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Sustainable packaging and Purchasing Intention

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Investigating willingness to purchase food in sustainable packaging

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Abstract

Purpose - The purpose of this thesis is to explore and analyse how sustainable considerations relate to consumers' purchase decisions. The aim is to examine and understand relevant factors that are influencing the individual's intentions and willingness to purchase food products in sustainable packaging. Thus, a framework for intentions and willingness to purchase is created, together with hypothesis in order to study this phenomena.

Design/Methodology/Approach - Adopting an objectivist stance, the results were accumulated through quantitative methods, specifically through an online questionnaire-based survey among 238 young adults in Europe. Study integrates a model that combines the theory of reasoned action (TRA) and the theory of planned behaviour (TPB) and individual characteristics, i.e. knowledge and awareness.

Findings - Findings demonstrate that TRA and TPB variables, i.e. attitudes, subjective norms, and perceived behaviour control (PBC), are positively correlated with intentions and willingness to purchase food in sustainable packaging, where PBC emerged as the strongest factor influencing sustainable intentions. The relationship between knowledge and awareness and willingness to purchase has been proven as not statistically significant. However, it is important to emphasize that measuring of actual respondent's knowledge and awareness in regard to sustainability was not done in this study. Therefore, these findings demonstrate only perceptions of one's knowledge and awareness.

Originality/Value - The thesis contributes to the deeper understanding of consumers' attitudes, peer pressures, behaviours and knowledge in regard to the food in sustainable packaging. The results of the study can be used by both companies and public institutions for advertising, creating social marketing campaigns and encouraging and promoting sustainable consumption.

Paper type - Research Paper

List of Abbreviations

TRA - Theory of Reasoned Action

TPB - Theory of Planned Behaviour

PBC - Perceived Behaviour Control

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1. Introduction

In the manner of climate change, fossil due depletion, limited resources, an increase in the cost of energy and water, and growing population, a framework for a more sustainable future is needed (Hamm et al., 2002; Ritch, 2015). The importance of sustainability is increasing remarkably, both from a marketing perspective and from a consumer perspective, e.g. purchasing local products, becoming more conscious about ethical, social and environmental consequences (Lernoud et al., 2016). In numbers, this converts into more than 75% of consumers stating that they prefer environmentally friendly products (Cronin et al., 2010).

However, despite changes in consumers perspectives and habits, the notion that Western consumers live in a "single-use" society has been only more and more enhanced (Cairncross, 1991). Packaging waste, unlike many other environmental concerns, is highly observable and involves nearly all consumers (Biod et al., 1994).

The term of sustainable packaging portrays an application of the concept of sustainability defined by the Brundtland Report (1987) to the field of packaging production. When applied to packaging, sustainability for its goals has an inclusion of sustainable development into the life cycle of packaging. Sustainable packaging can contribute to sustainability with the promotion of product protection, reduction of product deterioration and consequent waste (ECR Europe and European, 2009).

1.1. Sustainability

Sustainability is a policy concept that has originated in the Brundtland Report in 1987 (WCED, 1987). However, primarily the concept of sustainability was developed in forestry, where it stands for never harvesting more than the forest yields in new growth (Wiersum, 1995). The word *Nachhaltigkeit,* which is the German word for sustainability, was first used with this connotation in 1713 (Wildered, 2007). The interest in preserving natural resources is perennial. Our Paleolithic ancestors worried if their prey will extinct and farmers must have been concerned about maintaining soil fertility (Kuhlman, 2010). An event in capturing the attention of the global public was the report of the Club of Rome (Meadows et al., 1972), which anticipated that a large number of natural resources, crucial to survival, would be depleted

within one or two generations. Therefore, one can say that the Brundtland report of the UN World Commission of the Environment and Development adopted the concept of sustainability and gave it worldwide recognition nowadays (Kuhlman, 2010).

United Nation defines the sustainability in its Agenda for Development (1997):

"Development is a multidimensional undertaking to achieve a higher quality of life for all people. Economic development, social development and environmental protection are interdependent and mutually reinforcing components of sustainable development."

However, one of the most common definitions of sustainability defines it **as "the development which meets the needs of the present, without compromising the ability of future generations to meet their own needs"** (Brundtland, 1985).

Therefore, this definition of sustainability connotes three dimensions: economic, social and environmental. This idea of sustainability having three dimension arises from the **Triple Bottom Line concept.** The theory suggests that the evaluation of business results should be based not only on economic performance but also on the social and environmental impact (Elkington, 1994).

Furthermore, as aforementioned, sustainability is interpreted as a compound of the economic, social, and environmental, aspect. The economic aspect is associated with both consumers and agricultural entrepreneurs. The social aspect is concerned with the corresponding production processes with the needs of the society, as well as with the support for the primary production sector from society and from the government. And finally, the environmental aspect implies care for the environment, including animal and plant production factors, the quality of life for humans, and the living environment in general (Vermeir & Verbeke, 2006).

The notion of sustainable development has become very important for governments as a consequence of public interest in the general quality of life. Also, the growing consumers' interest in sustainability influenced their purchase decision process where sustainability started to have an important role as a product attribute in consumers' evaluation of products (de Boer et al., 2006).

1.2. Sustainable Consumption

One can say that today's society is characterized as a consumerist society with exceptional individual comfort, convenience, and choice. Everything that is being purchased, either from shops or businesses, comes from the same place, i.e. nature (Roundtable, 2006).

Sustainable consumption and production involve businesses, governments, households and communities contributing to the environmental quality through the efficient production and use of natural resources, optimization of products and services, and minimization of wastes (WBCSD, 1997).

The sustainable consumption occurred as a key issue in 1992 at the United Nations Conference on Environment and Development in Rio de Janeiro. Furthermore, at the World Summit on Sustainable Development in Johannesburg in 2007, the international community was invited to improve global living conditions and to encourage the development of a ten-year framework of programs on sustainable consumption and production (WBCSD, 2008).

Population growth and economic development are encouraging consumption around the world and will continue to do so, especially in China, India and other emerging economies. One can say that global consumption levels and patterns and driven the most by:

- Rapid global population growth;
- The rise in global affluence - middle and lower-income consumers;
- A culture of "consumerism" among higher income groups.

(WBCSD, 2008, p.8).

One can say that sustainable consumption links to the idea of ethically responsible food production and consumption. Numerous aspects are included within the sustainable consumption and they consider food, water security, fair trading conditions and species-appropriate livestock breeding (Reisch et al., 2013).

Ethical concerns are implicit in the term of sustainability since sustainability takes into consideration not just utility and usefulness of something, but also moral values and goals.

However, the ethical aspect of sustainability often remains implicit because the biggest focus is set on the economic, social and environmental aspects of it. Ethical considerations are a vital element of an effective decision-making process. For example, in the situation where environmental values, such as the preservation of the wildlife habit conflicts with the economic and/or social goal such as the production of low-cost housing, the goal of ethics is to help to resolve such conflicts as beneficially as possible taking into consideration economic, social and environmental aspects (Kibert et al., 2011).

Therefore, in its essence, sustainability is about ethics because it calls upon the consumers to not only have considerations of the conditions of the current population, but also the latent conditions of the future populations that will be at the mercy of nowadays' production and consumption patterns. Our nowadays behaviours as a consequence produce climate change and resource depletion, thus developing an understanding of the ethical foundations of sustainability is essential to applying it as a solution for numerous problem we are facing nowadays (Kibert et al., 2011).

Consequently, consumers are increasingly becoming concerned about the environmental, economic and social issues and are willing to act on those concerns**. 96% of Europeans stated that protecting the environment is important for them personally and two-thirds of this group stated that it is "very important** " (Eurobarometer, 2008). Furthermore, a study by the National Geographic Society and Globe Scan done in fourteen countries, including the UK, the US, Canada, China, France, Germany, Mexico, India, and Russia, reported that consumers in all countries **"feel empowered when it comes to the environment and are taking some actions in their daily lives in order to reduce consumption and waste"** (National Geographic Society & Globe Scan, 2014).

Current consumption patterns involve two contradictory traits, **over-consumption** and **under-consumption.** On the one hand, worldwide consumption has increased dramatically and on the other hand, millions of people are not consuming enough to meet their basic needs. Both trends are putting great stress on the global environment. Moreover, recent decades have witnessed an exceptional expansion of the global economy and explosion in consumption. Global consumption expenditure has increased by an average of 3% per year since 1970 and it is distributed inequitably. The richest quintile of the world's population accounts for 86% of the

entire private consumption expenditures. On the contrary, the poorest quintile accounts for only 1.3% (Clark, 2007).

From a developing country point of view, the two most important global issues are increase and volatility of commodity prices, particularly of food and fossil fuels. Following with decline in many places of the quality, extent and productivity of the rural ecosystem, which includes water, forests, soils and fisheries - on which many from the less developed countries depend their lives on. Therefore, it is important to stress that the poorer countries should be principal beneficiaries of sustainable development (UNEP, 2012).

1.3. Packaging of Food Products

For ages, packaging has been at the spotlight in both consumer and political campaigns to communicate the perception of unsustainable consumerism in Western societies. Its use, disposal and recovery alone and together produce environmental impacts by consuming energy, water, materials, and generating wastes and emissions. Therefore, the environmental impacts of a product and its packaging are interlinked (Verghese et al., 2012).

The increase in packaging consumption is linked to several demand tendencies. Due to the increase of the usage consumers are becoming more and more concerned about its environmental consequences in the future (Holland et al., 1989). Consumers are particularly concerned with the effect of packaging on resource use, pollution, energy consumption, litter and solid waste. Also, the packaging is increasingly being made of plastic which many consumers regard as environmentally problematical (Prendergast & Pitt, 1996).

The packaging is of crucial significance for the purchase, use and disposal of food products. Like for any other products, food packaging influence and stimulates purchasing behaviour because it is a tool of information, attention, quality, and aesthetics. However, food packaging is usually more important for the storage and the usage of the contents that the packaging of other products. Subsequently, food containers create a bigger proportion of household waste than any other types of packaging. This is due to the fact that a high percentage of households' budgets are used on food and to the fact that food packaging represents a high proportion of the product's volume and weight (Bech-Larsen, 1996). The European Environmental Impact of

Products (EIPRO) examined the impact of products consumed by households and discovered that “food and beverages”, “housing” and “private transport” form the top three categories. These three categories account for 70% to 80% of the environmental impact of consumption (Tukker et al., 2005).

When it comes to the sustainable packaging, the concept represents the application of the notion of sustainability defined by the Brundtland Report in 1987 and it includes insertion of the goals of sustainable development in the life cycle of packaging. A concern in developing sustainable packaging has developed in recent years. In the UK, WRAP (2009) formed a benchmarking database of packaging for food and beverages (Verghese et al., 2012). In the US, the Sustainable Packaging Coalition (SPC) published guidelines for sustainable packaging (Sustainable Packaging Coalition, 2006) and in Australia, the Sustainable Packaging Alliance (SPA) represents an initiative whose aim is to build a network and events for packaging business stakeholders (Sustainable Packaging Alliance, 2005). Furthermore, various eco-design tools have been developed in order to measure and promote sustainable packaging, such as the Packaging Impact Quick Evaluation Tool (PIQET) (Verghese et al., 2012),

According to The Sustainable Packaging Coalition (SPC), sustainable packaging: Is beneficial, safe and healthy for communities and individuals throughout its life cycle;

- Meets market criteria for performance and cost;
- Is sourced, manufactured, transported, and recycled using renewable energy;
- Optimizes the use of renewable or recycled source materials;
- Is manufactured using clean production technologies and best practices;
- Is made from materials healthy throughout the life cycle;
- Is physically designed to optimize materials and energy;
- Is effectively recovered and utilized in biological and/or industrial closed loop cycles.

(Sustainable Packaging Coalition, Version 2.0, 2011, p.1).

Consumers are increasingly paying more and more attention to purchase environmentally friendly goods and materials. Also, they are more willing to purchase eco-friendly products, even for the higher price (Grankvist & Biel, 2001). It has been found that consumers valued

environmentally labelled packaging as the most important factor in their choice of product (Rokka & Uusitalo, 2008). Furthermore, eco-friendly purchase and disposal decisions, in the particular case of beverage products, were related to the level of environmental awareness and eco-friendly attitude of the consumers (Van Birgelen et al., 2009).

However, despite having a positive attitude towards the environment and sustainability, consumers have a tendency to not incorporate their intentions in their actions (Cowe & Williams, 2000; Vermeir & Verbeke, 2006).

In order to better understand the relationships between intentions and behaviours, different theories have been developed, such as Theory of Reasoned Action (TRA) and the Theory of Planned Behaviour (TPB) (Ajzen & Fishbein, 1975; Ajzen & Fishbein (1980).

1.4. Problem Statement

In contemporary society, we are witnessing a growing number of population and increasing levels of consumption per capita. Sustainable production and consumption are becoming more and more important to soothe climate change and positively impact sustainable development. Therefore, it is important to investigate which factors influence the intentions of the consumer to behave more sustainable.

Moreover, due to the fact that food is fundamental for every human to live and it represents the basic human need (Dupuis, 2000), it is necessary to understand consumer's sustainable preferences when it comes to buying food products.

The objective of the present study is to analyse how sustainable considerations relate to consumer purchase decisions. Furthermore, factors that might affect consumers' purchasing behaviour with respect to sustainable packaging of food will be examined. This project aims to answer the following research question:

Which factors influence consumers towards more sustainable purchase choices of a food product in sustainable packaging?

