green marketing activities.

1.6.   Definition of the Key Concepts

This section presents definitions of the key concepts used in this study, such as organic food, attitudes toward behaviour, subjective norms, perceived availability, perceived price, product knowledge, demographic characteristics, intention to buy, and finally actual purchase behaviour.

Organic Food

Organic food is defined as "*food that is produced according to certain criteria. Materials and methods that enhance the ecological balance of natural system are used in the production. Organic food is produced without pesticides, herbicides, inorganic fertilisers, antibiotics and growth hormones. Animal welfare is important and bioengineering and genetically modified food is not accepted*" (Honkanen et al., 2006, p. 420).

Attitudes toward Behaviour

Attitudes toward behaviour are defined as "*overall evaluation of the behaviour. It is assumed to have two components which work together: beliefs about consequences of the behaviour (behavioural beliefs) and the corresponding positive or negative judgements about each these features of the behaviour*" (Francis et al., 2004, p. 9).

Subjective Norms

Subjective norms refer to "*person's own estimate of the social pressure to perform or not to perform the target behaviour. They are assumed to have two components which work in interaction: beliefs about how other people, who may be in some way important to the person, would like them to behave (normative beliefs) and the positive and negative judgements about each beliefs*" (Francis et al., 2004, p. 9).

Perceived Availability

Perceived availability falls into perceived behaviour control of the concept of perceived controllability (Tarkiainen et al., 2005). The perceived controllability refers to "*the extent to which performance is up to the actor*" (Tarkiainen et al., 2005, p. 810). The perceived

availability indicates *"if a consumer feels he/she can easily obtain or consume a certain product"* (Vermeir et al., 2007, p. 544).

Perceived Price

Perceive price comes under the variable perceived behaviour control within the concept of perceived self-efficacy (Tarkiainen et al., 2005). Perceived self-efficacy refers to *"ease or difficulty of performing the behaviour"* (Tarkiainen et al., 2005, p. 810). Perceived price or consumer's perception of price (Jacoby et al., 1977) is defined as *"price what is given up or sacrificed to obtain a product"* (Zeithaml, 1988, p. 10).

Product Knowledge

Product knowledge is *"an important factor because it represents the only instrument that consumers have to differentiate the attributes of organic products from those of conventional ones and to form positive attitudes and quality perceptions toward these products"* (Gracia et al., 2007, p. 442).

Demographic Characteristics

Demographic characteristics are defined as *"objective characteristics of a population (such as age, sex, marital status, income, occupation, and education) which are often used as the basis for segmenting markets"* (Schiffman et al., 2007, Glossary G-4).

Intention to Buy

Intention to buy refers to *"a plan to purchase a particular good or service in the future"* (Business Dictionary, 2011).

Actual Purchase Behaviour

Actual purchase behaviour or purchase behaviour refers to *"behaviour that involves two types of purchases: trial purchases (the exploratory phase in which consumers evaluate a product through direct use) and repeated purchases, which usually signify that the product meets with the consumer's approval and that the consumer is willing to use it again"* (Schiffman et al., 2007, Glossary G-9).

2. Related Theories

The second chapter introduces relevant theories for the purpose of the study. First, marketing theory is presented. Second, theory of green marketing is introduced. Third, theory of consumer behaviour is presented. Finally, the Theory of Planned Behaviour is explained.
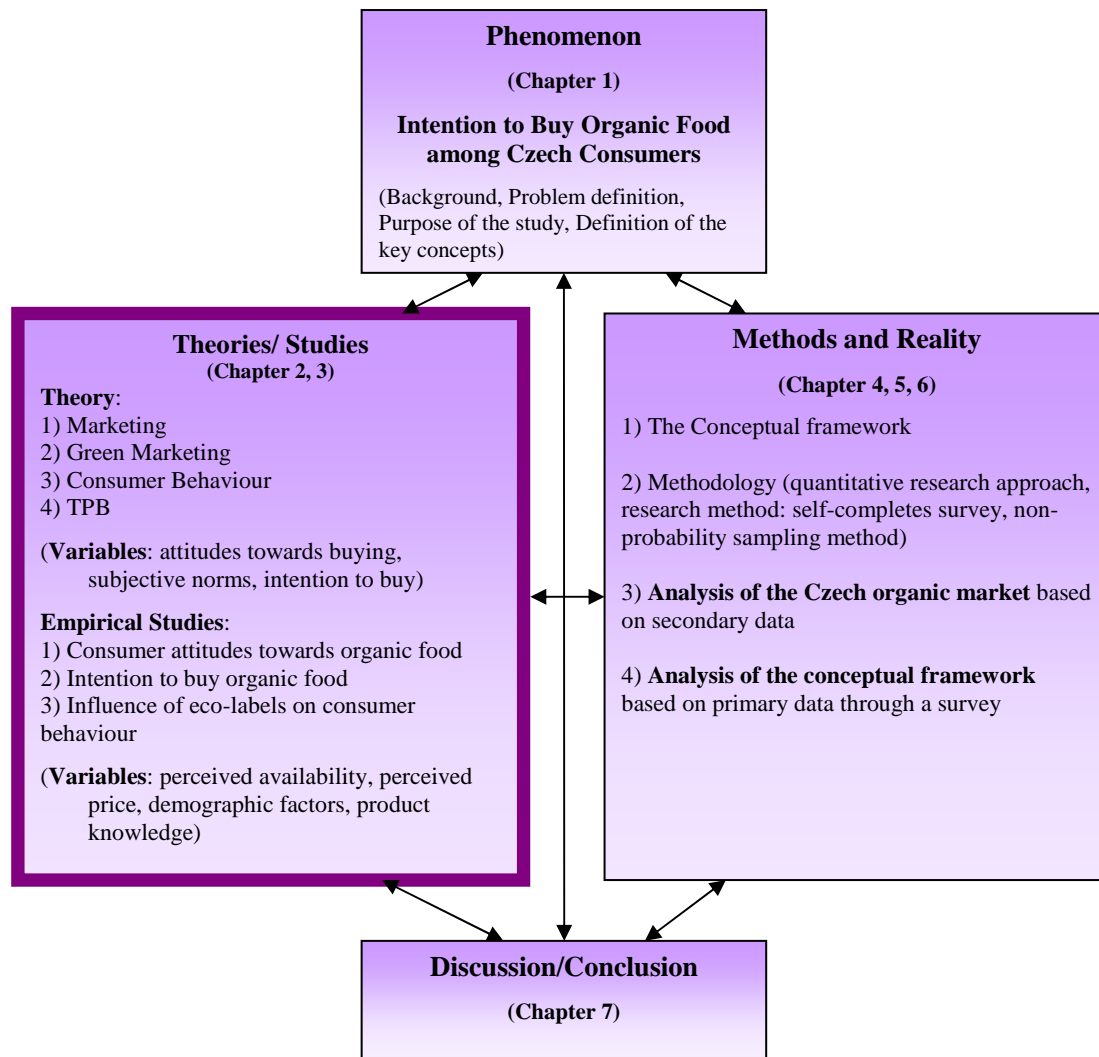
Figure 2: The Structure of the Study

2.1. Marketing

Marketing is "*a social and managerial process whereby individuals and groups obtain what they need and want through creating and exchanging products and value with others*" (Kotler, 2004, p. 5).

The core marketing concepts consist of needs, wants, and demand, marketing offers, value and satisfaction, exchange, transactions, and relationships, and markets (Kotler, 2004). The core marketing concepts are depicted in Figure 3 and described in the text below.
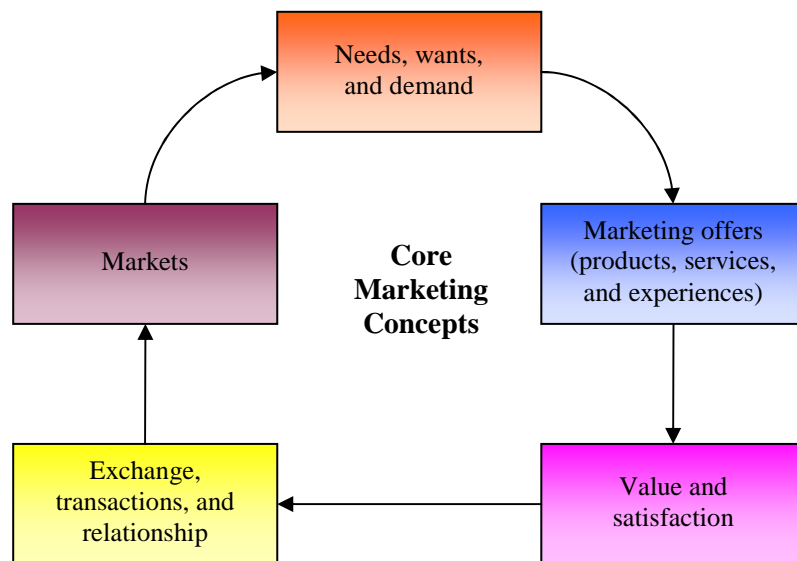
Figure 3: Core Marketing Concepts (Source: Kotler, 2004, p. 6)

The first concept of the core marketing is **need, wants, and demand.** Need refers to "*a state of felt deprivation*" (Kotler, 2004, p. 6). There are different levels of need such as physical need (clothing, food, safety, warmth), social need (for belonging and affection), and individual needs for knowledge and self-expression (Kotler, 2004). Wants are defined as "*the form taken by a human need as shaped by culture and individual personality*" (Kotler, 2004, p. 6). Wants are shaped by society and are described in terms of object that will satisfy needs. Finally, demands are defined as "*human wants that are backed by buying power*" (Kotler, 2004, p. 6). People by having wants and resources demand products with benefits that add up to the most value and satisfactions (Kotler, 2004).

The second concept is **marketing offers**. Marketing offers refer to "*some combination of products, services, information, or experiences offered to a market to satisfy a need or want*"

(Kotler, 2004, p. 6). It is important to understand that product is only a tool to solve a consumer problem. Some marketers pay too much attention to the specific product and do not highlight benefits and experiences produced by these products (Kotler, 2004). This approach is important for green products. Environmental responsiveness and health benefits of products should be emphasized to gain competitive advantage over conventional products. Otherwise a consumer may want the conventional product since it is less expensive and easier to find (Kotler, 2004).

Third set of concepts is **value and satisfaction**. Customer value is defined as "*the difference between the values the consumer gains from owing and using a product and the cost of obtaining product*" (Kotler, 2004, p. 9). Consumer satisfaction is crucial for future buying and "*depends on how well the product's performance lives up to the consumer's expectation*" (Kotler, 2004, p. 9). Consumers often face a various types of products and services that can satisfy their needs. According to Kotler (2004) consumers then make a choice based on their perception of the value and satisfaction that various products and services deliver. It is important to set right level of expectation. If marketers set consumers' expectation too high, then consumers can be disappointed. On the other hand, if sellers set expectation too low, they may fail to attract enough buyers (Kotler, 2004).

Fourth set of concepts is **exchange, transaction, and relationships**. When people decide to satisfy their needs and wants through exchange, then marketing occurs. Exchange refers to "*the act of obtaining a desired object from someone by offering something in return*" (Kotler, 2004, p. 9). Transaction is defined as "*a trade of values between two parties*" (Kotler, 2004, p. 9). Marketers need to perform actions to build and maintain desirable exchange relationships with target audiences involving a product, service, idea, or other object (Kotler, 2004).

The last concept is a **market**. Needs and wants of consumer can be satisfied by exchange relationship. This leads to the last concept of market. A market refers to "*the set of all actual and potential buyers of a product or services*" (Kotler, 2004, p. 10). Marketers study the needs and wants of particular markets and they select the markets that they can serve best. Afterwards, they develop products and services according these needs to satisfy consumers (Kotler, 2004).

A company needs to develop **marketing mix** to success over its competitors**.** Marketing mix is "*the set of controllable tactical marketing tools- product, price, place, and promotion- that*

the firm blends to produce the response it wants in the target market" (Kotler, 2004, p. 56). Common form of marketing mix is known as the "four Ps": product, price, place, and promotion (Kotler, 2004). The "four Ps" model is depicted in Figure 4 and each group is then described in the text below.
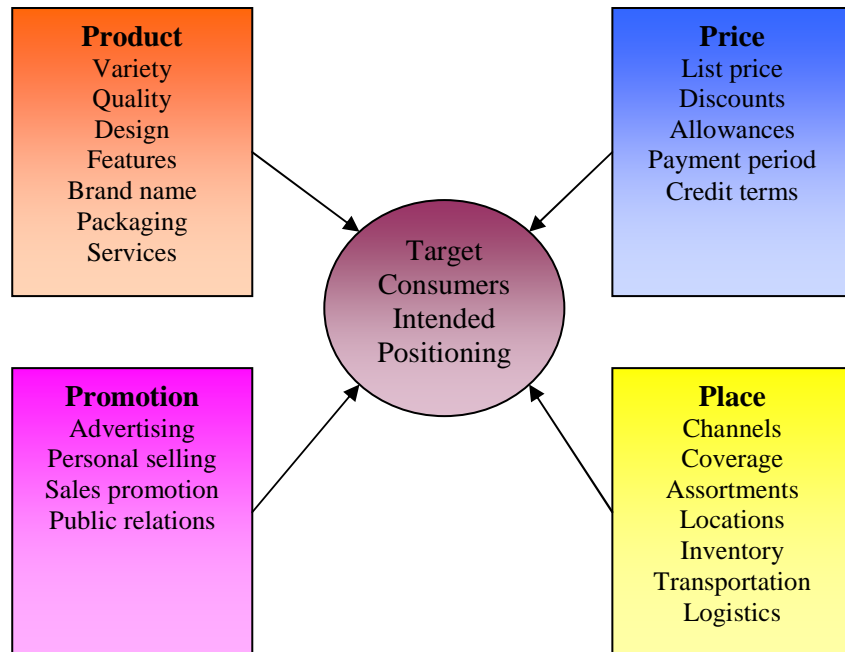
Figure 4: The four Ps of marketing mix (Source: Kotler, 2004, p. 58)

Product is a goods-and-services combination that company offers to the target markets (Kotler, 2004). The term product is used to refer to physical product and primary or core services (Kotler, 2004). One of the task of marketers is to come out with product that will satisfy consumers need better than the competition does (Hawkins et al., 2003).

Price is an amount of money that consumers have to pay to gain the product or service (Kotler, 2004). For marketers it is important to set an appropriate price because price sometimes serves as a signal of quality. When a product price is set too low then consumers might perceive it as a low quality product (Hawkins et al., 2003). Thus, setting a price requires an understanding of the symbolic role that price plays for the product and a target market (Hawkins et al., 2003).

Place can be defined as company activities that make a product available to target consumers (Kotler, 2004). Marketers need to know where target consumers shop to be able to make good channel decisions (Hawkins et al., 2003).

Promotion is a range of activities that communicate the merits of the product and persuade target consumers to purchase it (Kotler, 2004). An effective communications strategy requires answers to the questions such as: with whom does a company want to communicate; what effect does a company want its communications to have on the target audience; what message will achieve the desired effect on its audience; what means and media should a company use to reach the target audience; and when should a company communicate with the target audience (Hawkins et al., 2003).

2.2. Consumer Behaviour

Consumer behaviour is a complex phenomenon. It focuses on how consumers make decision to use their available resources such as money, time, and effort (Schiffman et al., 2007). To succeed on a market, marketers need to know what consumers want, why they buy a particular product, where they shop, when they buy it, how often they purchase etc. (Schiffman et al., 2007). However, this information is often not sufficient (Schiffman et al., 2007). Marketers need to know as much as possible about their consumers. They need to acquire knowledge who is their consumer, what influences their purchase decision, and how these decisions are made (Schiffman et al., 2007). Consumer behaviour can be defined as *"the behaviour that consumers display in searching for, purchasing, using evaluating, and disposing of products and services that they expect will satisfy their needs"* (Schiffman, 2007, p. 3). Another definition is provided by Hawkins et al. (2007). The authors defined consumer behaviour as "*the study of individuals, groups, or organizations and the processes they use to select, secure, use and dispose of products, services, experiences, or ideas to satisfy needs and the impact that these processes have on the consumer and society*" (Hawkins, 2007, p. 6).

2.2.1. Consumer Decision Making

Every person makes a number of various decisions every day. For marketers it is important to understand the consumer decision making process. Based on the carefully observed behaviour, marketers can plan suitable marketing strategy. Consumer decision making is a complex process. This process can be split into three stages (Schiffman et al., 2007): input stage, process stage, and output stage. Each of these stages is described below in detail. The consumer decision-making model by Schiffman et al. (2007) is depicted in Figure 5.

External Influences

Input

Firm's Marketing Efforts
1. Product
2. Promotion
3. Price
4. Channels of distribution

Sociocultural Environment
1. Family
2. Informal sources
3. Other noncommercial sources
4. Social class
5. Culture and subculture

Consumer Decision Making

Process

Need Recognition

Prepurchase Search

Evaluation of Alternatives

Psychological Field
1. Motivation
2. Perception
3. Leasing
4. Personality
5. Attitudes

Experience

Postdecision Behaviour

Output

Purchase
1. Trial
2. Repeat purchase

Postpurchase Evaluation

Figure 5: Simple Model of Consumer Decision Making (Source: Schiffman, 2003, p. 16)

Input Stage

The input stage draws on external influences that serve as sources of information about a product and influence on consumer's product-related values, attitudes and behaviour (Schiffman et al., 2007). At this stage, firm's marketing mix activities communicate the benefits of the product or services to potential consumer. It is a direct attempt to reach, inform and attract consumers to purchase and use its product. These activities involve mass-media advertising, direct marketing, personal selling, other promotion activities, pricing policy, and

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selection of distribution channels. The impact of a company's marketing strategy is governed by the consumer's perception of these efforts (Schiffman et al., 2007).

Other influencer that affects consumer's purchase decision is sociocultural environment (Schiffman et al., 2007). These inputs consist of a wide range of non-commercial influences. The important role plays experience and opinion of friends and family. Social class, culture, and subculture are other important input factors that influence how consumer evaluate and ultimately adopt product. The codes of conducts in a particular culture indicate which consumption behaviour is considered as "right" or "wrong". Overall, firm's marketing effort and sociocultural environment are inputs that are likely to affect what consumers purchase and how they use what they buy (Schiffman et al., 2007).

Process Stage

The process stage is concerned with how consumers make decisions (Schiffman et al., 2007). At this stage there is influence of psychological concepts that represent internal influences. Psychological concepts that affect consumers' decision-making processes are motivation, perception, learning, attitude, and personality. The act of making a consumer decision consists of three stages, namely: need recognition, prepurchase search, and evaluation of alternatives (Schiffman et al., 2007).

When a consumer faces a problem then the recognition of need is likely to occur (Schiffman et al., 2007). Problem recognition refers to *"the existence of discrepancy between the consumer's desire state (what the consumer perceives would like) and the actual state (what the consumer perceives as already existing)"* (Hawkins et al., 2007, p. 526). When discrepancy between actual and desires state is sufficiently large and important, the consumer will start to search for a solution to the problem (Hawkins et al., 2007). Marketers must be able to identify consumer problems and then react to the problem by designing the marketing mix to solve the recognized problem. However, marketers often want to influence problem recognition rather then react to it (Hawkins et al., 2007; Schiffman et al., 2007).

Once a need is recognized, the internal and external searches for information are used to solve the problem (Hawkins et al., 2007). This process is called prepurchase search. Information search involves both mental and physical activities. There are two sources of information namely: internal and external information source (Schiffman et al., 2007). When consumer

recognizes a problem, relevant information from long-term memory is used to find out if some solution is known. Past experiences are considered as an internal source of information. A common rule can be stated as follows: the greater the relevant past experience, the less external information the consumer is likely to need to reach a decision. If solution is not found through internal search then the search process is focused on external information relevant to solving problem. The external source information involves independent source, personal source, market-based information, and product experience. Recently, Internet has had a great impact on prepurchase search. Web sites provide consumers a lot of information they need about product or service. Internet can decrease the cost of searching and provides information in relatively shorter time than traditional offline media. On the other hand, it can lead to information overload. It is important to mention that various situations require different level of information search (Hawkins et al., 2007; Schiffman et al., 2007). Different types of information search are presented later in this chapter.

Evaluation of alternatives takes place during and after time when consumer gathers information about various alternatives to solve the problem (Schiffman et al., 2007). To evaluate potential alternatives, consumer uses two types of information: a list of brands from which selection is made, and the criteria for evaluation of brand (Schiffman et al., 2007). A list of specific brands that consumer considers in decision making is called evoked or also consideration set. The evoke set is distinguished from inept set (which consist of unacceptable brand for consumer), and from inert set (which consist of brand that consumer is indifferent towards them). Usually, a consumer's evoked set tends to be rather small on average, often consisting of only three to five brands. Consumer is familiar with, remembers, and finds acceptable selected brands (Schiffman et al., 2007).

When a consumer has chosen particular alternatives, he/she has to develop criteria for evaluation. The criteria are usually expressed in terms of important product attributes (Schiffman et al., 2007). For marketers it is important what attributes prefers their target segment. Then they can advertise the product or service in a way that recommends the criteria that consumer value. Consumer can also develop some decision rule for selecting final product or service. According to Schiffman et al. (2007) the purpose of such rules is to reduce the burden of making complex decisions by providing guidelines that makes the process easier. Two major categories of decision rules have been classified: compensatory and non-compensatory decision rules. In the *compensatory decision rule*, a consumer judge brand in

terms of each relevant attribute and computes a weighted or summarized score for each brand. The rule is that a consumer will choose a brand that scores the highest among the alternatives. This procedure allows a positive evaluation of a brand on one attribute to balance out a negative evaluation on some other attribute. On the other hand, *non-compensatory decision rules* do not allow balancing positive evaluation of attribute against negative evaluation. There exist three non-compensatory decision rules (Schiffman et al., 2007). First rule is *conjunctive decision rule*. According to this rule, the consumer establishes a separate, minimally acceptable level as a cut-off point for each attribute. Then if some brand falls below the cut-off point on any one attribute, this brand is eliminated from consideration. However, conjunctive rule needs to be supplemented by some other additional decision rule to arrive at a final selection. Second non-compensatory decision rule is called the *disjunctive rules*. In this case, the consumer also establishes a separate, minimally accepted cut-off level for each attribute. Then, if some option meets or exceed the cut-off established for any attribute, this option is selected. Again some additional decision rule needs to be added to support decision making. Third non-compensatory decision rule is *lexicographic*. By following this rule, the consumer ranks the attributes in terms of perceived relevance or importance. Then, the consumer compares alternatives in terms of the single attribute that is considered most important. The process ends when one option scores sufficiently high on this top-ranked attribute (Hawkins et al., 2007; Schiffman et al., 2007).

Output Stage

The output stage of the consumer decision-making process consists of two closely associated kinds of post-decision activity: purchase behaviour, and postpurchase behaviour (Schiffman et al., 2007). In general, consumers make three types of purchases: trial purchases, repeat purchases, and long-term purchases. A *trial purchase* is considered when a consumer purchases a product for the first time. Usually, the consumer attempts to evaluate a product through direct use. Marketers strive for repeat purchase because it contributes to greater stability in the marketplace. A *repeat purchase* signifies that the product meets with the consumer's approval and that he/she is willing to use it again. A *long-term commitment* happens when the consumer purchases most durable goods (refrigerator, washing machines, etc.). A consumer usually moves directly from evaluation of alternatives to purchase, without trial purchase (Schiffman et al., 2007).

After purchase, the consumer makes *post-purchase evaluation*. Three outcomes of these evaluations are possible (Schiffman et al., 2007). First, outcome is situation when actual performance matches expectations and it leads to neutral feeling of consumer. Second case is when actual performance exceeds expectation and it leads to satisfaction of consumer. Third situation happen when performance is below expectations and it causes negative feeling and dissatisfaction. Post-purchase evaluation is crucial for future purchase behaviour. When result is over expectation the consumer more likely will buy product in the future and vice versa (Hawkins et al., 2007; Schiffman et al., 2007).

Types of Consumer Decision

There are various types of consumer decision process. Consumer decision making differs in the level of purchase involvement and in the degree of information search (Schiffman et al., 2007). Purchase involvement refers to "*the level of concern for, or interest in, the purchase process triggered by the need to consider a particular purchase*" (Hawkins et al., 2007, p. 510). According to Hawkins et al. (2007), there are three levels of consumer decision making: nominal, limited, and extended decision making.

- **Nominal Decision Making:** can be called also as habitual decision making (Hawkins et al., 2007). Usually, consumer has previous experience with purchase and has established set of evaluation criteria. In this situation, consumer does not consider "do not purchase" option. Brand loyal decision and repeat purchase decisions are two categories of nominal decision. Brand loyal purchase is situation when consumers consider only one particular brand whenever they make a purchase. The consumers are brand loyal and it is very difficult for a competitor to change their behaviour. Repeat purchase, on the other hand, is situation when consumers do not consider a particular brand when do purchase. Then, some sale can influence consumers' deciding on which brand to purchase (Hawkins et al., 2007).

- **Limited Decision Making:** at this level of problem solving consumers need internal and limited external search, few alternatives, simple decision rule on a few attributes and little postpurchase evaluation (Hawkins et al., 2007). This decision making involves recognizing a problem for which there are several possible solutions. Each alternative is evaluated on a few dimensions using simple selection rule (Hawkins et al., 2007).

- **Extended Decision Making:** involves extensive internal and external information search, evaluation of various alternatives, and post purchase evaluation (Hawkins et al., 2007). This type of decision requires high level of purchase involvement. Extended decision making is very complex process and there are relatively few consumers' decisions that reach this level (Hawkins et al., 2007).

2.2.2. External influences

Consumer behaviour is influenced among other things by external influences (Hawkins et al., 2007). These are forces that are basically outside an individual. The forces influence the decision making process from a problem recognition to postpurchase evaluation. Among external influences belong reference groups, family, culture and subculture, marketing activities, and social status (Hawkins et al., 2007).

For consumer behaviour is extremely important the role of **reference group** (Hawkins et al., 2007). A reference group is *"any person or group that serves as a point of comparison (or reference) for an individual in forming either general specific values, attitudes, or a specific guide for behaviour"* (Schiffman et al., 2007, p.312). In other words it is the impact of other people on an individual's consumption beliefs, attitudes, and behaviour. There are various reference groups such as, friendship groups (informal groups), shopping groups (two or more people who shop together), work groups (people that spend amount of time at job together) virtual groups (communities of special-interest Web sites), and consumer action groups (groups dedicated to providing consumers with assistance in their effort to make the right purchase decision). In addition to consumer-related reference groups there are reference groups with which consumers have no face-to-face contact. Such groups can be celebrities, experts, executive and employee spokesperson etc. These reference groups are often used in marketing activities (Schiffman et al., 2007).

Family is for many consumers their primary reference group for various attitudes and behaviours (Schiffman et al., 2007). Usually family is defined as *"two or more persons related by blood, marriage, or adoption who reside together* (Schiffman et al., 2007, p. 326). There are three types of families. First and the simplest type of a family is married couple that means a husband and a wife. Second type is nuclear family that refers to married couple with children. Third type is extended family. This family usually lives together with at least one grandparent. The members in a family have specific roles in their everyday life. The key

roles of family members are influencers, gatekeeper, decider, buyer, preparer, user, maintainer, and disposer (Schiffman et al., 2007).

Other influencer of consumer behaviour is an entire society and its culture (Schiffman et al., 2007). **Culture** refers to "*the sum total of learned beliefs, values, and customs that serve to direct the consumer behaviour of members of a particular society*" (Schiffman et al., 2007, p. 394). Every society is influenced by its language, knowledge, laws, and customs. Marketers need to understand the culture to be able to promote products to consumers through mass media by symbolic communication (Schiffman et al., 2007).

A subculture is next influencer of consumer behaviour (Schiffman et al., 2007). A subculture is defined as: "*a segment of a larger culture whose members share distinguishing values and patterns of behaviour* (Hawkins et al., 2007, p. 158). Subcultures provide important marketing opportunities for marketers. It enables marketers to segment consumers to meet their needs motivations, perceptions, and attitudes. Major sub-cultural categories basically are nationality, religion, geographic location, race, age, sex. However, not in all countries plays subculture important role. Marketers need to recognize the situation in a particular country and plan marketing activities within local condition (Schiffman et al., 2007).

2.2.3. Internal Influences

Moreover, consumer behaviour is influenced by internal influences (Schiffman et al., 2007). Internal influences are processes that occur primarily within an individual consumer decision making and is influenced by psychological factors (Schiffman et al., 2007). Among psychological factors belong motivation, perception, learning, personality, and attitude (Hawkins et al., 2007).

Consumer needs are basis for marketing strategies. To be competitive on the markets, marketers have to recognize and satisfy these needs better and sooner than a competition (Schiffman et al., 2007). Consumer **motivation** refers to "*the driving force within individuals that impels them to action*" (Schiffman et al., 2007, p. 83). It is driving forces that activate consumer's behaviour and provide purpose and direction to that behaviour. Motivation is produces by a state of tension that is the result of an unfulfilled need (Schiffman et al., 2007). There exist different types of need namely innate need. Those needs refer also to physiological needs such as need for food, water, sleep, sex etc. Second category is acquired

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need that develops after birth. Different division of needs provide Maslow's hierarchy of needs that divide them into: physiological needs, safety needs, belongingness needs, esteem needs, and self-actualization needs. Consumer's behaviour is goal oriented (Schiffman et al., 2007). Goals refer to the sought-after results of motivated behaviour and there are two types of goal: generic goals (a general category of goal that may fulfil a certain need), and product-specific goals (specifically branded or labelled product that the consumer sees as a way to fulfil a need). As was mentioned above, marketers have to find out and react on consumer needs. On the contrary, there is a discussion whether marketers can create needs and then by marketing strategies motivate consumers to purchase (Hawkins et al., 2007; Schiffman et al., 2007).

Consumer behaviour is furthermore affected by consumer's **perception** (Schiffman et al., 2007)**.** This internal influencer is defined as "*the process by which an individual selects, organizes, and interprets stimuli into meaningful and coherent picture of the world*" (Schiffman et al., 2007, p. 152). Perception is a part of information processing for consumer's decision making. Perception constitutes the first three stages of this process. It begins with exposure and ends with consumer interpretation. Individuals are exposed to a small fraction of the available stimuli because of the result of self-selection. Second stage in the process is attention. It occurs when the stimulus has been seen. Next, the interpretation stage takes place. It is the assignment of meaning to stimulus. Memory is fourth stage and refers to short-term use of the meaning for immediate decision making or the longer-term retention of the meaning (Hawkins et al., 2007; Schiffman et al., 2007).

Important role in consumer behaviour plays consumer's **personality** (Schiffman et al., 2007). Personality is defined as "*those inner psychological characteristics that both determine and reflect how a person responds to his or her environment*" (Schiffman et al., 2007, p. 116). Marketers are interested in personality because it influences the individual's product choice. It affects the way individual responds to promotional strategy, and when, where, and how they consume particular products or services. Personality tends to be consistent however it can change abruptly in response to particular life events, as well as gradually over time (Schiffman et al., 2007). With issue of personality is connected branding. Consumers have a perceived self-image as a certain kind of person with certain traits, habits, possessions, relationships, and ways of behaving. Since brands have personalities as well, individuals often prefer advertising messages that reflect their own or a desired personality (Hawkins et al., 2007; Schiffman et al., 2007).

