The influence of green consumer behavior on the attitude towards meal kits

How does green advertisement influences this relationship?
The influence of green consumer behavior on the attitude towards meal kits

How does green advertisement influences this relationship?

Master Thesis Marketing
Myrthe Nijsten
Myrthe.nijsten@student.ru.nl
S1008102
Date: 15 June 2020
Supervisor: Dr. Marleen Hermans
Co-reader: Dr. Herm Joosten
Master Business Administration, Marketing
Radboud University Nijmegen – School of Management
Abstract

The convenience food market is upcoming and fast growing. Whereas most convenience food is found to be unhealthy and unsustainable, meal kits are somewhat different. They differ from traditional convenience food as they are still convenient but sustainable at the same time. This sustainable element could speak to green consumers, who normally tend to avoid convenience food due to the unsustainable factor. Prior research already analyzed both the sustainable and convenience component separately. However, it has not been researched yet if green consumers will look differently to meal kits than they do to convenience food in general. To see if green consumers can be attracted to meal kits, this research has tried methods of emphasizing the green components of meal kits via green advertising. This leads to the purpose of this study, which is to see what the impact of green advertising can be on the attitude towards meal kits of green consumers. A questionnaire among 206 respondents is conducted and analyzed by multiple linear regressions. Unfortunately, no significant results have been found after testing the proposed hypotheses. Finally, a discussion, managerial implications and suggestions for future research have been made.

Key words

Convenience food, meal kits, green consumer behavior, green advertisement, green appeals, attitude, purchase intention
Preface

First of all, I would like to start this thesis by taking the opportunity to say thank you to the people who have been supporting me during this process. As my background lies in Hotel Management and already having a Bachelor in Business Administration of Applied Sciences, I was still quite scared for what was ahead of me. A Master degree in Business Administration was one of my goals which I wanted to achieve during my twenties and here I am. During the process, it wasn’t that scary at all but as we all know, 2020 is a year that we never experienced before. It was definitely not a normal year to write your Master Thesis. It cost me even more motivation to write and create a positive mindset because of missing University and having interaction with other students and friends, but I made it and I am even more proud of myself. First of all, I would like to thank Marleen Hermans who helped me during my thesis process and Herm Joosten for giving feedback as well. Secondly, I would like to thank my boyfriend Pascal, for spending many hours with me in the living room and creating a positive mindset under these circumstances such as not leaving our apartment for weeks. Thirdly I would like to thank my aunt, Cecile Nijsten, for reading my Thesis critically and giving me feedback during these six months. This was really helpful. In addition, I would like to thank Foeke van der Zee, who helped me with understanding my analysis even better. Also, I would like to thank everyone who took the time to fill in my questionnaire and thereby helped me graduate. Lastly, I would like to thank my dad, bonus mom, bonus sister and brother who supported me during these six months and believed in me. All in all, I can say that I am super proud of myself and that I am ready for the future.
# Table of contents

Abstract .................................................................................................................................................. 3
Preface ................................................................................................................................................... 4

1. Introduction ....................................................................................................................................... 6
   1.1 Practical phenomenon ....................................................................................................................... 6
   1.2 Theoretical contributions .................................................................................................................. 7

2. Literature review ............................................................................................................................. 10
   2.1 Convenience food and meal kits .................................................................................................... 10
   2.2 Green purchase behavior ............................................................................................................... 11
   2.3 Green advertising ........................................................................................................................ 13
   2.4 Conceptual model and hypotheses ............................................................................................... 15

3. Methodology ..................................................................................................................................... 20
   3.1 Research design ............................................................................................................................ 20
   3.2 Data collection and sample ........................................................................................................... 21
   3.3 Manipulating the independent variable ......................................................................................... 22
   3.4 Operationalization of variables .................................................................................................... 22
   3.5 Procedure of the questionnaire ..................................................................................................... 23
   3.6 Methodology ................................................................................................................................ 24
   3.7 Research ethics ............................................................................................................................ 25

4. Results ............................................................................................................................................... 26
   4.1 Reliability analysis ......................................................................................................................... 26
   4.2 The sample descriptive .................................................................................................................. 27
   4.3 Regression analyses ...................................................................................................................... 27
   4.3.1 Regression 1: The effect of green consumer behavior on attitude towards meal kits........... 28
   4.3.2 Regression 2: Moderation analysis of advertisement .............................................................. 29
   4.3.3 Regression 3: Mediation analysis ............................................................................................. 30
   4.4 Additional analysis ....................................................................................................................... 32

5. Discussion and conclusion .............................................................................................................. 34
   5.1 Theoretical implications ............................................................................................................... 34
   5.2 Managerial implications ............................................................................................................... 35
   5.3 Limitations and future research .................................................................................................. 36

Bibliography .......................................................................................................................................... 38

Appendices ........................................................................................................................................... 47
Appendix A – Operationalization of the variables .............................................................................. 47
Appendix B – Questionnaire ................................................................................................................. 48
Appendix C – The Pearson correlation matrix .................................................................................... 54
Appendix D – Assumptions for regression analysis ............................................................................. 55
1. Introduction

1.1 Practical phenomenon

The increased awareness towards sustainability has led to a higher demand for green products by consumers (Kumar & Ghodeswar, 2015). Consumers whom are purchasing green products are often associated with finding the environmental consequences of their consumption important and this leads to positive attitudes towards green products (Chai, 2010; Follows & Jobber, 2000).