Additionally, in order to answer the main research question, the following sub-questions need to be discussed as well:

- ✓ What are the roles of packaging?
- ✓ What is sustainable packaging?
- ✓ How sustainable concerns relate to consumer purchase intentions with regard to food in sustainable packaging?

1.5. Project outline

This project is structured into seven chapters in total.

Chapter 1 - The first chapter includes an introduction where the research objectives and problem statement of the thesis will be addressed. Moreover, the research question will be developed that a research will aim to answer.

Chapter 2 - The second chapter will introduce and critically scrutinise the literature in this research field, with the topics of sustainable packaging and sustainable consumption together with relevant theories. Afterwards, a theoretical framework will be created, and the hypothesis will be developed.

Chapter 3 - The third chapter includes a description of epistemological, ontological and methodological choices. Following with the research design, description of data collection and development of the questionnaire.

Chapter 4 - The fourth chapter presents the findings from the statistical analysis, together with reflections to the theoretical background.

Chapter 5 - Following the previous chapter, the discussion of the relevant topics is specified and set in relation to each other.

Chapter 6 - This chapter provides an answer to the research question and the conclusion of the project.

Chapter 7 - In the last chapter, the limitations of the research are presented.

2. Literature review

The following chapter addresses the theoretical understanding of the phenomena of sustainable consumption and sustainable packaging. The literature review provides a reader with already existing literature on the relevant topic. Other than that, various studies from different authors will be presented, divided into sub-chapters, and discussed. Later on, the author will take into consideration all the aspects from the literature review and based on that, a conceptual framework will be created together with the hypothesis, in order to acknowledge the gap in the existing literature. The conceptual framework and hypothesis will be used as a base for creating a survey-based questionnaire.

The literature review is a fundamental part of any research paper as it assists as the theoretical foundation. It contains analysis and synthesis of the most relevant peer-reviewed research on the topic of sustainable consumption and sustainable packaging. For the sake of transparency, it is essential to demonstrate the process behind the development of the literature review. There are two different approaches to conduct a literature review: **a systematic literature review** and **narrative literature review** (Bryman, 2016).

According to Bryman (2016), systematic literature review for its purpose has to "generate unbiased and comprehensive accounts of the literature" (Bryman, 2016, p.99). Systematic literature reviews are often associated with the replicability, scientific and transparent process, which is considered to reduce the risk of biases and ensures the reliability of the research. Also, it provides a more comprehensive understanding of what one knows about a topic. On the other hand, a narrative literature review is less structured and more unfocused and therefore, it is considered to be a more subjective approach. Anyhow, the researcher might locate articles that would have otherwise been ruled out because of the narrowly defined search words in a systematic literature review (Bryman, 2016).

For this specific project, a **narrative literature review** approach was chosen due to several reasons. First of all, usage of the systematic approach would be restricting when it comes to the answering the research question, which is not capable of being defined in terms of a specific variable, or when the limits of the topic are fluid and open for modification (Bryman & Bell, 2015).

Narrative literature review approach enables the researcher to choose different directions while searching for the literature. With this, it was possible to include findings that the researcher did not know before the research and thus, might not have included due to the limitations of the systematic literature review approach. Also, the narrative approach made it feasible to include findings that might have seemed insignificant and unimportant.

In order to provide a less biased search, guidelines for selecting the literature were established. The guidelines include the applicability of the research papers, that refers to the relevancy of the articles for this project. Further, while searching for the literature both British and American English were included. The author applied different combinations of the keywords, such as: "packaging", "package design", "sustainable packaging", "sustainability", "sustainable consumption", and/or "sustainable food". By this means, a scoping approach was used to obtain a broad overview. To search for the literature, the author used databases such as AAU Primo and Google Scholar, and to secure the reliability of the sources, only Peer-reviewed articles were included from the academic databases such as JSTOR, Elsevier, ScienceDirect, SpringerLink, EBSCO, ProQuest and ResearchGate. With this, the scoping approach was utilised to gain a wide overview.

Furthermore, the keywords used for the theories include: "intention", "behaviour", "intention-behaviour gap". In order to identify whether the paper is relevant or not, the title, the abstract, and/or the particular paragraph were scrutinised.

To provide a reader with a better overview, a table was created that can be seen in Appendix 1.

The author will use the framework synthesis, and the literature review will be used as a base for the creation of a conceptual framework in order to use it as a tool (Heyvaert et al., 2011).

As aforementioned, this project aims to answer the following research question:

Which factors influence consumers towards more sustainable purchase choices of a food product in sustainable packaging?

Additionally, in order to answer the main research question, the following sub-questions need to be discussed as well:

- **What are the roles of packaging?**
- **What is sustainable packaging?**
- **How sustainable concerns relate to consumer purchase intentions in regard to a food product in sustainable packaging?**

2.1. THE ROLE OF THE PACKAGING

The role of packaging in consumer choice of fast-moving goods is being more and more studied and discussed. The packaging has functions in both the logistics and marketing chains, operating as an interface between the product, logistics and marketing chains, and between the product and the consumer (Prendergast & Pitt, 1996; Hollywood et al., 2013).

Multiple of the functions of packaging are related to the **physical properties of the products**, such as preserving and protecting it, but also promoting safety and hygiene and facilitating distribution (Rundh, 2005).

Furthermore, the packaging of consumer's good is a field where internationalisation and influencing factors in the demand and supply side of the packaging industry are continuously changing conditions. Packaging and package design are strongly influenced by the surrounding business environment and these influences originate from changes in consumers believes and values, such as functionality, convenience, price, environmental issues, food safety, etc. Other influences are coming from the retailing side within the printing quality (Rundh, 2009).

Nowadays packaging is becoming a more and more important as a marketing tool. Some of the early research has been done in the area of the **communicative role** of packaging. Nancarrow et al. (1998) illustrate how an understanding of psychological processes, consumer models and the appropriate use of marketing research techniques can help with designing food packaging and to provide a company with a competitive advantage. Their research

examines the importance of the marketing functions of packaging and the perceptual processes of consumers' information search in regard to package design. Three key issues have been identified that marketers and packaging designers should address, i.e.

- taking into consideration the consumer's past experience, want and needs;
- packaging design and catching consumers attention;
- and evaluation of the packaging design and its effectiveness in the communication effort.

(Nancarrow et al., 1998).

Underwood et al. (2001) presented a theoretical framework for interpreting the **communicative effects** of product packaging imagery on attention to the brand, precisely to the attentional effects of including a picture of the product on the packaging of the product. Empirical results demonstrated that the package pictures increased customers' attention to the brand. Still, this effect was found contingent and occurring only for low familiarity brands, i.e. private-label brands within products that offer a relatively high level of experiential benefits (Underwood et al., 2001).

Young and Ciummo (2009) explain that the information presented on the front of packages is controlled by marketing experts. That specific information incorporates brand names (i.e. umbrella brand, corporate brand, and sub-brand), the brand's imagery (i.e. logo, symbols, slogans, and graphic design elements), nutritional information, etc. Packaging design, colour, shape and materials are also considered to be a **communication tool**. Together with other elements of the communication mix package design helps to draw attention to the product and to create additional value, competitive advantage and unique positive associations in the consumer's mind. However, **the biggest advantage of packaging is the fact that it reaches the audience at the time of purchase,** i.e. point-of-sale and at the time of consumption. PepsiCo's unfortunate redesign of Tropicana's packaging might be the best example of the importance of the packaging when the change of the package design led to a 20% sales drop in just two months (Young & Ciummo, 2009).

Garretson and Burton (2005) studied the role of spokescharacters as **an advertisement and package coordination** in integrated marketing communications (IMC). Authors used three

different studies to investigate several IMC strategic combinations, i.e. effects linked to the use of spokescharacters versus verbal attributes, advertisement and package coordination, the presence of the new brand information that may be competitive for cognitive resources on packages, and the character relevancy. Based on network associations, the elaboration likelihood model, and conceptual rational drawn from encoding, findings propose empirical evidence that refers to the potential benefits of incorporating spokescharacters in IMC campaigns (Garretson & Burton, 2005).

Additional research combined packaging with other extrinsic cues, such brand name in order to examine the influence of **product quality perception**. Rigaux-Bricmont (1982) studied the merged effects of brand packaging and brand names on the consumers' perceptions of quality, specifically coffee quality. It has been found that both brand packaging and brand names influence consumers' quality evaluations, not only separately but also interactively. From a managerial perspective findings help the consumer in differentiating the brands, emphasises the importance of the multiple firms' marketing efforts and their interdependence (Rigaux-Bricmont, 1982).

Bone and Corey (2000) explored **ethical perceptions** of three product packaging issues viewed by ethically-interested consumers, packaging professionals, and brand managers perspectives. Authors studied differences between consumers and business practitioners in respect of perceived consequences of business practices, ethical sensitivity, and perceived industry norms. Also, the authors investigated the prevalence of two types of values, moral and pragmatic, in order to determine if the usage of those value-types significantly differs amongst the three groups. Results showed that business practitioners demonstrate less ethical sensitivity and believed that the severity and likelihood of negative consequences occurring from a packaging practice are lower than ethically-interested consumer believed. Ultimately, business practitioners didn't differ from the ethically-interested consumer with respect to moral values (Bone & Corey, 2000).

Lee and Lye (2003) studied **packaging design with respect to the use of the material.** The efficiency of manual insertion and packing operations (i.e. folding, insertion, sealing, labelling and scanning) has been assessed. Additionally, this research discusses how insertion times and standard manual handling can be measured from raw data that is collected from the industry.

Authors proposed a comprehensive manual packaging line consisting of manual packaging operations and guidance for the design of efficient packaging lines (Lee & Lye, 2003).

Raghubir and Greenleaf (2006) investigated what should be the **shape of the packaging** in two lad studies and a field data analysis. Results revealed that the packaging or the ratio of the sides of a rectangular product can affect purchase intentions and preferences, and it is related to demand of the marketplace for frequently purchased goods (Raghubir & Greenleaf, 2006).

Rundh (2009) in his study demonstrates important conclusions from research done by George (2005):

- In the consumers' perception, the packaging and the product are one and the same;
- The packaging helps form an overall product perception;
- The package is considered to be the product until the point when the product is consumed and the package is reused, disposed, or recycled.

(Rundh, 2009, p.993).

When it comes to the **food packaging**, the packaging **system should protect the food content from being wasted** form the field to the fork. Packaging should provide convenient handling all the way from the farm and during the transport, wholesale, retail, and final consumption. Packaging design and food waste is dynamic and affected by the compact array of changing consumption patterns, supply chains, industry and trends, improvements in the efficiencies of supply chains and an enhanced focus on policies to reduce food waste (Verghese et al., 2013).

Along with that, Marsh and Burgusu (2007) describe that **the principal roles of food packaging are to protect the food products from outside damage** and influences and to provide consumers with nutritional and ingredient information. Furthermore, food packaging can hinder product deterioration, extend shelf-life, retain the beneficial effects, and maintain or improve the quality and safety of food. Therefore, one can say that packaging provides protection from three large groups of external influences, i.e. chemical, biological, and physical. Chemical protection minimizes integral changes caused by environmental influences such as exposure to gases, moisture or light. Glass and metal provide an almost absolute barrier to chemicals and other environmental influences. Plastic packaging is generally more permeable in comparison to glass or metal packaging. Biological protection provides a block to

microorganisms, rodents, insects, and other animals. Physical protection protects food from mechanical damage and incorporates cushioning against the vibration confronted during distribution. Moreover, the packaging is the face of the product and usually is the only product exposure that consumer experience and it is one of the most important factors influencing consumer's purchase decision. Also, packaging communicates important information about the product, i.e. pricing, brand identification, cooking instructions etc. Other functions food packaging may serve include traceability, containment and food waste reduction, tamper indication and packaging as a carrier for premiums (for example, attachment of a gift, coupon, or additional product (Marsh & Burgusu, 2007).

Furthermore, Chandon (2013) in his paper focuses on describing the **role of food packaging**, one of the fastest-growing marketing tools nowadays. Once a by-product, food packaging has become **a communication tool** on its own behalf. Food packaging involves all the ways food and beverages are boxed, arranged, and presented to the consumers either in retail stores (e.g. boxes, bottles, bags (or restaurants (e.g. cups, plates, bowls) (Chandon, 2013).

Along with the several crises within the European agriculture food system, ending in dioxin, foot and mouth disease, the European general public became more critical about food safety and quality. Jensen and Sandøe (2002) in their study argue how understanding and of the public perception of food safety and risks is a necessity in establishing the dialogue about the complex value queries involved in food production. Furthermore, interest in sustainable production and sustainable consumption increased at all degrees of the agriculture and food chain. To achieve sustainable development strategies that include economic, social and environmental aspects have to be incorporated (World Development Report, 2003) (Jensen & Sandøe, 2002).

Seo et al. (2016) argue that the availability and preferences for eco-friendly food products have increased but an understanding of sustainable products is still insufficient. It is necessary to focus not only on the eco-friendly food ingredients but also on the eco-friendly packaging because the packaging was discovered to be one of the primary causes of pollution. Authors investigated through three studies the interaction between the effect of consumers' willingness to buy (WTB), product's attributes and the price premium for eco-friendliness. Results of Study 1 and Study 2 showed that the consumers' WTB for sustainable products can vary according to the product's attribute. Results of Study 3 demonstrated that consumers'

WTF and satisfaction for sustainable products can vary according to the level of packaging (Seo et al, 2016).