Marketers are concern with the question how consumers learn. They are interested in how to teach consumers about product, product attributes, and potential benefits (Schiffman et al., 2007). **Learning** refers to "*the process by which individuals acquire the purchase and consumption knowledge and experience that apply to future related behaviour*" (Schiffman et al., 2007, p. 198). Motivations, cues, response, and reinforcement are basic elements that contribute to an understanding of learning. There is a number of ways how consumers learn. It can be broadly classified into high versus low-involvement learning. When an individual is motivated to acquire information then high-involvement learning occurs. While, low-involvement occurs when an individual is paying only limited attention to a message or an advertisement (Hawkins et al., 2007; Schiffman et al., 2007).

According to Schiffman et al. (2007) **attitude** is "*a learned predisposition to behave in a consistently favourable or unfavourable way with respect to a given object*" (Schiffman et al., 2007, p. 238). Hawkins et al. (2007) proposed another definition of attitude as "*an attitude is an enduring organization of motivational, emotional, perceptual, and cognitive processes with respect to some aspect of our environment*" (Hawkins et al., 2007, p. 396). Because of its importance for this study the attitude is discussed in more detail in the following part.

To understand the relationship between attitudes and behaviour there is proposed model that capture the underlying dimension of an attitude (Schiffman et al., 2007). According to this model, attitudes consist of three major components: cognitive component, affective component, and conative or behavioural component (Hawkins et al., 2007). The model is depicted in Figure 6.
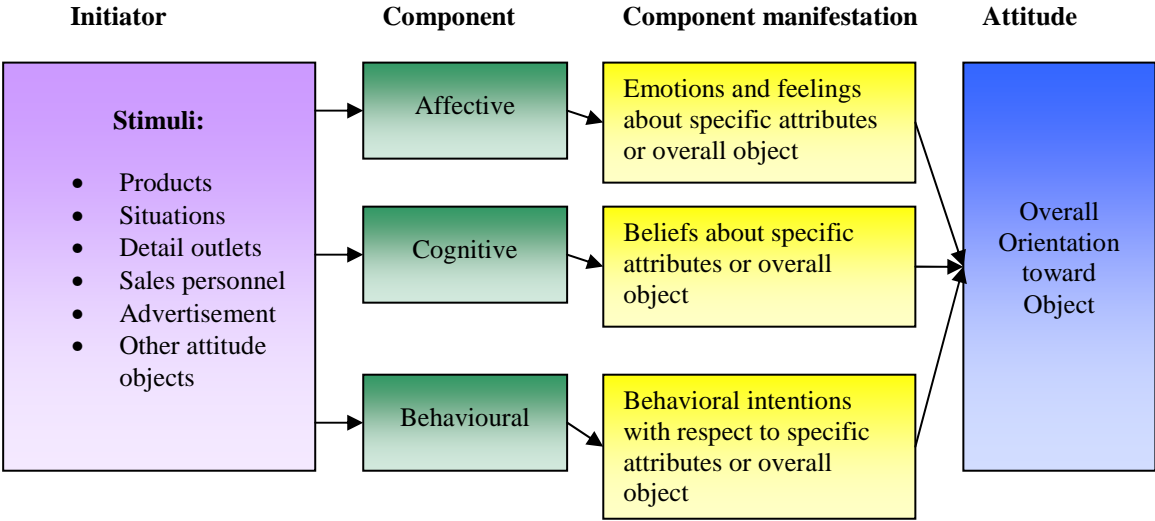
Figure 6: Attitude Components and Manifestations (Hawkins, 2003, p. 397)

The **affective component** of an attitude consists of a consumer's emotions or feelings about a particular product or brand (Hawkins et al., 2007). These emotion or feelings capture an individual's direct or global assessment of the attitude object. Marketers often focus on the affective component to provide a richer understanding of attitudes than based just on the cognitive component (Hawkins et al., 2007; Schiffman et al., 2007).

The second component of the model is the **cognitive component** (Hawkins et al., 2007). This component consists of person's knowledge and perceptions that are acquired by combination of direct experience with the attitude object and related information from various sources. Person's knowledge and perception take the form of beliefs. It means that consumer believe that the attitude object possesses certain attributes and specific behaviour will lead to specific outcome. The assumption is, the more positive beliefs associated with a brand, the more positive each belief is, and the easier it is for the individual to recall beliefs, the more favourable the overall cognitive component is expected to be (Hawkins et al., 2007). Since all of the components of an attitude are consistent, the more favourable the overall attitude is (Hawkins et al., 2007; Schiffman et al., 2007).

Third component of an attitude is the **behavioural component** (Hawkins et al., 2007). This refers to the likelihood or tendency that consumer will undertake a specific action or behave in a particular way with regard to the attitude object (Hawkins et al., 2007). The behavioural component may include the actual behaviour itself. This component is often treated as an expression of the consumer's intention to buy. It is assumed that the positive brand commitment in the form of positively expressed intention to buy impacts in a positive way on the actual brand purchase (Schiffman et al., 2007).

All three attitude components tend to be consistent (Figure 7). **Attitude component consistency** assumes that a change in one attitude component tends to produce related changes in the other components (Hawkins et al., 2007). These interdependencies are important for marketing strategy. Marketers are concerned with how to influence behaviour. In general, it is difficult to influence behaviour directly. However, marketers can influence behaviour indirectly by providing information though advertisement, packaging, etc (Hawkins et al., 2007). By providing relevant information they can influence a belief or feeling about the product if the three components are indeed consistent with each other (Hawkins et al., 2007).
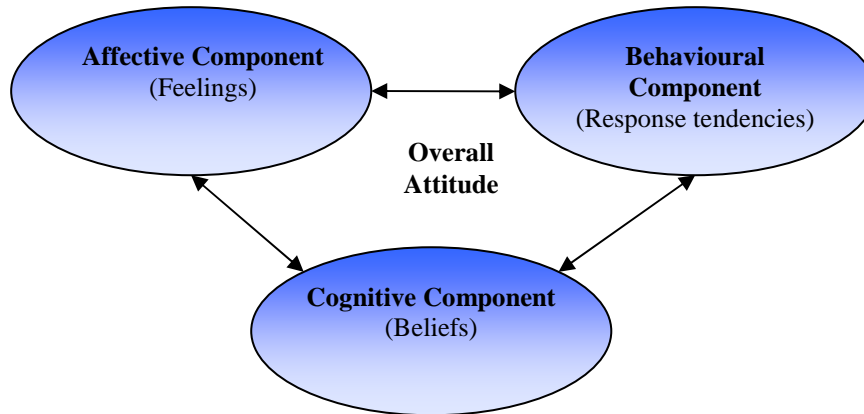
Figure 7: Tricomponent Attitude Model (Source: Hawkins et al., 2003, p. 403)

For marketing strategy it is useful to know how attitudes are formed. The formation of an attitude refers to the shift from having no attitude towards an object to having some attitude toward it (Hawkins et al., 2007). Attitudes are formed by learning. Factors like direct personal experience, ideas and experience of friends and family members, direct marketing, exposure to mass media strongly influence attitude formation (Hawkins et al., 2007). However, in the attitude formation individual's personality also plays critical role. It means consumer with high need cognition is likely to form positive attitude in response to ads or direct marketing that are rich in product-related information (Hawkins et al., 2007). On the contrary, individual who is relatively low in need for cognition is more likely to form positive attitude in response to ads that feature an attractive model of famous celebrity (Hawkins et al., 2007).

Attitude change is influenced by the same factors that have an impact on attitude formation (Hawkins et al., 2007). It means that attitude change is also learned. Change in attitude is influenced by personal experience and by information from reference group (Hawkins et al., 2007). Again, consumer's personality affects both the acceptance and the speed with witch attitudes are likely to be changed. For marketers it is a key strategy to consider how to alter consumer attitudes when needed. According to Schiffman et al. (2007) there exist six distinct categories for attitude change: changing the basic motivational function, associating the attitude object with a specific group or event, relating the object to conflicting attitudes, altering components of the multi-attribute model, changing beliefs about competitors' brand, and the elaboration likelihood model (Schiffman et al., 2007).

2.3.   The Attitude toward Behaviour Model

There exist many various models of attitude. An attitude does not have to be only towards an object. For the purpose of this thesis, the most relevant is the attitude-toward-behaviour model. This model is designed to capture an individual's attitude toward behaving or acting with respect to an object (Schiffman et al., 2007). Consumer can possess positive attitude toward object but negative attitude to purchase this product. Therefore, the attitude-toward-behaviour model corresponds more closely to actual behaviour than the model of attitude-toward-object (Schiffman et al., 2007).

The Theory of Reasoned Action (TORA) model (Figure 8) depicts a comprehensive integration of attitude components that lead to explanation and better prediction of behaviour (Schiffman et al., 2007). This model incorporates all three components of the Tricomponent attitude model, namely cognitive, affective, and conative component (Schiffman et al., 2007). According to the TORA model, a researcher needs to measure the subjective norms and attitudes toward the behaviour to explain intention of performing behaviour. Subjective norms are measured by assessing consumer's feelings as to what reference group would think of the action being contemplated (Schiffman et al., 2007). Normative beliefs and motivation to comply are underlying factors that produce subjective norms. It means there are beliefs that specific referents think that a person should or should not perform behaviour (Schiffman et al., 2007).

The TORA explains how, when and why attitudes predict consumer's behaviour. The model proposes that behaviour is a function of our intent to behave, which is determined by attitude toward performing behaviour as well as the influence of subjective norms. Attitude towards an act is formed by beliefs that people have about consequences of performing the behaviour multiplied by an evaluation of the consequences. The subjective norms are formed by beliefs about what reference groups think, and by the motivation to comply with these people (Hoyer et al., 2007).
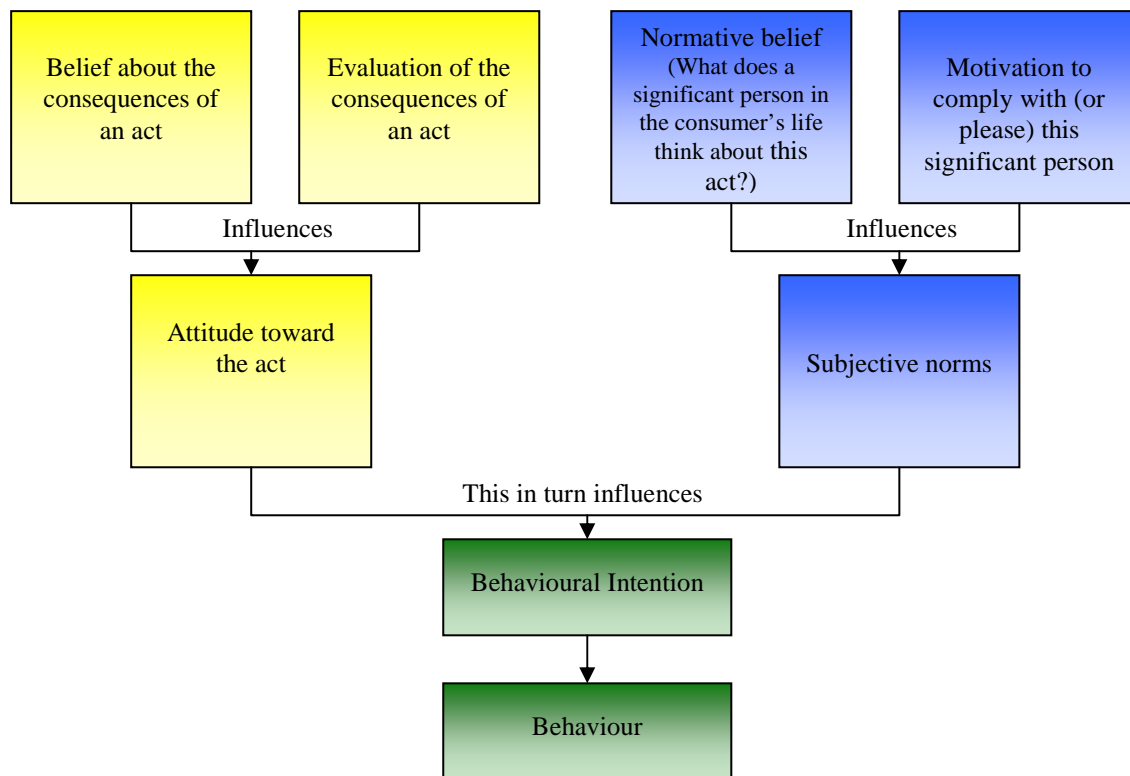
Figure 8: The Theory of Reasoned Action (Source: Hoyer, 2003, p. 130)

The TORA model incorporates the **principle of attitude specificity** (Hoyer et al., 2007). This principle proposed that the more specific the attitude is to the behaviour of interest, the more likely the attitude will be related to the behaviour (Hoyer et al., 2007). Thus, when marketers want to understand consumers' acquisition, usage, and disposition behaviours, then they should examine attitudes toward engaging in these behaviours as apposed to attitudes towards offering in general. This principle suggest that consumers' attitude toward buying a product predict purchase behaviour better than the attitude toward an object itself (Hoyer et al., 2007). The TORA model also incorporates **normative influences**. The normative influence can play a powerful role in how people behave. Subjective norms can affect behaviour even if an individual have negative attitude toward this behaviour (Hoyer et al., 2007).

The TORA model aims to predict intention to act. Thus, the model seeks to predict whether an individual will intend to buy a product, rather than trying to predict actual behaviour. The reason for this approach is that trying to predict behavioural intentions from attitude is much easier than trying to predict actual behaviour. The prediction of actual behaviour is a complex task since many situational factors could cause a consumer not to engage in an intended behaviour (Hoyer et al., 2007).

Marketing strategists are interested not only in how attitudes are formed and how can be changed but they also want to know **whether, when, and why attitudes will predict behaviour**. The following factors are proposed according to Hoyer et al (2007) to explain whether a consumer's attitudes will influence his or her behaviour:

- *Level of involvement.* When cognitive involvement is high and consumers elaborate or think extensively about the information that gives rise to their attitudes, then attitudes are more likely to predict behaviour (Hoyer et al., 2007).

- *Knowledge and experience.* When the consumer is knowledgeable about or experienced with the object of the attitude, then attitudes are more likely to be strong and predictive of behaviour (Hoyer et al., 2007).

- *Accessibility of attitudes.* Attitudes are strongly related to behaviour when they are accessible or easily remembered. On the contrary, if an attitude cannot be easily remembered, then it has little effect on behaviour. Past experience with product usually increases attitude accessibility for attribute that must be experienced, for example in the sense of taste or touch. Next, advertising can produce accessible attitudes for search attributes when level of repletion is high (Hoyer et al., 2007).

- *Attitude confidence.* When the attitude is based on either a greater amount of information or more trustworthy information, the confidence tends to be stronger. Thus, when consumers are confident, then attitudes are more likely to predict their behaviour (Hoyer et al., 2007).

- *Specificity of attitudes*. Attitudes are good predictor of behaviour when researchers are very specific about behaviour that they are trying to predict. It means that measuring attitudes toward behaviour will more likely to predict behaviour (Hoyer et al., 2007).

- *Attitude-behaviour relationship over time.* Consumer's attitude confidence decline over time when they are exposed to an advertising message but they do not try the product. Therefore, marketers should plan advertising schedule to reactivate consumer attitudes and attitude confidence through message repetition. However, trial-based brand attitudes are likely to decline over time. For this reason, communication to reinforce the effect of trial experience is needed (Hoyer et al., 2007).

- *Situational factors.* Attitude-behaviour relationship can be weakening by intervening situational factors that can prevent behaviour from being performed. The usage situation may alter the attitude. For example, consumer can possess positive attitude toward object but he/she will not buy it because he/she cannot afford it (Hoyer et al., 2007).

- *Normative Factors.* Based on the TORA model, subjective norms are likely to affect the attitude-behaviour relationship. Consumer can hold positive attitude and therefore it should lead to the behaviour action, however, the consumer is affected by opinion of consumer group (Hoyer et al., 2007).

- *Personality variables.* Personality types influence attitude-behaviour relationships. Stronger attitude-behaviour relationships have individuals who like to devote a lot of thought to actions because their attitudes will be based on high elaboration thinking. Also, similar behaviour pattern across situations and more consistent attitude-behaviour relationships have individuals who are guided more by their own internal dispositions (low self-monitor). It means that those people will choose the same product regardless of the circumstances. On the contrary, individuals who are guided by the views and behaviour of reference group (high self-monitor), want to change their behaviour to adapt to every unique situation (Hoyer et al., 2007).

2.4. The Theory of Planned Behaviour

The TPB is an extension of the theory of reason action (Ajzen et al, 1980). The TPB differs from the TORA in presence of perceived behavioural control (PBC). The TPB model seeks to predict behaviour over which consumers have incomplete control by examining PBC. The TPB is one of the most influential conceptual frameworks for studying human action and it is widely used for a variety of topics (Ajzen, 2002). The theory is designed to explain and predict behaviour in a specific context. A central factor in this theory is an intention to perform certain behaviour. In accordance with this approach, the intention captures motivational factors that influence behaviour. The motivational factors are indications of how much effort are people planning to exert, how much are willing to try in order to perform behaviour. There is a general rule, the stronger the intention to engage in behaviour, the more likely should be its performance (Ajzen, 1991). The TPB has been widely used for explaining consumers intention to buy organic food, as there is a number of studies applying this model (Chen, 2007; Lodorfos et al., 2008; Magnusson et al., 2001; Robinson et al., 2002; Tarkiainen et al., 2005; Vermeir et al., 2007).

Based on the TPB, human behaviour is guided by three kinds of considerations (Figure 9): beliefs about the consequences of the behaviour (behavioural beliefs), beliefs about the normative expectations of other people (normative beliefs), and beliefs about the presence of factors that hinder performance of the behaviour (control beliefs). On this basis, behavioural beliefs produce favourable or unfavourable *attitudes towards behaviour*. Normative beliefs result in perceived social pressure called *subjective norms*. Third kind of beliefs, control beliefs, give rise to PBC, which means ease or difficulty of performing particular behaviour. These three variables form the behavioural intention of people. The intention to perform behaviour is assumed to be immediate antecedent of behaviour. It proposes that PBC together with the intention to behaviour can be used directly to predict behavioural achievement. The general rule is, the more favourable the attitude and subjective norms with respect to behaviour, and the greater the PBC, the stronger should be a person's intention to perform the behaviour under consideration (Ajzen, 1991; Ajzen, 2002). The TPB model is depicted in Figure 9.
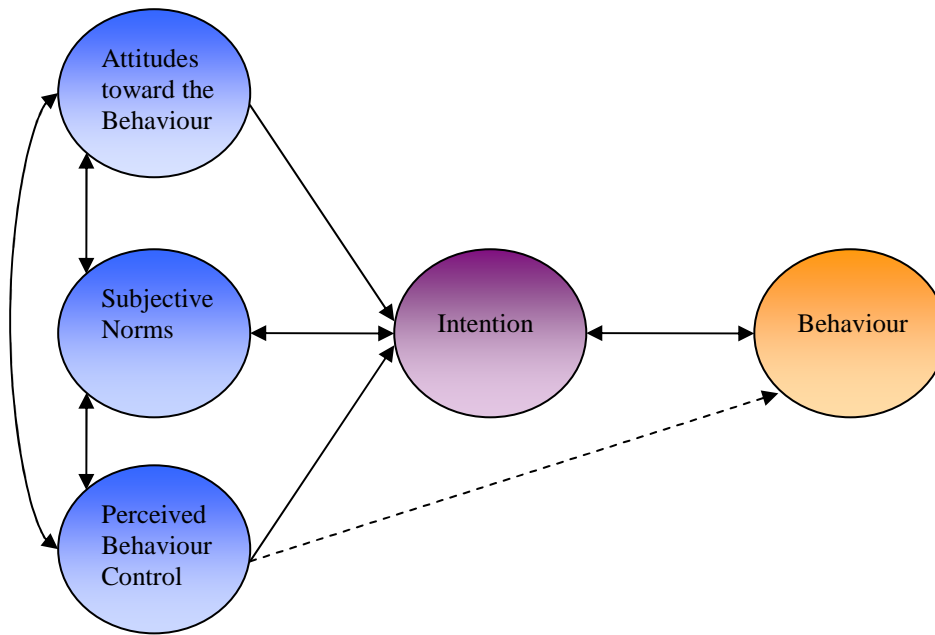
Figure 9: Model of Theory of Planned Behaviour (Source: Ajzen, 1991)

The first variable of the TPB model is **attitudes towards behaviour.** It refers to the degree to which an individual has a favourable or unfavourable evaluation or appraisal of the behaviour in question (Ajzen, 1991). The theory proposed that behavioural beliefs produce attitudes towards behaviour. Therefore, each belief links the behaviour to a certain outcome or to some other attribute such as the cost incurred by exerting behaviour. Attributes that are linked to particular behaviour are already valued positively or negatively. Thus, persons favour behaviour that they believe have desirable consequences and form unfavourable attitudes toward behaviour they associate with undesirable consequences (Ajzen, 1991).

Subjective Norms are second predictor of behaviour. This variable refers to a perceived social pressure to perform or not to perform the behaviour. It is assumed that important referent individuals or groups approve or disapprove certain behaviour (Ajzen, 1991). The different referents involved in the subjective norms can be family, friends, political parties, religious organizations, etc. It is assumed that socially worthy acts bring internally generated feelings of self-respect or pride. On the other hand, failure in socially worthy acts may invoke feelings of shame or self-reproach (Kalafatis et al., 1999).

Third variable playing important role in predicting behaviour is **perceived behavioural control (PBC)**. PBC refers to the ease or difficulty of performing the behaviour and it reflect

past experience as well as anticipated impediments and obstacles (Ajzen, 1991). Among beliefs that determine intention and action there is a set that deals with presence or absence of requisite resources and opportunities. These beliefs can be based on the past experience with the behaviour, but also on second-hand information about behaviour from reference, and by other factors contributing to the perceived difficulty of performing the behaviour in question (Ajzen, 1991). According to the TPB, the more resources and opportunities individuals believe they have, and fewer obstacles they anticipate, the greater should be their perceived control over the behaviour (Ajzen, 1991). PBC contains two concepts, namely perceived self-efficacy and perceived controllability. It is argued that both concepts reflect beliefs about the presence of external as well as internal factors.

First concept, **perceived self-efficacy**, refers to dealing largely with the ease or difficulty of performing behaviour (Ajzen, 2002). One of the main barriers to purchasing organic food is perceived price. This factor is assumed to belong to perceived self-efficacy. High price of organic food makes buying organic food more difficult or more unattractive. The reason for such problems is trade-off between ability to buy and organic food and ability to save or spend money on products that offer personal utility (Tarkiainen et al., 2005).

Second concept, **perceived controllability**, refers to the extent to which performance is up to an actor (Ajzen, 2002). To the second concept belongs perceived availability. Based on the previous research has been shown that the most important obstacles for not buying organic food is, among perceived price, perceived availability. The lack of availability of organic food is clearly not under consumers control (Tarkiainen et al., 2005).

2.5. Environmental Marketing

The environmental marketing is often called as well as green marketing or ecological marketing (Polonsky, 1994). The environmental marketing is defined as "*marketing activities that recognize environmental stewardship as a business development responsibility and business growth opportunity*" (Coddington, 1993, p. 1). This incorporates various activities, such as product modification, changes to the production process, packaging changes, as well as modifying advertising (Polonsky, 1994). According to Polonsky (1994), the purpose of the green marketing is to minimize environmental harm, however not necessarily eliminate it.

The public concern about environmental destruction has been rising within last decades and marketers have begun to understand both the need and the value of the environmental marketing (Polonsky et al., 1995). The reason behind rising importance of the environmental marketing are limited resources on the earth which people must attempt to provide for the worlds' unlimited wants (Polonsky, 1994). As individual and industrial consumers are becoming more concerned about the environment it brings various business opportunities for companies. Such opportunities range from pollution prevention and more efficient technologies to environmental education and green product promotion (Codington, 1993). For most consumers, the concern about pollution and degradation of their natural physical environment is accompanied by personal worries about the impact of this environmental damage on their health and safety (Codington, 1993). As firms face regulatory and activist pressure for corporate environmental stewardship, they have to develop new or alternative ways of satisfying consumers' needs. The environmental marketing brings to companies a solution, since it looks at how marketing activities utilize limited resources, while satisfying consumers wants, both of individuals and industry, as well as achieving the organization's profit objective (Polonsky, 1994). To differentiate a green product from a conventional one, marketers add the environment to the standard mix of decision making variables (Codington, 1993). The organic food is marketed as being healthier and more environmentally (Chen, 2009).

The environmental marketing orientation appears to be an emerging strategic response by some firms to the turbulent social and natural environments (Polonsky et al., 1995). Polonsky (1994) suggests five main reasons why companies might use green marketing:

- **Opportunities.** As was already written above, consumers are becoming more concerned about the natural environment. Many companies perceive those signals from the market as an opportunity to be exploited. There is assumed that marketing goods with environmental friendly characteristics will have a competitive advantage over marketing non-environmentally responsible alternatives (Polonsky 2004).

- **Social Responsibility.** Companies have to understand they are a part of wider community and therefore they have to behave in an environmentally responsible way. This could mean that firm's corporate culture needs to integrate environmental issues. Basically there are two options for organizations. Companies can use their

environmental responsiveness as a marketing tool or they can become environmentally responsible without promoting this fact (Polonsky 2004).

- **Governmental pressure.** Government usually issues various regulations with purpose to protect consumers and society. There are several ways how to protect consumers such as: reduce production of harmful goods; modify consumer and industry's use and consumption of harmful goods; and to ensure that consumers have the ability to evaluate the environmental composition of goods and to be able to make informed purchase decision (Polonsky 2004).

- **Competitive Pressure.** Companies that want to maintain their competitive position have to observe competitors strategy. Firms can analyse the competitors' strategy of promoting environmental responsiveness and then they attempt to imitate this behaviour. Such competitive pressure might cause an entire industry to modify (Polonsky 2004).

- **Cost or Profit Issues.** Green marketing is also used to address cost or profit related issues. Disposing of environmentally harmful products is becoming costly and difficult. Thus, companies that can reduce harmful wastes may incur cost saving. This often requires re-examine production processes and to develop more effective production process (Polonsky 2004).

2.5.1. Organic Food Market

Interest and knowledge about organic food has grown noticeably as consumers and marketers react to media about health and environmental effects of pesticides, food safety, and genetically-modified organism (Hughner et al., 2007). **Organic food** is defined as "*food that is produced according to certain criteria. Materials and methods that enhance the ecological balance of natural system are used in the production. Organic food is produced without pesticides, herbicides, inorganic fertilisers, antibiotics and growth hormones. Animal welfare is important, and bioengineering and genetically modified food is not accepted*" (Honkanen et al., 2006, p. 420). Consumers' demand for organic food has grown tremendously in many industrialised countries during the past ten years (Wier et al., 2002) and supply of organic food had to react to the demand via increased production of organically grown food (Gil et al., 2000; Lucas, 2008). The production of organically grown food is called **organic farming** and

it refers to "*a farming system which uses organic manure and avoids or largely refrains from using synthetic fertilizers, pesticides, and chemicals. Moreover, organic food generally contain less harmful additives and more primary and secondary nutrients than conventional food, and they carry no additional risk of food poisoning*" (Chen, 2009).

The literature also mentions some downsides of organic food. Most often it is blamed for possible **food poisoning** (Soil Association, 2002). There has been reported that organic food is possibly toxicologically unsafe, particularly in respect of E.coli bacteria (Soil Association, 2002). Some authors have stated that usage of manures in organic agriculture raise the risk of E.coli poisoning from organic vegetables. According to the Soil Association, E.coli is a natural commensal in humans and animals, but only some strains are virulent (Soil Association, 2002). The organic standards include clear recommendations how manure should be composted before use with the specific intention of killing potential pathogens (Soil Association, 2002). Research at the Louis Bolk Institute in the Netherlands has shown that during composting, where temperatures of 60 degrees can be attained, is killing most pathogens (Soil Association, 2002). The original assertion that organic food is more likely to cause food poisoning due to the use of manures as fertilizer came from the article "The Hidden Dangers of Organic Food" by Dennis Avery (Soil Association, 2002). In this article there has been stated that people who eat organic food are eight times more likely to be attacked by a deadly new strain of E.coli bacteria than the rest of population (Soil Association, 2002). However, the Soil Association is claiming that the interpretation of the data is fundamentally flawed and misleading. The Soil Association has stated that it is not aware of any case of E.coli poisoning arising from certified organic production methods.

Within the food industry the organic market is frequently regarded as one of the markets with the biggest growth. Europe has the largest and most developed organic food market in the world (FFDI, 2010). The estimated turnover was € 18 milliards for 2008 (FFDI, 2010). However, there exist considerable differences with respect to market development and growth among European countries. The biggest sales of organic food are mainly in Western European countries (FFDI, 2010). According to the Soil Association (2009) the largest markets by value are in Germany, the UK and France. Countries as Denmark, Austria and Switzerland have markets with highest market share of organic food (Soil Association, 2009). The fastest growth of organic food market can be found in the UK, Italy, and France (Wier et al., 2002).

Experts are predicting a bright future for the organic industry in some Eastern European countries since within last few years there has been seen a huge rise in organic farming, food production and consumption (The LOHASIAN, 2010). Some Eastern European countries have twice as much agricultural land turned over to organic farming as those in Western Europe (The LOHASIAN, 2010). The largest organic food market within Eastern European countries has the Czech Republic (FFDI, 2010). Turnover in the Czech Republic for 2008 was € 68 millions (FFDI, 2010). Organic food consumption rose by 70 % in 2007 in the Czech Republic. However, despite the growth in consumer consumption and sales in the Czech Republic, the organic food market is still relatively small compared to Western Europe (The LOHASIAN, 2010).

2.5.2. Organic Food Consumer

A number of studies have aimed to identify who is engaged in the environmentally friendly behaviour. The studied characteristics of "green" consumer focused mainly on demographic background, personality variables, host of psycho/social constructs as alienation, attitudes toward pollution, commitment, and knowledge of environmental issues (Polonsky et al., 1995). However, results of the studies are not consistent. Some demographic characteristics have been found to be related in some studies, and not related in others (Polonsky et al., 1995). In general, consumers of organic food are female (Davies et al., 1995) who have children (Thompson et al., 1998), and are older (Cicia et al., 2002). An explanation for higher consumption of organic food by families with children is that parents take huge interest in the food they buy for their family (Hughner et al., 2007). A possible explanation for purchasing organic food by older buyers is that the price premium may be less affordable by younger consumers (Hughner et al., 2007). In addition, people tend to be more environmentally responsible in direct relation to their income and educational level (Hughner et al., 2007). There is a proposition that the more people earn and the higher education they have, the "greener" they tend to be (Coddington, 1993).

There are several motives for purchase of organic food: organic food is healthier; it tastes better; environmental concern; concern over food safety; concern over animal welfare; and supports of local economy (Hughner et al., 2007). On the other hand, there is a number of common reasons for non-purchase of organic food: high price; lack of availability; scepticism about organic labels; insufficient marketing; and satisfaction with current food source (Hughner et al., 2007).

Consumers' **environmental education** plays an important role in understanding of environmental responsiveness. Consumers less likely engage in emotional and environmentally counterproductive behaviour when they do not understand environmental issues (Coddington, 1993). There are several principles of environmental education that might be taken into the account: *continuity* (education should be ongoing and not short-term); *comprehensiveness* (education should be comprehensive and it should take into account all relevant economic, social, and ecological realities); *motivational and inspirational core* (it should encourage right attitudes that in turn encourage right behaviour); and *even-handedness* (education must treat all constituencies equally, should not be neglected any single group) (Coddington, 1993).