Due to the increasing popularity of these products, a lot of researchers have been looking into the market of convenience food (Future Market Insights, n.d; Guthrie, Lin, & Frazao, 2002). Green consumers are often not attracted to these convenience foods, as research shows that convenience foods are associated with being unsustainable and unhealthy, whereas an innovative and specific kind of convenience foods, meal kits, are found to be somewhat different (Hertz & Halkier, 2017; Jackson & Viehoff, 2016). Meal kits stand out from regular convenience foods, as they are both convenient and green (Stuckey, 2019). Providers of these meal kits such as Hello Fresh are providing the consumer with easy to prepare meals, easy to clean and new inspiration for cooking healthier options (Hello Fresh, 2020b; Statista, 2019). Several meal kit companies are also attempting to address the concerns towards the environment within the food industry, such as declining food waste and emissions of transportation (Heard, Bandekar, Vassar, & Miller, 2019; Khan & Sowards, 2018). The term meal kits can be seen as ambiguous as it appears to be convenient and a green product. It remains unclear how the attitude of green consumers is towards these meal kits.

Research shows that meal kits are sustainable (Heard et al., 2019) and that is why it is important to make this aware under green consumers. However, being a convenience food, it does not yet have this sustainable image.

Green promotions, such as green advertising, can convince these consumers to buy a more sustainable option as it emphasizes environmental-friendly attributes and can be an effective marketing tool to promote green behavior (Manrai, Manrai, Lascu, & Ryans Jr, 1997). There is still a lack of research when it comes to the adoption process of meal kits among green consumers. It remains questionable what the attitude of green consumers towards meal kits is, and if this attitude can be influenced by using different types of green advertisement. Therefore, the following research question will be addressed: “How does green consumer behavior influence the attitude towards meal kits and what is the impact of green advertisement on this relationship?”
1.2 Theoretical contributions

This research contains two theoretical contributions. First, meal kits are usually categorized as convenience food due to their ease in preparation and their reduction of time (Hertz & Halkier, 2017). Convenience food itself is often associated with a negative effect on cooking enjoyment and health consciousness by consumers and is linked to potential risks towards obesity (Raimundo, Batalha, & Sans, 2019). In addition, large amounts of excessive package material of these convenience foods end up in the streets, something which is damaging to our environmental welfare (Cambrian News, 2020). Nonetheless, meal kits are different from convenience foods as individuals still have to prepare their own food at home (Hertz & Halkier, 2017). Also, they contribute to a more healthy way of cooking while offering more boxes which are vegetable based or low in calories (Hello Fresh, 2020a). Blue Apron, an American meal kit supplier, embraces better standards towards quality and sustainable ingredients. The decrease of transportation emissions by eliminating the middleman and offering pre-portioned foods leads to a reduction of food waste (Blue Apron, 2017). All in all, meal kits are therefore products that are both convenient and green.

A lot of research has been done about sustainability and green consumer behavior (Gilg, Barr, & Ford, 2005). Green consumers identify themselves as someone who is involved in sustainable practices and who evaluates consequences of their purchase towards the environment before buying (Follows & Jobber, 2000; Nguyen, Nguyen, & Hoang, 2019). Green consumers are therefore keen on investing in green products (Leonidou & Kvasova, 2010), because green products contribute to the environment in a more positive way (Chai, 2010). On the other hand, green consumers often associate convenience foods with being unsustainable and unhealthy (Jackson & Viehoff, 2016). They are often seen as foods with lack of nutrition, a bad animal welfare and excessive packaging which leads to an overall negative attitude by consumers (Guardian, 2019; Guthrie et al., 2002; Schröder & McEachern, 2005). As green consumers focus on the well-being of our environmental welfare it is assumed that convenience foods are also not popular in this group. As mentioned before, meal kits are somewhat different as they can be seen as convenient but also contribute to a better environmental welfare, thus a greener product. It remains unclear how both the positive and negative aspects of meal kits influence the attitude of green consumers towards meal kits.

The results of this study will contribute to the literature by gaining a better understanding of the attitude of the green consumer towards meal kits. This is done by analyzing the attitude towards meal kits of the green consumer, which is a trend that is going to be inevitable in the future.
Second, green advertisement can have an influence on the attitude towards products, as it can convince consumers to buy eco-friendlier. These green advertisements contain different sorts of appeal and thereby test which are proven to attract consumers, such as emotional appeal, functional appeal or a combination of both appeals (Hartmann, Ibáñez, & Sainz, 2005).

Several studies concentrated more on the field of green marketing and this led to an increase in development, repositioning and promotion of products and services that are sustainable (Diamantopoulos, Schlegelmilch, Sinkovics, & Bohlen, 2003). Marketing communications such as advertisements can be effective drivers of consumer behavior and purchase intention (Wahid & Ahmed, 2011). No attention is being paid on how green advertisement can have an effect on the relationship between green consumer behavior and their attitude towards meal kits, as these meal kits can be seen as convenient and green.

However, there is already well known literature about the influence of advertisement on consumer purchase behavior, in the retail industry (Brewis & Jack, 2005; Wahid & Ahmed, 2011). Brand attitudes can be changed by making use of an ad while implementing emotional appeals, novelty or the use of celebrities (MacInnis, Moorman, & Jaworski, 1991). Companies such as Hello Fresh and Blue Apron are already implementing some of these tools and try to maintain and improve their relationships. This is done via several marketing strategies such as the use of advertising on social media channels, while making use of several celebrities (Blue Apron, 2020; Hello Fresh, 2020b).

All in all, still no research is done about the influence of green advertisement on the relationship of green consumer behavior and their attitude towards meal kits as it contains components of greenness and convenience.

This will contribute to the literature by analyzing the influence of different advertisement appeals such as emotional, functional or a combination of the two, on green consumer behavior and their attitude towards meal kits.