2.2. SUSTAINABLE PACKAGING

Packaging has been at the spotlight in consumer and political campaigns for many years in order to convey the message of unsustainable consumerism in Western societies. Its use, disposal and recovery cause environmental impacts by utilising materials, water and energy, and causing emissions and wastes. However, packaging can also render environmental benefits when its primary function, i.e. product protection, is taken into consideration. If used effectively packaging enables the efficient and safe supply of products, contributes to accomplishing sustainable development goals, and reduces the environmental impact of producing, transporting, using and disposing of specific products (Verghese et al., 2012).

Therefore, one can say that the packaging and its environmental impact are interlinked. In order to achieve this collaboration and communication are crucial between business in the packaging industry, i.e. packaging suppliers, material producers, brand owners, and waste recovery. It represents a significant challenge to achieve this. If not achieved it may lead to an increase in environmental impacts by displacing the burden from one area, such as packaging waste, to another, such as product waste. Furthermore, it can prevent the benefits of sustainable business strategies by sending mixed messages to consumers (Sustainable Packaging Coalition, 2011, p.1).

When it comes to the **sustainable food packaging**, one can say that there are numerous attributes that can potentially contribute to the more sustainable food packaging, such as recyclable materials, or materials that minimise water usage, generate zero landfill waste, is made using renewable energy, has a potential to be reused, results in no air pollution, protects human health, etc. All such attributes are valuable, however, **one most important sustainable attribute that packaging needs to have is the protection** of the packed good and delivering them in good condition, together with relevant information, conveniently and cheaply to consumers (Russell, 2014).

It is important to address that today, food packaging technology advancements can control, e.g. ripening and/or spoilage rate, which allows more food to pass through the supply chain to grocery stores and consumers. In the future, packaging innovations that monitor the condition of the food content and signals the consumer when the food is starting to spoil has the potential to eliminate the wastage that is caused be "use by" dates. Even though those types of packaging may be more resource intensive to produce, the food system that it will support will be way more sustainable (Russell, 2014, p.399).

It is important to notice that packaging cannot be separated from the product chain, in which it is involved in order to supply a service to consumers, and that consumers are usually only exposed to two aspects in the chain, i.e. retailing and waste collecting. This is a limited view and as a result, consumers understandably question the amount of packaging they deal with on a daily basis, perceiving it as a drain on resources and questioning why it is not all recycled. Therefore, the whole value chain is responsible for explaining that sustainability is not synonymous with recycling, but that it represents an overall resource efficiency of the supply chain, which should be the central priority (Russel, 2014).

2.3. CONSUMERS INTENTIONS & ATTITUDES TOWARDS PACKAGING

When it comes to the consumers' purchase decision, nowadays it depends upon different factors, where an assessment of the effects of packaging on ecological degradation is indeed one of them. Schwepker and Cornwell (1991) conducted a study on consumers in order to find out the determinants of **consumers' intention to purchase ecologically packaged products.** The results of the study show that there are consumers who are ready to purchase ecologically packaged products. Also, it has been found out that particular socio-psychological variables are significant for distinguishing between consumers with low and high purchase intentions concerning the aforementioned products. Furthermore, the analysis presented that consumers with an internal locus of control, who believe there is pollution and are concerned about litter and have a more favourable attitude toward ecologically conscious living are more likely to purchase ecologically packaged products (Schwepker & Cornwell, 1991).

Bech-Larsen (1996) studied the **attitudes of Danish consumers towards the food packaging** and the importance of the functional and environmental attributes of packaging for their purchasing decisions. The purpose was to assess whether and how purchasing behaviour can be influenced in order to limit the environmental issues caused by packaging. The study indicates that Danish consumers have concerns about packaging's environmental consequences primarily in the area of its waste consequences (Bech-Larsen, 1996).

Van Birgelen et al. (2009) investigated **factors related to the purchase of environmentally friendly packaging of beverages and their disposal.** The results demonstrated that eco-friendly purchase and disposal choices for beverages are closely linked to the environmental awareness of consumers and their environmental attitudes. Moreover, consumers are ready to trade off almost all products characteristics in favour of eco-friendly packaging of beverages, except for price and taste (Van Birgelen et al., 2009).

Koenig-Lewis et al. (2014) studied **consumers' rational and emotional evaluations of pro-environmental packaging.** The result showed purchase intentions were remarkably influenced by overall environmental concern, but not by rational evaluations. Furthermore, rational evaluations had different effects on positive and negative emotions. The purchase intention has been directly affected by both positive and negative emotions. Therefore, this paper demonstrated that emotions, more than rational evaluations, are the key elements for changing pro-environmental purchase behaviours (Koenig-Lewis et al., 2014).

As it can be noted, there are numerous studies on the topic of sustainable packaging and sustainable consumption. However, if the topic area is examined from the perspective of intentions for purchasing food products in sustainable packaging, the number of relevant literature diminishes. With this in mind, there are still incorporated knowledge and information that can be obtained from the performed literature review. In order to more exploration on which factors influence sustainable purchasing of food product, theory or reason action and theory of planned behaviour will be integrated, together with other individual characteristics, such as knowledge and awareness.

2.4. THEORY OF REASONED ACTION & THEORY OF PLANNED BEHAVIOUR

The Theory of reasoned action (TRA) developed by Fishbein and Ajzen (1975) is a generally accepted theory of explaining the behavioural intentions of consumers. Intentions are considered to be as the key determinant of actions (Ajzen, 1991). The theory explains the links between attitudes, subjective norms, intentions, and behaviours and it is formed on the assumption that a positive intention will guide to an according behaviour. The intention is driven by the person's attitudes and subjective norms towards the behaviour. Theory of planned behaviour (TPB) goes along with TRA and it incorporates the predictability of specific behaviour (Ajzen, 1985 & 1991; Orbell et al., 1996). TPB explains that both attitudes towards the behaviour and subjective norms together with perceived behaviour control influence the intentions. Evaluation of behaviour can be either positive or negative and it builds the basis for the attitude towards a particular behaviour. The social norms represent the influence of other individuals or groups, while the perceived behaviour control represents the degree of difficulty to perform a certain behaviour. A high degree of perceived control (Ajzen, 1991). Both behaviours and intentions are influenced by the perceived behaviour control (Ajzen et al., 1992).

TRA and TPB serve as the basis for a framework to investigate factors that influence intentions for purchasing sustainable packaging of food. According to TRA, if individuals evaluate the specific behaviour as positive (attitude) and if they believe that their friends and family want them to perform that behaviour, this will result in a higher intention and higher likelihood that they will behave accordingly (Sheppard et al., 1998).

In a study done by Bone and Corey (2000), it was demonstrated that ethically-interested consumers are more ethical sensitivity and believe that negative consequences will occur from a packaging practice (Bone & Corey, 2000).

Rokka and Uusitalo (2008) found out that consumers placed environmentally-friendly packaging as the most important factor influencing their purchasing decisions. When determining factors that contributed to considering packaging sustainability as the most important it was found that it was closely correlated to common interests and preferences (Rokka & Uusitalo, 2008).

Furthermore, numerous previous studies showed that consumer attitudes towards sustainable and eco-friendly packaged products affected their intentions to purchase. Limbu et al. (2012) examined the effects of consumers' perception of online retailers' ethical behaviour on consumer purchases and intentions. Results showed that the perceived ethics of an Internet retailer's website had a significant effect on consumer's attitudes to the retailer's website that ultimately had a positive impact on purchase intentions (Limbu et al., 2012).

Therefore, one can say that if a consumer has a more positive attitude towards preserving the environment will more likely purchase sustainable packaging of the food product.

Hypothesis 1: Consumers with a more positive attitude towards preserving the environment will be more willing to purchase food in sustainable packaging.

Furthermore, according to TRA and TPB, subjective norms play an important role in influencing consumer's intentions for sustainable purchasing and they have been greatly analysed in the studies on environmentally responsible behaviour.

Numerous studies, such as a study on the sustainable food done by Vermeir and Verbeke (2006), a study on organic food by Chen (2007) and Gotschi et al. (2007) show that a relationship between subjective norms and a consumers' intentions are positively correlated.

Ham et al. (2015) examined the specific role of two types of subjective norms in developing the intention to purchase green food. The analysis revealed that descriptive norms are significant predictors of green food purchase behaviour. Furthermore, incorporation of both, descriptive and social, norms increased the variance demonstrated in intention. Therefore, one can say that consumers who consider that their subjective norms, i.e. friends, family, reference groups, etc., have positive attitudes towards sustainable packaging of food products will be more willing to purchase sustainable packaging themselves.

Hypothesis 2: Subjective norms have a positive influence on consumers' intention to purchase a food product in sustainable packaging.

TPB, the theory developed from TRA, is a theory that links one's beliefs and behaviours when adding perceived behaviour control (PBC) as an important element to take into consideration. PBC explains that individuals are more likely to perform a certain behaviour when they feel that they can perform them successful (Ajzen, 1991).

When it comes to predicting sustainable and behaviour PBC has been successfully implemented. It implies that consumers intentions and behaviour are not only influenced by a person's attitudes, awareness, and social norms, but also by the beliefs of the one in the personal opportunity for contributing to a solution of an ecological issue (Bech-Larsen, 1996).

For example, Boldero (1995) discovered that intentions to recycle newspapers directly predicted recycling intentions and that attitudes towards recycling directly predicted the recycling intentions (Boldero, 1995).

Cheung et al. (1999) used PBC to examine wastepaper-recycling behaviour among college students in Hong Kong. The results showed that PBC significantly predicted both intentions and behaviour, and following wastepaper-recycling behaviour self-reported a month later (Cheung et al., 1999)

In another study done by Sparks and Shepherd (1992), attitudes toward green consumerism, subjective pressures, and perceived behaviour control were all significantly related to the one's intentions to consumer organic vegetables (Sparks & Shepherd, 1992).

Moreover, Paul et al. (2016) in their study proved that PBC has high predictability for green production consumption. Also, results showed that TPB mediates the relationship between green products purchase intention and environmental concern. Hence, one can assume that consumers will be more likely to purchase sustainable packaging of a food product if they believe that will have a positive impact on the environment (Paul et al., 2016).

Hypothesis 3: Believe that sustainable behaviour will have a positive impact on the environment is positively correlated with willingness to purchase food in sustainable packaging.

2.5. KNOWLEDGE & AWARENESS

The knowledge and awareness play a vital role in the purchase decision when it comes to sustainable food (Yiridoe et al., 2005). The results of the meta-analysis done by Hines et al. (1987) showed that knowledge of issues, knowledge of action strategies, the locus of control, attitudes, verbal commitment, and an individual sense of responsibility were found to be associated with responsible environmental behaviour (Hines et al., 1987).

In a study done by Arcury (1990), it has been found that environmental knowledge is frequently and positively related to environmental attitudes, even though the relationship was not especially strong (Arcury, 1990).

When it comes to sustainable packaging, knowledge might influence the purchase decision of a consumer. If a consumer cannot clearly distinguish between two options. a price premium of the sustainable product could easily irritate and/or affect the purchase decision in favour of a cheaper product (Yiridoe et al., 2005).

Furthermore, sustainable products do usually have a price premium which might influence consumers' intentions to purchase those products. Findings from McGoldrick et al. (2008) and Zander and Hamm (2010) studies proved the proposition that a **willingness to pay premium prices** exists if consumers are convinced of a product's ethical credentials (McGoldrick et al., 2008; Zander & Hamm, 2010).

Also, in a study done by Hjelmar (2011) with consumers in Denmark, it was demonstrated that the health considerations, ethical attributes, such as ***environment, animal welfare, health*** and **taste** have a significant role for ethically minded consumers when purchasing for organic food (Hjelmar, 2011).

Peschel et al. (2016) examined consumers' knowledge, lifestyle profiles and preferences for two environmentally labelled food staples; ground beef and potatoes. Results showed that high subjective and objective knowledge influence environmentally sustainable food choices. Also, it is important to mention that the perceived product attributes, i.e. the *concern about the environment, health,* and *ethical issues* play an important role for the ethical consumer (Peschel et al., 2016). Therefore, the following hypothesis is added:

Hypothesis 4: Consumers' higher knowledge and awareness will have a positive impact on consumers' willingness to purchase food in sustainable packaging.

Presented hypotheses are visualized in the following conceptual framework.