2.5.3. Eco-Labelling

Labelling programs aim to encourage a move towards more environmentally friendly consumption patterns, and induce productive structures, governments and other agents to increase the environmental standards of the products and services in the economy (Gallastegui, 2002).

A label is an important part of most packages. By providing information and by adding value to consumers it helps with product selection and use. Labelling supports the company's promotional effort by drawing attention to products and their benefits (Churchill et al., 1998). In the case of organic food such label is called *eco-label*. For consumers it is difficult to check the authenticity of organic products, therefore it is necessary to build up a control system with clearly defined rules for production methods and labelling of certified products (Wier et al., 2002). Eco-labelling seeks to *"inform consumers about the effects on the environment of the production and waste phases of the products/services consumed"* (Gallastegui, 2002, p. 316). Therefore, trustworthy labels that guarantee organic production can create a value to consumer by providing information that helps them make an intelligent purchase (Churchill et al., 1998).

Three types of labels can be distinguished (Gallastegui, 2002). First type of labels is the product of third party certification programmes and they are usually government supported. Such a label refers to the environmental quality of a product compared with the rest of the products and encourages a switch towards more environmental responsive consumption behaviour. This type of label is voluntary and one of the examples is German's Blue Angel

(Gallastegui, 2002). Second type of label consists of one-sided informative environmental claims made by producers, or distributors, and refers to specific attributes of products, such as "CFC free" (Gallastegui, 2002). Third type of label use pre-set indices and give quantified information about products based on independent verification. However, there is not enough experience with such labels and they are rarely found in the environmental field (Gallastegui, 2002).

By the term eco-label is meant the first type of labels. There are several attributes that characterizes eco-labels: they are based on criterion set by third parties and are voluntary; they identify products with less environmental impact, selection of product categories and the determination of criteria are carried out by independent experts, criteria and the selection thresholds are publicly available; and finally the products that meet criteria may use the eco-logo for a fixed period of time after paying fee and application costs (Gallastegui, 2002).

There are several arguments that favour the eco-labelling system: consumers usually spend little time studying the environmental impact of the product therefore it is necessary to develop a label they can trust; labels can improve the image and sales of the firm; it encourage companies to account for the environmental impact of their production; it makes consumers more aware of environmental issues and problems; and it might help to protect the environment (Gallastegui, 2002).

On the other hand, there are several weaknesses of the eco-labelling system: lack of objectivity in setting the criteria; the difficulty of setting product category boundaries since no two products are perfect substitutes and may have different uses; the arbitrariness of the process of selecting and updating criteria, as it is not possible to estimate all the damage that the entire life cycle of the product can have on the environment; the lack of estimated demand for labelled goods; the lack of real award for environmental improvement; and finally the shortness of the validity period of the label before its revision (Gallastegui, 2002).

3. Literature Review of Related Empirical Studies

The third chapter focuses on empirical studies associated with organic products. The purpose of this section is to present main studies that are relevant for the thesis and to show their findings. For better orientation the articles are grouped according to the research topics into the following areas: (i) attitudes towards organic food, (ii) intention to buy organic food, (iii) influence of eco-labels on consumer behaviour.

Phenomenon

(Chapter 1)

Intention to Buy Organic Food among Czech Consumers

(Background, Problem definition, Purpose of the study, Definition of the key concepts)

Theories/ Studies
(Chapter 2, 3)
Theory:
1) Marketing
2) Green Marketing
3) Consumer Behaviour
4) TPB

(**Variables**: attitudes towards buying, subjective norms, intention to buy)

Empirical Studies:
1) Consumer attitudes towards organic food
2) Intention to buy organic food
3) Influence of eco-labels on consumer behaviour

(**Variables**: perceived availability, perceived price, demographic factors, product knowledge)

Methods and Reality

(Chapter 4, 5, 6)

1) The Conceptual framework

2) Methodology (quantitative research approach, research method: self-completes survey, non-probability sampling method)

3) **Analysis of the Czech organic market** based on secondary data

4) **Analysis of the conceptual framework** based on primary data through a survey

Discussion/Conclusion

(Chapter 7)

Figure 10: The Structure of the Study

3.1.   Consumer Attitudes towards Organic Food

The studies in this section are focused on investigating attitudes toward organic products and motivations to purchase such products. Most often the studied focused on particular country, while no study focusing on the Czech Republic was found.

Magnusson et al. (2001) investigated purchase frequency, purchase criteria, perceived availability, and beliefs about organic products in Sweden. As a research method a survey was used. Questionnaires were mailed to a sample of 2,000 respondents, aged from 18 to 65 years. The authors found out that only small proportion of consumers purchase organic food regularly. Even though the majority of respondents reported positive attitudes toward organic products, the intention to buy organic food was expressed by small number of respondents. A good taste was the most important purchasing criterion followed by long shelf-life and healthiness.

Similar results about healthiness and positive attitudes toward organic products have been found by Zanoli et al. (2002). The research focused on consumer perception and knowledge of organic products and related behaviour in Italy. Data were collected from 60 respondents through semi-structured interviews. The results showed that consumers perceive organic products as difficult to find and expensive. However, most of the respondents perceived organic food positively and associated them with health.

The fact that the health factor is the most significant motive for purchasing organic food has been supported by Makatouni (2002). The main objective of the study was to identify beliefs and attitudes towards organic food and the impact of those attitudes on food choice in the United Kingdom. Data were collected from 40 laddering interviews, where respondents were parents with children aged 4-12 years old. The main conclusion of the analysis is that for this specific group of respondents organic food is the mean of achieving individual and social values. Moreover, the most significant motive for purchasing organic food is again health factor, followed by environmental and animal welfare.

This has been also supported by Radman (2005) with his study on consumer attitudes towards organic products in the capital of Croatia. Data were collected by a survey of 179 respondents. Consumers perceived organic products as very healthy, of good quality, and tasty. However, organic food was considered as rather expensive and of questionable

appearance. One-third of respondents stated they buy organic products "very often" or "often" and almost half of respondents (43 %) states that they purchase such products "rarely". The author proposed that education of consumer is needed since many respondents were uninformed about the definition of organic production. The findings also indicated consumers' unfamiliarity with a supply of organic products in the market. The results show consumers' positive attitudes towards bio products and increased willingness to pay higher prices. The study uncovers that although consumer perceive positive attitudes towards organic food, they do not purchase it often. This interesting finding has been also supported by Leire et al., (2004). The study investigated consumer perceptions, understanding, and use of product-related environmental information by structured search approach in Nordic countries. The authors stated that there is inconsistency between consumer's intentions to buy organic food and actual behaviour.

In contrast to the study by Radman (2005) who found increased willingness to pay higher prices in Croatia, Lucas et al. (2008) brought the opposite statement. Their research compared consumer behaviour towards organic food in Portugal and Germany. Data were collected by qualitative interviews followed by a quantitative survey of 419 respondents. The analysis showed that consumers in both countries have relatively good knowledge about organic food and have positive attitudes toward such products. It was also concluded that consumption in both countries is lower than could be expected. The main explanation for non-consumption of organic food is higher price and limited availability in stores. Willingness-to-pay for bio products was relatively low. The findings showed that consumers preferred to buy organic food in special shops and that fresh organic food is more successful than the transformed one. Another presented conclusion is behavioural differences toward bio product in both countries. Germans consume organic products in higher amounts, however they are more price sensitive and less willing to pay price premium. This can be explained by greater maturity of German market.

Summary of Findings

Based on the literature review described above some main conclusions about consumer perception, motivation, and attitudes towards organic food can be carried out. The studies found in general positive attitudes toward organic products (Magnusson et al., 2001; Zanoli et al., 2002; Radman, 2005; Leire et al., 2004). Other finding is that health factor is the most significant motive for purchasing organic food (Magnusson et al., 2001; Zanoli et al., 2002;

Makatouni, 2002). In spite of positive attitudes towards organic food the studies found that only small proportion of consumers purchase organic food regularly (Radman, 2005; Leire et al., 2004). Therefore, it can be concluded that there exists a discrepancy between consumers' attitudes towards organic products and their purchasing behaviour. Some studies present reasons for limited purchase of organic food. The most frequent limitation of the purchase is the price and availability of products (Magnusson et al., 2001; Zanoli et al., 2002; Radman 2005).

3.2.   Intention to Buy Organic Food

In the following part are introduced empirical studies that explored the issue of intention to buy organic food. Applied research methods, theories, and findings are presented. Most of the studies applied the TPB model and its modifications.

The intention to buy organic products was examined by Tarkiainen et al. (2005). The authors applied an extension of the TPB model to study this phenomenon. There were examined relationships between attitudes, subjective norms and intention to buy organic food. Data were collected by a questionnaire from 200 Finish consumers. They used quota sampling by controlling age and gender of the respondents. This technique allowed the researchers to control sampling procedure to obtain a sample similar to the target population. A model was proposed to study a relationship between subjective norms and health consciousness on attitudes towards buying. Moreover, they examined a relationship of attitudes toward buying, importance of price, and perception of availability on the intention to buy organic bread and flour. Hypotheses were tested by structural equation modelling technique. The findings indicated positive relationships between subjective norms and attitudes, and between attitudes and buying intentions. The hypothesis about relationship between perceived availability and intention to buy was rejected. That finding was explained by sufficient availability of organic products on the Finnish market. Also the hypothesis about relationship between importance of price and intention to buy organic food was not supported. However, this finding might be due to the fact that price premium for organic food is almost non-existing in Finland.

The TPB model was also applied by Vermeir et al. (2007) to study the intention to buy organic products. The study studied determinants of sustainable food consumer behaviour in Belgium. The purpose of the study was to explore predictive value of attitudes towards

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purchasing sustainable dairy products, perceived consumer effectiveness, perceived availability of products and social norms on behavioural intention. The authors studied perceived availability and perceived consumer effectiveness as part of perceived behavioural control. Data were gathered by self-administered questionnaire within a sample of 456 higher educated young adults. The regression analysis was used to analyze the proposed relationships. The examined model explained 50.1 % of the variance. There was found a strong positive effect of attitudes on purchase intention, and a positive effect of social norms, perceived availability and perceived consumer effectiveness on behavioural intention.

Another study investigating the intention to buy organic products has been conducted by Robinson et al. (2002). The authors applied an expanded TPB model. The purpose of the paper was to evaluate and identify variables that are able to predict the intention to buy sustainably produced food. The study focused on psychological and demographic variables in order to study this phenomenon as beliefs, attitudes, subjective norms, perceived behavioural control, perceives self-identity, demographic factors, intended purchasing behaviour and past purchasing behaviour. Data were collected by a self-administered questionnaire at a store entrance. The survey contained responses from 550 respondents. The data were analyzed by the multiple regression analysis. One-way ANOVA and t-test were used to compare demographic factors of respondents with relation to attitudes, PBC, and intention to buy sustainably produced food. The authors compared attitudes about sustainably produced food to demographic factors. There was found out that female in general have more positive attitudes than men. Furthermore, age group of respondents ranging from 51-60 was more supportive than other age groups, and respondents with vocational education were more supportive than other education groups. Demographic factors were also evaluated with respect to the intention to buy sustainably produced food. There was found that the age group ranging from 61 to 70 years was more likely to intent to buy particular food in the near future. Marital status was found as a predictor of the intention to buy food in the future. Furthermore, psychosocial variables such as attitudes, beliefs, PBC, and subjective norms were found to be other important predictors of the intention to buy examined food product.

Determinants of the intention to buy organic products were studied also in the study by Lodorfos et al. (2008). The TPB model was used as a conceptual framework. The purpose of the article was to examine appropriateness of the TPB model for organic food market and to identify other factors which influence the intention to buy organic food. Data were collected

through a survey from 144 respondents. The regression analysis was used to examine the proposed model. The model explained 74.1 % of variance in intention to buy. The attitudes, PBC, and subjective norms were significant in prediction of the intention to buy organic products. The study also found out that consumers would intent to buy more organic products if it did not carry price premium over nonorganic products. Another factor which would contribute to support the intention to buy organic food is a better availability of the products in shops. Gender was found to be a significant factor of the intention to buy organic products. However, age and occupation were not found to be significant for the intention. Overall, the authors provided empirical evidence supporting relevance of the TPB model and showed that price, availability of organic food, and product information are important predictors of the intention to buy organic products.

Chen (2007) applied the TPB model to examine the intention to buy organic food in Taiwan. The author investigated determinants of consumer's attitudes to organic food and their influence on the intention to buy. Data were gathered by a self-administered questionnaire. A stratified sampling according to area classification and demographic factors as gender and age was applied. In total, 470 responses were collected. The author found out that all three main variable of the TPB model, namely attitudes towards purchase, subjective norms, and PCE are significant for the intention to buy organic food.

Consumers' intention to buy organic food was furthermore examined in the study by Kalafatis et al. (1999). The TPB model was applied. Three basic variables were tested with relation to intention to buy, namely attitudes towards purchase, subjective norms of consumers, and PBC. Data were collected in two countries, in the UK and Greece, by a self-completion survey. The researchers obtained in total 345 responses from both countries. The analysis provided evidence supporting exploratory power of the proposed TPB model and all three variables were found to be significant.

In the study by Magnusson et al. (2001) demographic differences were explored in relation to the intention to buy organic products. The aim was to collect knowledge about Swedish consumers' perception of organic food. The authors studied attitudes towards buying organic food, perceived price, perceived availability, purchase frequency, and purchase criteria. The TPB model was used as a conceptual framework. Data were gathered by a self-administered survey spread by e-mail to respondents. The total number of responses was 1,154. The results provided evidence that just small proportion of consumers expressed the intention to buy

organic food. Based on the data analysis, woman and respondent under 40 years more likely will buy organic product than men and older consumers. The level of education and family size has not been found as significant factors for the intention to buy. With regard to attitudes toward buying, again woman expressed more positive attitudes. Furthermore, higher education and younger respondents had more positive attitudes. Limited availability of organic products has not been found as an obstacle to purchase the products. The majority of respondents stated importance of price of organic food that does not exceed the price of conventional food. Almost half of the respondents often or always refrain from purchase because of a higher price.

The aim of the research by O'Donovan et al. (2002) was to examine consumer demand for organic food in Ireland. To explain the purchase intention the authors used a model of perceived quality and value. The study highlighted importance of demographic factors such as income, perceived availability, and price. Data were collected by a survey, 250 responses were obtained. The majority of respondents stated that availability of organic products at the place where they shop is an important determinant of their intention to buy. Respondent also expressed unwillingness to travel to buy organic products. The authors concluded that consumers are not willing to pay a premium price, and together with lack of availability, these are two main problems restricting the intention to buy organic food. Moreover, among studied demographic variables, gender and education level were found as significant factors. The authors did not find any significant relationship between age, marital status, household size, and intention to buy.

Consumers' purchase intentions toward organic products were also examined by Michaelidou et al. (2009). The aim of the study was to investigate roles of personal, product related and economic factors in predicting attitudes and intention to buy. There was tested a sample of 220 consumers obtained by a self-completion questionnaire. The authors stated that price has a significant effect on the intention to buy. Furthermore, demographic variables were tested as control variables with respect to the intention to buy. However, the influence of the control variables was rather marginal.

Summary of Findings

The existing empirical studies proved the positive relationship between attitudes towards buying organic food and intention to buy (Chen, 2007; Kalafatis et al., 1999; Lodorfos et al.,

2008; Robinson et al., 2002; Tarkiainen et al., 2005; Vermeir, 2007). Also subjective norms were found by a number of studies as a predictor of the intention to buy organic food (Chen, 2007; Kalafatis et al., 1999; Lodorfos et al., 2008; Robinson et al., 2002; Vermeir, 2007). Some studies supported the relationship between perceived availability and the intention to buy organic food (Lodorfos et al., 2008; O'Donovan et al., 2002; Vermeir, 2007). On the other hand, the study by Tarkiainen et al. (2005) did not find support for the relationship between perceived price and availability of organic food to the intentions to purchase organic products. Several studies provided empirical evidence to support the influence of perceived price on the intention to buy organic products (Lodorfos et al., 2008; Michaelidou et al., 2009; O'Donovan et al., 2002).

Demographic factors were examined in a number of studies as one of predictors of the intention to buy organic food. Especially, marital status (Robinson et al., 2002) and gender were found to be significant factors influencing the intention to buy organic food (Lodorfos et al., 2008, Magnusson et al., 2001; O'Donovan et al. 2002). Moreover, former research also reveals importance of age (Magnusson et al., 2001) and education level (O'Donovan et al., 2002).

3.3. Influence of Eco-labels on Consumer Behaviour

The focus of this section is to present studied investigating the influence of eco-labels on consumer behaviour. The purpose is to identify factors which contribute to the effectiveness of eco-labels. There were chosen 5 relevant studies.

Sammer et al. (2006) studied the influence of eco-labels on consumer behaviour for household appliance compared with other product attributes. Data collection was conducted through 151 interviews with consumers who were in a process of making a buying decision of washing machines. The authors found out that consumers have high level of awareness about an eco-label. Consumers have stated that presence of an eco-label is important in their decision making. Other important finding is that consumers were willing to pay for eco-labelled product a premium price. The study showed that an eco-label is well known and respected among Swiss consumers.

Similar finding about a willingness to pay a premium price has been found in the studies by D'Souza (2006) and Bjørner et al. (2004). The study by D'Souza (2006) investigated how

consumers who differ in terms of environmentalism respond to eco-labels. Data were gathered in Australia in both metropolitan and regional areas. As the research approach was used a survey of 155 respondents. A relative high number of respondents (69.7 %) answered that they would buy eco-products even if it is more expensive than an alternative product. The study provided the evidence that consumers read labels to get environmental information. However, there is a smaller proportion of respondents who are satisfied with information on a product label. The results showed that there is a number of consumers that find labels hard to understand. The author suggested to marketers to ensure accurate and adequate information on labels.

The study by Bjørner et al. (2003) examined the effect of the Nordic certified environmental label on consumer preference of toilet paper in Denmark. Data were obtained from shopping diaries of Danish households. The study showed that the eco-label had a significant effect on a purchase decision. Furthermore, there was found consumers' willingness to pay a premium price for eco-labelled products. The authors proposed that the result is connected with the finding that there is a high confidence in the government who certifies the Swan label. In addition, there was reported relatively high attention on environmental issues in media.

The study by Thøgersen (2000) presented several factors that are important for paying attention to eco-labels. There was proposed a psychological model describing how eco-labels work. Data were collected in Germany, Italy, Ireland and Great Britain. The author argued that eco-labels are useful tool only if consumers take them into consideration during the decision making. There needs to be knowledge about the label. Consumers have to be aware that the label exists, how it looks like, and what it means. The paper points out that if consumers are able to recognize a label, it does not mean that they understand its meaning. Besides knowledge about labels there is also needed a trust in the label. It is important that consumers believe in claims about eco-labelled products. In general, labels are more trustful if they are issued by public or independent issuer. Furthermore, an information overload is a negative factor of label effectiveness. It happens when there are many labels issued by either public or private issuer in the market. In such situation consumers rather do not notice a label and the effect of labelling is decreased. However, the author suggested that knowledge and trust about labels is not enough. There is a prerequisite that consumers believe that eco-labelled product fulfilled their needs. Therefore, consumers will pay attention to eco-labels if they desire environmentally responsive product or other advantages that are associated with

this label. Another factor contributing to paying attention to labels is availability of eco-labelled products in shops.

The study by Bonini et al. (2008) of 7,751 people around the world showed that 87 % of consumers think about an impact of the product they buy on the environment and society. However, when it comes to the actual behaviour, only a small proportion of consumers buy "green" products. Therefore, the paper presented barriers to purchase "green" products at five stages of the buying process. The first barrier is a lack of awareness of consumer that a product exists. Many of consumers do not know about environmental alternatives to conventional products. Second, consumers need to believe that "green" products perform at least equal as conventional products. If the quality of "green" products is lower then consumers will not buy it. Third obstacle to purchase "green" products is distrust. Sales decrease when consumers are sceptical about environmental claim and they have difficulties to trust corporations and media. Fourth factor that makes it harder "green" products to succeed on the market is a higher price. Therefore, companies need to make effort to explain consumers that it is worth of investment. A low availability is fifth barrier to purchase environment-friendly products. Companies must ensure that products are available and easy to find.

Summary of Findings

Based on the studies presented above the factors that are important for effectiveness of environmental labels can be identified. These factors are crucial for the impact of eco-labels on consumers' purchase decision. The first fundamental factor is the knowledge about a label. Consumers need to understand labels, how a label looks like, and they need to have knowledge that environmental labels exist (D'Souza, 2006; Thøgersen, 2000; Bonini et al., 2008). The second factor contributing to effectiveness of eco-labels is trust. It requires that consumers believe a message that an eco-labelled product holds and they trust the issuer of that label (Bjørner et al., 2003; Bonini et al., 2008; Thøgersen, 2000). The third important factor is belief. Consumers must believe that an eco-labelled product helps them to reach their goal. It is important to provide consumers accurate and adequate information in the product label (Thøgersen, 2000; D'Souza, 2006). Several studies found consumers' willingness to pay a premium price for eco-labelled products (Sammer et al., 2006; D'Souza, 2006; Bjørner et al., 2004). However, there has to be pointed out that the studies by Bjørner et al. (2003) and Sammer et al. (2006) focused on non-food market.

4. The Conceptual Framework

The fourth chapter introduces the thesis conceptual framework. The proposed model is based on theoretical foundation provided by the TPB and former empirical studies. The conceptual framework presents the examined variables and relationships between them. Each of the variables is described including used literature sources. Finally, the study hypotheses are proposed.

Phenomenon

(Chapter 1)

Intention to Buy Organic Food among Czech Consumers

(Background, Problem definition, Purpose of the study, Definition of the key concepts)

Theories/ Studies
(Chapter 2, 3)

Theory:
1) Marketing
2) Green Marketing
3) Consumer Behaviour
4) TPB

(**Variables**: attitudes towards buying, subjective norms, intention to buy)

Empirical Studies:
1) Consumer attitudes towards organic food
2) Intention to buy organic food
3) Influence of eco-labels on consumer behaviour

(**Variables**: perceived availability, perceived price, demographic factors, product knowledge)

Methods and Reality

(Chapter 4, 5, 6)

1) The Conceptual framework

2) Methodology (quantitative research approach, research method: self-completes survey, non-probability sampling method)

3) Analysis of the Czech organic market based on secondary data

4) Analysis of the conceptual framework based on primary data through a survey

Discussion/Conclusion

(Chapter 7)

Figure 11: The Structure of the Study

The TPB provides a theoretical foundation for this study. The conceptual framework consists of several independent variables that are employed to explain the *intention to buy* organic food. According to the TPB model, three independent variables are included: *attitudes towards purchase of organic food, subjective norms*, and *perceived behavioural control* (PBC). Within the PBC three variables are studied, namely *perceived availability*, *perceived price* and *product knowledge.* These are the three most often studied variables of the PBC in relation to organic food. Therefore, they are selected for the purpose of this study. In addition, influence of *demographic factors* on *intention to buy* organic food is examined. Moreover, the TBP model suggests how to predict actual purchase. Even though this variable is not the main focus of this study, it is still included into the model. The model is illustrated in Figure 12.
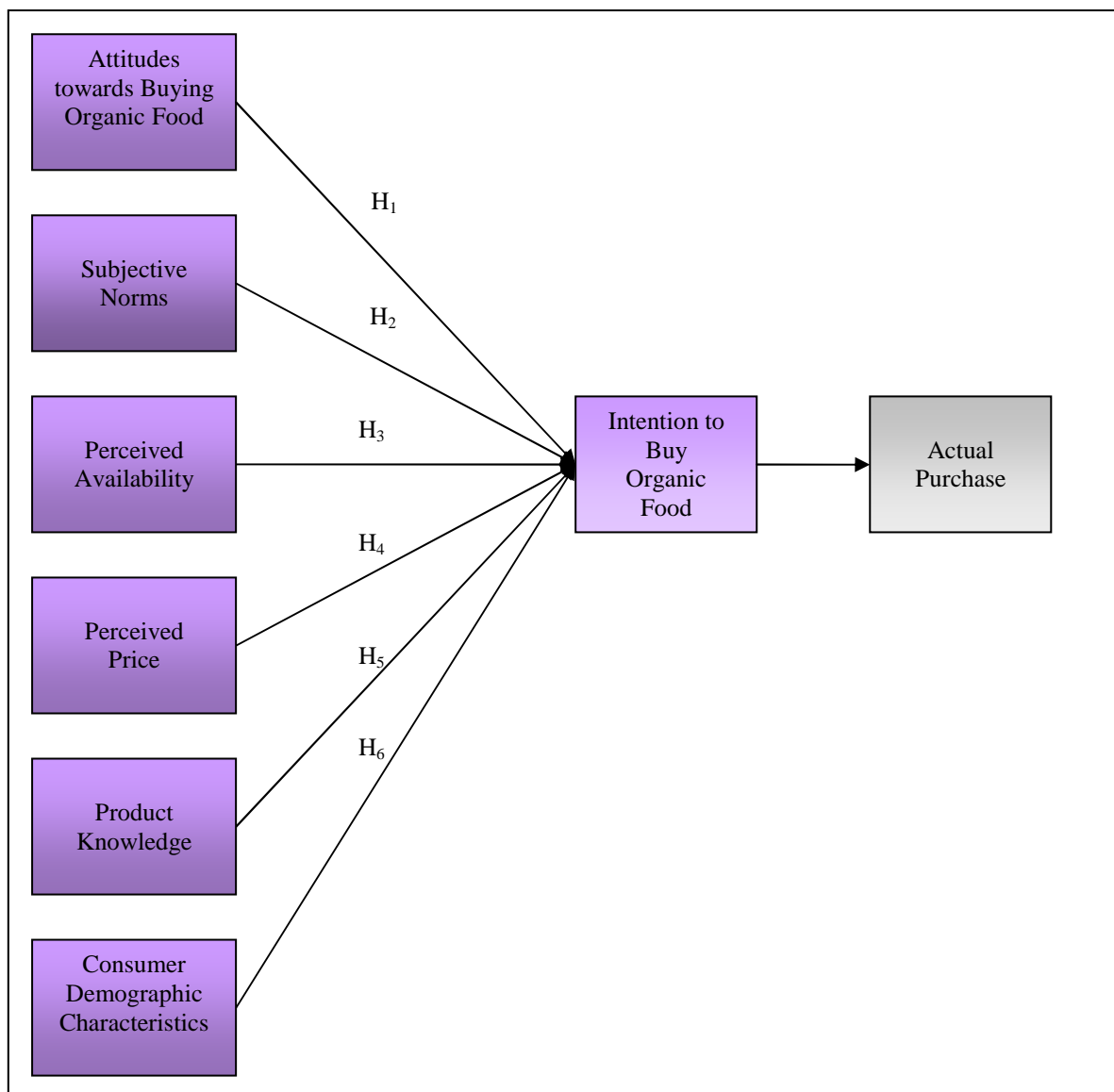
Figure 12: The Conceptual Framework

4.1.   Attitudes towards Buying Organic Food

Based on the TPB, *attitudes towards behaviour* play an important role in explaining human behaviour. This theory assumes that the stronger *attitudes towards behaviour* lead to the stronger *intention* to perform this behaviour. People hold some beliefs about a particular object. Then each belief links behaviour to some outcome. Hence, people favour behaviours which they believe have desirable consequences and hold unfavourable attitudes toward behaviours which they linked with undesirable consequences (Ajzen, 1991). *Attitudes towards buying organic food* have been studied in a number of studies. In the majority of cases the authors found a strong and positive relationship between *attitudes* and *intention to buy* (Chen, 2007; Kalafatis et al., 1999; Lodorfos et al., 2008; Robinson et al., 2002; Tarkiainen et al., 2005; Vermeir, 2007). Based on the literature, the first hypothesis is derived as follows:

H₁: Attitudes towards buying organic food influence the intention to buy organic food.

4.2.   Subjective Norms

Other important variable explaining the *intention to buy* are *subjective norms*. Based on the TPB, important individuals or groups approve or disapprove of performing a given behaviour (Ajzen, 1991). The logic behind this factor is that if consumers believe that people who are important to them think that organic food is good, they will express more *intention* of buying organic products (Chen, 2007). A significant relationship between *subjective norms* and *intention to buy* organic food has been found in several studies (Chen, 2007; Kalafatis et al., 1999; Lodorfos et al., 2008; Robinson et al., 2002; Vermeir, 2007). As *subjective norms* are reported to be a significant predictor of the intention to buy, it is hypothesized that:

H₂: Subjective norms influence the intention to buy organic food.

4.3.   Perceived Availability

Perceived availability has been examined in the literature as one of the variables affecting the intention to buy organic food. In the study by Vermeir et al. (2007) the authors found that *perceived availability* has highly significant and positive impact on sustainable consumption *intention.* In their study the *perceived availability* refers to if a consumer feels s/he can easily

obtain or consume a certain product. The authors stated that a consumer can hold motivation to buy particular product, but because of the low real *availability* of such product his/her *intention to buy* sustainable product is decreased. Lodorfos (2008), who investigated consumers' *intention to buy* organic food, discovered that *perceived availability* of organic products is one of the important determinants of consumers' *intention to buy* organic food (Lodorfos, 2008). The results are supported by the European Commission Study (Torjusen 2004) which shown that *availability* is one of consumers concerns while considering organic food purchase. Furthermore, in the study of Irish consumer perceptions of organic meat by O'Donovan et al. (2002) the authors concluded that *availability* of organic meat was one of the key deterrents of its purchase. Thus, it is hypothesized that:

H₃: Perceived availability of the organic food influences the intention to buy organic food.

4.4. Perceived Price

Another variable influencing *intention to buy* organic food studied in the literature is *perceived price*. In the study by Magnusson et al. (2002) the authors found out that only around 5 % of the respondents stated that the price difference in not important for them while considering buying of organic food. The majority of respondents (63 %) stated that it is important that organic food is not more expensive than conventional food (Magnusson et al. 2002). This is supported by a recent study by Michaelidou et al. (2010) who concluded that price is a significant driver of organic food purchase intention. Furthermore, importance of *perceived price* as one of the main influencers of the intention to buy organic food is supported by Ahmad et al., (2010). O'Donovan et al. (2002) discovered that there exists a strong association between a purchase of organic meat and an affordable price among Irish consumers. Moreover, the results by Lodorfos et al. (2008) suggested that *price* is an important determinant of intention to buy organic food. Therefore, following hypothesis is derived:

H₄: Perceived price influences the intention to buy organic food.

4.5. Product Knowledge

One of the factors influencing *intention to buy* organic food is *product knowledge* (Lodorfos et al., 2008; Magnusson et al., 2001; Leire et al., 2004). Consumers often need relevant product-related information for a purchase. Such information can be provided by labelling (Leire et al., 2004). Lucas et al. (2008) proposed that to support demand for organically produced food it is needed to increase level of consumer *knowledge* about these products. As a presumption of intention to buy consumers need to be able to identify organic food first (Padel et al., 2005; Sammer et al., 2006). Thøgersen et al. (2000) argued that eco-labels are a useful tool only if consumers consider them during their decision making. The author further argued that there has to be *knowledge* about a label. Therefore, consumers have to be aware that labels exist, how they look like, and what they mean (Thøgersen et al., 2000). According to Gracia et al. (2007) *product knowledge* is an important factor because it represents the only instrument which consumers have in order to differentiate the attributes of organic products from those of conventional ones, and to form positive attitudes, and quality perceptions toward these products. Yiridoe et al. (2005) proposed that *knowledge* about organic food may affect buying decision. Gracia et al. (2010) found a significant effect of *product knowledge* on *intention to buy* organic food. These results propose that consumers with higher organic *knowledge* are more likely to buy organic food (Gracia et al., 2010). Based on the discussion above, the following hypothesis is stated:

H$_5$: Product knowledge of consumers influences the intention to buy organic food.