Therefore, it creates insights for the meal kit industry on how to deal with a specific kind of promotion, green advertisement, and it is beneficial for managers who need to attract and retain customers in the future.
1.3 Research outline

This research will first provide a theoretical framework for this research. It includes an outline of relevant literature and theories regarding convenience foods and meal kits, green purchase behavior and green advertisement. The second chapter will end with a conceptual model and the hypotheses. Chapter three will discuss the research design and the methodology. Next, chapter four will contain the data analysis and results. The last chapter, chapter five, will discuss the results of the research and present the conclusion, theoretical and managerial implications and recommendations for future research.
2. Literature review

In this section, the theoretical framework of this research is established.

First, a more extensive explanation is held about convenience food and meal kits as they differ from each other. Second, green purchase behavior and their decision-making process towards green products will be discussed to illustrate the cognitive process and potential attitude. Finally, a term within green marketing, green advertising, will be discussed which can convince green consumers towards the buying of green products. Following this literature review, a conceptual model is presented followed up by the developed hypotheses which are going to be analyzed during this study.

2.1 Convenience food and meal kits

Convenience food can be defined as a product that supports a consumer by reducing the time in their preparation of food, consumption and cleanup (Brunner, van der Horst, & Siegrist, 2010). Convenience foods can exist out of processed food items, fast food or for example prepared salads (Traub & Odland, 1979). The consuming of convenience foods can support consumers by minimizing time and effort to prepare their foods (Buckley, Cowan, & McCarthy, 2007).

Prior research mainly presents convenience foods as fast food and are often seen as unhealthy by consumers (Jackson & Viehoff, 2016). Results have shown that eating these foods is often related with diseases such as diabetes and cancer (Jabs & Devine, 2006). In general, consumers developed an unfavorable image about convenience foods (Costa, Schoolmeester, Dekker, & Jongen, 2007; de Boer, McCarthy, Cowan, & Ryan, 2004). This is due to the fact that consumers often have no influence on the quality or the production process of the food (Brunner et al., 2010). Also, convenience foods are not contributing to interests for cooking enjoyment and consumers who preference a varied diet (Brunner et al., 2010). The fact that convenience food takes part in the production of serious amounts of waste and lacks being sustainable, is another reason why it creates a negative attitude by consumers (Jackson & Viehoff, 2016).

Despite the fact that there is negative attitude in general towards convenience foods, there are also several drivers of consumers to purchase convenience food (Raimundo et al., 2019). The purchase behavior of these convenience foods is led by a shift in consumer lifestyles such as longer working hours and more females in the labor force (Buckley et al., 2007). Another important reason to buy convenience food is the value that consumer attach to
these foods. Findings by Botonaki and Mattas (2010) show significant results for values such as seeking new experience, acting independently and an increase of personal interests. These values are also defined as consumer value, universalism and personal value and are all motivations to consume convenience food.

A meal kit is different from the traditional convenience foods and can be defined as a box which includes a recipe and its ingredients, these are pre-portioned and often individually-packaged. Delivery services ship these boxes directly to the consumers home (Ray, 2017). However, according to prior research meal kits are still categorized as convenience food but are different in several aspects (Hertz & Halkier, 2017). Its convenience is based on the ease in use and time saving while preparing food at home (Hertz & Halkier, 2017). Meal kits differ because it can motivate consumers to start cooking, which does not apply for traditional convenience food (Hertz & Halkier, 2017). It also inspires people to cook more healthy as they contain a various amount of ingredients (Hertz & Halkier, 2017). Furthermore, they make a contribution to the reduction of food waste (Heard et al., 2019). This conclusion was made after analyzing the whole supply chain, from producer to the consumer residences, taking transportation, packaging, emissions and portion size into consideration. However, some consumers state that the large amount of packaging in these meal kits are confronting due to the fact that these package materials lead to high carbon emissions and a large amount of disposal (Khan & Sowards, 2018; Koren, 2016).

2.2 Green purchase behavior

Meal kits can be seen as a green product (Heard et al., 2019) and therefore a review is performed about green consumers and the adoption process of green products in general.

Over the last years, consumers get themselves more involved in sustainable practices and can be defined as the “green consumer” (Schaefer & Crane, 2005). Green consumer behavior can be seen as any purchasing and consumption behavior by a consumer linked to issues concerning the environment and its resources. Green consumers are involved in a broad spectrum of sustainable practices such as: “recycling, reusing of products, buying products with less packaging, focusing on buying organic food, fair trade items, minimize consumption, eating less meat or even plant-based and thus trying to reduce their environmental impact” (Connolly & Prothero, 2008; Gilg et al., 2005; Huttunen & Autio, 2010). Also, green consumers focus on buying locally produced food to defend the local farmer against the global farmer food (Winter, 2003). Typical food choices of green consumers are organic, vegetarian and fair trade (Tobler, Visschers, & Siegrist, 2011). A
study by Verain et al. (2012) explains that green consumerism can differ in level when it comes to sustainable choices and their behavior and thus varying in greenness.

Ajzen and Fishbein (1980) explained that consumer behavior is based on intentions, incorporated with attitude and subjective norms. In the field of sustainability, scholars have been using these basics with some modifications to explain purchase intention and purchase behavior towards green products (Hsu, Chang, & Yansritakul, 2017; Paul, Modi, & Patel, 2016; Zhao, Gao, Wu, Wang, & Zhu, 2014). However, it appears that these models are still ambiguous as they differ in outcome due to present scenarios or different local settings (Joshi & Rahman, 2015).

When environmental consequences are important to the consumer, there can also be a will to purchase green products (Follows & Jobber, 2000). These products are beneficial to the environment and society and can contain herbal products, ecofriendly carry bags, energy saving light bulbs and so on (Joshi & Rahman, 2015). These products are recyclable and have low waste generation (Chai, 2010). A large amount of studies describe the attitude and behavior of consumers towards products or services which are environmental friendly (Leonidou & Leonidou, 2011). Researches confirm that these consumer attitudes are influenced by cognitive factors such as concern, knowledge and perceived consumer effectiveness, which directly influences consumers’ purchase intention and behavior towards these products (Jaiswal & Kant, 2018; Kumar, Manrai, & Manrai, 2017; Paul et al., 2016).