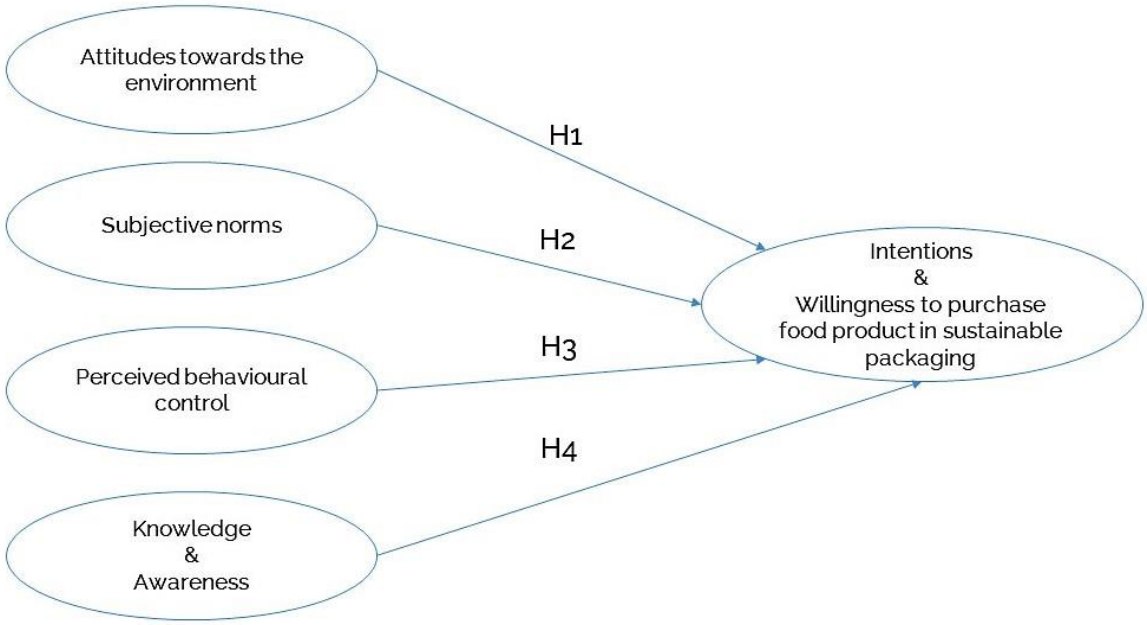

Figure 1: Conceptual framework (Own creation)

3. METHODOLOGY

According to Arbnor & Bjerke "Methodology is a mode of thinking, but it is also a mode of acting. It contains a number of concepts, which try to describe the steps and relations needed in the process of creating and searching for new knowledge" (Arbnor & Bjerke, 2009, p.2). The purpose of this chapter is to demonstrate the methodological consideration applied in the thesis, discuss the philosophical viewpoint, describe how knowledge is understood, introduce the reader to the overall approach and methodological decisions, and finally to define the data collection methods and techniques utilised in the thesis.

In order to form a structure of the Methodology, Kuada's (2012, p.58) four level of the understanding methodology will be adopted (Figure 2). The research design for a purpose has to demonstrate the plan of action or blueprint of the research and it provides a logical sequence of activities (Kuada, 2012).

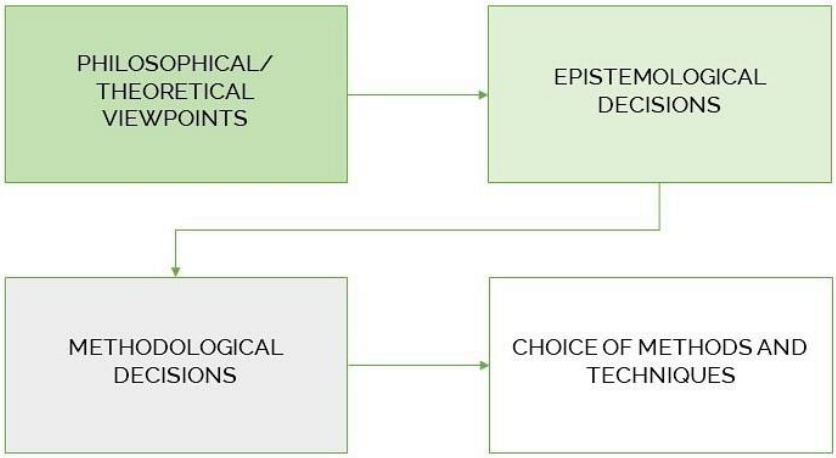

Figure 2. Four levels of understanding methodology (Kuada, 2010, p. 58).

The research design can be described as a framework for conducting research, where the choice of the design has to be in accordance with the scope and aim of the research. (Bryman & Bell, 2015).

3.1. PHILOSOPHICAL/THEORETICAL VIEWPOINTS

The philosophical viewpoints of the research, commonly identified as the philosophy of science and ontology, refer to assumptions about the nature of reality (Kuada, 2010; Saunders et al., 2009).

All social scientists approach their subject through explicit or implicit assumptions about the nature of the social world and the direction in which it may be studied. Firstly, there are assumptions of an ontological nature that are concerned with the very essence of the phenomena that is being studied (Burrell & Morgan, 1979, p.1). Ontology is a term used by the philosophy of science academics to explain the nature of what the researcher seeks to know, i.e. the "knowledge" or "reality"). The social world that social science academics study is usually viewed from two broad perspectives. Some academics perceive the social world as real and external to an individual human being that imposes itself on one's consciousness. While other academics perceive the view that the social world is subjectively constructed and therefore, it is a product of human cognition (Kuada, 2012, pp.58-59).

Furthermore, the most universal distinction is between objective and subjective approaches, commonly attributed as realist and nominalist approach. Objective approach understands the social world as being external to the individual human and formed outside of our cognition (Saunders et al., 2009). On the other hand, the subjective approach holds the view that every individual creates his or her own social world (Kuada, 2012).

Factors that influence consumers' intentions towards sustainable packaging of food products are the main topic that this research aims to investigate. The author analyses the topic with a more objective approach.

According to Bryman & Bell (2015), objectivism is described as **"an ontological position that asserts that social phenomena and their meanings have an existence that is independent of**

social actors. It implies that social phenomena and the categories that we use in everyday life have an existence that is independent or separate from actors" (Bryman & Bell, 2015, p. 32),

Furthermore, objectivism is an ontological position that implies that social phenomena confront us as external facts beyond our reach or influence. In this research, the social reality is viewed as an external force, and not as a result of social actors' actions, whereas different factors drive consumers towards more or less sustainable purchases decisions.

3.2. EPISTEMOLOGICAL CHOICE

An epistemological debate concerns the questions of the nature of the knowledge and the means of knowing, i.e. "how we know what we know", or what we consider as truth (Kuada, 2012). Furthermore, the assumptions about the epistemology are concerned with how one understands the world and communicates the knowledge (Burrell & Morgan, 1979).

Some academics believe that it is possible, as an external observer, to know the truth about a specific social world. On the other hand, other academics hold the view that the social world can only be understood by employing the frame of reference of the individual whom the researcher seeks to study, i.e. the social world should be studied intersubjectively (Kuada, 2012, p. 59).

Moreover, according to Bryman and Bell (2015), the central issue of epistemological debate is revealed around the question of whether or not the social world can be examined according to the identical principles and procedures as the natural sciences. The philosophical position that emphasises the importance of imitating the natural sciences is linked with positivism stand. Moreover, positivists believe that science should be conducted in a way that is value-free, implying that science is objective, and knowledge arises through the gathering of facts, which provides the basis for laws (Bryman & Bell, 2015, p.15).

Contrarily, interpretivism stance entails to understand the subjective meaning of social action. Interpretivists hold the view that a strategy that respects differences between people and the objects of natural science is required (Bryman & Bell, 2015, p.17). Furthermore, it is believed that

the researchers cannot detach themselves from the research, since they are engaged and involved in the research, and therefore, findings are influenced by researchers' values and perspectives (Crotty, 1998).

As ontology and epistemology are interrelated, this research is leaning towards the positivist point of view. Positivism seeks to explain what occurs in the social world by seeking for regularities and causal relationships among its constituent elements (Burrell & Morgan, 1979).

The author of this research believes that the social world can be defined through generalisation built on physical laws where exists a single objective reality to a phenomenon, despite the researcher's beliefs and perspectives. It is assumed that the consumers' purchasing behaviour is the outcome of interactions between external factors and purchasing intentions, which makes it possible to determine roles in the society. Furthermore, the author will not be personally engaged in the primary data analysis.

3.3. METHODOLOGICAL DECISIONS

Methodology explains the reasons underlying the choices and use of specific methods in the research process, i.e. how you may go about gaining the knowledge you desire (Kuada, 2012, p.59). Furthermore, this thirds level of Kuada's (2012) Four level understanding model introduces the research design where previous levels dictate the selection of research design methods.

3.3.1. Classification of paradigms

It is commonly agreed in academia that there are various worldviews held by the researchers, whether they are aware of it or not. The worldviews are reflected in the present differences in knowledge foundation, values and assumptions about the social world. Therefore, one can say that every social science research is value laddered and the choice of a certain approach and the applied methods is strongly influenced by the assumptions held by the researcher (Kuada, 2012).

Aforementioned assumptions and beliefs can be defined as paradigms, the term that was profoundly influenced by Kuhn's (1970) analysis of revolutions in science (Kuhn, 1970; Bryman & Bell, 2015). It is characterised as:

"A cluster of beliefs and dictates which for scientists in a particular discipline influence what should be studied, how research should be done, and how results should be interpreted, and so on" (Bryman, 1988, p.4).

Therefore, one can say that paradigm consists of general understandings of what kind of phenomenon is being studied, how the researcher should structure the approach to answer the research questions, the kind of questions that are useful to ask about the phenomena, and how the results should be interpreted. Most scholars of philosophy of science define paradigms in terms of four sets of assumptions: ontological, epistemological, methodological, and assumptions about human nature (Kuada, 2012, p. 72).

Furthermore, the discussion of paradigms in social science has been influenced by a general distinction among two general approaches to research, i.e. objective and subjective. Burrell and Morgan (1979) compared the two contrasting perspectives in terms of their ontology, epistemology, human nature, and methodology (Kuada, 2012, p.72).

DIMENSIONS	THE OBJECTIVE APPROACH	THE SUBJECTIVIST APPROACH
Ontology	Realism	Nominalism
Epistemology	Positivism	Antipositivism
Human Nature	Determinism	Voluntarism
Methodology	Nomothetic	Idiographic

Figure 3: The Objectivist - Subjectivist Dispositions in Social Science

However, the objective-subjective debate produced numerous typologies of paradigms. The following three classifications are the most commonly used in the social science methodology textbooks used in Scandinavian universities and colleges: the FISI classification, the RRIF classification, and Arbnor and Bjerke's classification of six paradigms and three research approaches (Kuada, 2012). This research will use the RRIF classification of paradigms by Burrell and Morgan (1979). This classification outlined a distinction between the "sociology of regulation" and the "sociology of radical change" and it includes 4 paradigms: the functionalist paradigm, the interpretive paradigm, the radical humanist paradigm and the radical structuralist paradigm (Kuada, 2012).

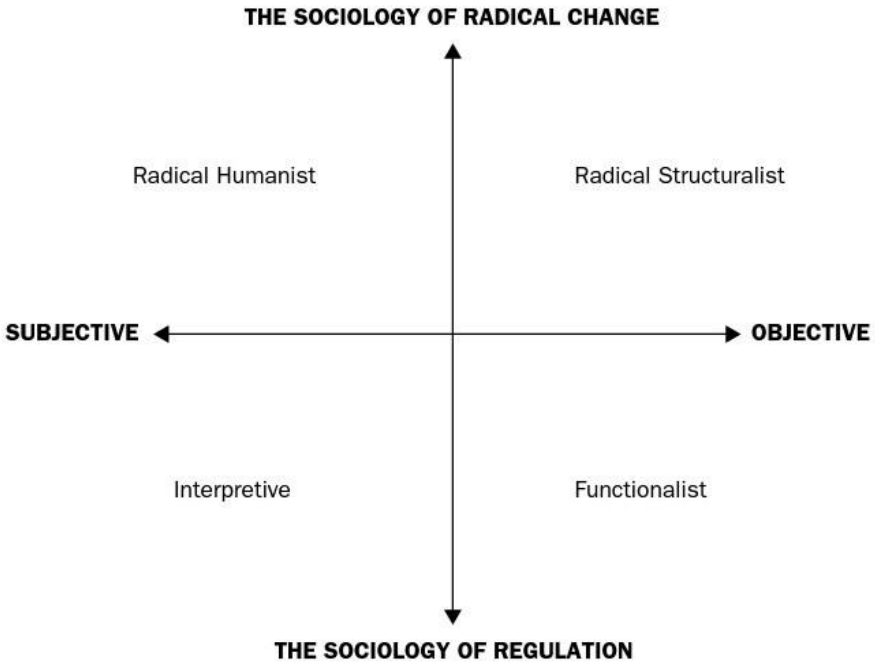

Figure 4: Burrell and Morgan's Four Paradigms Model of Social Theory (Burrell & Morgan, 1979).

The four paradigms determine essentially different perspectives of social phenomena. The **functionalist paradigm** is the dominant framework for the study of organisations and the conduct of academic sociology. Functionalist approach to social science assumes that the social world is structured of relatively concrete empirical artefacts and relationships which can be studied, identified, and measured through approaches derived from the natural sciences (Burrell & Morgan, 1979, p.26). From this point of view, social issues can be considered to be

objective and value-free. Therefore, the researcher can be distanced from the subject by the austerity of the scientific method that one has adopted (Kuada, 2012).

The **interpretive paradigm** is seeking to understand the world as it is and to understand the essential nature of the social world at the level of subjective reality. The ontological state views the social world within the experience of the individuals rather than the outcomes of the actions they take or decision they make (Burrell & Morgan, 1979; Kuada, 2012).

The **radical humanist paradigm** develops a sociology of radical change from a subjective standpoint where everyday reality is seen as socially constructed. This approach sees the dynamics of social change between the external world and individual worldviews where the central focus is upon human consciousness (Kuada, 2012).

The **radical structuralist paradigm** supports the sociology of radical change from an objective point of view. Even though it shares many similarities with the functionalist approach, the radical structuralism is directed at an essentially different end. It is devoted to radical change, emancipation, and in the analysis, it highlights the structural conflict, contradiction and deprivation (Burrell & Morgan, 1979, p.34).

This project aims to explain the relations between causes, that are factors, and their effects on consumers purchase intentions with testing of a hypothesis, which is fundamental. Therefore, the functionalist approach fits this project, as the author uses a deterministic approach to examine the phenomena. Also, the author analysis factors that influence consumers behaviours in relation to the surrounding environment, where society is structured in a way that it can affect most people at the same time. Furthermore, the functionalist paradigm seeks to provide fundamentally rational interpretations of social affairs.