4.6. Consumers' Demographic Characteristics

Existing research suggested that *intention to buy* organic products vary between consumers according to their *demographic characteristics* such as *age*, *gender*, *income*, *marital status*, *educational level*, etc. O'Donovan et al. (2002) revealed a relationship between *gender*, *education*, *socio-economic group*, and purchase *intention* for organic meat. Among the demographic variables studied by Robinson et al. (2002) *marital status* was found to be a predictor of *intention to buy* sustainably produced food. Moreover, in the study by Lodorfos et al. (2008) was found out that *gender* is a significant factor in consumers' *intention to buy* organic food. Similar results have been published in the study by Magnusson et al. (2001),

where the authors found *gender* and *age* of respondents as a significant factor predicting *intention to buy*. Thus, the following hypothesis is derived:

H₆: Consumers' demographic characteristics influence the intention to buy organic food.

Table 1 summarizes the variables studied in this thesis and provides literature reference sources.

Variables	Reference empirical studies
Attitudes toward buying	Chen (2007), Kalafatis et al. (1999), Lodorfos et al. (2008), Michaelidou et al. (2009), Robinson et al., (2002), Tarkiainen et al. (2005).
Subjective Norms	Chen (2007), Kalafatis et al. (1999), Lodorfos et al. (2008), Robinson et al. (2002), Vermeir (2007)
Perceived availability	Lodorfos (2008), O'Donovan et al. (2002), Torjusen (2004), Vermier et al. (2007)
Perceived price	Ahmad et al. (2010), Lodorfos (2008), Magnusson et al. (2002), Michaelidou et al. (2009), O'Donovan et al. (2002)
Product knowledge	Gracia et al. (2007), Gracia et al (2010), Leire et al. (2004), Lodorfos et al. (2008), Magnusson et al. (2001), Padel et al. (2005), Yiridoe et al. (2005)
Demographic characteristics	Lodorfos et al. (2008), Magnusson et al. (2002), O'Donovan et al. (2002), Robinson et al. (2002)

Table 1: Empirical Studies

5. Research Methodology

The fifth chapter introduces the research methodology applied in this study. It provides description of the study research design, data collection method, sampling procedure, questionnaire design, measurement techniques, and reliability and validity assessment.
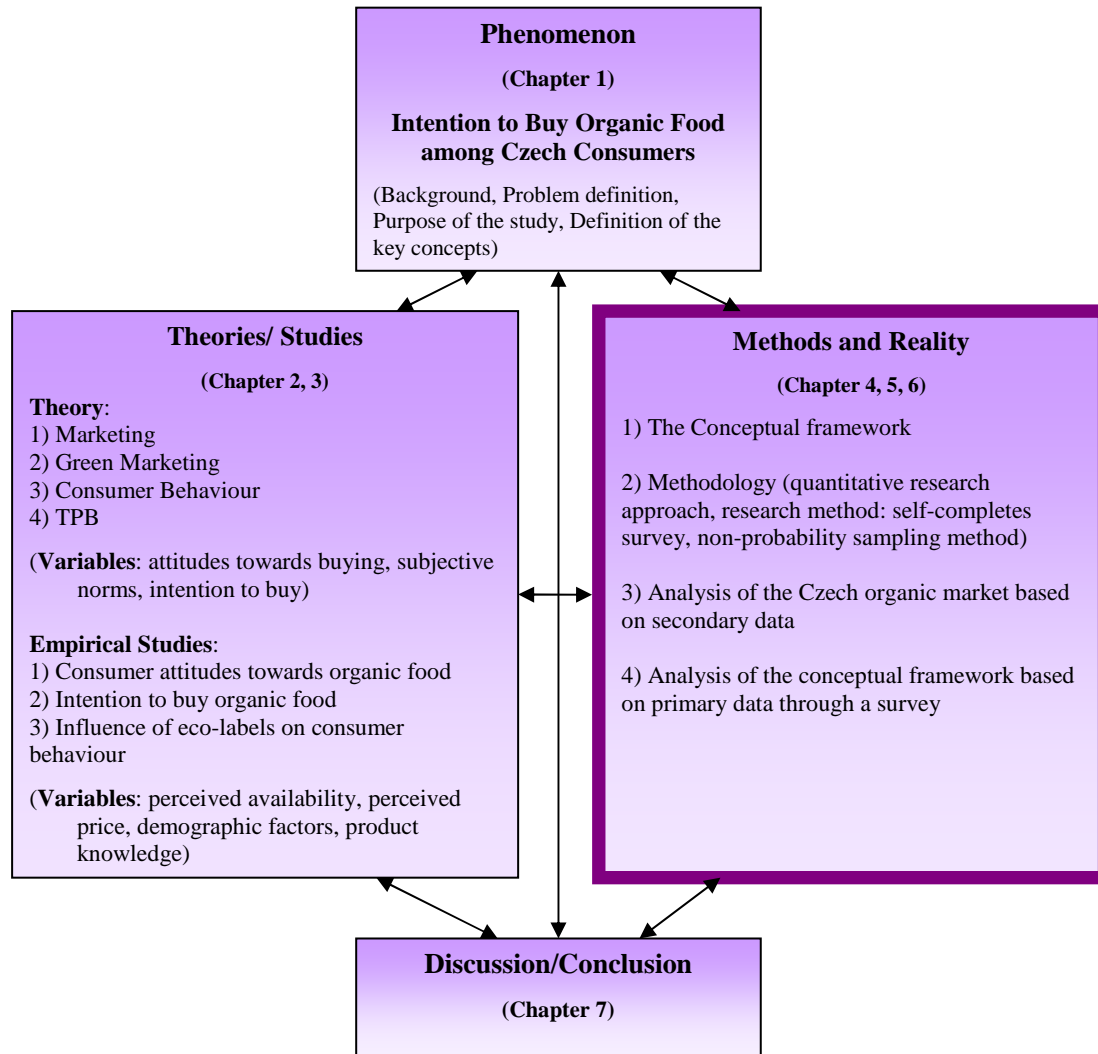
Figure 13: The Structure of the Study

5.1.   Research Design

Research design refers to *"a master plan that specifies the methods and procedures for collecting and analyzing the needed information"* (Zikmund et al., 2010, p. 66).

The purpose of this thesis is to examine the determinants that influence consumers' intention to buy organic food in the Czech Republic. Therefore, the study aims to investigate how various factors affect intention to buy and which factor influences it most. With regard to the study purpose and the research objective the research can be categorized as *business research* (Zikmund et al., 2010). Business research is: *"the application of the scientific method in searching for the truth about business phenomena"* (Zikmund et al., 2010, p. 5). There exist three types of business research, namely exploratory, descriptive, and causal (Zikmund et al., 2010). This study employs the *descriptive research*. The main goal of this approach is to *"describe characteristics of object, people, groups, organizations, or environments; descriptive research tries to address who, when, where, and how questions"* (Zikmund et al., 2010, p. 55). This type of research enables to obtain data which describe characteristics of the topic of research interest (Hair et al., 2007).

This study applies the qualitative research approach, employing the survey research method for data collection. The quantitative business research approach is defined as *"business research that addresses research objectives through empirical assessment that involve numerical measurement and analysis"* (Zikmund et al., 2010, p. 134). The quantitative approach allows examining data to identify and confirm relationships among variables (Hair et al., 2007). The advantage of the quantitative research is intersubjective certifiability that refers to *"the same result or same conclusion that comes from different individuals following the same procedure"* (Zikmund et al., 2010, p. 135).

5.2.   Sampling

Sampling refers to *"any procedure that draws conclusions based on measurement of a portion of the population"* (Zikmund et al., 2010, p. 68). The reasons for drawing a sample from population are usually a budget and time constrains. Sampling cuts cost, reduces labour requirements, and gather needed information quickly (Zikmund et al., 2010). According to

Zikmund et al. (2010) there are certain steps in the sampling procedure:

- defining the target population,
- selecting a sampling frame,
- determining if a probability or non-probability sampling method will be chosen,
- planning procedure for selecting sampling units,
- determining sample size,
- selecting actual sampling units,
- conducting fieldwork.

The target population of this study are consumers who buy food products, regardless gender, marital status, education level, level of family income, marital status, number of children in a household, and work load. The only condition for selecting respondents was their age, demanding a respondent being older than 18 years.

A sampling frame refers to "*a comprehensive list of elements from which a sample is drawn*" (Hair et al., 2007, p. 173). This study does not draw sample from any list of elements. The respondents are asked to fill in a questionnaire in a supermarket.

Non-probability sampling is used as a sampling method of this research. Since the research is focused on buyers in grocery stores the convenience sampling is applied to obtain a required sample. Convenience sampling refers to "*the sampling procedure of obtaining those people or units those are most conveniently available*" (Zikmund et al., 2010, pp 369). This approach enables to obtain a large number of completed questionnaires quickly and economically (Zikmund et al., 2010).

Determination of the sample size is a complex task. Several factor need to be taken into account to decide on the sample size. These include type of sample required, time constrain, budget, required estimation precision, and variability of elements in the target population (Hair et al., 2007). Moreover, the number of studied variables was taken into account. Nunnally et al. (1994) suggested that to reduce sampling error a sample of at least 10 subjects per variable is needed. In addition, also the guidelines for assessing the adequacy of total sample size by Comrey et al. (1992) were considered. Thus, the minimal required sample size was set to 100 respondents.

5.3. Data Collection Method

This research employs both primary and secondary data. A survey was used as the research method. The primary data were collected through a self-administered questionnaire. It is defined as *"a survey in which the respondent takes the responsibility for reading and answering the questions"* (Zikmund et al., 2010, p. 219). Printed questionnaires were distributed in a supermarket in the Pardubice region, Czech Republic. An agreement was made between the supermarket management and the researcher. The management provided a place with a table and chairs to execute the survey. Several bonuses such as small kitchen stuff or lockets were offered to attract the respondents. To obtain a representative sample of respondents the questionnaires were distributed within various time conditions, during week days and weekends, during morning, afternoon, and evenings. Consumers were approached by an entrance into the supermarket and asked if they are interested in completing a questionnaire. After filling the questionnaire the respondents were asked for their opinions about buying organic food. Their positions were noted for further discussion of the studied phenomenon.

Secondary data are defined as *"data that have been previously collected for some purpose other than the one at hand"* (Zikmund et al., 2010, p. 161). The secondary data were used to describe the Czech organic food market. The major advantage of secondary data is their availability. This approach represents faster and less expensive way than acquiring primary data (Zikmund et al., 2010). The main data sources were web pages of various institutions, such as Czech Statistical Office, Federation of the Food and Drink Industries of the Czech Republic, Ministry of Agriculture of the Czech Republic, Soil Association, etc.

5.4. Questionnaire

The questionnaire was developed based on the literature review and a pilot test. The major purpose of the questionnaire was to study consumers' intention to buy organic food. Several statements were proposed for each of the studied variables.

The original version of the questionnaire was made in English. Since the questionnaire was distributed in the Czech Republic its translation into Czech language was conducted by the author (native Czech speaker). To ensure linguistic equivalence of English and Czech

language, re-translation method was used and corrected by other independent Czech native speakers.

A pilot questionnaire was sent to several Czech residents by e-mail to test its clarity. The respondents represented various demographic groups. The questionnaire pre-testing was made to examine comprehensibility of the statements and find out whether some statements should be changed or removed. Based on the pre-test necessary changes were made.

The questionnaire consisted of four main parts. The first part included a short introduction and explanation of the study purpose. The second part contained statements regarding the following studied variables: attitudes toward buying organic food, subjective norms, perceived availability, perceived price, product knowledge, purchase intention, and actual purchase. Each variable was measured by several statements. The statements and questions were designed to avoid double negatives, leading statements, long complex statements, and words with double meaning. Some statements in the questionnaire were negatively worded. The questionnaire in both language versions can be found in Appendix A.

Since demographic characteristics are investigated as one of the studied independent variables, the final part of the questionnaire presented six fixed-alternative questions regarding respondent's demographic characteristics: gender, age, marital status, education, number of children in a household, family annual net income, and work load.

5.5. Measurement

This part describes the measurement process of the studied variables. The measures are based on a comprehensive literature review and further modified for the purpose of the study.

5.5.1. Attitudes towards Buying

Attitudes towards organic bread and flour were measured in the study by Tarkiainen et al. (2005) with one statement for each product category. The variable was measured on a five-point Likert scale, ranging from "completely agree" to "completely disagree". The statements were stated as follows: *I think that buying organic bread is reasonable",* and for second product category in the same manner *"I think that buying organic flour is reasonable".* Different scale has been used in the study by Vermeir et al. (2007). The authors measured

attitudes towards purchasing sustainable dairy products with a seven-point scale including three bipolar adjectives: positive vs. negative, wise vs. unwise, meaningful vs. useless. Attitudes were measured also in the study by Robinson et al. (2002) who measured them with a seven-point scale, ranging from "unimportant" to "important". The stated question was *"How important is it that you buy this food?"* Another approach to measure attitudes has been used in study by Lodorfos et al. (2008). The variable was measure on three semantic differential scales. In their questionnaire the following statements were proposed: *"For me purchasing organic food is..."* There were three pairs of adjectives: beneficial-harmful, unpleasant-pleasant and good-bad those were rated on a five-point bipolar scale. Different measurement can be found in the article by Chen (2007). Attitudes were measured on a seven-point semantic differential scale. Respondents were asked to rate the following statements: *"Attitude to purchase organic food is extremely bad- extremely good", "Attitude to purchase organic food is extremely unpleasant- extremely pleasant"*. Attitudes in the study by Magnusson et al. (2001) were measured with a five point bipolar scales ranging from "very bad" to "very good", "very important" to "very unimportant", and from "very wise" to "very foolish." Respondents were asked to rate the following statement: *"How good, important, and wise is it for you to buy organic target food?"* Table 2 provides an overview of the presented existing measurements described above.

Author	Statement/Question	Scale
Tarkiainen et al. (2005)	*"I think that buying organic bread is reasonable"* *"I think that buying organic flour is reasonable"*	Five-point Likert scale, ("completely agree" to "completely disagree")
Vermeir et al. (2007)	*"Buying organic product is positive-negative, wise-unwise, meaningful-useless"*	Seven-point scale including three bipolar adjectives
Robinson et al. (2002)	*"How important is it that you buy this food?"*	Seven-point scale, ("unimportant" to "important")
Lodorfos et al. (2008)	*"For me purchasing organic food is beneficial-harmful, unpleasant-pleasant and good-bad"*	Three semantic differential scales
Chen (2007)	*"Attitude to purchase organic food is extremely unpleasant- extremely pleasant"* *"Attitude to purchase organic food is extremely bad- extremely good"*	Seven-point semantic differential scale
Magnusson et al. (2001)	*How good, important, and wise is it for you to buy organic target food?*	Five point bipolar scales ("very bad" to "very good", "very important" to "very unimportant", and "very wise" to "very foolish)

Table 2: Measurement of Attitudes towards Buying

In this study attitudes towards buying organic food are measured on a five-point Likert scale ranging from "strongly disagree" to "strongly agree". The statements including their sources are stated as follows: "*It is good for me to buy organic food*" (Magnusson et al., 2001), "*I think it is not important to buy organic food*" (Magnusson et al., 2001), "*I think that buying organic food is not reasonable*" (Tarkiainen et al., 2005), "*I think that buying organic food is reasonable*" (Tarkiainen et al., 2005), and "*Purchasing of organic food is beneficial for me*" (Lodorfos et al., 2008). In addition, one more statement is added to the questionnaire, "*I do not believe that buying organic food is better than non organic food.* "

5.5.2. Subjective Norms

Subjective norms were examined and measured by a number of former studies. In the most cases a global measure of subjective norms is obtained by asking respondents to rate to which extent their reference group would approve or disapprove their performing of a particular

behaviour (Ajzen, 1991). In the study by Tarkiainen et al. (2005) subjective norms were measured by one statement for each product category. The variable was measured on a five-point Likert scale ranging from "completely agree" to "completely disagree". The proposed statement for subjective norms was stated as follows: "*People, who are important to me, think that I should buy organic bread*" and "*People, who are important to me, think that I should buy organic flour*". In the study by Vermeir et al. (2007) subjective norms were called social norms. They were measured by five statements on a seven-point Likert scale. Proposed statements were: "*People who are important to me/ family / friends/ society/ people who influence my buying behaviour think I should buy sustainable food products*". Similar measurement can be found in the study by Chen (2007) where subjective norms were measured on a seven-point Likert scale ranging from "strongly agree" to "strongly disagree". Two following statements were stated: "*Most people who are important to me think that I should definitely avoid-definitely buy organic food*" and "*Most people who influence what I do think that I should definitely avoid-definitely buy organic food*". In the article by Robinson et al. (2002) subjective norms were measured by a question whether people who were most important to them thought they should buy this particular food. Table 3 offers an overview of measurements described above.

Author	Statement/ Question	Scale
Tarkiainen et al. (2005)	"*People, who are important to me, think that I should buy organic bread.*" "*People, who are important to me, think that I should buy organic flour.*"	Five-point Likert scale, ("completely agree" to "completely disagree")
Vermeir et al. (2007)	"*People who are important to me/ family / friends/ society/ people who influence my buying behaviour think I should buy sustainable food products.*"	Seven-point Likert scale
Chen (2007)	"*Most people who are important to me think that I should definitely avoid-definitely buy organic food.*" "*Most people who influence what I do think that I should definitely avoid-definitely buy organic food.*"	Seven-point Likert scale, ("strongly agree" to "strongly disagree")
Robinson et al. (2002)	„People who were most important to me thought I should buy this particular food"	Seven-point Likert scale, ("strongly agree" to "strongly disagree")

Table 3: Measurement of Subjective Norms

Subjective norms in this study are measured on a five-point Likert scale ranging from "strongly disagree" to "strongly agree". The statements are stated as follows: "*My family would like me to buy organic food*" (Vermeir et al., 2007), "*My friends who influence my buying behaviour think, I should buy organic food products*" (Vermeir et al., 2007), "*Most people who influence what I do, think that I should not buy organic food*" (Chen, 2007), "*People that are important to me would like me to buy organic food*" (Robinson et al., 2002)

5.5.3. Perceived Availability

A measurement of perceived availability can be found in the study by Vermeir et al. (2007). The variable was measured on a 7-point Likert scale. The respondents were asked how easily they could acquire examined products. Second question related to the perceived availability was how easily they find them in their neighbourhood. Finally, respondents were asked to what degree they thought that those products were easily available. In the study by Tarkiainen et al. (2005) was also examined *perceived availability* and its influence on *intention to buy* organic products. The variable was measured with a two-item five point scale ranging from "very poor" to "very good". The statements were stated as follows: "*Organic bread is always sufficiently available*" and *"Organic flour is always sufficiently available"*. The purchase intention was measured in the study by Chen (2007) on a seven point semantic differential scale. The provided statement was: "*If organic food were available in the shops, I would intend to definitely avoid it-definitely buy it*". A different measure scale was used in the study by Magnusson et al. (2001). The perceived availability was measured on unipolar scales ranging from "not at all likely" to "very likely", and "very easy" to "very difficult". The respondents were asked to rate the following statements: "*How likely it is that organic products are available in your supermarket?*", and "*If you would like to buy organic products, how easy/ difficult is it for you to find them?*" The availability of organic products was also studies in the study by O'Donovan et al. (2002). The respondents were asked to choose between answer yes or no on the following question: "*Would you consider purchasing organic meat if it was available at your regular place of meat purchase?*" An overview of the measurements is presented in Table 4.

Author	Statement/Question	Scale
Vermeir et al. (2007)	*"How easily could you acquire examined products?"* *"How easily can you find them in your neighbourhood?"*	Seven-point Likert scale
Tarkiainen et al. (2005)	*"Organic bread is always sufficiently available."* *"Organic flour is always sufficiently available."*	Two-item five point scale, ("very poor" to "very good")
Chen (2007)	*"If organic food were available in the shops, I would intend to definitely avoid it-definitely buy it."*	Seven point semantic differential scale
Magnusson et al. (2001)	*"How likely it is that organic products are available in your supermarket?"* *"If you would like to buy organic products, how easy/ difficult is it for you to find them?"*	Unipolar scales ("not at all likely" to "very likely", and "very easy" to "very difficult")
O'Donovan et al. (2002)	*"Would you consider purchasing organic meat if it was available at your regular place of meat purchase?"*	Bipolar scale with yes or no answer

Table 4: Measurement of Perceived Availability

Perceived availability in this study is measured on a five-point Likert scale ranging from "strongly disagree" to "strongly agree". The statements are stated as follows: "*Organic food is sufficiently available*" (Tarkiainen et al., 2005), "*Organic food is hard to find in the shop where I purchase*" (Vermeir et al., 2007), "*I can not easily find organic food in my neighbourhood*" (Vermeir et al., 2007), "*If I want to buy organic food, it is easy to find them*" (Magnusson et al., 2001), *I would consider purchasing organic food if it is available at the place where I purchase*" (O'Donovan et al., 2002).

5.5.4. Perceived Price

The influence of price perception on intention to buy organic bread and flour was investigated by Tarkiainen et al. (2005). Importance of price in the study was measured on a five-point scale ranging from "completely agree" to "completely disagree". The statement for importance of price for Finnish consumers was stated as follows: "*The price of a product is very important to me*". To measure importance of price for consumers in the study by Magnusson et al. (2001) were stated two questions: "*How often do you refrain from buying*

organic food because you think they are too expensive?", and "*How important is it for you that organic food are no more expensive than conventional food?*" Respondents were asked to provide rating on a five-point unipolar scales ranging from "never" to "always", and from "not at all important" to "very important". Michaelidou et al. (2009) measured perceived price on a seven-point scale ranging from "strongly agree" to "strongly disagree". The respondents were asked to rate the following statement: "*Organic food is expensive*".

Author	Statement/Question	Scale
Tarkiainen et al. (2005)	"*The price of a product is very important to me.*"	Five-point scale, ("completely agree" to "completely disagree)
Magnusson et al. (2001)	"*How often do you refrain from buying organic food because you think they are too expensive?*" "*How important is it for you that organic food are no more expensive than conventional food?*"	Five-point unipolar scales, ("never" to "always", "not at all important" to "very important")
Michaelidou et al. (2009)	"*Organic food is expensive.*"	Seven-point scale, ("strongly agree" to "strongly disagree")

Table 5: Measurement of Perceived Price

Perceived price in this study is measured on a five-point Likert scale ranging from "strongly disagree" to "strongly agree". The statements are stated as follows: "*The price of organic food is important to me*" (Tarkiainen et al., 2005), "*I often refrain from buying organic food because I think they are expensive*" (Magnusson et al., 2001). "It is important to me that organic food is no more expensive than conventional food" (Magnusson et al. 2001), "*Organic food is expensive for me*" (Chen, 2007). In addition, one more statement is proposed, "*I always try to find the most reasonable low price food in the store*".

5.5.5. Consumer Demographics Characteristics

This study examines whether intention to buy organic products differs based on demographic characteristics. Therefore, a number of demographic characteristics are examined. The gender is a dummy variable where the respondents are asked to state their gender by choosing from options female or male. The age of the respondents is distributed into six groups: 18-24, 25-34, 35-44, 45-54, 55-64, and more than 64. Furthermore, respondents are asked to state their

household annual income by choosing the appropriate income group. The marital status is a dummy variable where the respondents choose from married/in relationship or single options. Next examined factor is education level, where the respondents choose from following levels: primary school, high school, college, and university degree. Finally, the last explored demographic factor is number of children. The respondents are asked to state the number of children from following possibilities: none, one, and more than two children.

5.5.6. Intention to Buy

The intention to buy has been investigated as a dependent variable in a number of former articles. Tarkiainen et al. (2005) in their paper examined the intention to buy organic bread and flour. This variable was measured with one statement for each of the product categories. The responses were evaluated on a five-point scale ranging from "unlikely" to "likely". The proposed questions were: "*How likely will you buy organic bread in the near future?*" and "*How likely will you buy organic flour in the near future?*" The behavioural intention was also measured in the study by Vermeir et al. (2007) by three bipolar adjectives on a seven-point scale: little vs. good chance, unlikely vs. likely, uncertain vs. certain about future purchase of the sustainable products. Slightly different approach can be found in the study by Robinson et al. (2002). The intention to buy was measured with a seven-point scale ranging from "unlikely" to "likely". The proposed question was "*In the next two weeks, how likely is it that you will buy food items?*" In the questionnaire by Magnusson et al. (2001) the respondents were asked to rate how likely they will buy organic products. A five-point unipolar scale was used ranging from "not at all likely" to "very likely". The question "*The next time you buy food, how likely is it that you will choose organic food?*" was employed to assess the intention to buy. On the other hand, three statements related to intention to buy were proposed in the paper by Michaelidou et al. (2009). Respondent were asked to rate on a seven-point scale following statements: "*I intend to purchase organic produce within the next fortnight*" (ranging from "not at all" to "definitely"), "*I want to purchase organic produce within the next fortnight*" (ranging from "definitely do not" to "definitely"), and "*How likely is it that you will purchase organic produce within the next fortnight?*" (ranging from "not at all likely" to "very likely"). Table 6 provides an overview of the existing measurements.

Author	Statement/Question	Scale
Tarkiainen et al. (2005)	"*How likely will you buy organic bread in the near future?*" "*How likely will you buy organic flour in the near future?*"	Five-point scale ("unlikely" to "likely")
Vermeir et al. (2007)	"*I will buy organic product: little vs. good chance, unlikely vs. likely, uncertain vs. certain*"	Three bipolar adjectives on seven-point scale
Robinson et al. (2002)	"*In the next two weeks, how likely is it that you will buy food items?*"	Seven-point scale ("unlikely" to "likely")
Magnusson et al. (2001)	"*The next time you buy food, how likely is it that you will choose organic food?*"	Five-point unipolar scale ("not at all likely" to "very likely")
Michaelidou et al. (2009)	"*I intend to purchase organic produce within the next fortnight*" "*I want to purchase organic produce within the next fortnight*" "*How likely is it that you will purchase organic produce within the next fortnight?*"	Seven-point scale ("not at all" to "definitely", "definitely do not" to definitely, "not at all likely" to "very likely)

Table 6: Measurement of Intention to Buy

The intention to buy in this study is measured on a five-point Likert scale ranging from "strongly disagree" to "strongly agree". The statements are stated as follows: "*I do not intend to buy organic food in the near future*" (Tarkiainen al., 2005), "*The next time I buy food I will choose organic food*" (Magnusson et al., 2001)*, "I intend to purchase organic food within the next two weeks*" (Michaelidou et al. 2009).

5.5.7. Product Knowledge

Product knowledge was measured in the study by Magnusson et al. (2001) as perceived difficulty of knowing if the food is organically produced. The authors proposed the following question: "*How easy or difficult is it to know if the food is organically produced?*" The respondents were asked to state their answer on a five-point bipolar scale ranging from "very easy" to "very difficult". Study by Gracia et al. (2010) investigated the product knowledge in the sense of self reported level consumers' knowledge. The proposed question was: "W*hat is your level of knowledge about organic products?*" The responses were measured by a three-point scale from 1 to 3, where 3 indicate the highest level of knowledge. Table 7 summarizes the mentioned measurements.

Author	Statement/Question	Scale
Gracia et al. (2010)	"W*hat is your level of knowledge about organic products?*"	Three-point scale (1 to 3, where 3 indicate the highest level of knowledge)
Magnusson et al. (2001)	"*How easy or difficult is it to know if the food is organically produced?*"	Five-point bipolar scale ("very easy" to "very difficult")

Table 7: Measurement of Product Knowledge

Product knowledge in this study is measured on a five-point Likert scale ranging from "strongly disagree" to "strongly agree". The statements are proposed as follows: "*It is difficult for me to know if product is organically produced*" (Magnusson et al., 2001), "*I am able to recognize organic label*", and "*I have good level of knowledge about organic food*" (Gracia et al., 2010).

5.5.8. Actual Purchase

Actual purchase in the study by Magnusson et al. (2001) was assessed by the question "*When you buy milk/meat/potatoes/bread, how often do you buy organic milk/meat/potatoes/bread?*" The answers were stated on a seven-point unipolar scale ranging from "never" to "always". Actual purchase was investigated also in the study by Niessen et al., (2008). The proposed question was "*How often do you buy organic products?*" Respondent were asked to rate their response on a four-point scale: once a month, several times a month, once a week, and several times a week.

Author	Statement/Question	Scale
Magnusson et al. (2001)	"*When you buy milk/meat/potatoes/bread, how often do you buy organic milk/meat/potatoes/bread?*"	Seven-point unipolar scale ("never" to "always")
Niessen et al., (2008)	"*How often do you buy organic products?*"	Four-point scale ("once a month" to "several times a week")

Table 8: Measurement of Actual Purchase

Actual purchase in this study is measured by three questions. "*How often do you buy food for your household*?" Respondents are asked to rate answer on a five-point unipolar scale,

ranging from "never" to "always". Second, "*When you buy food how often do you buy organic food*?" (Magnusson et al., 2001). Respondents are again asked to provide rating on a five-point unipolar scale ranging from "never" to "always". Third question related to actual purchase is: "*When you buy food what % of your purchases is organic food*?" The answers are measured on a five-point scale, ranging from 0% to 100%.

5.6.   Assessing Reliability and Validity

Once the measurement of variables is determined, the researcher has to ensure that the measure is reliable and valid (Zikmund et al., 2010). Reliability is defined as "*an indicator of a measure's internal consistency*" (Zikmund et al., 2010, p. 305). Validity is defined as "*the accuracy of a measure or the extent to which a score truthfully represents a concept*" (Zikmund et al., 2010, p. 307).

Reliability of a scale is often assessed by test-retest reliability or by internal consistency (Zikmund et al., 2010). The first indicator, the *test-retest*, is assessed by administering the same scale of measure to the same respondents on two various occasions, and computing the correlation between the two scores obtained (Zikmund et al., 2010). The second indicator, the *internal consistency*, is the degree to which the items constituting the scale are all measuring the same underlying attribute (Zikmund et al., 2010). The most commonly indicator used for computing the internal consistency is *coefficient alpha* (Pallant, 2010). According to Zikmund et al. (2010) coefficient alpha ranges from 0 (no internal consistency) to 1 (complete consistency). Scales with coefficient alpha between 0.8 and 0.95 are considered to have very good quality, scales with coefficient alpha between 0.7 and 0.8 are considered to have good reliability, and coefficient alpha between 0.6 and 0.7 indicates fair reliability (Zikmund et al., 2010).

This research employed the internal consistency technique to test the scale reliability. The coefficient alpha was applied to measure an estimate the multiple-item scale's reliability. The scales used in this study showed very good level of internal consistency for *intention to buy organic food* (0.832) and for *actual purchase* (0.829), good level of internal consistency for *attitudes towards buying* (0.797), *perceived availability* (0.774), *subjective norms* (0.765), *and perceived price* (0.732), and low internal consistency for *product knowledge* (0.561). For more details please see Appendix B1.