In general, environmental concerns mean that an individual is conscious towards environmental issues and has awareness to solve the problem (Kim & Choi, 2005). It also refers to a sense of responsibility to have protection towards the environment, together with emotional appeals that are reflected in involvement towards protection of the environment (Prakash & Pathak, 2017). Studies confirmed that environmental concerns have a direct influence on attitudes towards green products (Mostafa, 2007), which eventually leads to purchase intention for green products (Paul et al., 2016). The higher the environmental concern, the higher the positive attitude towards green products, which can lead to a high level of purchase intention (Paul et al., 2016).

Another factor that influences the attitude of green consumers towards green products is environmental knowledge. Environmental knowledge can be explained as to what extent a consumer has knowledge about the environment and what the consequences are of their actions towards the environment (Lin & Huang, 2012; Pagiaslis & Krontalis, 2014). This knowledge plays an important role in influencing consumer behavior. This because it presents the individual with knowledge about action strategies and issues which support shaping an
attitude and intention through the belief system (Laroche, Toffoli, Kim, & Mutter, 1996). Consumers prefer to make rational choices in situations that concern buying environmental friendly products and want to have full knowledge about environmental issues in order to make an opinion and choice according to their intentions (Laroche et al., 1996).

Perceived consumer effectiveness (PCE) influences the attitude of green consumers towards green products in another way. It can be seen as the individual belief that the actions a consumer makes, can make a difference in solving environmental problems (Ellen, Wiener, & Cobb-Walgren, 1991). Consumers will only purchase environmental friendly products if they believe that their behavior, by buying, will have a positive effect on the environment (Straughan & Roberts, 1999). Tan (2011) reported that attitude towards green products is strongly influenced by PCE. A study by Vermeir and Verbeke (2006) showed that PCE had a strong influence on sustainable food consumption such as sustainable dairy products.

All in all, a lot of factors have an influence on the attitude and purchase intention towards green products. Therefore, these factors are being used in this study to analyze the attitude towards meal kits as they are, according to the literature, partly green.

2.3 Green advertising

Situational factors can have an influence on the purchase behavior of a consumer such as a promotional campaign like advertisement (Hartmann, Apaolaza, D’souza, Barrutia, & Echebarria, 2014; Vermeir & Verbeke, 2006). Hartmann et al. (2014) emphasizes the importance of green advertising as it increases favorability towards brands among consumers. Green advertising is described as an ad that accentuates environmental-friendly attributes of a product (Manrai et al., 1997). A study by Botonaki and Mattas (2010) confirms that linking values that are important for the targeted segment are found to be important within the promotion of specific products in the food market. Therefore, it is assumed that highlighting green appeals, can stimulate the buying behavior of green consumers as they may address to the needs and wants of green consumers (Zinkhan & Carlson, 1995).

These days, marketing strategies change rapidly to attract consumers with awareness and concerns towards the environment, by making use of green advertising. A study by Matthes, Wonneberger, and Schmuck (2014) highlighted the importance of green advertising, as well on green consumers as non-green consumers as they may favor environmental friendly consumption behaviors.

Green advertising is often used as a promotion tool for fast-moving consumer goods, which are nondurable products such as food and beverages or beauty products (Atkinson &
Kim, 2015). A study by Kong and Zhang (2013) indicated that the higher the environmental concern among consumers, the higher the purchase intention of fast-moving consumer goods when using green advertising. These researches give an indication of how important the use of green advertising can be on the use of meal kits, as it is a fast-moving consumer good.

Hartmann et al. (2005) identified three green advertisement appeals: functional appeal, emotional appeal and a combination of both. Functional appeals highlight environmental friendly product attributes or production processes, where emotional appeals only focus on a presentation of a natural landscape. An advertisement with the combination of both, highlights environmental friendly attributes and presents a natural landscape in the background (Hartmann et al., 2005). Findings suggested different outcomes when it comes to change in attitude towards a brand while making use of green appeals (Matthes et al., 2014). Matthes et al. (2014) found that emotional and a combination of both green appeals affected brand attitude in a positive way for highly involved green consumers as well as for less involved green consumers. Functional appeals only had an effect when green purchase behavior was already high. Another study by Grimmer and Woolley (2014) showed that green advertisement led to a greater purchase intention by consumers with a high environmental involvement. Consumers with a lower level of environmental involvement felt more attracted by personal ads.

Based on studies above, the current study uses green advertising as a moderator between green consumer behavior and the attitude towards meal kits.
2.4 Conceptual model and hypotheses

The proposed main research question is: “How does green consumer behavior influence the attitude towards meal kits and what is the impact of green advertisement on this relationship?”

In this section, the development of the conceptual model and the supporting hypotheses are described. The conceptual model explains the above described variables and their linkages between each other. Furthermore, the attitude towards meal kits of the green consumer will be explained and how this can be influenced by green advertising. After analyzing the attitude, the effects between attitude towards meal kits and the purchase intention of meal kits will be described. Figure 1 provides the conceptual framework which will be studied in this research.

Figure 1: Conceptual framework
2.5 Hypotheses

Several studies argued a distinction between the level of greenness and consumption behavior (Gilg et al., 2005; Verain et al., 2012), and state that the level of “greenness” depends on environmental concern, knowledge and received effectiveness of the consumer (Kim & Choi, 2005; Laroche et al., 1996; Straughan & Roberts, 1999). The more a consumer is concerned towards the environment the more their will is to make green purchase decisions (Jaiswal & Kant, 2018; Ottman, Stafford, & Hartman, 2006). When consumers have a high level of environmental knowledge and a high level of perceived customer effectiveness towards the environment, the chances to purchase a green product are also higher (Jaiswal & Kant, 2018).