3.3.2. Research approach

The research approach is a procedure of general assumptions to detailed methods of data collection, data analysis, and interpretations. The approach one chooses usually depends on existing literature and/or the type of research questions, i.e. looking into the relationship

between variables or theory-building. Research methods are often associated with two approaches - **inductive** and **deductive** (Wilson, 2014).

The deductive theory is the most general view of the relationship between the theory and the research. The researcher develops a hypothesis based on the existing knowledge about a domain and the theoretical considerations within it. In the hypothesis, concepts that need to be adapted into researchable entities are embedded, i.e. the researches must deduce a hypothesis and translate it into operational terms (Bryman & Bell, 2015, p.23).

Furthermore, the deductive approach had been defined as "reasoning from the particular to the general. If a causal relationship or link seems to be implied through a particular theory or case study, it might be true in many situations. A deductive design might test if these relationships or links obtain on more general circumstances" (Gulati, 2009, p.42).

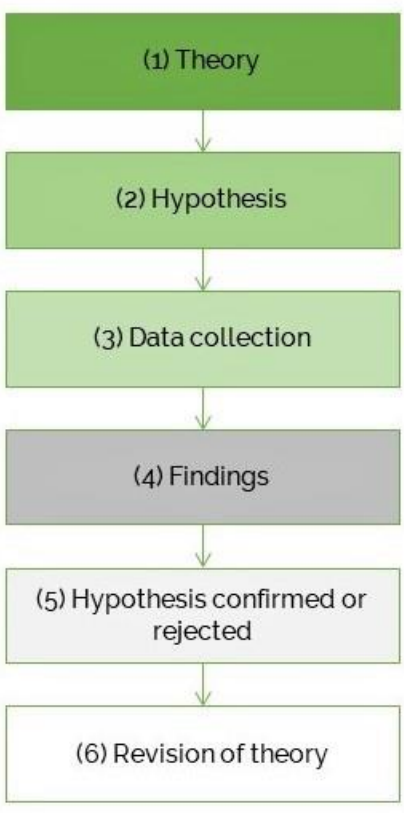

Figure 5: The Process of Deduction (Bryman & Bell, 2015).

The first stage includes deducing hypothesis from the theory which leads to the formulation of hypothesis in operational terms and suggesting relationships between two particular variables. Further, the process of gathering data is executed together which then leads to analysis and testing the hypothesis with the application of relevant methods, which can be quantitative or qualitative. The researcher examines the outcome and confirms or rejects the theory and findings are then fed back in the stock of theory (Bryman & Bell, 2015).

On the other hand, this contrast with many inductive studies which generate interesting finding but whose theoretical standpoint is not completely clear. One can say that a deductive strategy is more associated with quantitative research approach, while inductive strategy with qualitative. However, the issues are not always as evident as presented (Bryman & Bell, 2015).

Following the steps of deduction strategy, this project starts with reviewing the existing literature around the topic, continuing with demonstrating the gathered literature and theory in the form of the conceptual framework that demonstrated the relationships between factors and consumer purchase intentions and willingness to purchase food products in sustainable packaging. (1) Continuing with the implementation of theoretical background (2) which later data collection will be built upon (3). Further on, collected data will be analysed (4) and hypothesis will, therefore, be either confirmed or rejected (5). Finally, the revision of the theory will be discussed within the discussion part where the author will infer the implications of findings for the theory that provoked the whole research (6).

3.4. CHOICE OF METHODS AND TECHNIQUES

The fourth level of knowledge includes a description of the specific data collection methods and techniques. Choice of methods and techniques must be consistent with the research approaches (Kuada, 2012).

3.4.1. Research strategy

According to Bryman and Bell (2015), the research strategy simply represents a general orientation to the conduct of business research. The textbooks on research methodology

group data collection methods into two major approaches or traditions: **quantitative methods** and **qualitative methods (**Bryman & Bell, 2015). One tradition can be traced back to the practice of the French sociologist Emile Durkheim. Durkheim was proposing that the research should observe and measure the actions of social facts. Because the research executed according to natural science, model collects data that are easily expressed in numbers this type of research is usually referred to as quantitative research (McIntyre, 1999; Kuada, 2012). Thus, quantitative research is a research strategy that highlights quantification in the collection and analysis of data. Furthermore, it requires a deductive approach to the relationship between the theory and the research, where the emphasis is on testing theories. Also, quantitative research incorporates the practice and norms of the natural scientific model and of positivism in particular and it holds a view of social reality as an objective and external reality (Bryman & Bell, 2015, p.37-38).

The second tradition can be traced back to the practice of the German sociologist Max Weber. Weber argues that if the subject matter differs from that of natural science, the research techniques should also differ. Further, he discusses that human beings have important attributes that set them apart from the objects of the natural science investigation, i.e. human beings think and feel, and often do things for some reasons. Therefore, Weber believes that social research must go ahead of the natural science model and be an interpretive science, i.e. it must take into consideration the social meanings that are attached to certain behaviours, He suggested the adoption of two goals: predicting and understanding social behaviour in order to focus not only on the objective nature of behaviour but also on its meaning. This type of research is called qualitative research (McIntyre, 2014, p.6).

Qualitative research emphasizes words rather than quantification in the data. Also, it predominantly emphasizes an inductive approach in the relationship between the theory and the research, where the main focus is put upon the generation of theories. Also, this type of research views social reality as a continually shifting emergent property of individual's creation (Bryman & Bell, 2015, p.38).

The following table shows the fundamental differences between quantitative and qualitative research strategies.

	QUANTITATIVE	QUALITATIVE
Principal orientation to the role of theory in relation to the research	Deductive; testing of the theory	Inductive; generation of theory
Epistemological orientation	Natural science model, in particular positivism	Interpretivism
Ontological orientation	Objectivism	Constructionism

Table 1: Fundamental differences between quantitative and qualitative research strategies (Own creation based on Kuada (2012).

Since the authors aim to test a specific hypothesis with epistemological orientation as positivist and objective ontological view of the social reality, this project adapts the quantitative research method. Quantitative data collection methods allow the author to test hypothesis derived from the theory.

There are numerous of quantitative data collection techniques, where the two most popular ones are the **questionnaire-based surveys** and **interviews** (Kuada, 2012).

A questionnaire is the most popular and common data collection instrument used in surveys in business and management research. The questionnaire-based survey is usually connected with the deductive approach and it usually tends to be used for exploratory and descriptive research. Surveys are common as they allow the collection of a large amount of data from a large population in a highly effective and economical way (Baranyi, 2015).

Quantitative data can also be collected through the interviews either through face-to-face interactions or through telephone or video-based interactions. Also, they are classified into two groups; standardised interviews and non-standardised interviews (Kuada, 2012).

However, there are several advantages of the questionnaire-based survey over the interviews that were taken into consideration while choosing the methods for this project. Primarily, the questionnaire is cheaper to administer and that might be its biggest advantage if a chosen sample is geographically widely dispersed. Further, it is quicker to administer. Questionnaires can be distributed in very large quantities at the same time. And importantly, since there is no

interviewer present while a questionnaire-based survey is being completed, the interviewer effects are eliminated and also, it doesn't suffer from the problem of the interviewer asking questions in a diverse order, or in a different way (Bryman & Bell, 2015).

Furthermore, using questionnaire-based survey techniques enables researchers to tap into people's attitudes on a broad variety of issues. On the other side, the weakness of the questionnaire is that it cannot measure people's actual behaviours. If research wants to know about what people do, a questionnaire might provide misleading information (McIntyre, 2014).

The questionnaire technique is inadequate towards understanding emotions and feeling. It is rather impossible to state how reliable respondents are and whether they put any speculation when answering questions. Also, each respondent can interpret and understand the question differently, which may create a level of subjectivity (Ackroyd & Hughes, 1981).

In this project, the questionnaire-based survey is used as a technique for data collection due to the fact that it can reach out to a large number of people in widely dispersed locations that are required for this research. Further, it is cheaper, quicker to administer and eliminates the interviewer effect that might have an effect on respondents while answering questions. The survey was developed on the Surveyxact.

3.4.2. Questionnaire-based survey approach process

Kuada (2012) has outlined the survey research process in 6 steps which this project will follow. The process starts with defining the survey objectives and continues with developing a sample frame, defining the strategy for data collections, and conducting the appropriate analyses, as well as evaluation (Kuada, 2012, p.105).

STEP 1:

- ✓ Determine survey objectives
- ✓ Evaluate available resources
- ✓ Decide on the type of survey
- ✓ Write survey questions and create the design layout

STEP 2:

- ✓ Arrange data collection
- ✓ Run a pilot test and adjust questionnaire based on the results

STEP 3:

- ✓ Determine the target audience that will be studied
- ✓ Decide on the sample size
- ✓ Locate respondents and administer the questionnaire

STEP 4:

- ✓ Record the data
- ✓ Enter data into PC
- ✓ Edit the data

STEP 5:

- ✓ Statistical analysis of the data
- ✓ Interpret results

STEP 6:

- ✓ Discuss the results and describe findings
- ✓ Present findings to the reader for evaluation

STEP 1

As a first step, it is important to determine what are the objectives of the survey. Since this project is an exploratory research conducted in order to clearly understand a problem that has yet not been study, the objectives were determined based on the problem formulation and comprehensive literature review on which basis the author develops a hypothesis that will be either accepted or rejected. After that, the methodology adheres to the reviewed literature and presents reasonings for the chosen methods for data collection and the general methodological approach of the project. Based on the literature review, hypothesis, conceptual framework and data collection methods survey questions were developed.

When creating survey questions, it is important to phrase them in a way that makes it possible for respondents to answer. Survey researchers ask two types of questions: *closed-ended* and *open-ended*. Closed-ended questions require from the author not only to ask the question but also to provide the possible answers for respondents. A specific kind of closed-ended question that is often used to question people about their attitudes is usually called a *matrix* question because the answer categories look like a matrix or array of numbers (McIntyre, 2014). The survey includes 1 open-ended question, 4 closed-ended questions and 25 matrix questions with 5 Likert-type scale measurement technique. The Likert scale is a multiple-indicator or multiple-item measure of a set of attributes linking to a particular area. Usually, the format indicates the level of agreement with the statement going from "strongly agree" to "strongly disagree" with a middle position of "neutral" or "neither agree or disagree": Since the scale measures intensity, a score of 5 represents very strong positive feelings about issues and a score of 1 very negative feelings (Bryman, 2016).

The first part of the survey begins with 4 closed-ended general demographic questions and continues with 6 matrix questions in regard to the importance of a particular aspect of sustainability. These 6 questions include scale where 1 is "not important at all", 2 is "not important", 3 is "neutral", 4 is "somewhat important", and 5 is "very important. All other 19 matrix questions include scale where 1 is "strongly disagree", 2 is "disagree", 3 is "neutral", 4 is "agree", and 5 is "strongly agree".

Other than the five-point scale, the seven-point scale is also optimized with seven response categories. However, the literature suggests that the five-point scale befalls to be less confusing and increases the response rate (Babakus & Mangold, 1992; Devlin et al., 1993).

Also, with a five-point scale, it is quite easy for a respondent to read out the complete list of scale descriptors (Dawes, 2008). Thus, the author decides on the usage of a five-point scale because it is considered as a better fit for the overall research approach.

The first part ends with an open question which gives the respondent the freedom of expressing if there is any other aspect of sustainability worth mentioning. The survey continues on with giving a definition of sustainability and sustainable packaging so the respondent can have a clear understanding of how those terms are interpreted in the project. Further, the

survey consists of 5 parts where each part includes a question with 3 to 5 statements. Each question is correlated with the hypotheses that were developed based on the theoretical background and reviewed literature. The second part is designed to ask questions about consumers attitudes towards the environment and whether they believe if food packaging has an impact on the environment as a whole. The third part is outlined to ask questions in regard to subjective norms and their influence on intentions for purchasing food in sustainable packaging. The fourth part consists of questions about perceived behaviour control and believes that sustainable behaviour will have a positive impact on the environment. The fifth part is concerned with the willingness to purchase food in sustainable packaging. The last, sixth part, is designed to examine if higher knowledge and awareness will have a positive impact on consumers' willingness to purchase food in sustainable packaging.

In the end, respondents are given with the opportunity to leave their email address if they would be willing to be contacted afterwards in case if the author has further questions in regard to the survey.

STEP 2

For the second step, it was necessary to arrange the data collection and run the pilot test and adjust the survey based on the results. In order to record data, the survey will be sent out through online platforms as this has been found to be the fastest, cheapest and the most efficient way to collect a vast amount of data from a large population.

Before distributing the survey online a pilot study has been done. The survey has been sent out to the four colleagues that fit the target audience and have previous experience in the creation of the surveys. A pilot study has been successful, and the survey was adjusted based on the results.

STEP 3

After selection of the methods, it is necessary to make a decision about the sample of the research. **Non-probability sampling** has been chosen as a sampling technique for many reasons. Non-probability sampling, as opposed to the **probability sampling**, is a sample that has not been selected using a random selection method. Fundamentally, this implies that

some units in the population are more likely to be chosen than the others (Bryman & Bell, 2015). Units of the sample are selected on the bases of convenience and personal judgment and therefore, it a subject to selection bias and it doesn't determine a representative sample of the population (Daniel, 2011).