According to Hair et al. (2007), validity is the extent to which a construct measures what it is supposed to measure. There exist four main approaches how to assess validity. The approaches are called face validity, content validity, criterion validity, and construct validity (Zikmund et al., 2010). This study applied the face validity, which is defined as "*a scale's content logically appears to reflect what was intended to be measures*" (Zikmund et al., 2010, p.307). The measures based on existing studies were used to ensure high content validity. According to Hair et al. (2007), validation involves consulting a small sample of typical respondents to pass judgement on suitability of the items selected to represent the studied variables. Therefore, a pilot test was conducted to consult suitability of the measurement with a small sample of respondents.

6. Analysis and Findings

The sixth chapter presents the data analysis and discussion of the research findings. At the beginning of this chapter there are presented basic statistical facts about the Czech Republic, followed by an overview of the Czech organic food market. Next, the data analysis in SPSS software is described and the study findings are discussed.

Phenomenon

(Chapter 1)

Intention to Buy Organic Food among Czech Consumers

(Background, Problem definition, Purpose of the study, Definition of the key concepts)

Theories/ Studies
(Chapter 2, 3)

Theory:
1) Marketing
2) Green Marketing
3) Consumer Behaviour
4) TPB

(**Variables**: attitudes towards buying, subjective norms, intention to buy)

Empirical Studies:
1) Consumer attitudes towards organic food
2) Intention to buy organic food
3) Influence of eco-labels on consumer behaviour

(**Variables**: perceived availability, perceived price, demographic factors, product knowledge)

Methods and Reality

(Chapter 4, 5, 6)

1) The Conceptual framework

2) Methodology (quantitative research approach, research method: self-completes survey, non-probability sampling method)

3) Analysis of the Czech organic market based on secondary data

4) Analysis of the conceptual framework based on primary data through a survey

Discussion/Conclusion

(Chapter 7)

Figure 14: The Structure of the Study

6.1. Analysis of the Czech Organic Food Market

6.1.1. Information about the Czech Republic

This research investigates several demographic characteristics in relation to intention to buy. The studied characteristics include gender, age, marital status, education, number of children in a household, family annual net income, and work load. In the following part there are presented relevant statistical indicators of the Czech Republic, namely: population size, unemployment rate, inflation rate, earning, educational attainment, marital status. The data are gathered from the Czech Statistical Office (CSO).

According to the Czech Statistical Office the population of the Czech Republic was 10 532 770 people in 2010 (on 31 December) and general unemployment rate was 6.7 %. The inflation rate was 1.7 on February 2011 (CSO, 2009a).

The average wage in the Czech Republic is 26 677 CZK. However, there is a difference between sexes. Men earn on average 29 953 CZK, while women earn 22 414 CZK. In general, the lowest wage 14 863 CZK earn women with primary education and the highest wage 54 007 CZK earn men with university degree. The average earning by level of education for both sexes is as follows: primary education 16 658 CZK, apprenticeship 20 006 CZK, secondary with GCE 26 887, higher post-secondary schools 30 863 CZK, university 46 801 CZK (CSO, 2009b). Net average household money income for 2009 per person per year was 142 402 CZK. Net average household money expenditure per person per year was 128 622 CZK. Household consumption expenditure structure of food and non-alcoholic beverages is 19.3% (CSO, 2009c).

In the Czech Republic a total percentage of people with basic education is 17.5 % for 2009. Next, there is 35.8 % of population with high school education without a certificate, and 33.9 % with high school education with a degree. Finally, 12.7 % of population has reached university education (CSO, 2009d).

Distribution of marital status for men is as follows: 2 291 295 are single, 2 284 688 married, 461 238 divorced, and 119 976 widowed. Marital status overview for women is given as: 1 872 635 are single, 2 263 464 married, 584 737 divorced, and 628 780 widowed (CSO, 2009).

6.1.2. The Czech Organic Food Market

The organic farming movement in the Czech Republic began in the mid of 1980s (Dytrtová, 2006). Since then, organic farming is an integral part of the agrarian policy and the Ministry of Agriculture has been participating in financial support of the foundation of organic farms (Ministry of Agriculture, 2009). A number of producers have been expanding and more stores have begun offering organic food (Czech Business Weekly, 2009). After the EU entry there are many signs that the market is moving into the growth phase (Organic-Market.info, 2006). There is a visible interest in the market from foreign manufacturers and traders, and new importers brought a wider variety of organic food (Organic-Market.info, 2006). Currently, there exist 3,000 organic farmers in the Czech Republic and the organic farming represents 2 % of the country's agricultural production (Czech Business Weekly, 2009).

The Czech organic food market has been growing rapidly in the last years (Czech Business Weekly, 2009). According to FFDI (2010) the turnover of organic food increased more than 3.5 times from 2005 to 2008. The consumption of organic goods increased by 40 % year in 2008 to 69 million Euros (The LOHASIAN, 2010). However, the total and average consumption per person is still far behind the Western European average (FFDI, 2010). There is only a small proportion of consumers who purchase organic food in the Czech Republic (FFDI, 2010). A premium price might be one of the main obstacles for purchasing organic food. Experts say that the relative cost of organic food keeps the consumption down in the region with one of the lowest wages in the entire EU (The LOHASIAN, 2010). Reported differences in prices of organic and non-organic food were as much as 140 % for some products (The LOHASIAN, 2010).

The import rate of organic food decreased from 2007 to 2008 to 57 %, while the proportion of organic food with Czech origin increased to 43 % in 2008 (FFDI, 2010). A shortage of certain products such as rice, chocolate, cane sugar, tea or other exotic products is one of the reasons of importing organic food into the Czech Republic (FFDI, 2010). However, there are imported products that are generally well available in the local market such as cereals and flour (FFDI, 2010). Lower price and higher quality is a great advantage of imported goods compared to the Czech products (FFDI, 2010). Export of the Czech organic food increased from 2007 to 2008 about 45 % (Agroweb, 2009). The export countries are primarily Slovakia and other Eastern European countries (Agroweb, 2009).

The organic food becomes more accessible for consumers since it moves from specialized shops into mainstream retail outlets (Czech Business Weekly, 2009). Based on the data from Soil Association (2009), a high market share of sales in the Czech Republic is through multiple retailers including hypermarkets and discounters. These retailers account for approximately 65 % of the organic market. Specialised organic food shops account for 22 %. Third largest sale channel is represented by drugstores that account for 4 % (FFDI, 2010). The largest organic group creates dry products (breakfast cereals, dried fruit, and pasta) accounting for 45 % of organic sales. Second group represents milk and dairy products that account for 21 %. The local market remains strongly import-dependent. The imports account approximately for 62% of sales (Soil Association, 2009).

In the Czech Republic there is used the national ecological label called "BIO" with notice "*Product of organic farming*" (Figure 15). This label falls into the first type of labels that refer to the environmental quality of a product compared to the rest of products and may encourage a switch towards more environmental responsive consumption behaviour (Gallastegui, 2002). There are several inspectional organizations that are certified to grant eco-label, namely KEZ, ABCERT AG, and Biokont (Ministry of Agricultural, 2010). To obtain the national eco-label producers have to fulfil various requirements that are stated in the law 242/200 about ecological farming (Ministry of Agricultural, 2010). In addition to the national eco-label, there is the European eco-label on the market (Figure 15). The graphic design of the label and conditions for usage of the label is directed by the EU Committee (Ministry of Agricultural, 2010). From the 1st of July 2010 it is obligatory to use the European eco-label for organically produced food (Ministry of Agricultural, 2010). Moreover, it is mandatory to state the origin of the food and raw materials that were used for production (Ministry of Agricultural, 2010).

Figure 15: The Czech Eco-label and EU Eco-label (Ministry of Agricultural, 2010)

6.1.3. Organic Food Failure

According to the existing research there are differences between organically and non-organically grown food (Soil Association, 2002). The main differences are related to food safety, primary nutrients, secondary nutrients and health outcomes demonstrated by feeding trials (Soil Association, 2002). In terms of food safety there are several criteria that need to be fulfilled according to the regulation of organic food in the Czech Republic. By contrast to conventional food, nearly all pesticides are prohibited in organic farming as well as GMOs, antibiotics, BSE, food additives, and nitrate (Soil Association, 2002). However, not all producers follow the regulation and they may take an advantage of promoting their products as eco-friendly by misleading and false advertisement. In the Czech Republic there were reported several cases that undermine the idea of organic farming and disturb consumers' trust in the organic food.

Some organizations misuse the prefix "BIO" or "EKO" to promote conventional food and let consumers think that it is a product of organic farming. One of the most famous swindling causes was the case of so-called bio-yogurts by DANONE Company, one of the largest producers of dairy products (Biopotraviny.info, 2009). In 1997 there was given a trade mark "BIO BIFIDUS AKTIV" (prefix "bio" from "bifidus aktiv"). In the same year the yogurts by DANONE entered the Czech market named as „*bio bifidus aktiv*". Those yogurts led consumers to mistake conventional yogurts with the organic ones and had a great commercial success. This case succeeded by considerable profit and caused a chain-reaction of other producers of dairy products who started to sell products with the prefix "BIO" (Biopotraviny.info, 2009). The scandal led to a judicial process and as a result was announced the law no. 242 of organic farming that regulates the use of the logo and the prefix "BIO" or "organic". The law came in force on the 1st of January, 2001. The unauthorized use of the prefixes threatens a large penalty. However, there are now and again some cases when producers try to exploit organic brand to increase their profits (Biopotraviny.info, 2009).

In 2010, there was in media published a case about presence of pesticides in organic food. This case was based on an annual Report on Results of Planned Foreign Substances Inspection in Foodstuffs in 2009 by the Czech Agriculture and Food Inspection Authority (CAFIA). The CAFIA is the state administration body subordinated to the Ministry of Agriculture. This is the state authority responsible for supervision of safety, quality and labelling of foodstuff (CAFIA, 2011). The report findings indicated presence of pesticides

in 10 out of 39 organic food samples (CAFIA, 2009). After an announcement of the Report there was a large discussion in media about propriety of organic food usage. In turn, the CAFIA reacted by an additional report stating that the results of the pesticide residue analyses in organic food were interpreted totally erroneously and in a misleading way (CAFIA, 2010). The authority reported that even though there were found 10 organic food samples with pesticide residues, all the values complied with the limits stipulated in legislation. Thus, there was no reason for consumers to be afraid of organic food consumption (CAFIA, 2010). This case turned to be made up by media and there was no failure of organic food producers. However, it has created a certain suspicion among consumers.

6.2. Analysis of the Conceptual Framework

After completion of the fieldwork phase, where 268 questionnaires were gathered, the data analysis phase followed. All collected questionnaires were entered into the Microsoft Excel file and imported into the SPSS software afterwards. Before the data analysis it was necessary to check the data for possible mistakes. Thus, the data file editing had to be conducted. Editing refers to "*the process of checking the completeness, consistency, and legibility of the data and making the data ready for coding and transfer storage*" (Zikmund et al., 2010, p. 463). The data file was checked for errors in terms of values that fall outside the range of possible values for a variable (Pallant, 2010). No abnormal values were found. However, some missing data were identified. In total, 5 questionnaires were not filled properly and they had a lot of missing data. Since the problem was of limited scope and there were enough questionnaires to run the analysis without those cases, they were eliminated. Therefore, 263 questionnaires were used for the final analysis.

After the data file was checked and adjusted, the coding phase followed. Coding is "*the process of assigning a numerical score or other character symbol to previously edited data*" (Zikmund et al., 2010, p. 468). The statements in the second part of the questionnaires were used with a five-point Agree-Disagree scale. In this scale, strongly disagree was coded as 1 and strongly agree was coded as 5. The points in between were coded as 2, 3, and 4. In the third part of the questionnaires there were three questions investigating actual behaviour with a five-point Never-Always scale. Here, never was coded as 1, always was coded as 5, and points in between were coded as 2, 3, and 4. In the final part of the questionnaires demographic characteristics were investigated. For characteristics gender and marital status

was used dummy coding. Dummy coding is "*numeric 1 or 0 coding where each number represents an alternate response such as female or male*" (Zikmund et al., 2010, p. 469). It means that woman was coded as 0 and man was coded as 1. In the case of marital status married respondent was coded as 0 and single was coded as 1. Other demographic factors were coded from 1 to 6 in the case of age and family monthly net income, from 1 to 5 for education level, from 1 to 4 for work load, and from 1 to 3 for number of children in a household. Some statements were negatively worded. Thus, such statements had to be reverse coded: 1 was transformed to 5, 2 to 4, etc.

6.2.1. Descriptive Analysis

The editing and coding phase was followed by descriptive analysis of the sample. Descriptive analysis refers to "*the elementary transformation of raw data in a way that describes the basic characteristics such as central tendency, distribution and variability*" (Zikmund et al., 2010, p. 486).

Analyzing the mean values of variable index. Every variable in the questionnaire has been examined by several statements. For the purpose of this research the statements investigating the same variable were transformed into a variable index by computing mean values of the responses. The **mean values** are presented in Table 10, together with **standard deviation** of values for each variable. The standard deviation is defined as "*the spread or variability of the sample distribution values from the mean*" (Hair et al., 2007, p. 320). If the estimated standard deviation is large, meaning that response distribution values do not fall close to the mean of the distribution, the responses are inconsistent. On the other hand, if the estimated standard deviation is small, meaning that response distributions are close to the mean, the responses are consistent (Hair et al., 2007; Sclove, 2001). The level of standard deviation boundary is supposed to vary according to the applied range of scale. For the purpose of this research, the boundary for 5-point Likert scale defined by Sclove (2001) is employed. Thus, response distributions with sigma less than 1 are considered as consistent; while response distributions with sigma more than 1 are considered as inconsistent.

Mean values and standard deviation of the studies variables are as follows: *attitudes towards buying* organic food 3.5 (SD = 0.92), *subjective norms* 2.42 (SD = 1.02), *availability* 3.39 (SD = 0.99), *price* 3.85 (SD = 1.04)*, knowledge* 3.17 (SD = 1.09), *intention to buy* 2.53 (SD = 1.21), and *actual purchase* 1.95 (SD = 0.76) (Table 9). Based on the results, the response

distribution of the variables *attitudes towards buying*, *perceived availability*, and *actual purchase* are close to the mean, thus consistent. The response distributions of the variables *subjective norms*, *perceived price*, *product knowledge* are more than 1, but they are very close to 1, and therefore still considered as consistent in this study. In contrary, responses for *intention to buy organic food* are inconsistent, because they distinct to the mean value.

Descriptive Statistics

	N	Mean	Std. Deviation
Attitudes towards buying	263	3,50	,92
Subjective norms	263	2,42	1,02
Perceived availability	263	3,39	,99
Perceived price	263	3,85	1,04
Product knowledge	263	3,17	1,09
Intention to buy	263	2,53	1,21
Actual purchase	263	1,95	,76
Valid N (listwise)	263		

Table 9: Descriptive Statistics of Variables

6.2.2. Demographic Analysis of Respondents

The purpose of the demographic analysis in this research is to describe the characteristics of the sample such as the number of respondents, proportion of males and females in the sample, range of age, income, education level, and etc. Each frequency distribution of demographic variables is presented below. Appendix B2 includes histograms with normal curve and frequencies with values of valid percentages.

As already mentioned above, 263 questionnaires were gathered. The total sample consists of 145 women (55.1 %) and 118 men (44.9 %) (Table 10). 128 respondents (48.7 %) are married and 135 respondents (51.3 %) are single (Table 10). **Age groups** are well-balanced. The most numerous age group is "26-35" with 59 respondents, followed by group "18-25" with 58 respondents, "36-45" with 54 respondents, "46-55" with 51 respondents, "56-65" with 38 respondents, and finally "more than 66" with 13 respondents (Table 10).

Gender

		Value	Count	Percent
Standard Attributes	Label	Gender (female=0, male=1)		
Valid Values	0	Female	145	55,1%
	1	Male	118	44,9%

Status

		Value	Count	Percent
Standard Attributes	Label	Status (married=0, single= 1)		
Valid Values	0	married	128	48,7%
	1	single	135	51,3%

Age

		Value	Count	Percent
Standard Attributes	Label	Age		
Valid Values	1	18-25	58	22,1%
	2	26-35	59	22,4%
	3	36-45	54	20,5%
	4	46-55	51	19,4%
	5	56-65	28	10,6%
	6	<66	13	4,9%

Table 10: Descriptive Statistics of Gender, Status, and Age

Frequency distribution of education level is as follows: 5 respondents (1.9 %) with primary school, 31 respondents (11.8 %) with apprenticeship, 143 respondents (54.4 %) secondary with GCE, 15 respondents (5.7 %) with higher post-secondary school, and 69 respondents (26.2 %) with university degree (Table 11).

Education

		Value	Count	Percent
Standard Attributes	Label	Education level		
Valid Values	1	Primary school	5	1,9%
	2	Training college	31	11,8%
	3	High school	143	54,4%
	4	College	15	5,7%
	5	University	69	26,2%

Table 11: Descriptive Statistics of Education Level

Frequency distribution of family monthly net income is as follows: 92 respondents (35 %) have income 21 000- 30 000 CZK, 61 respondents (23.2 %) have 31 000- 40 000 CZK, 56 respondents (21.3 %) have 11 000- 20 000 CZK, 25 respondents (9.5 %) have 41 000- 50 000 CZK, 17 respondents (6.5 %) have up to 10 000 CZK, and 12 respondents (4.6 %) have more than 50 000 CZK (Table 12).

Income

		Value	Count	Percent
Standard Attributes	Label	Family monthly net income		
Valid Values	1	up to 10 000 CZK	17	6,5%
	2	11 000-20 000 CZK	56	21,3%
	3	21 000-30 000 CZK	92	35,0%
	4	31 000-40 000 CZK	61	23,2%
	5	41 000- 50 000 CZK	25	9,5%
	6	< 50 000 CZK	12	4,6%

Table 12: Descriptive Statistics of Family Income

Frequency distribution of work load is: 169 of respondents (64.3 %) have a full time job, 41 respondents (15.6 %) are students, 35 respondents are unemployed/not-working, and 18 respondents (6.8 %) work part time (Table 13). 133 respondents (50.6 %) do not live in a household with children, while 66 respondents (25.1 %) live with one child, and 64 respondents (24.3 %) live with two or more children (Table 13).

Workload

		Value	Count	Percent
Standard Attributes	Label	Work load		
Valid Values	1	Full time	169	64,3%
	2	Part time	18	6,8%
	3	Student	41	15,6%
	4	Unemployed	35	13,3%

Children

		Value	Count	Percent
Standard Attributes	Label	Number of children in a household		
Valid Values	1	0	133	50,6%
	2	1	66	25,1%
	3	<2	64	24,3%

Table 13: Descriptive Statistics of Workload, and Number of Children in a Household

Overall, the selected sample's dominant characteristics were as follows: female (55%), 26-35 years old (22%), married (49%), with no children (51%), high school educated (54%), with family net income 21 000-30 000 CZK (35%), and with full time job (64%).

6.2.3. The Model Analysis

This research aims to explore how well the studied variables do predict the *intention to buy* organic food, and which variable is the best predictor of the *intention to buy*. To study the proposed model two statistical techniques are applied. First, the Pearson Correlation analysis is conducted to examine the strength of the relationship between the variables. Second, the multiple regression analysis is applied to investigate which independent variables predict the dependent variable *intention to buy*.

The Pearson Correlation. This research is investigating the strength of relationships between the studied variables. The study employs the Pearson correlation which *"measures the linear association between two metric variables"* (Hair et al., 2008). The Pearson correlations were calculated as measures of relationships between the independent variables and *intention to buy*. This test gives an indication of both directions, positive (when one variable increases and so does the other one), or negative (when one variable increases and the other one decreases) (Pallant, 2010). The test also indicates the strength of a relationship between variables by a value that can range from -1.00 to 1.00; when 0 indicates no relationship, -1.00 indicates a negative correlation, and 1.00 indicates a perfect positive correlation (Pallant, 2010). For the rest of the values is used the following guideline: small correlation for value 0.1 to 0.29; medium for 0.3 to 0.49; and large for 0.50 to 1.0 (Pallant, 2010).

The total number of cases is 263. All the cases were included into the correlation analysis. The results are shown in Table 14. The significance level of correlation between the dependent variable *intention* and independent variables is not larger than 0.01 for variables *attitudes towards buying* (0.000), *subjective norms* (0.000), *perceived availability* (0.01), and *product knowledge* (0.000). This indicates a high statistical significance of the results. The lowest significant level among the independent variables is 0.589 (between *perceived price* and *intention to buy*).

Correlations

		Attitudes index	Subjective norms index	Availability index	Price index	Knowledge index	Intention index	Actual purchase index
Attitudes	Pearson Correlation	1	,445**	-,101	,136*	,255**	,575**	,514**
	Sig. (2-tailed)		,000	,101	,028	,000	,000	,000
Subjective norms	Pearson Correlation	,445**	1	-,179**	-,109	,285**	,671**	,561**
	Sig. (2-tailed)	,000		,004	,077	,000	,000	,000
Availability	Pearson Correlation	-,101	-,179**	1	-,120	,217**	-,158*	-,079
	Sig. (2-tailed)	,101	,004		,052	,000	,010	,204
Price	Pearson Correlation	,136*	-,109	-,120	1	-,143*	-,033	-,136*
	Sig. (2-tailed)	,028	,077	,052		,020	,589	,028
Knowledge	Pearson Correlation	,255**	,285**	,217**	-,143*	1	,285**	,368**
	Sig. (2-tailed)	,000	,000	,000	,020		,000	,000
Intention	Pearson Correlation	,575**	,671**	-,158*	-,033	,285**	1	,712**
	Sig. (2-tailed)	,000	,000	,010	,589	,000		,000
Actual purchase	Pearson Correlation	,514**	,561**	-,079	-,136*	,368**	,712**	1
	Sig. (2-tailed)	,000	,000	,204	,028	,000	,000	

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Table 14: The Pearson Correlations

The values of correlation are also used for checking multicollinearity. The correlation between each of the independent variables is not too high, meaning that the correlation is above value 0.7. It can be concluded that in this study is no problem with multicollinearity. The strongest relationship between the independent variables is 0.445 between *subjective norms* and *attitudes towards buying*.

The Pearson correlations between independent variables *attitudes towards buying*, *subjective norms*, *perceived availability*, *perceived price*, *product knowledge* and the dependent variable *intention to buy* is depicted in Figure 16.
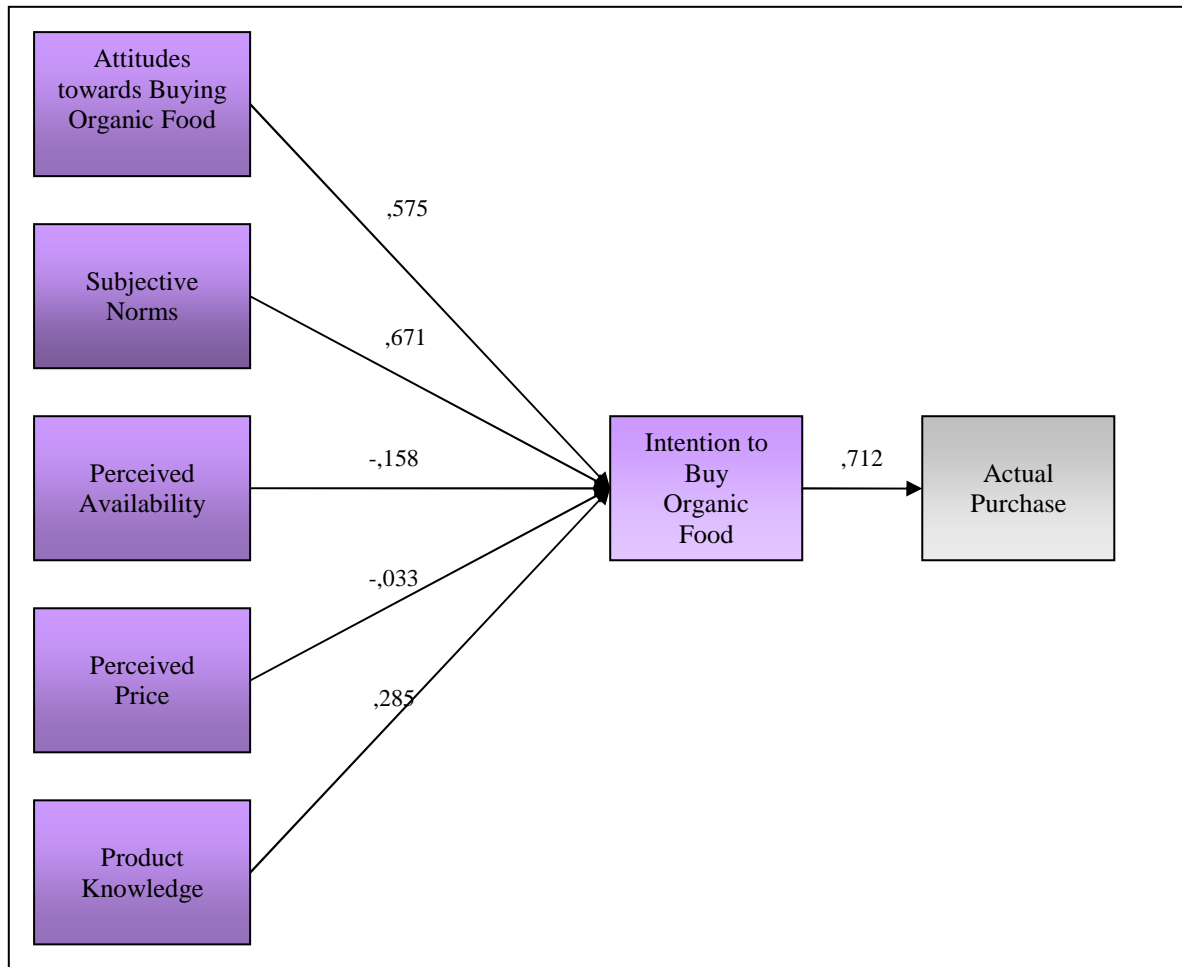
Figure 16: The Model with Correlation Coefficients

The results indicate that *perceived availability* and *perceived price* are the only variables with negative signs. This indicates a negative correlation with the dependent variable *intention to buy*. The rest of variables indicated positive correlations with the dependent variable *intention to buy*. The strongest correlations between the dependent variable *intention to buy* and independent variables have: *subjective norms* (0.671) and *attitudes towards buying* with (0.575). These values indicate large association towards the dependent variable. On the other hand, the independent variables *product knowledge* (0.285), *perceived availability* (-0.158), and *perceived price* (-0.033) are weakly correlated with the dependent variable.

Multiple regression analysis. The multiple regression analysis is "*an analysis of association in which the effects of two or more independent variables on a single, interval scaled dependent variable are investigated simultaneously*" (Zikmund et al., 2010, p.584). The results of this analysis indicate how well a set of variables is able to predict the dependent

variable. Furthermore, it shows how much unique variance in the dependent variable is explained by each of independent variables. (Pallant, 2010).

To analyze the conceptual framework several independent variables were entered into the multiple regression equation: *attitudes towards buying*, *subjective norms*, *perceived availability*, *perceived price*, and *product knowledge.* The model summary in Table 15 presents how much of the variance in the dependent variable *intention* is explained by the model. The multiple coefficient of determination denoted as R square is 0.552. The value of the R square indicates that 55.2 % of variance in the variable *intention* is explained by the model. This value gives a respectable result.

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,743[a]	,552	,543	,81532

a. Predictors: (Constant), Knowledge, Price, Availability, Attitudes, Subjective norms

b. Dependent Variable: Intention

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	210,351	5	42,070	63,287	,000[a]
	Residual	170,841	257	,665		
	Total	381,192	262			

a. Predictors: (Constant), Knowledge index, Price index, Availability index, Attitudes index, Subjective
norms index

b. Dependent Variable: Intention index

Table 15: The Model Summary

To check overestimation of the model the adjusted R Square should be considered. The adjusted R square is 0.543 and it indicates only a slight overestimation of the model. The regression model is statistically significant since the probability level is 0.000 (Table 15).

The problem of multicollinearity is possible to check in Table 16 under the section of Collinearity Statistics. If the value of Tolerance is less than 0.1 it indicates that multiple correlation with other variable is high and it indicates a possibility of multicollinearity (Pallant, 2010). Tolerance is "*an indicator of how much of the variability of the independent variable is not explained by the other independent variables in the model and is calculated using the formula 1-R squared for each variable*" (Pallant, 2010, p.158). In this research the Tolerance values do not indicate problem of multicollinearity. This result is supported by VIF values that are not above 10 (Pallant, 2010).

<div align="center">Coefficients^a</div>

Model	Unstandardized Coefficients		Stand. Coef.	t	Sig.	95,0% Confidence Interval for B		Correlations			Collinearity Statistics	
	B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1 (Constant)	-,334	,354		-,942	,347	-1,032	,364					
Attitudes	,443	,064	,338	6,967	,000	,317	,568	,575	,399	,291	,742	1,349
Subjective norms	,580	,059	,490	9,904	,000	,465	,695	,671	,526	,414	,713	1,402
Availability	-,065	,054	-,054	-1,202	,230	-,172	,042	-,158	-,075	-,050	,876	1,141
Price	-,026	,050	-,022	-,515	,607	-,125	,073	-,033	-,032	-,022	,914	1,094
Knowledge	,075	,052	,068	1,465	,144	-,026	,177	,285	,091	,061	,811	1,234

a. Dependent Variable: Intention

Table 16: Coefficients

Based on Table 16 the regression equation of the model is as follows:

$$Y= -0.334+ 0.443\ x_1+ 0.580\ x_2- 0.065\ x_3-0.026\ x_4+0.075\ x_5$$

Where: $\quad$ Y= Intention to buy

$\qquad$ x_1= Attitudes towards buying

$\qquad$ x_2= Subjective norms

$\qquad$ x_3= Perceived Availability

$\qquad$ x_4= Perceived Price

$\qquad$ x_5= Knowledge

By looking at the Sig.-value in Table 16 it is possible to interpret whether the particular independent variable has a significant relationship with the dependent variable *intention*. The relationship is significant if the Sig.-value is not larger than 0.1 (Pallant, 2010). The results show that there is a significant relationship for *attitudes towards buying* (0.000) and *subjective norms* (0.000). This means that the variables *attitudes towards buying* and *subjective norms* are good predictors of the dependent variable *intention*. The independent variables *perceived availability* (0.230), *perceived price* (0.607), and *product knowledge* (0.144) are not significantly related to the variable *intention* and thus are not good predictors.

Furthermore, the study aims to identify which of the variables contributed the most to prediction of the dependent variable. This information can be investigated via Standardized coefficient (Beta in Table 16). The standardized coefficients mean that "*values for each of the different variables have been converted to the same scale so they can be compared*" (Pallant,

2010, p.161). In this study the highest Beta value is 0.490 for *subjective norms*, and second highest is 0.338 for *attitudes towards buying*. Both independent variables are statistically significant since the Sig. value is less than 0.05 (Pallant, 2010). These results indicate that the variables *subjective norms* and *attitudes towards buying* make the strongest unique contribution in explaining the dependent variable *intention*. The variables *product knowledge* (0.068), *perceived availability* (-0.054), and *perceived price* (-0.022) provide low unique contribution in explaining the dependent variable. Moreover, they are not statistically significant since the Sig. value is above 0.05 (Pallant, 2010).