Based upon their environmental knowledge, environmental concern and consumer effectiveness, green consumers pay attention to buying local, organic and fair trade and are trying to eat less meat when it comes to food choices (Connolly & Prothero, 2008; Gilg et al., 2005; Huttunen & Autio, 2010). These food choices raise the question if green consumers would be interested in meal kits because in general, consumers appear to have a negative attitude towards convenience food due to the fact they are high in waste disposal and lead to health issues among individuals (Jabs & Devine, 2006). However, meal kits are giving convenience food a new definition (Hertz & Halkier, 2017). Within meal kits, attention is being paid towards learning new cooking skills, gaining healthier food options and being more sustainable (Hertz & Halkier, 2017). On the contrary, meal kits still provide a lot of packaging, waste disposal, do not include any fair-trade items and still a big amount of the suppliers do not provide any organically produced foods (Hertz & Halkier, 2017; Khan & Sowards, 2018; Koren, 2016; WRAP, 2007). Also, it does not contribute to the shopping preference of buying locally (Winter, 2003). This shows that the convenience part of meal kits does not contain the sustainable aspect, unlike the green part of meal kits.

The attitude towards a meal kit remains questionable as it also contains an element of convenience. Convenient food choices are based upon a shift in consumer lifestyles such as having less time to cook and clean due to an increase in the labor field (Scholderer & Grunert, 2005).

Based on the above mentioned arguments it is assumable that the higher the environmental concerns, environmental knowledge and effectiveness towards the environment are within a consumer, the higher the chance that there is a negative attitude towards meal kits. Meal kits are not able to provide all these attributes due to their unsustainable components such as packaging and waste disposal yet, and thus are not
completely fulfilling the existing concerns, knowledge and values towards the environment. Therefore, the first hypothesis is:

**H1: The greener the consumer the more negative the attitude towards meal kits.**

Literature shows that green advertisement can have an influence on the attitude towards green products of consumers.

More in depth, green advertising can be a great addition towards consumers with an awareness towards the environment (Haque, Rahman, Ahmed, Yasmin, & Asri, 2011; Tellis, 2003). Hereby, the focus is more on promotion of green product attributes (Cherian & Jacob, 2012). As the expected attitude towards meal kits without appeals involved would be negative, the use of green appeals could persuade the green consumer.

In addition, it appears that ads with green appeals lead to a more positive attitude towards the brand. This also counts for low involved products such as food or beverages (Kong & Zhang, 2013). This means that the attitude of green consumers towards meal kits can be positively influenced by the green appeals in green advertisements.

Overall, Carlson, Grove, and Kangun (1993) state that a positive attitude towards products will increase when green appeals match with the individual morals of a consumer. Combining green appeals with personal needs is therefore the best combination according to Hartmann and Ibanez (2006).

The main effect is still valid by stating that green consumers have a negative attitude towards meal kits due to its negative image such as individually packed products. It might be possible that green consumers have yet to discover the green aspect of meal kits. To sum up, they still see meal kits as a general convenience food. By influencing the perceived image of meal kits with advertisement that contains green appeals, the negative attitude towards meal kits could be weakened.

This leads to the second hypothesis:

**H2a: The negative attitude towards meal kits of the green consumer will become weaker while making the use of green appeals compared to no appeals.**

Green positioning is an important factor towards the success of products. While making use of green advertisements, the green appeals can be divided into three subcategories: functional appeals, emotional appeals and a combination of the two. A research by Grimmer and Woolley (2014) mentioned that it is still not clear which green appeal appears to be the most effective when it comes to purchase behavior. According to the green advertising literature, a
study by Matthes et al. (2014) states that emotional appeals and a combination of both, positively influenced the attitude towards a brand by consumers. Surprisingly, this occurred as well for consumers who were highly involved into sustainability as for those who were less involved. For functional appeal, it appeared to be different. This appeal only was effective when purchase intention of a product was already high.

The regular advertising literature focused on the influence of emotional and functional appeals in the service industry (Zhang, Sun, Liu, & Knight, 2014). Findings revealed that an emotional appeal led to an increase in purchase intention when it comes to the experience service condition while a functional appeal lead to an increase in the purchase intention of the credence service group. Experience services can include attributes such as hotels or a fast food restaurant (convenience foods) while credence services can be a psychotherapist or a tax consultant (Ostrom & Lacobucci, 1995). Consumers with a higher intensity of emotions are therefore more in favor for emotional appeals. Emotional appeals have a higher influence on consumers which are more environmentally aware and favor the attitude towards products, such as convenience foods. Thus, the next hypothesis is:

\textit{H2b: The negative attitude towards meal kits of the green consumer will become weaker when making use of emotional appeals compared to functional appeals.}

Previous studies state that the combination of functional and emotional appeals achieves the highest attitudinal effects (Hartmann et al., 2005; Matthes et al., 2014). Some researchers identified attitude formation by making use of functional and emotional dimensions within green advertising (Hartmann & Apaolaza-Ibáñez, 2009, 2012; Hartmann et al., 2005). It is important to make a distinction between cognitive evaluations and affective responses (Allen, Machleit, & Kleine, 1992). The discretion if a brand contains any environmental attributes can be seen as cognitive evaluation. Affective responses can be explained as the experience of feelings while being exposed to an ad (Searles, 2010). Summarized, both cognitive and affective responses showed an effect towards the evaluation of a brand and their focus on environmental benefits (Hartmann et al., 2014; Hartmann et al., 2005). Hence, the next hypothesis is:

\textit{H2c: The negative attitude towards meal kits of the green consumer will be weakened the most by combining emotional and functional appeals.}
According to Ajzen (1991) attitudes are mainly sufficient to lead to intentions. In general, it is found that a more positive attitude leads to a higher purchase intention (Ajzen, 1991). Kong and Zhang' (2013) findings suggest that the use of green appeals indeed lead to a positive attitude and thus a higher purchase intention. All in all, the more positive the attitude the more positive the purchase intention and thus attitude here, functions as a mediator between degree of green consumer behavior and purchase intention. Therefore, the next hypothesis is:

**H3: The attitude towards meal kits has a positive effect on the purchase intention of meal kits and mediates the relationship between greenness and purchase intention.**
3. Methodology

3.1 Research design
The focus of this research was on how green advertising influences the attitude of green consumers towards meal kits and the purchase intention of these meal kits. To test the established hypotheses, a quantitative study has been done. Quantitative studies gather numerical information to provide scientific insights (Field, 2018). Furthermore, an online experiment has been conducted to gather the amount of needed data. An experiment was part of quantitative research whereby the manipulation of one or more independent variables were determined to the effect of one or more dependent variables (Boeije, 2009). Advantages of an online questionnaire are a quick response, instantly available data and a higher chance to access a group which is normally not that reachable (Dibb, Simkin, Pride, & Ferrell, 2005). Providing a digital link to the questionnaire has led to easy sharing across social platforms such as WhatsApp, LinkedIn and Facebook.

A cross-sectional questionnaire has been used, considering that the amount of data has been collected at one point in time. Results are therefore only generalizable at the time the questionnaire is being held (Vos, 2009). In this research, no variation over time was needed. Therefore, a cross-sectional questionnaire was chosen. The questionnaire has been held among Dutch consumers while a distinction in the degree of green consumption behavior has been made, also called “degree of greenness”. Several studies refer to “low” and “high” environmental awareness and consciousness in consumer behavior and is thus used in this study (Gilg et al., 2005; Haws, Winterich, & Naylor, 2014). Influences of misinterpretations of the English language needed to be avoided. All the items have been translated using the back-translation method and were therefore excluded from validation inconsistencies or mistakes in the language (Su & Parham, 2002). Translations have been done by someone who spoke fluently English and Dutch, to ensure no mistakes were made during the translation process.

To maximize the validity and reliability of this study a small pre-test has been held among a small group of people (n=10). These people were gathered by the network of the researcher. Making use of face-to-face cognitive interviewing while asking evaluative questions, gained more specific knowledge about problems respondents may face during the questionnaire (Vannette, 2015).
Table 1: Experimental design

<table>
<thead>
<tr>
<th>Scenario</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>No appeal</td>
<td></td>
<td>Emotional appeal</td>
<td>Functional appeal</td>
<td>Mix of both appeals</td>
</tr>
</tbody>
</table>

3.2 Data collection and sample

A nonprobability sampling, more specifically a convenience sampling, is often linked to a web based questionnaire as it will depend on the availability of the respondents themselves (Schillewaert, Langerak, & Duhamel, 1998). This method was chosen followed up by snowball sampling. The choice for snowball sampling was based on an easier way to reach target groups. By making use of the network of green consumers, the probability of reaching more green consumers and gather enough respondents for this research were higher and prevented difficulties for the researcher (Goodman, 1961; Tansey, 2007).

Reliable conclusions have been made as the sample size was based on the number of variables and cells. A more precise estimation of the population was provided while making use of a large sample size (Vos, 2009). As a result the chances of getting a smaller sampling error increased (Hair, 2015). According to Hair, Back, Babin, and Anderson (2014), a sample size between 50 and 100 respondents is considered fairly. A minimum of five observations per variable was needed but a more desirable level was fifteen. Therefore, with holding the items of the independent variable in mind, a sample size of 120 was favorable. All in all, it was more favorable to collect more observations per variable and thus a sample size of 150 was hoped to be achieved.

A four scenario between-subject design of data collection was executed. A carryover effect was hereby avoided as the respondent was randomly assigned to one of the four scenarios and wasn’t influenced by the other scenarios (Table 1). By presenting one of the four scenarios, the respondent was not influenced by time related factors (Allen, 2017; Vos, 2009). After exposure, questions were presented to measure the dependent and control variables.
3.3 Manipulating the independent variable

Green advertising was manipulated by showing different variations of the same advertisement. Three advertisements were designed that showed a meal kit for a fictional brand “The meal kit company”. An alternative brand name was chosen to avoid possible associations with existing brands. The brand name itself, “The meal kit company” did not indicate any greenness. As for Chen and Chang (2012) state that green value influences purchase intention, it was of great importance to limit the amount of green value within the brand name.

In this study, the advertisement design of the emotional appeal included only a pleasant nature imagery. The highest emotional responses were confirmed towards a “lush green vegetation” and “clear water elicit” and was therefore used as an image that reflects green emotional appeal (Hartmann & Apaolaza-Ibáñez, 2012). The design of the functional appeal was based on several environmental claims which were used in previous green ads with a functional appeal. Production process, product use, product elimination and improve of quality which claimed environmental advantages for the product were highlighted here (Hartmann et al., 2005). The previously suggested imagery and textual use were copied and used in the advertisement with both emotional and functional included, which limited the inconsistencies between the three ads.

3.4 Operationalization of variables

In this study, constructs of previous studies were used to confirm the validation and reliability of the scales. Green behavior has been measured with a 5 point Likert Scale “I always – I never” and existed out of six statements founded by Gilg et al. (2005). This study contained originally nine statements but were slightly adjusted to fit in the context of this research. Hereby, the focus was especially on the purchase dimension towards food shopping.