On the other hand, non-probability sampling is easier to obtain, time efficient and it doesn't require highly trained personnel to conduct it (Bryman & Bell, 2015; Daniel, 2012). There are different types of non-probability sampling**: quota sampling, convenience sampling**, and **snowball sampling**, from which the author has chosen the snowball sampling. The snowball sampling is a method capable of recruiting respondents at a low cost and from a large geographic area (Patton, 2014). Nonetheless, snowball sampling is known to have disadvantages such as the inability to generalize the findings because of sampling biases introduced by the method (Scott & Vigar-Ellis, 2014). However, a non-random snowball sampling has been found suitable for the present study due to the fact that there was no aim to achieve representativeness with respect to any larger population. Invitations to participate in the survey were distributed through email, Facebook and WhatsApp, containing a link to the questionnaire. Invitations were sent out to friends, family members, and university colleagues, who were requested to share the invitation with as many people as possible.

Furthermore, the objective of this research is to identify factors that influence the intentions of purchasing food in sustainable packaging among young consumers in Europe.

STEP 4

Due to the project deadlines, questionnaire will be published online for 20 days. After that, when data will be collected, the next step will to record the data and enter it into the computer. The dataset will firstly be coded in the Excel where all the unnecessary data was removed, cleaned and checked for error. The data will be cleaned in a way that all the unnecessary respondents, that don't fit the target audience, will be removed and not included in the analysis.

Once the data are ready, they will be entered into the statistical analysis software SPSS version 25.

STEP 5

All the gathered data will be statistically analysed in SPSS in order to test a set of hypotheses. The author uses different types of analysis to analyse the data, such as reliability analysis, correlation analysis and regression analysis. Once the analysis is undertaken, the author will interpret the results.

STEP 6

As the final step, the author will discuss the results of primary data analysis, together with hypothesis testing. Afterwards, the results will be compared with the existing literature and research question answered in the discussion part. After concluding the research study, the paper will be delivered to the university authorities for further evaluation.

3.5. QUALITY OF RESEARCH

The aim of every researcher is to provide a high degree of quality of the research. The quality of this research will be tested through the most important criteria for the evaluation of business social research that are **validity, reliability,** and **replicability** (Bryman & Bell, 2015).

3.5.1. Validity

One can say that the most crucial criteria of a research is validity. Validity is related with the integrity of the conclusions that are achieved through a research. There are a few main types of validity that are important to highlight; one of them is the **measurement validity**, or **construct validity**, that applies primarily to quantitative research. Fundamentally, it demonstrates whether a measure that is devised of a concept really reflects the concept that is alleged to be denoted (Bryman & Bell, 2015). In this project, after inquiring into several theories that are relevant for the research question that this paper attempts to answers, a fitting

conceptual framework together with hypothesis were created, which later on were tested in the empirical research.

Further, **internal validity** is primarily concerned with the causal relationship between two or more variables. It is common to test internal validity among factors that have a causal influence as the independent variables and the effect as the dependent variable. In this project there are four independent variables (attitudes, subjective norms, perceived behavioural control, and knowledge and awareness and dependent variables is willingness-to-purchase food in sustainable packaging (Bryman & Bell, 2015). Thus, the internal validity raises the question: how certain can it be that the independent variable is responsible for the modification identified in the dependent variable? In this project internal validity has been proven in the statistical analysis part of the project.

On the other hand**, external validity** is interested whether the results of the study can be **generalized** beyond the particular research context (Bryman & Bell, 2015). Due to the fact that the project involves limited and specific sample, further research should include a larger sample to get a higher representativeness and higher generalizability.

3.5.2. Reliability

Reliability is focused on whether the results of the study are repeatable. Also, the quality of the measures is commonly delivered via a test of internal reliability known as a Cronbach's alpha (Bryman & Bell, 2015). This study does supports numerous previous studies through demonstrating that the most consumers do care about the environment.

Furthermore, Cronbach's alpha is used as a measure to test internal reliability among constructs in the project, where every construct demonstrated a high internal validity.

Also, the chosen objective approach has an effect on project reliability, since it implies a minimal influence on the research environment and therefore, it provides a true picture of reality.

The selected literature is considered reliable as a result of a comprehensive search

3.5.3. Replicability

The criteria of replicability are very close to the reliability criteria. Sometimes it happens that the researchers decide to replicate the findings from the others (Bryman & Bell, 2015). In order to provide other researchers with the opportunity to replicate the results of this study, or re-examine this study, the author outlined and clearly demonstrated results in the analysis and discussion parts of the thesis.

4. ANALYSIS

"Purpose of data analysis is to transform data into answers to the research questions underlying the research project."

4.1. DESCRIPTIVE ANALYSIS

The first part of the questionnaire included the collection of demographic variables in order to describe the nature and the distribution of the sample. Demographic characteristics that were collected include age, gender, nationality and education. Demographic information is essential for the determination of whether the individuals in a particular study are a representative sample of the target population.

As a result of the online survey, a total of 280 completed responses was collected. After the coding and cleaning the data, a data set of 238 valid surveys were qualified for the following analysis. The response rate was rather difficult to measure since the survey was distributed through email, Facebook and WhatsApp making it impossible to gather the data of how many people were actually reached out.

Table 3 demonstrates the age demographics of the data set. Research with a similar context as this project (Vermeir & Verbeke, 2006; Lee, 2008; Prakash & Pathak, 20017;) uses young adults as a target audience, therefore the author finds this age range relevant. Thus, 16 respondents in the age group of 36 or older we excluded since they don't fit the target audience.

Age		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18-19	4	1.7	1.7	1.7
	20-29	218	91.6	91.6	93.3
	30-35	16	6.7	6.7	100.0
	Total	238	100.0	100.0	

Table 3: What is your age? (Own creation in SPSS)

Further, one-third of the respondents are male, two-thirds are female and 0,8% stated others as their gender. According to Gannon et al. (1971), females generally show a higher tendency to participate in the surveys compared to the males.

The objective of this research is to identify factors that influence the intentions of purchasing food in sustainable packaging among young consumers in Europe. To have a better overview author has decided to distinguish respondents from more developed European countries and less developed European countries. Division of the countries was made based on the Human Development Report by the United Nations Development Programme released 14th of September 2018 (Human Development Report, 2018). Also, while cleaning the data 26 respondents that were not from Europe were excluded from the dataset. The ample among European countries is almost equally distributed, with 55% of respondents coming from more developed countries and 45% of respondents coming from less developed countries in Europe.

Following table 4 shows overall descriptive statistics of the study.

Variable	**Outcome**	**Number of responses**
Gender	Female Male Other	156 (65.5%) 80 (33-6%) 2 (0.8%)
Age	18-19 20-29 30-35	4 (1.7%) 218 (91.6%) 16(6,7%)
Country	More developed EU country Less developed EU country	131 (55%) 107 (45%)
Total		**238**

Table 4: Demographic characteristics (Own creation)

4.2. RELIABILITY ANALYSIS

Prior to the main part of the data analysis, it is important to measure the reliability of the individual items. **Cronbach's alpha** was used in order to estimate the internal consistency reliability of the items within each construct that include attitudes, subjective norms, perceived behaviour control, additional ethical attributes, and knowledge and awareness.

All items are responded to on a Likert scale of 1 to 5 where 5 stands for strongly agree or very important, and 1 stands for strongly disagree or not important at all, with one exception of the one item where scores are reversed. Reliability analysis was undertaken within each construct.

Construct	Number of items	Cronbach's α
Attitudes	9	.685
Subjective norms	4	.732
Perceived behaviour control	3	.762
WTP	4	.711
Knowledge & Awareness	5	.737

Table 5: Cronbach's α (Own creation)

As presented in table 5, every construct demonstrates high internal validity, reaching the cut-off of 0,70, with exception to attitudes towards preserving the environment, Anyhow, this construct still demonstrates consistent reliability with a Cronbach's Alpha of 0.685 according to Moss et al. (1998). Knowledge and awareness scored the highest Alpha value of 0.740.

4.3. CORRELATION ANALYSIS

Correlation analysis is a statistical method that is used to measure the strength of a relationship between variables. The author uses Pearson correlation coefficient *r* in order to test the relationship between the dependent and independent variables, developed by Karl Pearson. The coefficient has a value between +1 and -1, where 1 represents the total positive linear correlation, 0 is a no-linear correlation, and -1 is the total negative correlation (Galton, 1886). Constructs presented before are used as variables for which Pearson's r was measured and values are presented in the table 6.

The results demonstrate that all variables are positively correlated with the willingness to purchase (WTP) food in sustainable packaging, where perceived behaviour control (PBC) demonstrates the strongest correlation coefficient of r = 0.452. One can say that this correlation points out that consumers of food in sustainable packaging believe that sustainable behaviour will have a positive impact on the environment. Attitudes (r = 0.309) and subjective norms (r = 0.299) have almost the same correlation coefficient, and knowledge and awareness show the

lowest correlation to WTP with a correlation coefficient or r = 0.295. If the pair-wise correlation coefficient between two variables is high, i.e. in excess of 0.80, then multicollinearity is a problem (Kumari, 2008). However, neither of the present correlations coefficients is above 0.80 and therefore, multicollinearity can be excluded.

Furthermore, all correlations between the variables demonstrate p-value lower than 0.01 which makes correlations between variables significant, except for the correlation between subjective norms and attitudes (Appendix _) where p = 0.012. This correlation will be discussed later on.

Variable	WTP	Attitudes	Subjective Norms	PBC	Knowledge & Awareness
WTP	-	-	-	-	-
Attitudes	.320**	-	.163**	-	--
Subjective Norms	.299**	.163*	-	.348**	.201**
PBC	.452**	.414**	.348**	-	-
Knowledge & Awareness	.295**	.391**	.201**	.474**	-

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

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

Table 6: Person's Correlation Matrix (Own creation)

The following table 7 shows values od the mean and standard deviation. The mean value ranges from 2.6371 for WTP to 4.0295 for Attitudes on the Likert Scale from 1 to 5, where 1 stands from strongly disagree and 5 stands for strongly agree. Thus, one can say that the participants of this research were neutral to slightly positive towards the tested variables. The

standard deviation ranges from 0.51626 for Attitudes and 0.88750 for WTP. Therefore, one can say that data is highly dispersed.

Variable	**Mean**	**Std. Deviation**
WTP	3.2321	.51009
Attitudes	4.0261	.83626
Subjective Norms	2.6371	.88984
PBC	3.4416	.88564
Knowledge & Awareness	4.0295	.58741

Table 7: Mean & Standard deviation (Own creation)

4.4. REGRESSION ANALYSIS

Regression analysis might be one of the most widely used statistical techniques for investigating and modelling the relationship between variables. An important purpose of regression analysis is to determine the unknown parameters in the regression model (Montgomery et al., 2012). This project uses a *multiple linear regression model* because more than one regressor is involved.

Regression analysis is only as reliable as the data on which it is based. After the author has confirmed that there is no multicollinearity among the variables in the dataset, a multiple regression was considered to be applicable.

Table 8 demonstrates the results from the multiple regression and the relationship between the dependent and independent variables.

Model Summary

Model	R	R-squared	R-squared Adj.	R Square Change	F
Constant	0.500	0.250	0.237	0.250	19.326

Predictors (Constant): Knowledge & Awareness, Subjective Norms, Attitudes, PBC

Dependent variable: WTP

Table 8: Multiple Regression Model Summary (Own creation)

Coefficients

	B	Std. Error	Std. β	t	Sig.	Tolerance	VIF
Constant*	0.364	0.460		0.793	0.429		
Attitudes	0.246	0.112	0.142	2.204	0.028	0.780	1.283
Subjective Norms	0.165	0.064	0.155	2.561	0.011	0.877	1.140
PBC	0.312	0.070	0.310	4.424	0.000	0.658	1.521
Knowledge & Awareness	0.092	0.100	0.061	0.913	0.290	0.728	1.373

***Correlation is significant at the 0.05 level**

Table 9: Multiple Regression Coefficients (Own creation)

The variance inflation factor, that is a measure of the amount of multicollinearity in a set of multiple regression variables (Montgomery et al., 2012), demonstrates values between the range of 1.310 and 1.555, showing that all variables are well below the recommended cut-off

value of 10. Furthermore, collinearity tolerance values range between 0.643 and 0.851 which is higher than the recommended minimum level of 0.100, and therefore, the absence of multicollinearity is confirmed.

In multiple regression, the R-squared (R2) represents the correlation coefficient between the dependent (outcome) variable and the observed values, and the predicted values of the dependent variable. R2 value ranges from 0 to 1 and a problem with the RR2 is that it will always increase when more variables are added to the model, even if those variables are weakly associated with the response (James et al., 2013). In this case, with the R2 = 0.265, meaning that 26,5% of the variance in the measure of WTP can be predicted with the aforementioned variables which represent a low goodness-of-fit with R2 and R2 adj. Furthermore, all variables demonstrate a positive relationship with WTP:

Variable	**β2**	**t**
Attitudes	0.142	2.204
Subjective Norms	0.155	2.561
PBC	0.310	4.424
Knowledge & Awareness	0.061	0.913

Table 10: Relationships among variables (Own creation)

However, not all relationships are statistically significant. Knowledge & Awareness demonstrate p-value above 0.05 and based on these finding H4 can be rejected. Attitudes, subjective norms and PBC demonstrate p-values lower than 0.05, on which basis, H1, H2 and H3 are confirmed.