In addition, Part correlation coefficient enables to find out how much of total variance in the dependent variable is uniquely explained by a particular variable (Pallant, 2010). An indicator of the contribution of a variable to the total R square was obtained by squaring the Part value. The variable *subjective norms* uniquely explain 17.1 % (Part value: 0.414) of the variance in the *intention*, and the variable attitudes *towards buying* uniquely explains 8.5 % (Part value: 0. 291) of the variance (Table 16).

These results enable to conclude that the model explains 55.2 % of the variance in *intention to buy* organic products. The largest unique contribution is provided by the variables *subjective norms* (17.1 %) and *attitudes towards buying* (8.5 %). Thus, these variables represent good predictors of the dependent variable. Therefore, the following section focuses only on these two significant predictors.

Attitudes towards Buying and Subjective Norms as Predictors of Intention to Buy. Here the multiple regression analysis focuses on the two independent variables *attitudes towards buying* and *subjective norms,* since they were found to be the only significant predictors of *intention to buy*. The values representing statements about *attitudes towards buying* and *subjective norms* were entered into the analysis as independent variables. The aim was to find out which of the statements contributed most to prediction of the dependent variable *intention to buy.* The R Square value of this model is 0.58 (Table 17). Thus, the model explains 58 % of variance in *intention to buy*. This value is higher than in the case of the entire model. Adjusted R Square 0.567 infers that the result is slightly optimistic overestimated. The model is statistically significant since Sig. value equals to 0.000 (Pallant, 2010).

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.762[a]	.580	.567	.79146

a. Predictors: (Constant), reverse coding: I do not believe that buying organic food is better than non organic food., My friends who influence my buying behaviour think I should buy organic food, reverse coding: I think that buying organic food is not reasonable, It is good for me to buy organic food, My family would like me to buy organic food, reverse coding: I think it is not important to buy organic food, People that are important to me would like me to buy organic food., Purchasing of organic food is beneficial for me

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	218.832	8	27.354	43.668	.000[a]
	Residual	158.481	253	.626		
	Total	377.313	261			

a. Predictors: (Constant), reverse coding: I do not believe that buying organic food is better than non organic food., My friends who influence my buying behaviour think I should buy organic food, reverse coding: I think that buying organic food is not reasonable, It is good for me to buy organic food, My family would like me to buy organic food, reverse coding: I think it is not important to buy organic food, People that are important to me would like me to buy organic food., Purchasing of organic food is beneficial for me

b. Dependent Variable: Intention index

Table 17: The Model Summary

The results from Table 18 show that the largest Beta coefficient is 0.357. This result is for the statement "*My family would like me to buy organic food*". This statement makes the strongest unique contribution in explaining the variable *intention to buy*. The coefficient is also statistically significant since value of Sig. is equal to 0.000 (Pallant, 2010). The second strongest statement is "*People that are important to me would like me to buy organic food*" (Beta 0.164, sig. 0.005).

With respect to the variable *attitudes towards buying* the strongest statement is "*It is good for me to buy organic food*" (Beta 0.141, Sig 0.014), and then "*I think it is important to buy organic food*" (Beta 0.130, Sig. 0.016). Overall, all statements are statistically significant except the statement "*I think that buying organic food is not reasonable*" since the value of Sig is 0.276, which is higher than 0.005 (Pallant, 2010).

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.309	.205		-1.508	.133
	My friends who influence my buying behaviour think I should buy organic food	.105	.048	.105	2.186	.030
	My family would like me to buy organic food	.337	.053	.357	6.358	.000
	People that are important to me would like me to buy organic food.	.161	.057	.164	2.845	.005
	It is good for me to buy organic food	.148	.060	.141	2.471	.014
	reverse coding: I think it is not important to buy organic food	.125	.052	.130	2.429	.016
	reverse coding: I think that buying organic food is not reasonable	-.054	.050	-.055	-1.092	.276
	Purchasing of organic food is beneficial for me	.105	.057	.108	1.857	.064
	reverse coding: I do not believe that buying organic food is better than non organic food.	.097	.041	.108	2.353	.019

a. Dependent Variable: Intention index

Table 18: Coefficients

6.2.4. Effect of Demographic Characteristics

Another factor influencing *intention to buy* organic food studied in this study are demographic characteristics. The independent t-test and one-way analysis of variance (ANOVA) are applied to compare selected demographic characteristics and investigate how they are related to the dependent variable *intention to buy*. Moreover, the aim of this part is to explore who is a buyer of organic food in the Czech Republic.

The independent t-test is used to compare the mean score on the same continuous variable for two different groups of respondents (Pallant, 2010). The significant difference between two groups is given by the value of Sig. (2-tailed). There is a significant difference in the mean values if the value of the Sig. (2-tailed) column is equal or less than 0.05 (Pallant, 2010). One-way ANOVA is used to compare the mean score on the same continuous variable for three or more groups of participants (Pallant, 2010). There is a significant difference between groups, if the Sig. value is more than or equal to 0.05 (Pallant, 2010). The following section provides

a summary of results for each studied variable.

Intention to buy. The mean score of *intention* is 2.53 (Table 9). This result suggests that consumers do not have high *intention to buy* organic food. By using independent t-test there was not found any difference with respect to the *marital status*, but there is a significant difference concerning *gender*. Women intend more to buy organic food (M= 2.67) than men (M= 2.4) (Table 19). By using one-way ANOVA analysis there is no significant difference with regard to *age* groups, *number of children in a household*, *family average net income*, and *work load*, as the significance level is above 0.05.

Group Statistics

Gender (female=0, male=1)		N	Mean	Std. Deviation	Std. Error Mean
Intention index	female	145	2,6690	1,16997	,09716
	male	118	2,3686	1,23418	,11362

Table 19: Intention to Buy

Actual purchase. The mean value of *actual purchase* is 1.95 (Table 9). This result implies that there is low purchase frequency of organic food. Also the variable actual purchase was examined by using independent t-test and one-way ANOVA. The only significant difference was found with respect to *gender* (Appendix B8). With respect to the results women more often purchase organic food (M=2.1) than men (M=1.8) (Table 20).

Group Statistics

Gender (female=0, male=1)			Mean	Std. Deviation	Std. Error Mean
Actual purchase index	female	145	2,0655	,75059	,06233
	male	118	1,8051	,75400	,06941

Table 20: Actual Purchase

In relation to the actual purchase, there was also investigated who is the primary buyer of a household by the question: „*How often do you buy food for your household?"* The responses ranged from "Never" to "Always". Table 21 presents the frequency distribution of the responses. The analysis follows the guideline: a consumer who answered that buy food "often" or "always" for a household is called a **primary buyer**; a consumer who answered that buy food "never" or "seldom" food is considered as a **passive buyer**. Consumers who

buy food for their household "sometimes" are not included into the analysis. The purpose of this analysis was to find out significant differences between primary and passive buyer with respect to *attitudes towards buying*, *subjective norms*, *perceived availability*, *perceived price*, and *product knowledge*.

Based on the results of one-way ANOVA there was found out a significant difference between primary and passive buyers with respect to *attitudes toward buying, product knowledge,* and *intention to buy*. Primary buyers have more positive attitude toward buying organic food. Moreover, primary buyers have better product knowledge than passive buyers. The results also suggest that primary buyers have higher *intention to buy* organic food. No significant differences were found between the types of consumers with respect to the variables *subjective norms*, *perceived price*, and *perceived availability* (Appendix B9).

How often do you buy food for your household?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	never	25	9,5	9,5	9,5
	seldom	51	19,4	19,4	28,9
	sometimes	78	29,7	29,7	58,6
	often	56	21,3	21,3	79,8
	always	53	20,2	20,2	100,0
	Total	263	100,0	100,0	

Table 21: Frequency Distribution of Purchase

A Buyer of Organic Food in the Czech Republic

In order to find out who is a buyer of organic food or who has the strongest intention to buy organic food, the data were also analyzed via another technique called **classification tree.** The results presented above correspond with the results obtained by this method. Based on these results there can be concluded that among all demographic characteristics only *gender* affects *intention to buy* and also *actual purchase* (Figure 17). Thus, women have stronger *intention to buy* organic food and purchase more organic food than men.
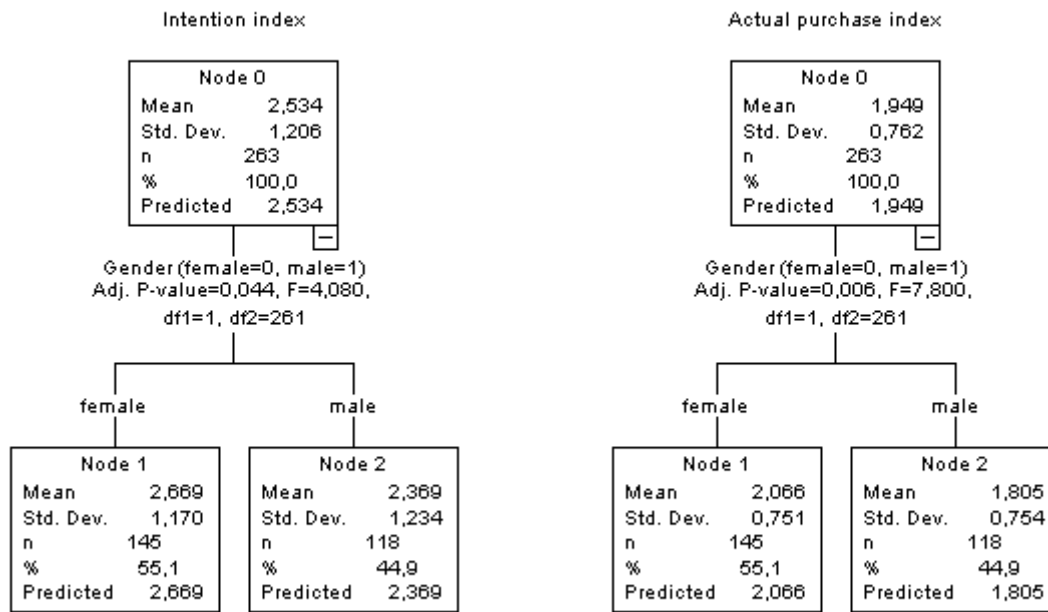
Figure 17: Classification Tree

Effect of Demographic Characteristics to Independent Variables

In this section the independent t-test and one-way ANOVA are used to investigate how demographic characteristics are related to the studied independent variables: *attitudes toward buying, subjective norms, perceived availability, perceived price,* and *product knowledge*.

Attitudes towards buying. The mean score of the *attitudes towards buying organic food* is 3.5 (Table 9). The variable *attitudes towards buying* organic food is influenced by the only demographic characteristic, *gender*. This result implies that women have more positive attitudes towards buying organic food than men (Appendix B3). The variable was investigated by several statements. With respect to *age* groups a significant difference was found within the statement "*Purchasing of organic food is beneficial for me*". There is a significant difference between age groups "36-45" (M=3.26) and "46-55" (M=3.98). A significant difference was also found concerning the *number of children in a household* within the statement "*I do not believe that buying organic food is better than non organic food*". The mean score of the *attitudes* differs between respondents with one child (M=3.47) and with more than one child (M=2.89) (Appendix B3). No significant differences were found with relation to *marital status*, *family net income*, and *work load*.

Subjective norms. The overall mean score of *subjective norms* is 2.42 (Table 9). No significant differences were revealed with respect to demographic characteristic within the variable index. However, there were found significant differences based on the separate statements. A significant difference was found within the statement "*My family would like me to buy organic food*" with respect to *marital status*. A significant difference was revealed between respondents that are married (M=2.45) and those that are single (M=2.12) (Appendix B4). With respect to the *age* groups there is a difference within the statement "*My family would like me to buy organic food*". Within this statement there is a significant difference between *age* group "56-65" (M=1.95) and *age* group of respondents "18-25" (M=2.79) (Appendix B4). Other significant difference was found within "*My friends who influence my buying behaviour think I should buy organic food*" with respect to *family net income*. There is a significant difference between respondent with family income "11-20 000" (M=3.00) and "41-50 000" (M=1.96) (Appendix B4).

Perceived availability. The mean value of *perceived availability* of organic food is 3.39 (Table 9). More than half of respondents agreed that organic food is sufficiently available and it is not hard to find in the shop (Appendix B5). By using independent t-test and one-way ANOVA there were not found any differences with respect to the demographic characteristics. Based on these findings the limited availability of organic food does not seem to be a major obstacle for its purchase.

Perceived price. The mean value of *perceived price* is 3.85 (Table 9). The most of the respondents (70 %) agreed that price of the organic food is important to them. More than half (58%) of respondents perceive organic food as expensive. The consumers' price sensitivity was explored by the statement "*I always try to find the most reasonable low price food in the store*". 64 % of respondents partially or totally agreed with this proposition (Appendix B6). A significant difference was found within the statement "*I always try to find the most reasonable price in the shop*" with respect to the reached *education level*. Responses by people with university education (M=3.42) are significantly different from those with apprenticeship (M=4.19) (Appendix B6). Any other differences based on demographic characteristics were not found by using either independent t-test or one–way ANOVA. Based on this result it can be concluded that respondents are rather price sensitive, the price of organic food is important to them, and organic food is expensive for consumers.

Product knowledge. The mean value of the variable *product knowledge* is 3.17 (Table 9). A majority of respondents (61 %) stated that they are able to recognize organic label (Appendix B7). However, almost half of the respondents (46 %) expressed that they do not have good knowledge about organic food. Moreover, more than half of respondents (68%) stated that it is difficult for them to know whether food is organically produced. No significant differences were found with respect to the demographic characteristics within the variable index. However, there were revealed significant differences within one statement with respect to *age* and *marital status*. Based on the results it is more difficult for older respondent to know if food is organically produced. Moreover, married respondents have more difficulties than single ones.

6.2.5. Hypothesis Testing

Proposed hypothesis are tested based on the results of the multiple regression analysis. A hypothesis is supported when the Sig. value is smaller than 0.05; and a null hypothesis is rejected when the Sig. value is equal or larger than 0.05 (Pallant, 2010). This study proposed the following hypotheses:

H_1: Attitudes towards buying organic food influences the intention to buy organic food.

H_2: Subjective norms influence the intention to buy organic food.

H_3: Perceived availability of the organic food influences the intention to buy organic food.

H_4: Perceived price influences the intention to buy organic food.

H_5: Product knowledge of consumers influences the intention to buy organic food.

H_6: Consumers' demographic characteristics influence the intention to buy organic food.

The results of the multiple regression analysis indicate that the most significant relationship is between the independent variable *subjective norms* and dependent variable *intention*. The second strongest relationship was found between the variables *attitudes towards buying* and *intention*. These results imply that the variables *attitudes towards buying* and *subjective norms* are good predictors of the variable *intention*. Thus, the hypotheses H_1 and H_2 are supported (Sig. = 0.000).

On the other hand, the independent variables *knowledge*, *perceived availability*, and *perceived*

price have low unique contribution to explaining the dependent variable *intention*. Moreover, they are not statistically significant. These independent variables were not found to be good predictors of *intention.* Based on the findings the hypotheses H$_3$ (Sig. = 0.230), H$_4$ (Sig. = 0.607), and H$_5$ (Sig. = 0.144) are rejected.

Among the studied demographic characteristics only *gender* was found to be a significant factor influencing *intention to buy* organic food. Thus, the last hypothesis is partly supported and may be modified into the following form: "Consumer's gender influences intention to buy organic food."

6.2.6. Hierarchical Multiple Regression of Actual Purchase

As has been already described in the theory section, the TPB enables to predict actual behaviour by using the *intention* to behaviour and *perceived behaviour control* (Ajzen, 2001). In this study the variables *perceived availability*, *perceived price* and *product knowledge* come under the variable perceived behavioural control.

The hierarchical multiple regression analysis is used to evaluate the ability of the proposed model to predict *actual purchase*, by controlling the variables *product knowledge*, *perceived price*, and *perceived availability*. The studied variables were entered into the regression according to steps in predominant order. In the first step the variable *intention to buy* was entered. In the second step other independent variables such as *product knowledge*, *perceived price*, and *perceived availability* were entered into the model as a block (Table 22).

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	Intention index[a]	.	Enter
2	Price index, Availability index, Knowledge index[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: Actual purchase index

Table 22: Variable Entered

Table 23 presents the results of the model summary. The results show that the value of R Square in the first step is 0.507. This tells that the dependent variable *intention* explains 50.7% of variance in *actual purchase*. The value of Adjusted R Square is 0.535. The value of R Square in the second step is 0.545, meaning that the independent variables all together

explain 54.5 % of variance. The value of R Square Change is 0.038, meaning that the variables *product knowledge*, *perceived price*, and *perceived availability* explain additional 3.8 % of the variance in *actual purchase*. This result is statistically significant since the value for Sig. F change is 0.000.

To find out which variable has the largest contribution in explaining the dependent variable the Beta values are compared (Appendix B11). Based on the results the largest Beta coefficient is found for the variable *intention to buy* (0.656). The second largest Beta coefficient had the variable *product knowledge* (0.173). The third largest unique contribution in explaining the model had the variable *perceived price* (-0.092). The variable *perceived availability* is not statistically significant since value of Sig. is larger than 0.05 (0.6).

Model Summary^c

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	,712ᵃ	,507	,505	,53582	,507	268,634	1	261	,000
2	,738ᵇ	,545	,538	,51779	,038	7,165	3	258	,000

a. Predictors: (Constant), Intention index

b. Predictors: (Constant), Intention index, Price index, Availability index, Knowledge index

c. Dependent Variable: Actual purchase index

Table 23: The Model Summary

The model modified according to the results of the multiple regression analysis and hierarchical multiple regression analysis is depicted in Figure 18. The model includes values of the Pearson's correlations. With respect to the results, *intention to buy* is predicted by two independent variables: *attitudes towards buying* (0.575) and *subjective norms* (0.671). These variables show a strong and positive relationship with *intention to buy*. The independent variables *perceived price*, *perceived availability*, and *product knowledge* were not found to be influencing *intention to buy*. However, variables *perceived price* and *perceived availability* were found to be predictors of the variable *actual purchase*. Thus, *actual purchase* is influenced by the variables *intention to buy*, *perceived price*, and *product knowledge*. The predictors *intention to buy* (0.712) and *product knowledge* (0.363) indicate positive relationships with respect to *actual purchase*, while the effect of *perceived price* is negative (-0.136).
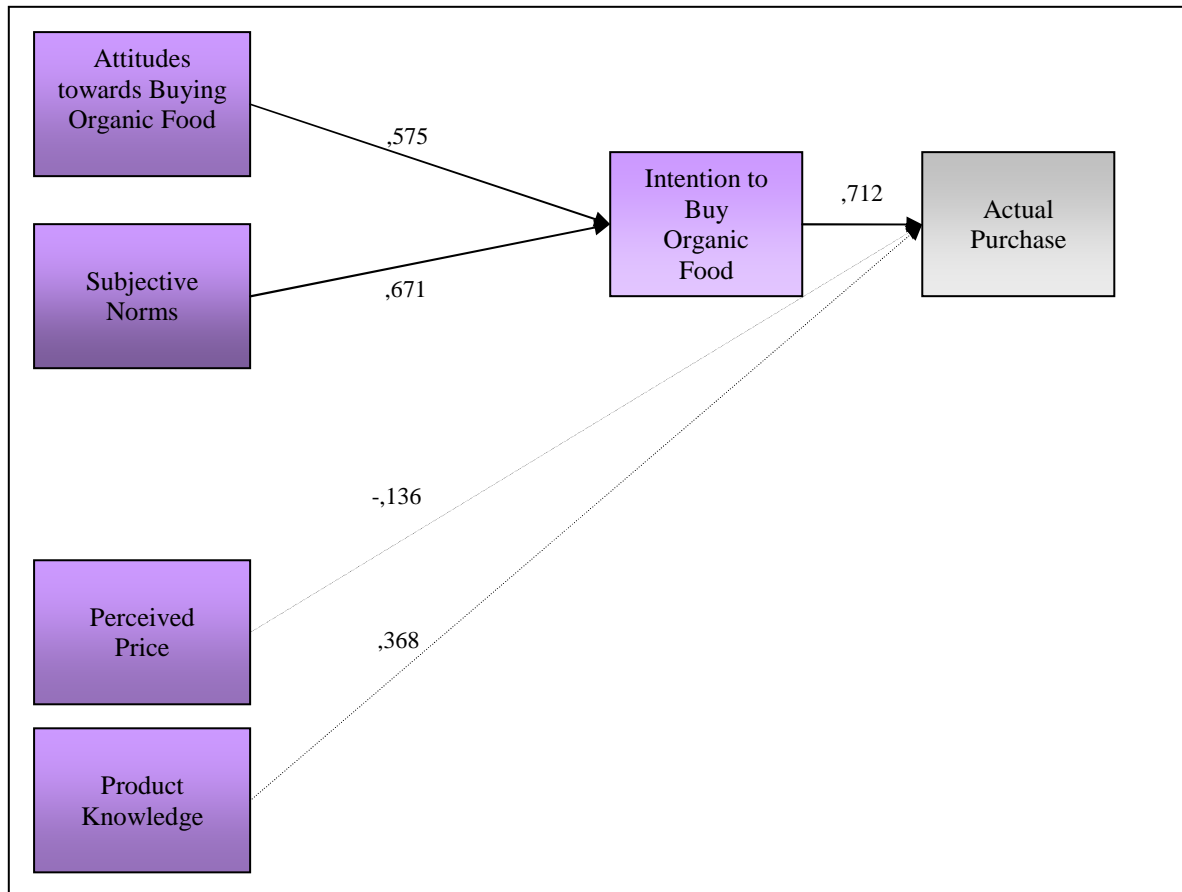
Figure 18: The Modified Model for Actual Purchase

7. Discussion and Conclusion

The final chapter discusses the study findings obtained by the data analysis. The chapter also derives conclusions from the findings. Further, the study potential limitations, suggestions for future research, and the study implications are presented.

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                        ┌─────────────────────────────┐
                        │        Phenomenon           │
                        │        (Chapter 1)          │
                        │  Intention to Buy Organic   │
                        │  Food among Czech Consumers  │
                        │ (Background, Problem         │
                        │ definition, Purpose of the   │
                        │ study, Definition of the     │
                        │ key concepts)                │
                        └─────────────────────────────┘
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Phenomenon

(Chapter 1)

Intention to Buy Organic Food among Czech Consumers

(Background, Problem definition, Purpose of the study, Definition of the key concepts)

Theories/ Studies
(Chapter 2, 3)

Theory:
1) Marketing
2) Green Marketing
3) Consumer Behaviour
4) TPB

(**Variables**: attitudes towards buying, subjective norms, intention to buy)

Empirical Studies:
1) Consumer attitudes towards organic food
2) Intention to buy organic food
3) Influence of eco-labels on consumer behaviour

(**Variables**: perceived availability, perceived price, demographic factors, product knowledge)

Methods and Reality

(Chapter 4, 5, 6)

1) The Conceptual framework

2) Methodology (quantitative research approach, research method: self-completes survey, non-probability sampling method)

3) Analysis of the Czech organic market based on secondary data

4) Analysis of the conceptual framework based on primary data through a survey

Discussion/ Conclusion

(Chapter 7)

Figure 19: The Structure of the Study

7.1. Discussion of Findings

In the last decade there was an increasing concern about the environmental issues in the Czech Republic. Consumers have become more interested in their nutrition, health, and quality of food. The Czech organic food market has been growing rapidly in the last years and organic food has become more accessible for consumers. However, the total and average consumption per person is still behind the Western European average (FFDI, 2010). Therefore, it is important to understand consumer behaviour and recognize what influences their intention to buy organic food. This thesis investigated the effect of several factors on *intention to buy organic food*. The following section provides a discussion of the study findings.

7.1.1. Intention to Buy Organic Food

The dependent variable investigated in this study is *intention to buy organic food*. The findings suggest that only small proportion of Czech consumers intends to buy organic food (14 %). The mean value of intention to buy is 2.52. The results imply that consumers do not have the *intention to buy* organic food. These findings differ from previous studies which found high consumers' intention to buy organic food (Lodorfos et al., 2008; Michaelidou et al., 2009; Tarkiainen et al., 2005).

The TPB was found to be a useful model for prediction of determinants related to consumers' intention to buy organic food. Based on the results of the ***multiple regression analysis,*** the variables *attitudes towards buying* and *subjective norms* are the most predictive factors of *intention to buy organic food*. These results correspond with findings of previous research (Chen, 2007; Kalafatis et al., 1999; Lodorfos et al., 2008; Robinson et al., 2002; Vermeir, 2007). On the other hand, *perceived availability*, *perceived price*, and *product knowledge* were not found to be independent predictors of *intention to buy organic food*. These findings are distinct from former findings of these variables as influential factors: *perceived availability* (Lodorfos, 2008; O'Donovan et al., 2002; Vermeir et al., 2007), *perceived price* (Ahmad et al., 2010; Magnusson et al., 2002; Michaelidou et al., 2010; O'Donovan et al., 2002), and *product knowledge* (Gracia et al., 2007; Gracia et al, 2010; Leire et al., 2004; Lodorfos et al., 2008; Magnusson et al., 2001). However, it is in compliance with the findings of Tarkiainen et al. (2005) who did not find support for the relationship between *perceived*

price and *perceived availability* of organic food to *intention to buy organic food.*

With regard to demographic factors, only *gender* was found to be a significant factor influencing consumers' *intention to buy* organic food. The findings showed that women hold higher *intention to buy organic food* than men. A possible explanation for this finding is that women have better attitudes toward organic food than men (Appendix B9). This result is in compliance with studies by Lodorfos et al. (2008), Magnusson et al. (2001), and O'Donovan et al. (2002). Other demographic factors, such as *age*, *marital status*, *level of education*, *number of children in a household*, *family income*, and *work load* were not found affecting *intention to buy organic food*. These findings differ from former research (Magnusson et al., 2001; Robinson et al., 2002; O'Donovan et al., 2002).

7.1.2. Attitudes towards Buying

The first studied independent variable was *attitudes towards buying* organic food. The TPB implies that *attitudes towards behaviour* play an important role in explaining human behaviour. This theory assumes that the stronger *attitudes towards behaviour* the stronger *intention* to perform this behaviour. This study results indicated that consumers hold rather positive *attitudes towards buying* organic food. This finding is consistent with previous studies (Chen, 2007; Kalafatis et al., 1999; Lodorfos et al., 2008; Robinson et al., 2002; Tarkiainen et al., 2005; Vermeir, 2007). Since the relationship between *attitudes towards buying* and *intention to buy* has been found strong and positive, it suggests that stronger *attitudes towards buying* it may lead to stronger *intention to buy* organic food.

Among demographic characteristics only *gender* was found to affect *attitudes towards buying*. The significant differences based on *gender* imply that women have more positive attitudes towards buying organic food than men. This finding corresponds with the previous studies by Hoyer et al. (2007) and Magnusson et al. (2001). Other demographic characteristics such as *age*, *marital status*, *number of children in a household*, *family net income*, and *work load* do not have any significant impact on *attitudes towards buying*.

7.1.3. Subjective Norms

The second studied independent variable is *subjective norms*. According to Ajzen (1991), it is assumed that important referent individuals or groups approve or disapprove certain

behaviour (Ajzen, 1991). The TPB says that *subjective norms* are one of the most influencing variables that form a behavioural intention of people. This statement is supported by this study, as there was found a strongest relationship between *subjective norms* and *intention to buy*. This variable makes the strongest unique contribution in explaining the dependent variable *intention*. The mean score for the variable *subjective norms* is 2.74. This finding reveals that reference group of respondents do not want the buyers to buy organic food. The Pearson correlation between *subjective norms* and *intention to buy* is strong and positive. Thus, increased support to buy organic food by reference groups (family, friends, and important people) may strengthen the *intention to buy* organic food.

7.1.4. Perceived Availability

Perceived availability has been found by former research having an affect on *intention to buy organic food*. However, this study findings do not support this effect. Moreover, this study did not support the effect of *perceived availability* to *actual purchase*. Based on the results, *perceived availability* of organic food in the Czech Republic seems to be sufficient. By using the independent t-test and one-way ANOVA there were found no significant differences with respect to demographic characteristics.

7.1.5. Perceived Price

Another studied independent variable is *perceived price*. Former research reported this factor as influencing the *intention to buy* organic food. However, this effect is not supported by this study. In addition, no significant differences with respect to demographic characteristics were found. On the other hand, the influence of *perceived price* was found to be significant with respect to *actual purchase*. The Pearson correlation coefficient between *perceived price* and *actual purchase* is negative. This suggests that higher price of organic food decreases actual purchase. With respect to the analysis, consumers are price sensitive and price of organic food is important for them. Moreover, consumers perceive price of organic food as expensive. Thus, higher price of organic food is one of the main burdens for purchasing organic food.

7.1.6. Product Knowledge

Next studied independent variable is *product knowledge.* As a presumption of the *intention to buy*, consumers need to be able to identify organic food. Therefore, consumers need relevant

product-related information for their decision about a purchase (Leire et al., 2004). Such information is provided by eco-labels. However, eco-labels are effective tool only if consumers know how an eco-label looks like and what it means (Thøgersen et al., 2000). Based on the findings of this study the majority of consumers are able to recognize organic label. However, consumers expressed that they do not have good knowledge about organic food, and have difficulty to know if the food is organically produced. This lack of knowledge can affect their decision to participate in organic food consumption. However, the findings of this study did not find any significant effect of *product knowledge* to the *intention to buy* organic food. Nevertheless, there is a significant influence of *product knowledge* with respect to *actual purchase*. The relationship between product knowledge and actual purchase is positive suggesting that higher *knowledge* about organic food contributes to the higher *actual purchase*. With regard to demographic characteristics the analysis did not reveal any specific consumer groups related to *product knowledge*.

In addition to the knowledge about organic food, **trust in the certification procedure** is necessary. The characteristics of organic food may offer a competitive advantage over conventional food. However, there is a condition that consumers have to believe in the message that organic food holds. However, the consumers in this study expressed lack of trust in the certification procedure in the Czech Republic. This finding is based on supplementary data provided by interviews with the respondents. After filling the questionnaire the respondents were asked for reasons why they do not buy organic food. The majority of respondents answered that they are suspicious about credibility of the certification process and they argued by the cases about organic food failure from media. These cases warn about products promoted as organically produced while they are plain false. Therefore, consumers' trust in organic food is disturbed and they are rather sceptical to the certification authorities in the Czech Republic.

When the reputation of organic products is violated consumers may not prefer it over its conventional alternative. Since eco-labeling is one of the main tools of green marketing, producers and sellers of organic food should be ingenuous in the promotion. Thus, there should be ensured higher transparency of the certification process to enhance consumers' trust in organic food, which might lead to higher demand for organic food.

7.1.7. Actual Purchase

By applying the ***hierarchical multiple regression analysis*** this study also investigated *actual purchase* of organic food. The findings indicate that *actual purchase* is predicted by *intention to buy organic food*, *perceived price*, and *product knowledge*. The results further suggest that one of the main obstacles why consumers do not buy organic food is high price and limited knowledge about organic food. With respect to the findings it can be concluded that *price* and *product knowledge* does not affect *intention to buy organic food* but only *actual purchase*. On the other hand, limited *availability* does not seem to be a major hurdle in purchasing organic food. The model predicting *actual purchase* (Figure 17) explains 54.5 % of the variance, meaning that 45.5 % of the variance is influenced by some other factors.