The attitude towards a product in general was slightly adjusted by keeping the attitude towards meal kits in mind. Hagtvedt (2011); Hagtvedt and Patrick (2008) used a nine item-semantic differential scale. In this study only the most relevant items have been selected which were: “negative - positive”, “unfavorable - favorable” and “useless – useful”, measured on a 7-point Likert scale item. A high reliability with a Cronbach’s a = 0.96 was confirmed.

Purchase intention has been measured using a 7-point Likert scale item: “not likely - likely” (Lii & Lee, 2012). The scale reliability was measured on a Cronbach’s = 0.94.

In this study, several demographic control variables for age, gender and education were used. Several studies argued that the variables have an influence on green consumption.
behavior and on purchase intention (Eagly, 2013; Hallin, 1995; Olli, Grendstad, & Wollebaek, 2001; Roberts, 1993). In addition, Candel (2001) states that demographics have an influence on the orientation towards convenience food. Another control variable, price, appeared to have an effect on purchase intention when it comes to green behavior (Shrum, McCarty, & Lowrey, 1995). This was measured on a 5-point Likert scale from “never” – “always”. Also, the control variables environmental consumer values, concern, environmental knowledge, perceived consumer effectiveness and consumer value were measured by a 5-point Likert scale from “never” – “always” (Botonaki & Mattas, 2010; Bredahl & Grunert, 1997; Buckley, Cowan, McCarthy, & O'Sullivan, 2005; Candel, 2001; Darian & Cohen, 1995; Kim, 2011; Kim & Choi, 2005; Lee, 2008; Mostafa, 2006; Scholderer & Grunert, 2005).

The used scales were adjusted to fit the context of this research more. A short overview of the operationalization of several variables can be found in Appendix A.

3.5 Procedure of the questionnaire

An online research program, Qualtrics, was used to collect the data. When a participant enters the online experiment a welcome page including practical information was presented. Research ethics such as anonymity and privacy were informed. Furthermore, the duration of the study was explained. The next page included demographic questions such as gender, age and education. Subsequently, the participant was randomly assigned and exposed to one of the four experimental scenarios (Table 1). These scenarios, except for the no appeal, contain the elements that are described in section 3.3. After exposing the ad (containing one of the three appeals), the degree of attitude and purchase intention were asked. Next, questions about green consumer consumption behavior were questioned, to define the degree of “greenness” among the respondents. Finally, a page with submission of the answers was presented and the respondents were thanked for their participation. The order of these arrangements is based upon the strategy of Harinck and Harinck (2009) by first asking general questions when starting a questionnaire. This choice was made to ease the respondents into a questionnaire about their attitude towards meal kits. The full questionnaire can be found in Appendix B.
3.6 Methodology

The data collected by the online questionnaire has been analyzed in SPSS. As mentioned before, previously validated scales were used from existing literature.

The hypothesizes have been tested by a multiple regression analysis. Multiple regression was an appropriate method due to the fact that the variables were all of a metric scale thus linear relationships have been established. Also, it supported understanding on how the dependent variables change when there is an existing variation in the independent variables. Therefore, a better prediction of the dependent variables is made.

Before starting the multiple regression analysis, any multicollinearity between the variables has been tested and therefore a correlation matrix has been analyzed. This can be found in Appendix C, Table 3.

As for the moderator, green advertisement, each scenario was multiplied with the independent and dependent variable. As for green consumer, the independent variable, was mean centered because of its metric characteristic and thus to reduce multicollinearity (Hair et al., 2014). For the variable green advertisement, the moderator, dummy variables were created for all the three scenarios as they had a dichotomous character (Field, 2018). The scenario no advertisement, was held constant within the analysis.

Subsequently, an assumption analysis was done. Assumptions of linearity, normality, collinearity and homoscedasticity were tested, followed up by the final multiple regression analysis. Presentations of the P-Plot, Scatterplot and Histogram of the variables can be found in Appendix D. The variables, degree of green consumer behavior, green advertising and attitude towards meal kits were tested. As follows, a mediation analysis among the variable attitude towards meal kits was done, to predict the relationship between the degree of green consumer behavior and purchase intention of meal kits. In this research, the bootstrap method by Hayes (2017) has been executed. The main feature of this procedure is that it does not rely on the assumption of normality. This comes in handy when making use of smaller sample sizes. One of the advantages of using this procedure over the Sobel’s test was, that it certainly defines the mediation effect and thus leads to an increase in power (Hair et al., 2014).
3.7 Research ethics

The APA’s Ethics code was taken into account when the data was gathered in this study (Smith, 2003). In advance, the purpose, expected duration and expected benefits were informed to the participants. Rights to withdraw from the research were informed as well as terms of privacy, concerning the confidential aspect and anonymity. The data gained from this research is exclusively meant for this research and is not going to be shared among others. The questionnaire contains solely questions about age, gender and education and therefore did not harm the anonymity in any particular way. Full transparency was offered to the participants when came to receiving results or contact information of the researcher.
4. Results

In this chapter, the details of the analysis and the collected results were discussed. First the data was tested by a reliability analysis whereby the variables of the conceptual model (fig 1.) have been discussed. Secondly, the findings of the sample descriptive have been discussed. Thirdly, both the model and the proposed hypotheses have been tested by multiple linear regression analysis, a moderation regression analysis and a mediation analysis. Lastly, other additional findings which were found in the data have been discussed.

4.1 Reliability analysis

To create insights in the internal reliability of the variables of the conceptual model (fig. 1), a Cronbach’s Alpha was calculated, with the critical value of .60, which is according to studies a reliable construct (Field, 2018). All factors fulfilled the reliability value norm of .60 or higher, shown in Table 2. However, one adjustment has been made, since when item personal_value_2 would be deleted the Cronbach’s Alpha would increase from $\alpha = .801$ to $\alpha = .850$. Therefore, it has been decided to delete this item out of the personal value factor.