Hypothesis	**Sig.**	
H1. Consumers with a more positive attitude towards preserving the environment will be more willing to purchase food in sustainable packaging.	**0.028**	**Confirmed**
H2. Subjective norms have a positive influence on a consumer's intention to purchase a food product in sustainable packaging.	**0.011**	**Confirmed**
H3. Believe that sustainable behaviour will have a positive impact on the environment is positively correlated with the willingness to purchase food in sustainable packaging.	**0.000**	**Confirmed**
H4. Consumers' higher knowledge and awareness will have a positive impact on consumers' willingness to purchase food in sustainable packaging.	**0.362**	**Rejected**

Table 11: Confirmed and Rejected Hypothesis (Own creation)

5. DISCUSSION

The presented findings demonstrate several perspectives on the factors that influence intentions and willingness to purchase food in sustainable packaging. These findings create a foundation for further discussion.

There is a vast number of studies that present how consumers value the sustainable and ecological aspects in a product and that they are willing to purchase for sustainable products. However, consumer's behavioural intentions are not always consistent with their reported attitudes towards products with a sustainable dimension. The aim of this study was an attempt to generate new insights into sustainable consumption considerations by examining how sustainable and ecological considerations relate to consumers intentions and willingness to purchase food products in sustainable packaging. More specifically, the author examined if the determinants, according to the theory of reasoned action (TRA) (Fishbein & Ajzen, 1975) and the theory of planned behaviour (TPB) (Ajzen, 1991), namely, attitudes, subjective norms, perceived behaviour control, and individual characteristics, such as knowledge and awareness, have a significant influence on consumers intentions and willingness to purchase food in sustainable packaging. An online survey of 238 young adults within European countries gives empirical support for all but one hypothesis.

Supporting the assumptions of the TRA & TPB, developed by Ajzen (1985), the results of this study suggest that intentions and willingness to purchase sustainable product are influenced by consumers' positive attitudes towards preserving the environment, which supports findings from previous studies (Van et al., 2009; Zagata, 2012; Kim et al., 2013; Vazifehdoust et al., 2013; Prakash & Pathak, 2017). Therefore, it is important to understand young consumers' attitudes towards the environment since they demonstrated a positive significant correlation with behavioural intentions. Person's attitudes are influenced by a variety of individuals beliefs which are important aspects of the overall consumer's decision-making process.

Testing of the second hypothesis showed a positive significant correlation between subjective norms and willingness to purchase food product in sustainable packaging. This proves that young consumers are experiencing the pressure from peers which converts them into having more positive sustainable considerations and intentions. Results support previous studies

(Vermeir & Verbeke, 2006; Rezai, 2012; Ham et al., 2015) where social norms were found important when taking into account for analysing food purchase behaviour.

The perceived behavioural control (PBC) emerged as the strongest influencing factor on the purchase intention. This means that there is a strong belief among young adults in Europe that sustainable behaviour will have a positive impact on the environment and that shows that young adults value the importance of the individual contribution to the preservation of the environment. PBC has demonstrated high predictability for green production consumption in previous studies which support these results (Boldero, 1995; Cheung et al., 1999; Paul et al., 2016).

The relationship between willingness to purchase and knowledge and awareness has been proven as not statistically significant. Thus, even though consumers may be knowledgeable and aware of the positive effects of individual packaging choices on the environment, such behaviour does not necessarily drive consumers towards purchasing. However, it is extremely important to emphasize that measuring of actual respondent's knowledge and awareness in regard to sustainability was not done in this study. Therefore, these findings demonstrate only perceptions of one's knowledge and awareness.

Also, it important to acknowledge that in real life purchasing situations, other factors can influence the decision-making process of a food product in sustainable packaging.

From the business point of view, while developing more sustainable packaging it is essential to have a holistic and anthropogenic view of sustainability, taking into consideration the Triple Bottom Line concept, where the evaluation of business results should not only include economic impact, but also both social and environmental. Improving sustainability demands knowledge of the whole value chain and focus on only one section is insufficient in solving problems. The packaging is not something that can be separated from the food product and food is essential for every human being to live, thus, more emphasis should be set upon the creation of more sustainable packaging.

Findings of this study demonstrate that consumers can be influenced towards more sustainable purchasing decisions of food in sustainable packaging and that the consumers'

sustainable consciousness is triggered with positive reinforcement. The findings follow both TRA and TPB, confirming that sustainable attitudes are precursors to sustainable behaviours.

Promoting and emphasizing the sustainability and environmentally friendliness of packaging could possibly create a competitive advantage for the company, due to the fact that findings demonstrate that young consumers are willing to purchase sustainable packaging of food because they believe that behaviour will have a positive impact on the environment. Furthermore, a company that desires to introduce a new sustainable food packaging should take into consideration developing an appropriate message to promote sustainable attitudes. Also, findings are valuable for companies in the development of the marketing strategies and for the government and public institutions in the planning of the informative and educative workshops for the promotion of sustainable consumption

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6. CONCLUSION

The aim of this project is to answer the research question: **"Which factor influence consumers towards more sustainable purchase choices of a food product in sustainable packaging?".** The relevant factors and their influence on the intentions and willingness to purchase a food product in sustainable packaging are in detail explained in the analysis and discussion part.

Additionally, in order to answer the main research question, the following sub-questions need to be discussed as well. The first question relates to the packaging and what does the packaging do for a product and it gives a more broad overview of the topic. Further two questions are more narrowed down and specific examining what is sustainable packaging and how sustainable concerns relate to consumers' purchase intentions and willingness to purchase a food product in sustainable packaging.

Based on that, it was decided to adopt a quantitative approach where results were based on the answers from a questionnaire-based survey from 238 respondents among young adults in Europe. Findings demonstrate that consumers with a more positive attitude towards preserving the environment are more willing to purchase food product in sustainable packaging. Also, subjective norms were found to have a positive influence on a consumer's intention to purchase a food product in sustainable packaging and perceived behaviour control emerged as the strongest predictor of sustainable purchasing intentions, That indicates that young consumers in Europe believe that sustainable behaviour will have a positive impact on the environment, and therefore they are more willing to purchase food in sustainable packaging. Thus, findings demonstrate that TRA and TPB variables are positively correlated with intentions and willingness to purchase food in sustainable packaging.

Knowledge and awareness did not show a significant influence on the intentions and willingness to purchase. However, these findings demonstrate only perceptions of one's knowledge and awareness, and therefore it needs to be studied more in order to gain a better understanding and measurement of actual knowledge and awareness of consumers.

Further studies should be conducted in order to evaluate the consistency between self-reported intentions and the actual behaviour of consumers.

7. LIMITATIONS & FURTHER RESEARCH

This project includes quantitative data collection methods for the purpose of answering the research question. This method was considered as the most convenient and appropriate for analysing which factors influence consumers towards more sustainable purchase choices of food in sustainable packaging. However, there are a few important issues that have to be noted within this type of data collection.

Possibly the most significant limitation that had an influence on this research is the lack of skills and experience in the context of conducting the survey, especially when it comes to formulating the questions for the survey. Also, it is important that the researcher is skilled in order to prepare, conduct, and analyse survey data and their outcomes according to the functionalist paradigm tradition. The limitation of lacking skills and qualification can also have an impact on the reliability and internal validity of the project when dealing with the process of collecting data.

Furthermore, it is important to consider the number of valid respondents. In total 238 completed and valid surveys were collected through the snowball effect which represents a limited and specific sample which is an obvious limitation of this study and definitely does not represent the entire youth European population. Since the population is very diverse and heterogeneous, including young adults in European countries, further research should include a large sample to get higher representativeness.

The centre of this project was on the self-reported respondent's perceptions of their own intentions and behaviours, instead of on their actual observed purchasing behaviour. Sheeran (2002) recommended that behavioural intentions can be treated as appropriate predictions of behaviour and therefore, can be utilised to predict actual behaviour. However, respondents are often unable or unwilling towards reporting accurately their sustainable consumption behaviour because of the *social desirability bias* that is usually linked with environmental issues. The result of that is data that are biased towards respondents' perceptions of what is socially acceptable or "correct". This phenomenon is referred to as social desirability bias (Fisher, 1993). Therefore, a great opportunity for the further research could be a study on consistency between self-reported and actual sustainable consumption behaviour.

Also, it is necessary to mention that this project did not measure actual knowledge and awareness of the respondents, but the focus was set on the respondent's opinions of their own environmental knowledge and awareness which might have a notable influence on the results. Taking this into consideration, together with the author's lack of skill and experience while conducting the survey, this might have had a significant influence on the results.

Another consideration for further research which might be valuable is investigating which attributes have to be satisfied before purchasing sustainable packaging, such as taste, price, availability, etc (Schwepker & Cornwell, 1991; Bech-Larsen; 1996; Van Birgelen et al., 2009).

Finally, it is Important to acknowledge that in real life purchase situations, a lot of other factors can influence the decision-making process of sustainable products.

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9. APPENDIX

Appendix 1. Literature review overview

Author	Year	Content
Ajzen & Fishbein	1975, 1980.	Theory of Reasoned Actions (TRA) & Theory of Planned Behaviour (TPB); survey-based analysis.
Rigaux-Bricmont	1982	Utilizing an experimental design on the Belgian coffee market, this research examines the combined effects of brand names and brand packaging on the consumers' perceptions of quality.
Hines et al.	1987	A meta-analysis and an exhaustive search of the empirically based environmental behaviour research conducted over the past decade produced a substantial number of studies representative of a broad academic base. The characteristics and findings of these studies served as the data for the meta-analysis.
Arcury	1990	This paper uses telephone survey data from 680 Kentucky residents to address and examine how environmental knowledge and attitudes are related to sociodemographic factors.
Sparks & Shepherd	1992	Authors stated that a sufficient operationalization of the variables of the theory of planned behaviour would result in no independent relationship between a measure of self-identity and a measure of behavioural intentions on two hundred and sixty-one randomly sampled members of the general public questionnaires.
Boldero	1995	The present study was designed to examine differences between respondents who recycled during a 2-week observation period and those who did not. Of interest was the ability of factors drawn from the theory of planned behavior and situational factors such as

		perceptions of borough councils' recycling programs to predict who would recycle.
Bech-Larsen	1996	This paper presents the findings of a study of Danish consumers' attitudes to packaging and the importance of the environmental and functional characteristics of packaging for their purchasing decisions. The purpose is to evaluate whether and how purchasing behaviour can be influenced in such a way as to limit the environmental problems caused by packaging.
Orbell et al.	1996	Theory of planned behaviour (TPB) goes along with TRA and it incorporates the predictability of specific behaviour.
Sheppard et al.,	1988	Two meta-analyses were conducted to examine the effectiveness of the Fishbein and Ajzen model in research to date. The strong overall evidence for the predictive efficiency of the model was found.
Schwepker & Cornwell	1991	This paper presents results of a study that attempts to discover variables which can be used to discriminate between groups that are and are not willing to purchase ecologically packaged products. Attitude toward ecologically conscious living, attitude toward litter, locus of control and the perception of pollution as a problem were determined to be significant discriminating variables.
Ajzen, I.	1991, 2002.	The theory of explaining the behavioural intentions of consumers. Intentions are considered to be as the key determinant of actions; the hypotheses were tested with the surveys.
Ajzen et al.	1992	TRA & TPB; hypothesis tested with experiments.

Prendergast & Pitt	1996	Through a mail survey of UK marketing executives, the author investigated decision makers who makes the sales packaging (i.e. primary packaging) decisions within the company, and the extent to which these individuals perceive trade-offs between the traditional marketing and logistical functions of a sales package, and environmental pressures to reduce, recycle and reuse packaging.
Nancarrow et al.	1998	The paper examines the significance of the marketing functions of a pack and the perceptual processes of consumers in their information search concerning pack design and labelling in marketing research. Case study material is introduced to help illustrate the main points.
Cheung et al.	1999	Using Ajzen's theory of planned behaviour (TPB), this study examined wastepaper-recycling behaviour among college students in Hong Kong. Two hundred and eighty-two college students completed a questionnaire designed to measure various constructs related to recycling behaviour.
Bone & Corey	2000	This study explores ethical perceptions of three product packaging issues as viewed by packaging professionals, brand managers, and ethically-interested consumers. Authors examine, differences between business practitioners and consumers with respect to ethical sensitivity, perceived consequences of business practices, and perceived industry norms.
Underwood et al.	2001	This article provides a theoretical framework for understanding the communicative effects of product imagery on attention to the brand, specifically, the attentional effects of incorporating a picture or illustration of the product on the packaging of the product.
Jensen & Sandøe	2002	Authors argue that transparency and understanding of the public's perception of food risks is a necessary first step in establishing the urgently required public dialogue about the complex value questions involved in food production.

Lee & Lye	2003	The purpose of this paper is to identify important factors that affect Hong Kong adolescent consumers' green purchasing behaviour. Adolescents in Hong Kong were recruited through multi-staged random sampling. They were surveyed on their green purchasing behaviour, environmental attitude, environmental concern, perceived seriousness of environmental problems, perceived environmental responsibility, perceived effectiveness of environmental behaviour, social influence and concern for self-image in environmental protection.
Rundh	2005, 2009.	The physical properties of the products and internationalisation and influencing factors in the demand and supply side of the packaging industry; Five case studies covering different packages in the supply chain are presented and analysed (2005); A single case study based on five "corporate stories" about packaging development resulting in a new package is presented and analysed (2009).
Garretson & Burton	2005	The authors offer some implications of these and other findings for marketers attempting to affect consumer evaluations favourably with spokescharacters in integrated marketing communications (IMC) campaigns.
Yiridoe et al.	2005	This paper provides a comprehensive evaluation of empirical studies comparing organic products and conventionally grown alternatives. The emphasis is on key organic consumer demand and marketing issues.
Raghubir & Greenleaf	2006	In two lab studies and an analysis of field data, the authors find that the ratio of the sides of a rectangular product or package can influence purchase intentions and preferences and is related to marketplace demand.