A number of studies attempted to investigate **who is a buyer of organic food**. This study examined demographic characteristics with respect to *actual purchase*. Based on the results, only *gender* out of all demographic characteristics affected *actual purchase*. Women purchase more organic food than men. A possible explanation for this finding is that women have better *attitudes toward buying* organic food than men (Appendix B9). This finding is in compliance with the study by Davies et al. (1995).

7.1.8. Primary vs. Passive Buyer

Based on the analysis there were found out significant differences between primary and passive buyers. Passive buyers have lower *attitudes towards buying* organic food, lower *product knowledge*, and lower *intention to buy* organic food compared to primary buyers. In general, passive buyers, those who never or seldom buy food for their household, represent a reference group for primary buyers. The results of multiple regression analysis indicated that *subjective norms* are the strongest predictor of *intention to buy organic food*. Since the passive buyers (representing the reference group) do not have a positive attitude or strong intention to buy organic food, they do not support the primary buyers in purchasing organic food.

7.1.9. The Model Summary

This section summarizes the findings related to the proposed model. As the model proposes, the stronger *intention to buy* organic food leads to higher *actual behaviour*. In order to

enhance positive *intention to buy* organic food it might be needed to strengthen *subjective norms* and *attitudes toward buying* organic food. In the phase of *actual purchase*, consumer's decision to buy is affected by *perceived price* and *product knowledge.* Furthermore, this study found out that the barriers are high price and limited product knowledge. Therefore, various possible solutions may take place. First, there can be made an effort to minimize the price difference between organic and conventional food. Second, there may be proposed reasonable explanation for reasons leading to a premium price such as more costly production processed without usage of various additives, fertilizes, etc. Finally, consumers' education about organic food is needed.

7.2. Conclusions

7.2.1. Findings Conclusions

The purpose of this study was to examine determinants influencing *intention to buy organic food* in the Czech Republic. A model based on the TPB and other studies was proposed to study this phenomenon. The data were gathered by a self-administered questionnaire. In total, 263 questionnaires were collected. Several independent variables were examined: *attitudes towards buying*, *subjective norms*, *perceived availability*, *perceived price*, *product knowledge*, and *demographic characteristics*.

The multiple regression analysis was used to explore how well the independent variables predict *intention to buy* organic food; and which variable is the best predictor of the dependent variable. This study provided empirical evidence supporting relevance of the TPB model. With respect to the results, *subjective norms* and *attitudes toward buying* organic food are important predictors of *intention to buy* organic products. Moreover, *gender* was found to be a significant factor of *intention to buy* organic products. The proposed model explains 55.2 % of variance of *intention to buy*. The results from the analysis provided evidence that just a small proportion of consumers have *intention to buy* organic food. It can be concluded that this study is consistent with previous studies that suggested that *attitudes towards buying* and *subjective norms* are predictors of *intention to buy* organic food. However, this study does not support studies suggesting that *perceived price*, *perceived availability*, and *product knowledge* are important determinants of *intention to buy* organic food.

One-way ANOVA and independent t-test were applied to investigate demographic characteristics (gender, age, marital status, level of education, number of children in a household, family monthly net income, and work load) of respondents with respect to *intention to buy* organic food and to *actual purchase*. There was found that women have higher *intention to buy organic food* than men. Moreover, women more often purchase organic food. Other demographic characteristics were not found to be significant predictors of *intention to buy organic food* or *actual purchase*.

Furthermore, demographic characteristics were explored with respect to other variables such as *attitudes towards buying*, *subjective norms*, *perceived availability*, *perceived price*, and *product knowledge*. Based on the results, women have more positive *attitudes towards buying* organic food than men. According to the studied statements, the majority of consumers reported that price of organic food is important for them and they perceived organic food to be expensive. Almost half of the consumers often or always refrain from purchase because of the premium price. Availability of organic food is not an obstacle for purchase of organic food. The majority of consumers are able to recognize organic label, however consumers expressed that they do not have good knowledge about organic food. Moreover, for older consumers it is more difficult to know if food is organically produced.

The hierarchical multiple regression was applied to evaluate ability of the proposed model to predict the *actual purchase*, while controlling the variables *perceived price*, *perceived availability*, and *product knowledge*. The modified model explains 54.5 % of variance of *actual purchase*. A significant predictor of *actual purchase* is *intention to buy organic food*, explaining 50.7 % of the variance. It was found that *perceived price* and *product knowledge* significantly affect *actual purchase*, while p*erceived availability* was not found to be a significant predictor.

7.2.2. Limitations and Future Research

Naturally, this study has some potential limitations related to generalization of the results. First, the study was conducted in one country, Czech Republic. Second, the collected data are associated mainly with consumers living inside or near of the city Pardubice. It is assumed that bigger cities such as Pardubice have larger stores and better supply of products. Therefore, the sample data may be drawn from more cities of the Czech Republic. Third, the data were collected in one supermarket. Since various types of grocery stores have

different characteristics such as price levels, availability of organic food, or range of organic food, it might be possible that consumer behaviour may differ between different types of stores. Finally, more factors influencing the intention to buy organic food may be involved into the studied model. The additional factors might raise explanatory power of the model. Thus, further research is needed to validate the thesis findings under different conditions.

7.2.3. Implication of the Study

This thesis has implication for both practice and research. The study investigated factors influencing the intention to buy organic food. In practice, the thesis findings can be valuable for marketing purposes, as it may provide information for better understanding of consumer behaviour. Furthermore, the study findings may be also valuable for producers as well as vendors of organic food.

With regard to research, the study has proposed and tested a model capturing factors influencing the intention to buy organic food. This model can be applied and validated by further research employing different data sets.

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Appendix A: Questionnaire

Marketing Survey

Attitudes towards Organic vs. Non-organic food among Czech consumers

By: Kristýna Olivová

Supervisor: Professor Andreas Falkenberg

Dear participant,

I would appreciate if you take few minutes to fill in this questionnaire. The questionnaire is a part of the master thesis within master program International Management at University of Agder, Norway.

The purpose of the study is to examine "Attitudes Organic Food among Czech Consumers". Please answer the questions and statements to represent your opinion on what is being asked. The questionnaire is anonymous and your answers are used only for the purpose of the survey.

Thank you for your help!

Please rate to what extent you agree with the following statements. Mark your answer on the scale from "strongly agree" to "strongly disagree".

Organic food is sufficiently available.	disagree ☐☐☐☐☐ agree
Most people who influence what I do, think that I should not buy organic food	disagree ☐☐☐☐☐ agree
It is good for me to buy organic food.	disagree ☐☐☐☐☐ agree
The price of organic food is important to me.	disagree ☐☐☐☐☐ agree
It is difficult for me to know if food is organically produced.	disagree ☐☐☐☐☐ agree

I think it is not important to buy organic food.	disagree ☐☐☐☐☐ agree
My friends who influence my buying behaviour think, I should buy organic food.	disagree ☐☐☐☐☐ agree
Organic food is hard to find in a shop where I purchase.	disagree ☐☐☐☐☐ agree
I do not intend to buy organic food in the near future.	disagree ☐☐☐☐☐ agree
I often refrain from buying organic food because I think it is expensive.	disagree ☐☐☐☐☐ agree

I am able to recognize organic label.	disagree ☐☐☐☐☐ agree
It is important to me that organic food is no more expensive than conventional food.	disagree ☐☐☐☐☐ agree
I think that buying organic food is not reasonable.	disagree ☐☐☐☐☐ agree
I can not easily find organic food in my neighbourhood.	disagree ☐☐☐☐☐ agree
The next time I buy food I will choose organic food.	disagree ☐☐☐☐☐ agree

Purchasing of organic food is beneficial for me.	disagree ☐☐☐☐☐ agree
I would consider purchasing organic food If it is available at the place where I purchase.	disagree ☐☐☐☐☐ agree
I always try to find the most reasonable low price food in the store	disagree ☐☐☐☐☐ agree
I intend to purchase organic food within the next two weeks.	disagree ☐☐☐☐☐ agree
My family would like me to buy organic food.	disagree ☐☐☐☐☐ agree

If I want to buy organic food, it is easy to find them.	disagree ☐☐☐☐☐ agree
I have good knowledge about organic food.	disagree ☐☐☐☐☐ agree
Organic food is expensive for me.	disagree ☐☐☐☐☐ agree

I do not believe that buying organic food is better than non organic food.	disagree ☐☐☐☐☐ agree
People that are important to me would like me to buy organic food.	disagree ☐☐☐☐☐ agree

Please answer the first two questions on the scale ranging from "never" to "always". For third question indicate your answer on the scale ranging from 0% to 100%.

How often do you buy food for your household?	never ☐☐☐☐☐ always
When you buy food how often do you buy organic food?	never ☐☐☐☐☐ always
When you buy food what % of your purchases is organic food?	0 25 50 75 100% ☐☐☐☐☐

Please, fill in the following information:

Gender: ☐ Female
☐ Male

Age: ☐ 18- 25
☐ 26- 35
☐ 36- 45
☐ 46- 55
☐ 56- 65
☐ 66 and more

Marital status: ☐ married
☐ single/ divorced /widow

Level of education: ☐ Primary school
☐ Apprenticeship
☐ Secondary with GCE
☐ Higher post-secondary schools
☐ University

Number of children: ☐ 0
☐ 1
☐ 2 and more

Family monthly net income: ☐ up to 10 000 CZK
☐ 11 000- 20 000 CZK
☐ 21 000- 30 000 CZK
☐ 31 000- 40 000 CZK
☐ 41 000- 50 000 CZK
☐ More then 50 000 CZK

Work load: ☐ Full time
☐ Part time
☐ Student
☐ Unemployed

Thank you!

Marketingový průzkum

Postoj českých spotřebitelů k biopotravinám

Autor: Bc. Kristýna Olivová

Vedoucí práce: Prof. Andreas Falkenberg

Vážený účastníku/ Vážená účastnice,

Byla bych Vám vděčná, pokud byste si našel/našla několik minut na vyplnění tohoto dotazníku. Průzkum je součástí diplomové práce v rámci studia magisterského programu Mezinárodní Management na univerzitě v Agder, Norsko.

Účelem této studie je prozkoumat postoj českých spotřebitelů k biopotravinám. Odpovězte prosím na otázky a tvrzení tak, aby co nejlépe reprezentovaly Vaše názory. Dotazník je anonymní a Vaše odpovědi budou použity výhradně v rámci studie.

Děkuji za spolupráci!

Prosím, uveďte, do jaké míry souhlasíte s následujícími výroky. Označte Vaši odpověď na škále od "nesouhlasím"- "souhlasím".

Biopotraviny jsou snadno dostupné.	nesouhlasím ☐☐☐☐☐ souhlasím
Většina lidí, kteří ovlivňují mé názory si myslí, že bych neměl/a kupovat biopotraviny.	nesouhlasím ☐☐☐☐☐ souhlasím
Kupovat biopotraviny je pro mě dobré.	nesouhlasím ☐☐☐☐☐ souhlasím
Cena biopotravin je pro mě důležitá.	nesouhlasím ☐☐☐☐☐ souhlasím
Je obtížné vědět, zda je produkt ekologicky vypěstován.	nesouhlasím ☐☐☐☐☐ souhlasím

Myslím si, že není důležité kupovat biopotraviny.	nesouhlasím ☐☐☐☐☐ souhlasím
Moji přátelé, kteří ovlivňují mé chování si myslí, že bych měl/a nakupovat biopotraviny.	nesouhlasím ☐☐☐☐☐ souhlasím
V obchodě, kde nakupuji, je obtížné najít biopotraviny.	nesouhlasím ☐☐☐☐☐ souhlasím
V blízké době neplánuji nakoupit biopotraviny.	nesouhlasím ☐☐☐☐☐ souhlasím
Často se zdržím nákupu biopotravin z důvodu vysoké ceny.	nesouhlasím ☐☐☐☐☐ souhlasím

Jsem schopný/á rozpoznat bioznačku.	nesouhlasím ☐☐☐☐☐ souhlasím
Je pro mě důležité, že biopotraviny nejsou dražší než běžné potraviny.	nesouhlasím ☐☐☐☐☐ souhlasím
Myslím si, že nákup biopotravin není rozumný.	nesouhlasím ☐☐☐☐☐ souhlasím
Nemohu snadno najít biopotraviny v okolí mého bydliště.	nesouhlasím ☐☐☐☐☐ souhlasím
Při příštím nákupu potravin zvolím biopotraviny.	nesouhlasím ☐☐☐☐☐ souhlasím

Nákup biopotravin je pro mě prospěšný.	nesouhlasím ☐☐☐☐☐ souhlasím
Uvažoval/a bych o nákupu biopotravin, kdyby byly dostupné v místě, kde nakupuji.	nesouhlasím ☐☐☐☐☐ souhlasím
Vždy se v obchodě snažím najít nejrozumnější ceny potravin.	nesouhlasím ☐☐☐☐☐ souhlasím
Mám v úmyslu koupit biopotraviny během příštích dvou týdnů.	nesouhlasím ☐☐☐☐☐ souhlasím
Má rodina si přeje, abych nakupoval/a biopotraviny.	nesouhlasím ☐☐☐☐☐ souhlasím

Pokud budu chtít koupit biopotraviny, jsou snadno k dostání.	nesouhlasím ☐☐☐☐☐ souhlasím
Mám dobré znalosti o biopotravinách.	nesouhlasím ☐☐☐☐☐ souhlasím
Biopotraviny jsou pro mě drahé.	nesouhlasím ☐☐☐☐☐ souhlasím
Lidé, kteří jsou pro mě důležití, chtějí abych nakupoval/a biopotraviny.	nesouhlasím ☐☐☐☐☐ souhlasím

Nevěřím, že nakupování biopotravin je lepší než nakupování běžných potravin.	nesouhlasím ☐☐☐☐☐ souhlasím

Jak často kupujete potraviny pro Vaši domácnost?	nikdy ☐☐☐☐☐ vždy
Když kupujete potraviny, jak často kupujete biopotraviny?	nikdy ☐☐☐☐☐ vždy
Když kupujete potraviny, jaké % Vašeho nákupu tvoří biopotraviny?	0 25 50 75 100% ☐☐☐☐☐

Prosím, uveďte následující informace:

Pohlaví: ☐ Žena
☐ Muž

Věk: ☐ 18- 25
☐ 26- 35
☐ 36- 45
☐ 46- 55
☐ 56- 65
☐ 66 a více

Rodinný stav: ☐ ženatý, vdaná
☐ svobodný/á, rozvedený/á, vdovec/ vdova

Dosažené vzdělání: ☐ Základní
☐ Vyučen/a
☐ Středoškolské s maturitou
☐ Vyšší odborné
☐ Vysokoškolské

Počet dětí v domácnosti: ☐ 0
☐ 1
☐ 2 a více

Rodinný čistý měsíční příjem: ☐ do 10 000 Kč
☐ 11 000- 20 000 Kč
☐ 21 000- 30 000 Kč
☐ 31 000- 40 000 Kč
☐ 41 000- 50 000 Kč
☐ více než 50 000 Kč

Pracovní úvazek: ☐ Plný úvazek
☐ Částečný úvazek
☐ Student
☐ Nepracující

Děkuji za spolupráci!

Appendix B

Appendix B1. Reliability Analysis

Attitudes towards Buying

Case Processing Summary

		N	%
Cases	Valid	263	100,0
	Excluded[a]	0	,0
	Total	263	100,0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,797	,801	5

Subjective norms

Case Processing Summary

		N	%
Cases	Valid	263	100,0
	Excluded[a]	0	,0
	Total	263	100,0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,765	,765	3

Perceived Availability

Case Processing Summary

		N	%
Cases	Valid	263	100,0
	Excluded[a]	0	,0
	Total	263	100,0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,774	,775	4

Perceived Price

Case Processing Summary

		N	%
Cases	Valid	263	100,0
	Excluded^a	0	,0
	Total	263	100,0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,732	,734	3

Product Knowledge

Case Processing Summary

		N	%
Cases	Valid	263	100,0
	Excluded^a	0	,0
	Total	263	100,0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,561	,566	2

Intention to Buy

Case Processing Summary

		N	%
Cases	Valid	263	100,0
	Excluded^a	0	,0
	Total	263	100,0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,832	,839	2

Actual purchase

Case Processing Summary

		N	%
Cases	Valid	263	100,0
	Excluded^a	0	,0
	Total	263	100,0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,829	,857	2

Appendix B2. Frequency Distribution of Demographic Characteristics

Age
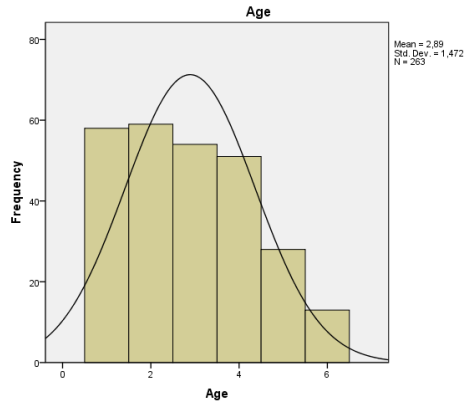
Marital Status
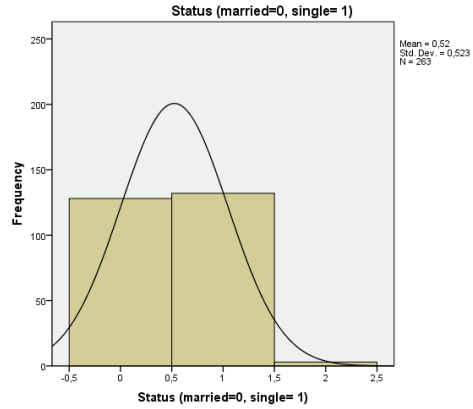
Education Level
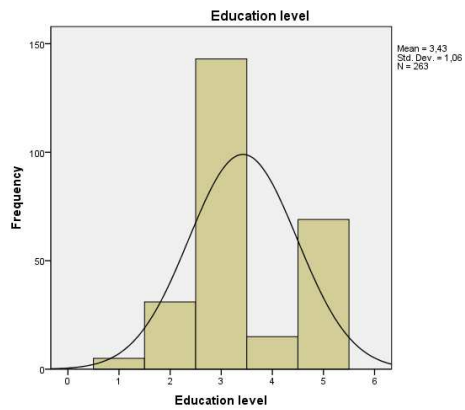
Family Income
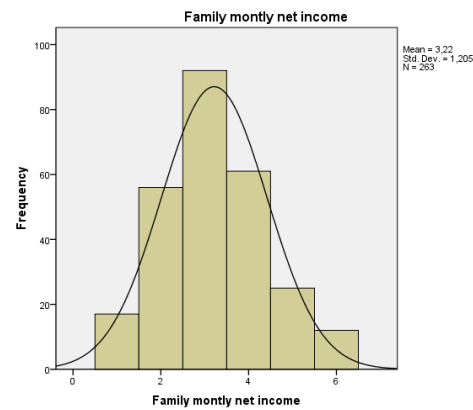
Work Load
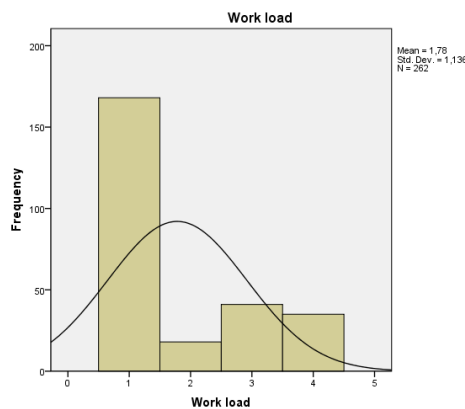
Appendix B3. Attitudes towards Buying

Frequency Distribution

Statistics

		It is good for me to buy organic food	reverse coding: I think it is not important to buy organic food	reverse coding: I think that buying organic food is not reasonable	Purchasing of organic food is beneficial for me	reverse coding: I do not believe that buying organic food is better than non organic food.
N	Valid	263	263	262	263	263
	Missing	0	0	1	0	0

It is good for me to buy organic food

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	19	7,2	7,2	7,2
	2	27	10,3	10,3	17,5
	3	95	36,1	36,1	53,6
	4	66	25,1	25,1	78,7
	5	56	21,3	21,3	100,0
	Total	263	100,0	100,0	

reverse coding: I think it is not important to buy organic food

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	24	9,1	9,1	9,1
	2	32	12,2	12,2	21,3
	3	68	25,9	25,9	47,1
	4	72	27,4	27,4	74,5
	5	67	25,5	25,5	100,0
	Total	263	100,0	100,0	

reverse coding: I think that buying organic food is not reasonable

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	17	6,5	6,5	6,5
	2	20	7,6	7,6	14,1
	3	53	20,2	20,2	34,4
	4	67	25,5	25,6	59,9
	5	105	39,9	40,1	100,0
	Total	262	99,6	100,0	
Missing	System	1	,4		
Total		263	100,0		

Purchasing of organic food is beneficial for me

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	24	9,1	9,1	9,1
	2	21	8,0	8,0	17,1
	3	77	29,3	29,3	46,4
	4	65	24,7	24,7	71,1
	5	76	28,9	28,9	100,0
	Total	263	100,0	100,0	

reverse coding: I do not believe that buying organic food is better than non organic food.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	39	14,8	14,8	14,8
	2	42	16,0	16,0	30,8
	3	76	28,9	28,9	59,7
	4	48	18,3	18,3	77,9
	5	58	22,1	22,1	100,0
	Total	263	100,0	100,0	

Independent T-test: Gender

Group Statistics

	Gender (female=0, male=1)	N	Mean	Std. Deviation	Std. Error Mean
Attitude index	female	145	3,7100	,81064	,06732
	male	118	3,2373	,98257	,09045

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Attitude index	Equal variances assumed	6,533	,011	4,275	261	,000	,47271	,11057	,25499	,69043
	Equal variances not assumed			4,192	226,140	,000	,47271	,11275	,25053	,69490

One-way ANOVA: Age Groups

Descriptives

Purchasing of organic food is beneficial for me

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
18-25	58	3,71	1,185	,156	3,40	4,02	1	5
26-35	59	3,42	1,248	,163	3,10	3,75	1	5
36-45	54	3,26	1,306	,178	2,90	3,62	1	5
46-55	51	3,98	1,104	,155	3,67	4,29	1	5
56-65	28	3,43	1,200	,227	2,96	3,89	1	5
>66	13	3,46	1,450	,402	2,59	4,34	1	5
Total	263	3,56	1,240	,076	3,41	3,71	1	5

Test of Homogeneity of Variances

Purchasing of organic food is beneficial for me

Levene Statistic	df1	df2	Sig.
,618	5	257	,686

ANOVA

Purchasing of organic food is beneficial for me

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	16,852	5	3,370	2,245	,050
Within Groups	385,863	257	1,501		
Total	402,715	262			

Robust Tests of Equality of Means

Purchasing of organic food is beneficial for me

	Statistic[a]	df1	df2	Sig.
Welch	2,330	5	76,462	,050
Brown-Forsythe	2,126	5	127,089	,066

a. Asymptotically F distributed.

Multiple Comparisons

Purchasing of organic food is beneficial for me

Tukey HSD

(I) Age	(J) Age	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
18-25	26-35	,283	,227	,812	-,37	,93
	36-45	,448	,232	,385	-,22	1,11
	46-55	-,273	,235	,854	-,95	,40
	56-65	,278	,282	,922	-,53	1,09
	>66	,245	,376	,987	-,83	1,32
26-35	18-25	-,283	,227	,812	-,93	,37
	36-45	,164	,231	,980	-,50	,83
	46-55	-,557	,234	,169	-1,23	,12
	56-65	-,005	,281	1,000	-,81	,80
	>66	-,038	,375	1,000	-1,12	1,04
36-45	18-25	-,448	,232	,385	-1,11	,22
	26-35	-,164	,231	,980	-,83	,50
	46-55	-,721[*]	,239	,033	-1,41	-,03
	56-65	-,169	,285	,991	-,99	,65
	>66	-,202	,379	,995	-1,29	,88
46-55	18-25	,273	,235	,854	-,40	,95
	26-35	,557	,234	,169	-,12	1,23
	36-45	,721[*]	,239	,033	,03	1,41
	56-65	,552	,288	,396	-,28	1,38
	>66	,519	,381	,749	-,57	1,61
56-65	18-25	-,278	,282	,922	-1,09	,53
	26-35	,005	,281	1,000	-,80	,81
	36-45	,169	,285	,991	-,65	,99
	46-55	-,552	,288	,396	-1,38	,28
	>66	-,033	,411	1,000	-1,21	1,15
>66	18-25	-,245	,376	,987	-1,32	,83
	26-35	,038	,375	1,000	-1,04	1,12
	36-45	,202	,379	,995	-,88	1,29
	46-55	-,519	,381	,749	-1,61	,57
	56-65	,033	,411	1,000	-1,15	1,21

*. The mean difference is significant at the 0.05 level.

Purchasing of organic food is beneficial for me

Tukey HSD[a,b]

Age	N	Subset for alpha = 0.05
		1
36-45	54	3,26
26-35	59	3,42
56-65	28	3,43
>66	13	3,46
18-25	58	3,71
46-55	51	3,98
Sig.		,171

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 32,440.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

One-way ANOVA: Number of Children

Descriptives

reverse coding: I do not believe that buying organic food is better than non organic food.

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
0	133	3,15	1,323	,115	2,92	3,38	1	5
1	66	3,47	1,280	,158	3,16	3,78	1	5
<1	64	2,89	1,393	,174	2,54	3,24	1	5
Total	263	3,17	1,340	,083	3,00	3,33	1	5

Test of Homogeneity of Variances

reverse coding: I do not believe that buying organic food is better than non organic food.

Levene Statistic	df1	df2	Sig.
,259	2	260	,772

ANOVA

reverse coding: I do not believe that buying organic food is better than non organic food.

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	10,973	2	5,486	3,103	,047
Within Groups	459,666	260	1,768		
Total	470,639	262			

Multiple Comparisons

reverse coding: I do not believe that buying organic food is better than non organic food.
Tukey HSD

(I) Number of children	(J) Number of children	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
0	1	-,319	,200	,250	-,79	,15
	<1	,260	,202	,405	-,22	,74
1	0	,319	,200	,250	-,15	,79
	<1	,579[*]	,233	,036	,03	1,13
<1	0	-,260	,202	,405	-,74	,22
	1	-,579[*]	,233	,036	-1,13	-,03

*. The mean difference is significant at the 0.05 level.

reverse coding: I do not believe that buying organic food is better than non organic food.
Tukey HSD[a,b]

Number of children	N	Subset for alpha = 0.05	
		1	2
<1	64	2,89	
0	133	3,15	3,15
1	66		3,47
Sig.		,441	,291

Means for groups in homogeneous subsets are displayed.
a. Uses Harmonic Mean Sample Size = 78,339.
b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error
levels are not guaranteed.

Appendix B4. Subjective Norms

Frequency Distribution

Statistics

		My friends who influence my buying behaviour think I should buy organic food	My family would like me to buy organic food	People that are important to me would like me to buy organic food.
N	Valid	263	263	263
	Missing	0	0	0

My friends who influence my buying behaviour think I should buy organic food

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	66	25,1	25,1	25,1
	2	50	19,0	19,0	44,1
	3	89	33,8	33,8	77,9
	4	41	15,6	15,6	93,5
	5	17	6,5	6,5	100,0
	Total	263	100,0	100,0	

My family would like me to buy organic food

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	101	38,4	38,4	38,4
	2	54	20,5	20,5	58,9
	3	59	22,4	22,4	81,4
	4	31	11,8	11,8	93,2
	5	18	6,8	6,8	100,0
	Total	263	100,0	100,0	

People that are important to me would like me to buy organic food.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	91	34,6	34,6	34,6
	2	42	16,0	16,0	50,6
	3	85	32,3	32,3	82,9
	4	30	11,4	11,4	94,3
	5	15	5,7	5,7	100,0
	Total	263	100,0	100,0	

Independent T-test: Status

Group Statistics

	Status (married=0, single= 1)	N	Mean	Std. Deviation	Std. Error Mean
My family would like me to buy organic food	married	128	2,45	1,297	,115
	single	135	2,12	1,234	,106

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means							
										95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference		Lower	Upper
My family would like me to buy organic food	Equal variances assumed	1,007	,317	2,144	261	,033	,335	,156		,027	,642
	Equal variances not assumed			2,141	258,251	,033	,335	,156		,027	,642

One-way ANOVA: Age

Descriptives

My family would like me to buy organic food

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
18-25	58	1,95	1,176	,154	1,64	2,26	1	5
26-35	59	2,12	1,247	,162	1,79	2,44	1	5
36-45	54	2,15	1,089	,148	1,85	2,45	1	5
46-55	51	2,53	1,302	,182	2,16	2,90	1	5
56-65	28	2,79	1,500	,283	2,20	3,37	1	5
>66	13	3,00	1,354	,376	2,18	3,82	1	5
Total	263	2,28	1,274	,079	2,13	2,44	1	5

Test of Homogeneity of Variances

My family would like me to buy organic food

Levene Statistic	df1	df2	Sig.
1,093	5	257	,365

ANOVA

My family would like me to buy organic food

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	25,929	5	5,186	3,338	,006
Within Groups	399,249	257	1,553		
Total	425,179	262			

Multiple Comparisons

My family would like me to buy organic food
Tukey HSD

(I) Age	(J) Age	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
18-25	26-35	-,170	,230	,977	-,83	,49
	36-45	-,200	,236	,958	-,88	,48
	46-55	-,581	,239	,150	-1,27	,11
	56-65	-,837[*]	,287	,044	-1,66	-,01
	>66	-1,052	,382	,069	-2,15	,05
26-35	18-25	,170	,230	,977	-,49	,83
	36-45	-,030	,235	1,000	-,70	,64
	46-55	-,411	,238	,517	-1,10	,27
	56-65	-,667	,286	,185	-1,49	,15
	>66	-,881	,382	,195	-1,98	,22
36-45	18-25	,200	,236	,958	-,48	,88
	26-35	,030	,235	1,000	-,64	,70
	46-55	-,381	,243	,621	-1,08	,32
	56-65	-,638	,290	,243	-1,47	,20
	>66	-,852	,385	,236	-1,96	,25
46-55	18-25	,581	,239	,150	-,11	1,27
	26-35	,411	,238	,517	-,27	1,10
	36-45	,381	,243	,621	-,32	1,08
	56-65	-,256	,293	,952	-1,10	,59
	>66	-,471	,387	,829	-1,58	,64
56-65	18-25	,837[*]	,287	,044	,01	1,66
	26-35	,667	,286	,185	-,15	1,49
	36-45	,638	,290	,243	-,20	1,47
	46-55	,256	,293	,952	-,59	1,10
	>66	-,214	,418	,996	-1,42	,99
>66	18-25	1,052	,382	,069	-,05	2,15
	26-35	,881	,382	,195	-,22	1,98
	36-45	,852	,385	,236	-,25	1,96
	46-55	,471	,387	,829	-,64	1,58
	56-65	,214	,418	,996	-,99	1,42

*. The mean difference is significant at the 0.05 level.