Vermeir & Verbeke	2006	This study investigates the presumed gap between favourable attitude towards sustainable behaviour and behavioural intention to purchase sustainable food products. The impact of involvement, perceived availability, certainty, perceived consumer effectiveness (PCE), values, and social norms on consumers' attitudes and intentions towards sustainable food products are analyzed. The empirical research builds on a survey with a sample of 456 young consumers, using a questionnaire and an experimental design with manipulation of key constructs through showing advertisements for sustainable dairy.
Chen	2007	This study aims to understand what motives determine the consumer's attitude to organic foods in Taiwan, which in turn influence the subsequent purchase intentions. Moderated regression analysis (MRA) is used to ascertain the personality traits of food neophobia and food involvement separately in the behavioural intentions model.
Gotschi et al.	2007	Based on the Theory of Reasoned Action, developed by Fishbein and Ajzen, a simple model of the impact of attitudes and social norm on behaviour is tested, using a data set, which was collected in 2005 (n=340). This basic model is extended by structural variables, factors representing cultural patterns and knowledge. By these means, authors explore the complex field of decisions and reasoned action regarding the shopping behaviour of high school students with respect to organic products.
Marsh and Burgus	2007	This article describes the role of food packaging in the food supply chain, the types of materials used in food packaging, and the impact of food packaging on the environment. In addition, this document provides an overview of EPA's solid waste management guidelines and other waste management options. Finally, it addresses disposal methods and legislation on packaging disposal.

McGoldrick et al.	2008	This study included a Zaltman Metaphor Elicitation Technique (ZMET) exploratory investigation then a mail survey of 1000 consumers, indicating a willingness to pay ethical premiums across 6 categories.
Rokka & Uusitalo	2008	In this paper, consumer environmental choice is studied by analysing the relative importance of green packaging when compared with other relevant product attributes. The empirical study is based on a choice-based conjoint analysis of preferences for functional drink products of a sample of 330 consumers using these products.
Van Birgelen et al	2009	This study generates new insights by analyzing consumer-related factors related to distinct but connected package-related behaviours regarding beverage consumption: purchase and post-consumption disposal. An online survey of 176 German respondents provides empirical support for all but one hypothesis.
Young & Ciummo	2009	A case study about Tropicana's packaging that demonstrated the importance of the packaging when the change of the package design led to a 20% sales drop in just two months, where packaging design, colour, shape and materials are also considered to be a communication tool.
Zander & Hamm	2010	By means of an Information-Display-Matrix (IDM) and an accompanying consumer survey, the information acquisition behaviour of consumers regarding seven additional ethical attributes and the product price of organic food was investigated in five European countries. The ethical attributes, 'animal welfare', 'regional production' and 'fair prices to farmers' turned out to be the most important.
Hjelmar	2011	The aim of this study was to gain insight into the purchase of organic food products by consumers and to explore the main factors driving this process. This paper uses evidence from 16 in-depth interviews with consumers in Denmark carried out in 2008–2009. On the basis of the analysis, two broad concepts are suggested: convenience behaviours and reflexive practices.

Sustainable Packaging Coalition	2011	This document articulates a definition of “sustainable packaging” so the packaging value chain can work toward a common vision.
Limbu et al	2012	The purpose of this study is to examine the effects of consumers' perception of online retailers' ethical behaviour on consumer purchase and revisit intentions. A sample of 259 online shoppers was employed to test the relationships between perceived ethics of online retailers and the intention to revisit and purchase.
Verghese et al.,	2012,2013	Authors draw on the expertise of researchers and industry practitioners to provide information on business benefits, environmental issues and priorities, environmental evaluation tools, design for environment, marketing strategies, and challenges for the future (2012); This report focuses on packaging opportunities that may help to reduce or recover food waste.The report draws on an international literature review and interviews with representatives from 15 organisations in the Australian food and packaging supply chain (2013).
Chandon	2013	The author examines the extent to which mandatory nutrition labels, stricter regulation of package claims, public promotion of mindful eating, and mindless eating nudges could limit the biasing effects of packaging on food perceptions and preferences.
Hollywood	2013	investigate consumer attitudes towards packaging design as a tactical strategy for increasing the commercial value of liquid milk within the dairy industry. In total, six focus groups were conducted containing 33 participants and data were analysed using QSR Nvivo 7.
Koenig-Lewis et al.	2014	This study investigates consumers' emotional and rational evaluations of pro-environmental packaging. A conceptual model incorporates individuals' general environmental concerns, their rational beliefs about the environmental effects of product consumption and emotions evoked. Hypotheses are tested with 312

		Norwegian consumers who evaluated a beverage container incorporating organic material.
Russell	2014	The author argues that the whole life cycle of the product's packaging to which energy and resource are applied, and use are minimised, pollution is reduced (not relocated), ecological benefits are created, and social and economic well-being are increased. Only when this caution is applied can a new solution be described as more sustainable.
Ham et al.	2015	The purpose of this article is to analyse the specific role of two types of subjective norms in forming the intention to purchase green food. Based on the outcomes of a questionnaire completed by a sample of 411 household primary shoppers from a transitional country in the Southeast Europe region, authors developed three models that depict the predictive power of attitudes, perceived behavioural control and subjective norms, and confirmed a significant positive relationship between green food purchasing intention and all three antecedents.
Paul et al.	2016	The extended Theory of Planned Behavior (TPB) incorporates environmental concern, a critical variable in green marketing literature, intending to achieve a triple bottom line (TBL). In this context, this study aims to validate TPB and its extended form (mediating role of TPB variables), as well as the Theory of Reasoned Action (TRA), to predict Indian consumers' green product purchase intention. Authors collected primary data from 521 respondents as input, establishing validity through confirmatory factor analysis (CFA).
Peschel et al.	2016	The aim of this study was to gain insight into the purchase of organic food products by consumers and to explore the main factors driving this process. This paper uses evidence from 16 in-depth interviews with consumers in Denmark carried out in 2008–

		2009. On the basis of the analysis, two broad concepts are suggested: convenience behaviours and reflexive practices
Seo et al.	2016	Three experimental studies were conducted to determine whether the consumers' WTB and the price premium for sustainable products differ according to the eco-friendliness of the product and the product's attributes. In Study 1 and Study 3, analysis of variance (ANOVA) was conducted; and, in Study 2, analysis of covariance (ANCOVA) was conducted. The results of Study 1 and Study 2 suggested that the consumers' WTB for sustainable products can differ according to the product's attribute. Moreover, results of Study 3 revealed that consumers' WTB and satisfaction for sustainable products can differ according to the level of packaging.

Appendix 2. The questionnaire-based survey

Dear participant,

Thank you for taking the time for filling out this questionnaire.

I am a master student at Aalborg University in Denmark. For my master thesis, I am researching how sustainable considerations relate to consumers' purchase decisions.

The duration of completing the survey is approximately 5 minutes.

All questions can be answered anonymously and the answers will be treated confidentially.

At the end of the survey, you will be given an opportunity to leave your email address because I might have questions afterwards. If you are willing to participate, please feel free to fill in your e-mail address.

Please be aware that there are no right or wrong answers. Also, if you have any

questions about the survey, do not hesitate to contact me on my e-mail address: aikoti17@student.aau.dk

Thank you for taking the time to complete this survey and helping me with this research,
Andrea.

What is your gender?

(1) ❑ Female
(2) ❑ Male
(3) ❑ Other
(4) ❑ Prefer not to say

What is your nationality?

(1) ❑ Danish
(2) ❑ Croatian
(3) ❑ Other; please state your nationality _____

What is your age?

(1) ❑ 18 - 19
(2) ❑ 20-29
(4) ❑ 30-35
(5) ❑ 36 or older

Are you currently enrolled in higher education (e.g. University)?

(1) ❑ Yes
(2) ❑ No

When you think about sustainability, which aspects are of importance for you personally?

On a scale from 1 to 5, where
1 is “not important at all”,
2 is "not important",

3 is "neutral",
4 is "somewhat important", and
5 is “very important”

how would you rate the following statements:

Production methods (sustainable vs. conventional methods)

1	2	3	4	5
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑

Transportation methods

1	2	3	4	5
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑

Product's packaging

1	2	3	4	5
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑

Waste disposal

1	2	3	4	5
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑

Pollution

1	2	3	4	5
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑

Organic food processing

1	2	3	4	5
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑

Is there any other aspect of sustainability that you consider important mentioning?

_____
_____
_____
_____
_____
_____

It is important to address the definition of sustainability and sustainable development that this project uses and it would be useful if the respondent keeps this definition in mind while answering the questions:

According to the United Nation, the sustainability in Agenda for Development (1997) is defined as:

"Sustainability is multidimensionally trying to achieve a higher quality of life for all people. Economic development, social development and environmental protection are interdependent and mutually reinforcing components of sustainable development."

Furthermore, according to The Sustainable Packaging Coalition (SPC), sustainable packaging:

- ✓ Is beneficial, safe and healthy for communities and individuals throughout its life cycle;
- ✓ Meets market criteria for performance and cost;
- ✓ Is sourced, manufactured, transported, and recycled using renewable energy;
- ✓ Optimizes the use of renewable or recycled source materials;
- ✓ Is manufactured using clean production technologies and best practices;
- ✓ Is made from materials healthy throughout the life cycle
- ✓ ;Is physically designed to optimize materials and energy;
- ✓ Is effectively recovered and utilized in biological and/or industrial closed loop cycles.

“Sustainability is multidimensionally trying to achieve a higher quality of life for all people. Economic development, social development and environmental protection are interdependent and mutually reinforcing components of sustainable development.”

On a scale from 1 to 5, where
1 is “strongly disagree”,
2 is "disagree",
3 is "neutral",
4 is "agree",
5 is “strongly agree”

how would you rate the following statements:

The environment is one of the most important issues that society is facing nowadays.

1	2	3	4	5
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑

I believe that food packaging waste has severe negative consequences for the environment.

1	2	3	4	5
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑

In my opinion, food packaging waste is not one of the main causes of environmental harm.

1	2	3	4	5
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑

“Sustainability is multidimensionally trying to achieve a higher quality of life for all people. Economic development, social development and environmental protection are interdependent and mutually reinforcing components of sustainable development.”

On a scale from 1 to 5, where
1 is “strongly disagree”,
2 is "disagree",

3 is "neutral",
4 is "agree",
5 is “strongly agree”

how would you rate the following statements:

People in my circle of friends care if the food they buy has a sustainable packaging.

1	2	3	4	5
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑

Members of my family highly value their sustainable food packaging purchase choices.

1	2	3	4	5
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑

Food with sustainable packaging has significant importance in my country.

1	2	3	4	5
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑

I believe that I behave more sustainable with regard to my food packaging choices because of my friends and family.

1	2	3	4	5
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑

“Sustainability is multidimensionally trying to achieve a higher quality of life for all people. Economic development, social development and environmental protection are interdependent and mutually reinforcing components of sustainable development.”

On a scale from 1 to 5, where
1 is “strongly disagree”,
2 is "disagree",
3 is "neutral",
4 is "agree",
5 is “strongly agree”

how would you rate the following statements:

I behave in a sustainable way in regard to my food packaging purchase choices because I feel that I have done something positive for the environment.

1	2	3	4	5
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑

I believe that my decisions in the food packaging purchase choices have a direct positive influence on the environment.

1	2	3	4	5
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑

I avoid purchasing food with packaging that has a negative impact on the environment.

1	2	3	4	5
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑

“Sustainability is multidimensionally trying to achieve a higher quality of life for all people. Economic development, social development and environmental protection are interdependent and mutually reinforcing components of sustainable development.”

On a scale from 1 to 5, where
1 is “strongly disagree”,
2 is "disagree",
3 is "neutral",
4 is "agree",
5 is “strongly agree”

how would you rate the following statements:

I am willing to pay a price premium for food in sustainable packaging because I believe it has a positive impact on the environment as a whole.

1	2	3	4	5
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑

I am willing to pay a price premium for food in sustainable packaging because I believe it has a positive impact on my health benefits.

1	2	3	4	5
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑

I am willing to pay a price premium for food in sustainable packaging because it has a better taste than the food packaged in unsustainable packaging.

1	2	3	4	5
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑

We should pay a substantial amount of money to preserve our environment.

1	2	3	4	5
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑

“Sustainability is multidimensionally trying to achieve a higher quality of life for all people. Economic development, social development and environmental protection are interdependent and mutually reinforcing components of sustainable development.”

On a scale from 1 to 5, where
1 is “strongly disagree”,
2 is "disagree",
3 is "neutral",
4 is "agree",
5 is “strongly agree”

how would you rate the following statements:

I am concerned about the environment.

1	2	3	4	5
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑

I am aware of the current environmental problems.

1	2	3	4	5
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑

I am well informed about environmental problems.

1	2	3	4	5
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑

I am knowledgeable about the sustainable packaging of food and what are its benefits for the environment.

1	2	3	4	5
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑

Using sustainable packaging of food products is a primary technique to reduce environmental problems.

1	2	3	4	5
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑

Thank you for taking the time to complete this survey and contributing to the research.

As aforementioned, it would be very helpful if you could leave your e-mail address so I can reach out to you if I might have any follow-up questions in the future.

Wish you a lovely day!
Andrea

Please enter your email address, if you wish to participate.

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