My family would like me to buy organic food

Tukey HSD[a,b]

Age	N	Subset for alpha = 0.05	
		1	2
18-25	58	1,95	
26-35	59	2,12	2,12
36-45	54	2,15	2,15
46-55	51	2,53	2,53
56-65	28	2,79	2,79
>66	13		3,00
Sig.		,078	,053

Means for groups in homogeneous subsets are displayed.
a. Uses Harmonic Mean Sample Size = 32,440.
b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

One-way ANOVA: Family Net Income

Descriptives

My friends who influence my buying behaviour think I should buy organic food

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
up to 10 000 CZK	17	2,59	1,176	,285	1,98	3,19	1	5
11 000- 20 000 CZK	56	3,00	1,206	,161	2,68	3,32	1	5
21 000- 30 000 CZK	92	2,57	1,243	,130	2,31	2,82	1	5
31 000- 40 000 CZK	61	2,57	1,161	,149	2,28	2,87	1	5
41 000- 50 000 CZK	25	1,96	,935	,187	1,57	2,35	1	3
more then 50 000 CZK	12	2,33	1,155	,333	1,60	3,07	1	4
Total	263	2,59	1,203	,074	2,45	2,74	1	5

Test of Homogeneity of Variances

My friends who influence my buying behaviour think I should buy organic food

Levene Statistic	df1	df2	Sig.
,847	5	257	,517

ANOVA

My friends who influence my buying behaviour think I should buy organic food

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	20,197	5	4,039	2,889	,015
Within Groups	359,271	257	1,398		
Total	379,468	262			

Multiple Comparisons

My friends who influence my buying behaviour think I should buy organic food

Tukey HSD

(I) Family annual net monthly income	(J) Family annual net monthly income	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
up to 10 000 CZK	11 000- 20 000 CZK	-,412	,327	,808	-1,35	,53
	21 000- 30 000 CZK	,023	,312	1,000	-,87	,92
	31 000- 40 000 CZK	,014	,324	1,000	-,92	,95
	41 000- 50 000 CZK	,628	,372	,539	-,44	1,70
	more then 50 000 CZK	,255	,446	,993	-1,03	1,53
11 000- 20 000 CZK	up to 10 000 CZK	,412	,327	,808	-,53	1,35
	21 000- 30 000 CZK	,435	,200	,256	-,14	1,01
	31 000- 40 000 CZK	,426	,219	,376	-,20	1,05
	41 000- 50 000 CZK	1,040*	,284	,004	,22	1,86
	more then 50 000 CZK	,667	,376	,485	-,41	1,75
21 000- 30 000 CZK	up to 10 000 CZK	-,023	,312	1,000	-,92	,87
	11 000- 20 000 CZK	-,435	,200	,256	-1,01	,14
	31 000- 40 000 CZK	-,009	,195	1,000	-,57	,55
	41 000- 50 000 CZK	,605	,267	,210	-,16	1,37
	more then 50 000 CZK	,232	,363	,988	-,81	1,27
31 000- 40 000 CZK	up to 10 000 CZK	-,014	,324	1,000	-,95	,92
	11 000- 20 000 CZK	-,426	,219	,376	-1,05	,20
	21 000- 30 000 CZK	,009	,195	1,000	-,55	,57
	41 000- 50 000 CZK	,614	,281	,248	-,19	1,42
	more then 50 000 CZK	,240	,373	,988	-,83	1,31
41 000- 50 000 CZK	up to 10 000 CZK	-,628	,372	,539	-1,70	,44
	11 000- 20 000 CZK	-1,040*	,284	,004	-1,86	-,22
	21 000- 30 000 CZK	-,605	,267	,210	-1,37	,16
	31 000- 40 000 CZK	-,614	,281	,248	-1,42	,19
	more then 50 000 CZK	-,373	,415	,946	-1,57	,82
more then 50 000 CZK	up to 10 000 CZK	-,255	,446	,993	-1,53	1,03
	11 000- 20 000 CZK	-,667	,376	,485	-1,75	,41
	21 000- 30 000 CZK	-,232	,363	,988	-1,27	,81
	31 000- 40 000 CZK	-,240	,373	,988	-1,31	,83
	41 000- 50 000 CZK	,373	,415	,946	-,82	1,57

*. The mean difference is significant at the 0.05 level.

My friends who influence my buying behaviour think I should buy organic food

Tukey HSD[a,b]

Family annual net monthly income	N	Subset for alpha = 0.05	
		1	2
41 000- 50 000 CZK	25	1,96	
more then 50 000 CZK	12	2,33	2,33
21 000- 30 000 CZK	92	2,57	2,57
31 000- 40 000 CZK	61	2,57	2,57
up to 10 000 CZK	17	2,59	2,59
11 000- 20 000 CZK	56		3,00
Sig.		,386	,318

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 26,400.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

Appendix B5. Perceived Availability

Frequency Distribution

Statistics

		Organic food is sufficiently available	Reverse coding: Organic food is hard to find in a shop where I purchase	Reverse coding: I can not easily find organic food in my neighbourhood
N	Valid	263	263	263
	Missing	0	0	0
Mean		3,38	3,44	3,29

Organic food is sufficiently available

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	14	5,3	5,3	5,3
	2	41	15,6	15,6	20,9
	3	81	30,8	30,8	51,7
	4	84	31,9	31,9	83,7
	5	43	16,3	16,3	100,0
	Total	263	100,0	100,0	

reverse coding: Organic food is hard to find in a shop where I purchase

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	26	9,9	9,9	9,9
	2	44	16,7	16,7	26,6
	3	56	21,3	21,3	47,9
	4	63	24,0	24,0	71,9
	5	74	28,1	28,1	100,0
	Total	263	100,0	100,0	

reverse coding: I can not easily find organic food in my neighbourhood

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	42	16,0	16,0	16,0
	2	41	15,6	15,6	31,6
	3	54	20,5	20,5	52,1
	4	51	19,4	19,4	71,5
	5	75	28,5	28,5	100,0
	Total	263	100,0	100,0	

Appendix B6. Perceived Price

Frequency Distribution

The price of organic food is important to me

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	15	5,7	5,7	5,7
	2	22	8,4	8,4	14,1
	3	42	16,0	16,0	30,0
	4	66	25,1	25,1	55,1
	5	118	44,9	44,9	100,0
	Total	263	100,0	100,0	

I always try to find the most reasonable low price food in the store

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	20	7,6	7,6	7,6
	2	20	7,6	7,6	15,2
	3	54	20,5	20,5	35,7
	4	60	22,8	22,8	58,6
	5	109	41,4	41,4	100,0
	Total	263	100,0	100,0	

Organic food is expensive for me

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	17	6,5	6,5	6,5
	2	29	11,0	11,0	17,5
	3	64	24,3	24,3	41,8
	4	63	24,0	24,0	65,8
	5	90	34,2	34,2	100,0
	Total	263	100,0	100,0	

One-way ANOVA: Education Level

Descriptives

I always try to find the most reasonable low price food in the store

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Primary school	5	4,40	,894	,400	3,29	5,51	3	5
Apprenticeship	31	4,19	1,046	,188	3,81	4,58	1	5
Secondary with GCE	143	3,90	1,258	,105	3,69	4,11	1	5
Higher post-secondary schools	15	4,07	1,335	,345	3,33	4,81	1	5
University	69	3,42	1,277	,154	3,11	3,73	1	5
Total	263	3,83	1,259	,078	3,68	3,98	1	5

Test of Homogeneity of Variances

I always try to find the most reasonable low price food in the store

Levene Statistic	df1	df2	Sig.
,772	4	258	,544

ANOVA

I always try to find the most reasonable low price food in the store

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	18,887	4	4,722	3,073	,017
Within Groups	396,413	258	1,536		
Total	415,300	262			

Robust Tests of Equality of Means

I always try to find the most reasonable low price food in the store

	Statistic[a]	df1	df2	Sig.
Welch	3,159	4	24,179	,032
Brown-Forsythe	3,528	4	69,663	,011

a. Asymptotically F distributed.

Multiple Comparisons

I always try to find the most reasonable low price food in the store

Tukey HSD

(I) Level of education	(J) Level of education	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Primary school	Apprenticeship	,206	,597	,997	-1,43	1,85
	Secondary with GCE	,498	,564	,903	-1,05	2,05
	Higher post-secondary schools	,333	,640	,985	-1,43	2,09
	University	,980	,574	,432	-,60	2,56
Apprenticeship	Primary school	-,206	,597	,997	-1,85	1,43
	Secondary with GCE	,291	,246	,759	-,38	,97
	Higher post-secondary schools	,127	,390	,998	-,94	1,20
	University	,773*	,268	,034	,04	1,51
Secondary with GCE	Primary school	-,498	,564	,903	-2,05	1,05
	Apprenticeship	-,291	,246	,759	-,97	,38
	Higher post-secondary schools	-,165	,336	,988	-1,09	,76
	University	,482	,182	,064	-,02	,98
Higher post-secondary schools	Primary school	-,333	,640	,985	-2,09	1,43
	Apprenticeship	-,127	,390	,998	-1,20	,94
	Secondary with GCE	,165	,336	,988	-,76	1,09
	University	,646	,353	,358	-,32	1,62
University	Primary school	-,980	,574	,432	-2,56	,60
	Apprenticeship	-,773*	,268	,034	-1,51	-,04
	Secondary with GCE	-,482	,182	,064	-,98	,02
	Higher post-secondary schools	-,646	,353	,358	-1,62	,32

*. The mean difference is significant at the 0.05 level.

I always try to find the most reasonable low price food in the store

Tukey HSD[a,b]

Level of education	N	Subset for alpha = 0.05
		1
University	69	3,42
Secondary with GCE	143	3,90
Higher post-secondary schools	15	4,07
Apprenticeship	31	4,19
Primary school	5	4,40
Sig.		,180

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 15,605.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

Appendix B7. Product Knowledge

Frequency Distribution

I am able to recognize organic label

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	32	12,2	12,2	12,2
	2	21	8,0	8,0	20,2
	3	50	19,0	19,0	39,2
	4	49	18,6	18,6	57,8
	5	111	42,2	42,2	100,0
	Total	263	100,0	100,0	

I have good knowledge about organic food

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	58	22,1	22,1	22,1
	2	62	23,6	23,6	45,6
	3	82	31,2	31,2	76,8
	4	41	15,6	15,6	92,4
	5	20	7,6	7,6	100,0
	Total	263	100,0	100,0	

It is difficult for me to know if food is organically produced

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	13	4,9	4,9	4,9
	2	23	8,7	8,7	13,7
	3	48	18,3	18,3	31,9
	4	66	25,1	25,1	57,0
	5	113	43,0	43,0	100,0
	Total	263	100,0	100,0	

Independent T-test: Marital Status

Group Statistics

	Status (married=0, single= 1)	N	Mean	Std. Deviation	Std. Error Mean
It is difficult for me to know if food is organically produced	married	128	4,07	1,074	,095
	single	135	3,79	1,272	,109

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference		Lower	Upper
It is difficult for me to know if food is organically produced	Equal variances assumed	4,073	,045	1,959	261	,051	,285	,146		-,001	,572
	Equal variances not assumed			1,968	257,584	,050	,285	,145		,000	,570

One way ANOVA: Age

Descriptives

It is difficult for me to know if food is organically produced

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
18-25	58	3,59	1,214	,159	3,27	3,91	1	5
26-35	59	3,90	1,185	,154	3,59	4,21	1	5
36-45	54	4,00	1,182	,161	3,68	4,32	1	5
46-55	51	4,04	1,199	,168	3,70	4,38	1	5
56-65	28	3,93	1,184	,224	3,47	4,39	1	5
>66	13	4,77	,439	,122	4,50	5,03	4	5
Total	263	3,92	1,186	,073	3,78	4,07	1	5

Test of Homogeneity of Variances

It is difficult for me to know if food is organically produced

Levene Statistic	df1	df2	Sig.
2,358	5	257	,041

ANOVA

It is difficult for me to know if food is organically produced

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	16,934	5	3,387	2,476	,033
Within Groups	351,545	257	1,368		
Total	368,479	262			

Robust Tests of Equality of Means

It is difficult for me to know if food is organically produced

	Statistic[a]	df1	df2	Sig.
Welch	8,409	5	92,096	,000
Brown-Forsythe	2,849	5	228,367	,016

a. Asymptotically F distributed.

Multiple Comparisons

It is difficult for me to know if food is organically produced

Tukey HSD

(I) Age	(J) Age	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
18-25	26-35	-,312	,216	,701	-,93	,31
	36-45	-,414	,221	,422	-1,05	,22
	46-55	-,453	,225	,335	-1,10	,19
	56-65	-,342	,269	,800	-1,12	,43
	>66	-1,183*	,359	,014	-2,21	-,15
26-35	18-25	,312	,216	,701	-,31	,93
	36-45	-,102	,220	,997	-,73	,53
	46-55	-,141	,224	,989	-,78	,50
	56-65	-,030	,268	1,000	-,80	,74
	>66	-,871	,358	,150	-1,90	,16
36-45	18-25	,414	,221	,422	-,22	1,05
	26-35	,102	,220	,997	-,53	,73
	46-55	-,039	,228	1,000	-,69	,62
	56-65	,071	,272	1,000	-,71	,85
	>66	-,769	,361	,276	-1,81	,27
46-55	18-25	,453	,225	,335	-,19	1,10
	26-35	,141	,224	,989	-,50	,78
	36-45	,039	,228	1,000	-,62	,69
	56-65	,111	,275	,999	-,68	,90
	>66	-,730	,363	,340	-1,77	,31
56-65	18-25	,342	,269	,800	-,43	1,12
	26-35	,030	,268	1,000	-,74	,80
	36-45	-,071	,272	1,000	-,85	,71
	46-55	-,111	,275	,999	-,90	,68
	>66	-,841	,393	,269	-1,97	,29
>66	18-25	1,183*	,359	,014	,15	2,21
	26-35	,871	,358	,150	-,16	1,90
	36-45	,769	,361	,276	-,27	1,81
	46-55	,730	,363	,340	-,31	1,77
	56-65	,841	,393	,269	-,29	1,97

*. The mean difference is significant at the 0.05 level.

It is difficult for me to know if food is organically produced

Tukey HSD[a,b]

Age	N	Subset for alpha = 0.05	
		1	2
18-25	58	3,59	
26-35	59	3,90	
56-65	28	3,93	
36-45	54	4,00	4,00
46-55	51	4,04	4,04
>66	13		4,77
Sig.		,626	,090

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 32,440.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

Appendix B8. Actual Purchase

Frequency Distribution

Statistics

		When you buy food how often do you buy organic food?	When you buy food what % of your purchases is organic food?
N	Valid	263	263
	Missing	0	0

When you buy food how often do you buy organic food?

		Frequency	Percent%	Valid Percent%	Cumulative Percent%
Valid	1	76	28,9	28,9	28,9
	2	92	35,0	35,0	63,9
	3	74	28,1	28,1	92,0
	4	19	7,2	7,2	99,2
	5	2	,8	,8	100,0
	Total	263	100,0	100,0	

When you buy food what % of your purchases is organic food?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	99	37,6	37,6	37,6
	2	138	52,5	52,5	90,1
	3	22	8,4	8,4	98,5
	4	4	1,5	1,5	100,0
	Total	263	100,0	100,0	

Independent T-Test

Group Statistics

	Gender (female=0, male=1)	N	Mean	Std. Deviation	Std. Error Mean
When you buy food how often do you buy organic food?	female	145	2,30	,951	,079
	male	118	1,99	,929	,086
When you buy food what % of your purchases is organic food?	female	145	1,83	,677	,056
	male	118	1,62	,653	,060

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
When you buy food how often do you buy organic food?	Equal variances assumed	,649	,421	2,614	261	,009	,305	,117	,075	,535
	Equal variances not assumed			2,620	252,461	,009	,305	,116	,076	,534
When you buy food what % of your purchases is organic food?	Equal variances assumed	2,126	,146	2,613	261	,009	,216	,083	,053	,378
	Equal variances not assumed			2,623	253,629	,009	,216	,082	,054	,378

Appendix B9. Who is Buyer of Organic Food

Independent T-test: Gender

Group Statistics

	Gender (female=0, male=1)	N	Mean	Std. Deviation	Std. Error Mean
Intention index	female	145	2,6690	1,16997	,09716
	male	118	2,3686	1,23418	,11362
Actual purchase index	female	145	2,0655	,75059	,06233
	male	118	1,8051	,75400	,06941

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Intention index	Equal variances assumed	1,359	,245	2,020	261	,044	,30032	,14867	,00757	,59308
	Equal variances not assumed			2,009	244,470	,046	,30032	,14949	,00586	,59478
Actual purchase index	Equal variances assumed	1,350	,246	2,793	261	,006	,26043	,09325	,07682	,44405
	Equal variances not assumed			2,792	249,801	,006	,26043	,09329	,07669	,44417

Attitudes towars Buying: Female vs. Male

Group Statistics

	Gender (female=0, male=1)	N	Mean	Std. Deviation	Std. Error Mean
Attitude index	female	145	3,7100	,81064	,06732
	male	118	3,2373	,98257	,09045

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Differenc	Lower	Upper
Attitude index	Equal variances assumed	6,533	,011	4,27	261	,000	,47271	,11057	,25499	,69043
	not assumed			4,19	226,14	,000	,47271	,11275	,25053	,69490

Primary vs. Passive Buyer

Statistics

How often do you buy food for your household?

N	Valid	263
	Missing	0

How often do you buy food for your household?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	never	25	9,5	9,5	9,5
	seldom	51	19,4	19,4	28,9
	sometimes	78	29,7	29,7	58,6
	often	56	21,3	21,3	79,8
	always	53	20,2	20,2	100,0
	Total	263	100,0	100,0	

One way ANOVA: Attitudes toward Buying

Descriptives

Attitude index

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
never	25	2,9360	,83610	,16722	2,5909	3,2811	1,40	4,60
seldom	51	3,4000	,82849	,11601	3,1670	3,6330	1,60	5,00
sometimes	78	3,6378	,85395	,09669	3,4453	3,8304	1,20	5,00
often	56	3,5393	,93957	,12556	3,2877	3,7909	1,40	5,00
always	53	3,6075	1,03475	,14213	3,3223	3,8928	1,00	5,00
Total	263	3,4979	,92076	,05678	3,3861	3,6097	1,00	5,00

Test of Homogeneity of Variances

Attitude index

Levene Statistic	df1	df2	Sig.
1,322	4	258	,262

ANOVA

Attitude index

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	10,642	4	2,661	3,246	,013
Within Groups	211,479	258	,820		
Total	222,121	262			

Robust Tests of Equality of Means

Attitude index

	Statistic[a]	df1	df2	Sig.
Brown-Forsythe	3,276	4	215,164	,012

a. Asymptotically F distributed.

Multiple Comparisons

Attitude index
Tukey HSD

(I) How often do you buy food for your household?	(J) How often do you buy food for your household?	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
never	seldom	-,46400	,22104	,224	-1,0712	,1432
	sometimes	-,70182[*]	,20808	,008	-1,2734	-,1302
	often	-,60329[*]	,21777	,047	-1,2015	-,0050
	always	-,67155[*]	,21967	,021	-1,2750	-,0681
seldom	never	,46400	,22104	,224	-,1432	1,0712
	sometimes	-,23782	,16304	,590	-,6857	,2101
	often	-,13929	,17524	,932	-,6207	,3421
	always	-,20755	,17759	,769	-,6954	,2803
sometimes	never	,70182[*]	,20808	,008	,1302	1,2734
	seldom	,23782	,16304	,590	-,2101	,6857
	often	,09853	,15858	,972	-,3371	,5342
	always	,03027	,16117	1,000	-,4125	,4730
often	never	,60329[*]	,21777	,047	,0050	1,2015
	seldom	,13929	,17524	,932	-,3421	,6207
	sometimes	-,09853	,15858	,972	-,5342	,3371
	always	-,06826	,17350	,995	-,5449	,4084
always	never	,67155[*]	,21967	,021	,0681	1,2750
	seldom	,20755	,17759	,769	-,2803	,6954
	sometimes	-,03027	,16117	1,000	-,4730	,4125
	often	,06826	,17350	,995	-,4084	,5449

*. The mean difference is significant at the 0.05 level.

One way ANOVA: Product Knowledge

Descriptives

Knowledge index

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
never	25	2,7600	1,20865	,24173	2,2611	3,2589	1,00	4,50
seldom	51	2,9510	1,00625	,14090	2,6680	3,2340	1,00	5,00
sometimes	78	3,3077	1,04828	,11869	3,0713	3,5440	1,00	5,00
often	56	3,4643	,96228	,12859	3,2066	3,7220	1,00	5,00
always	53	3,0566	1,19559	,16423	2,7271	3,3861	1,00	5,00
Total	263	3,1692	1,08638	,06699	3,0373	3,3011	1,00	5,00

Test of Homogeneity of Variances

Knowledge index

Levene Statistic	df1	df2	Sig.
1,996	4	258	,096

ANOVA

Knowledge index

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	13,659	4	3,415	2,981	,020
Within Groups	295,562	258	1,146		
Total	309,221	262			

Robust Tests of Equality of Means

Knowledge index

	Statistic[a]	df1	df2	Sig.
Brown-Forsythe	2,857	4	177,755	,025

a. Asymptotically F distributed.

Multiple Comparisons

Knowledge index
Tukey HSD

(I) How often do you buy food for your household?	(J) How often do you buy food for your household?	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
never	seldom	-,19098	,26132	,949	-,9089	,5269
	sometimes	-,54769	,24599	,173	-1,2235	,1281
	often	-,70429	,25745	,052	-1,4115	,0030
	always	-,29660	,25969	,784	-1,0100	,4168
seldom	never	,19098	,26132	,949	-,5269	,9089
	sometimes	-,35671	,19274	,347	-,8862	,1728
	often	-,51331	,20717	,099	-1,0824	,0558
	always	-,10562	,20995	,987	-,6824	,4711
sometimes	never	,54769	,24599	,173	-,1281	1,2235
	seldom	,35671	,19274	,347	-,1728	,8862
	often	-,15659	,18747	,919	-,6716	,3584
	always	,25109	,19053	,680	-,2723	,7745
often	never	,70429	,25745	,052	-,0030	1,4115
	seldom	,51331	,20717	,099	-,0558	1,0824
	sometimes	,15659	,18747	,919	-,3584	,6716
	always	,40768	,20511	,275	-,1558	,9712
always	never	,29660	,25969	,784	-,4168	1,0100
	seldom	,10562	,20995	,987	-,4711	,6824
	sometimes	-,25109	,19053	,680	-,7745	,2723
	often	-,40768	,20511	,275	-,9712	,1558

One way ANOVA: Intention to Buy

Descriptives

Intention index

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
never	25	1,8800	1,28517	,25703	1,3495	2,4105	1,00	5,00
seldom	51	2,2353	,95579	,13384	1,9665	2,5041	1,00	4,50
sometimes	78	2,8013	1,12625	,12752	2,5474	3,0552	1,00	5,00
often	56	2,6607	1,22514	,16372	2,3326	2,9888	1,00	5,00
always	53	2,6038	1,34221	,18437	2,2338	2,9737	1,00	5,00
Total	263	2,5342	1,20621	,07438	2,3878	2,6807	1,00	5,00

Test of Homogeneity of Variances

Intention index

Levene Statistic	df1	df2	Sig.
1,945	4	258	,103

ANOVA

Intention index

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	21,973	4	5,493	3,945	,004
Within Groups	359,219	258	1,392		
Total	381,192	262			

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Robust Tests of Equality of Means

Intention index

	Statistic[a]	df1	df2	Sig.
Brown-Forsythe	3,826	4	183,818	,005

a. Asymptotically F distributed.

Multiple Comparisons

Intention index
Tukey HSD

(I) How often do you buy food for your household?	(J) How often do you buy food for your household?	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
never	seldom	-,35529	,28809	,732	-1,1467	,4361
	sometimes	-,92128[*]	,27119	,007	-1,6663	-,1763
	often	-,78071[*]	,28382	,050	-1,5604	-,0010
	always	-,72377	,28629	,088	-1,5103	,0627
seldom	never	,35529	,28809	,732	-,4361	1,1467
	sometimes	-,56599	,21249	,062	-1,1497	,0177
	often	-,42542	,22839	,340	-1,0529	,2020
	always	-,36848	,23145	,504	-1,0043	,2674
sometimes	never	,92128[*]	,27119	,007	,1763	1,6663
	seldom	,56599	,21249	,062	-,0177	1,1497
	often	,14057	,20667	,961	-,4272	,7083
	always	,19751	,21005	,881	-,3795	,7745
often	never	,78071[*]	,28382	,050	,0010	1,5604
	seldom	,42542	,22839	,340	-,2020	1,0529
	sometimes	-,14057	,20667	,961	-,7083	,4272
	always	,05694	,22613	,999	-,5643	,6781
always	never	,72377	,28629	,088	-,0627	1,5103
	seldom	,36848	,23145	,504	-,2674	1,0043
	sometimes	-,19751	,21005	,881	-,7745	,3795
	often	-,05694	,22613	,999	-,6781	,5643

*. The mean difference is significant at the 0.05 level.

Appendix B10. Multiple Regression Analysis: Intention

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	Knowledge index, Price index, Availability index, Attitudes index, Subjective norms index[a]	.	Enter

a. All requested variables entered.
b. Dependent Variable: Intention index

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,743[a]	,552	,543	,81532

a. Predictors: (Constant), Knowledge index, Price index, Availability index, Attitudes index, Subjective norms index
b. Dependent Variable: Intention index

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	210,351	5	42,070	63,287	,000[a]
	Residual	170,841	257	,665		
	Total	381,192	262			

a. Predictors: (Constant), Knowledge index, Price index, Availability index, Attitudes index, Subjective norms index
b. Dependent Variable: Intention index

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95,0% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tol	VIF
1	(Constant)	-,334	,354		-,942	,347	-1,032	,364					
	Attitudes index	,443	,064	,338	6,967	,000	,317	,568	,575	,399	,291	,742	1,349
	Subjective norms index	,580	,059	,490	9,904	,000	,465	,695	,671	,526	,414	,713	1,402
	Availability index	-,065	,054	-,054	-1,202	,230	-,172	,042	-,158	-,075	-,050	,876	1,141
	Price index	-,026	,050	-,022	-,515	,607	-,125	,073	-,033	-,032	-,022	,914	1,094
	Knowledge index	,075	,052	,068	1,465	,144	-,026	,177	,285	,091	,061	,811	1,234

a. Dependent Variable: Intention index

Collinearity Diagnostics[a]

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions					
				(Constant)	Attitudes index	Subjective norms index	Availability index	Price index	Knowledge index
1	1	5,633	1,000	,00	,00	,00	,00	,00	,00
	2	,150	6,125	,00	,01	,43	,11	,04	,00
	3	,104	7,375	,00	,02	,00	,10	,25	,31
	4	,059	9,777	,00	,02	,24	,41	,07	,61
	5	,039	12,037	,00	,89	,25	,00	,25	,06
	6	,016	18,848	,99	,07	,07	,37	,39	,01

a. Dependent Variable: Intention index

Independent T-test : Gender

Group Statistics

	Gender (female=0, male=1)	N	Mean	Std. Deviation	Std. Error Mean
I intend to purchase organic food within the next two weeks	female	145	2,77	1,403	,117
	male	118	2,40	1,385	,127

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
I intend to purchase organic food within the next two weeks	Equal variances assumed	,220	,639	2,163	261	,031	,374	,173	,034	,715
	Equal variances not assumed			2,166	251,538	,031	,374	,173	,034	,714

Appendix B11. Hierarchical Multiple Regression of Actual Purchase

Descriptive Statistics

	Mean	Std. Deviation	N
Actual purchase index	1,9487	,76182	263
Intention index	2,5342	1,20621	263
Availability index	3,3935	,99237	263
Price index	3,8460	1,04360	263
Knowledge index	3,1692	1,08638	263

Correlations

		Actual purchase index	Intention index	Availability index	Price index	Knowledge index
Pearson Correlation	Actual purchase index	1,000	,712	-,079	-,136	,368
	Intention index	,712	1,000	-,158	-,033	,285
	Availability index	-,079	-,158	1,000	-,120	,217
	Price index	-,136	-,033	-,120	1,000	-,143
	Knowledge index	,368	,285	,217	-,143	1,000
Sig. (1-tailed)	Actual purchase index	.	,000	,102	,014	,000
	Intention index	,000	.	,005	,295	,000
	Availability index	,102	,005	.	,026	,000
	Price index	,014	,295	,026	.	,010
	Knowledge index	,000	,000	,000	,010	.
N	Actual purchase index	263	263	263	263	263
	Intention index	263	263	263	263	263
	Availability index	263	263	263	263	263
	Price index	263	263	263	263	263
	Knowledge index	263	263	263	263	263

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	Intention index[a]	.	Enter
2	Price index, Availability index, Knowledge index[a]	.	Enter

a. All requested variables entered.
b. Dependent Variable: Actual purchase index

Model Summary[c]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	,712[a]	,507	,505	,53582	,507	268,634	1	261	,000
2	,738[b]	,545	,538	,51779	,038	7,165	3	258	,000

a. Predictors: (Constant), Intention index
b. Predictors: (Constant), Intention index, Price index, Availability index, Knowledge index
c. Dependent Variable: Actual purchase index

ANOVA^c

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	77,124	1	77,124	268,634	,000^a
	Residual	74,933	261	,287		
	Total	152,057	262			
2	Regression	82,887	4	20,722	77,291	,000^b
	Residual	69,170	258	,268		
	Total	152,057	262			

a. Predictors: (Constant), Intention index
b. Predictors: (Constant), Intention index, Price index, Availability index, Knowledge index
c. Dependent Variable: Actual purchase index

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	,809	,077		10,504	,000					
	Intention index	,450	,027	,712	16,390	,000	,712	,712	,712	1,000	1,000
2	(Constant)	,833	,207		4,032	,000					
	Intention index	,414	,028	,656	14,556	,000	,712	,672	,611	,868	1,153
	Availability index	-,018	,034	-,023	-,525	,600	-,079	-,033	-,022	,893	1,120
	Price index	-,067	,031	-,092	-2,154	,032	-,136	-,133	-,090	,971	1,030
	Knowledge index	,121	,032	,173	3,764	,000	,368	,228	,158	,838	1,193

a. Dependent Variable: Actual purchase index

Excluded Variables^b

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics		
						Tolerance	VIF	Minimum Tolerance
1	Availability index	,035^a	,790	,430	,049	,975	1,026	,975
	Price index	-,112^a	-2,602	,010	-,159	,999	1,001	,999
	Knowledge index	,179^a	4,071	,000	,245	,919	1,089	,919

a. Predictors in the Model: (Constant), Intention index
b. Dependent Variable: Actual purchase index

Collinearity Diagnostics^a

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions				
				(Constant)	Intention index	Availability index	Price index	Knowledge index
1	1	1,903	1,000	,05	,05			
	2	,097	4,435	,95	,95			
2	1	4,654	1,000	,00	,01	,00	,00	,00
	2	,168	5,262	,00	,68	,08	,03	,00
	3	,101	6,783	,00	,02	,07	,32	,33
	4	,059	8,915	,00	,21	,50	,11	,61
	5	,018	16,108	,99	,09	,34	,54	,06

a. Dependent Variable: Actual purchase index

Residuals Statistics^a

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	,9711	3,3140	1,9487	,56246	263
Residual	-1,76977	1,29478	,00000	,51382	263
Std. Predicted Value	-1,738	2,427	,000	1,000	263
Std. Residual	-3,418	2,501	,000	,992	263

a. Dependent Variable: Actual purchase index

Normal P-P Plot of Regression Standardized Residual
Dependent Variable: Actual purchase index