Table 2: Summary Cronbach’s Alpha for reliability

<table>
<thead>
<tr>
<th>Factor</th>
<th>Cronbach’s Alpha for reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green consumer behavior</td>
<td>.721</td>
</tr>
<tr>
<td>Attitude</td>
<td>.915</td>
</tr>
<tr>
<td>Purchase intention</td>
<td>.930</td>
</tr>
<tr>
<td>Consumer value</td>
<td>.796</td>
</tr>
<tr>
<td>Universalism</td>
<td>.798</td>
</tr>
<tr>
<td>Personal value</td>
<td>.850</td>
</tr>
<tr>
<td>PCE</td>
<td>.625</td>
</tr>
<tr>
<td>Environmental concern</td>
<td>.897</td>
</tr>
<tr>
<td>Environmental knowledge</td>
<td>.813</td>
</tr>
</tbody>
</table>
4.2 The sample descriptive

Within this questionnaire, 206 participants completed the online questionnaire as a whole (N=208). Two missing values were found. Within the category age, a participant filled in the age of zero and within the category education primary school was answered combined with an age of 53 years. Both participants were hence removed from the data to create a more generalizable result. Of the participants 59 (28,4%) were male and 149 (71,6%) were female. The sample which was taken was relatively young, the distribution of the age was as follows: 18-25 years 40,6%, 26-35 years 31,4%, 36-45 years 4,8%, 46-55 years 8,2%, 56-65 years 11,1%, 66-75 years 3,4%, and 76-90 years 0,5%. The education level of the participants was relatively high which shows that 2,9% finished high school, 14,9% secondary vocational education, 46,6% a bachelor degree and 29,8% a master degree and finally 5,3% owned a doctoral degree.

4.3 Regression analyses

A regression analysis was conducted to learn more about the relationships between the independent and dependent variables. To answer the proposed hypotheses within this research, three regression analysis were executed. First, a regression analysis was executed to answer H1. Here, the relationship between degree of green consumer behavior and the attitude towards meal kits has been tested. Second, the next regression analysis has been done between degree of green consumer behavior and attitude towards meal kits while green advertising was used as a moderator on this relationship. This was done separately from the first model to test if the main effect changed by adding the interaction effect, green advertisement. Thirdly, a mediation analysis has been executed to test the relationship between green consumer behavior and purchase intention while attitude was used as a mediation. Lastly, other additional findings were tested such as the relationship of the control variables on the dependent variable, purchase intention of meal kits. Here, also a regression analysis was used to predict the relationship between purchase intention and the control variables.
4.3.1 Regression 1: The effect of green consumer behavior on attitude towards meal kits

The first multiple regression analysis which was executed was between the degree of green consumer behavior and the attitude towards meal kits as dependent variable. Figure 2 refers to this part of the conceptual model were the first hypothesis is presented. First, the assumptions for linear regression have been checked before the results were interpreted. To check linearity and homoscedasticity of the data, a scatterplot of the values of residuals against values of the outcome predicted was created, which can be found in Appendix D. The dots of the scatterplot were randomly and evenly dispersed so this assumption was met. The normality of the data was checked with a histogram and the P-P Plot which are both shown in Appendix D. Also, this assumption was met. Multicollinearity, which was the last assumption has also been checked and all the tolerance values were above .20, and VIF scores under 10. This is presented in Table 4 in Appendix D. A single regression analysis was done to predict the attitude towards meal kits based on the degree of green consumer behavior. No significant results were found ($\beta = -.188$, $p = .387$). This result was presented in Table 5. Therefore, $H1$ is not supported.

Table 5: Model summary

<table>
<thead>
<tr>
<th>Change statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>1.</td>
</tr>
</tbody>
</table>

A. Predictor: Green consumer behavior

Note: Dependent variable is attitude towards meal kits
4.3.2 Regression 2: Moderation analysis of advertisement

The proposed hypotheses of H2, were analyzed by a regression analysis with green advertisement as moderator. This has been executed to gain insights in the moderating effects of the different sorts of green advertisement upon the degree of green consumer behavior and their attitude towards meal kits. In Figure 3, a part of the model is presented which was used for the second regression analysis.

![Conceptual model for the second regression analysis]

As before, also here, the assumptions were checked and met. All can be found in Appendix D such as the scatterplot, P-P plot and histogram which presented the normality of this analysis. Table 6 has been created to show that also the assumption of multicollinearity was met, which is based on the VIF score and the tolerance statistics, which is also presented in Appendix D.

Table 7: Model summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R²</th>
<th>Adjusted R²</th>
<th>R² change</th>
<th>F</th>
<th>Df1</th>
<th>Df2</th>
<th>Sig. F Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>.175</td>
<td>.031</td>
<td>-.003</td>
<td>.031</td>
<td>.902</td>
<td>7</td>
<td>200</td>
<td>.506</td>
</tr>
</tbody>
</table>

A. Predictors: zGreen consumer behavior, dummy emotional appeal, dummy functional appeal, dummy emotional and functional appeal, zgreen consumer behavior * dummy emotional appeal, zgreen consumer behavior * dummy functional appeal, zgreen consumer behavior * dummy emotional and functional appeal

Note: Dependent variable is attitude towards meal kits
In contrast to $H1$, the green advertisements were added as an interaction effect to calculate and see whether there was a change in the prediction of the model and if there was a significant influence of the moderating variables.

When looking at the results of the multiple regression analysis including green advertisement as a moderator, no interaction effect was found of green advertisement on the attitude towards meal kits.

The effect of green consumer behavior on attitude towards meal kits was not dependent by green advertisement ($\beta = -0.250, p = 0.337$).

$H2a$ is not supported here. As for $H2b$, again, the effect of green consumer behavior on the attitude towards meal kits was not dependent by the emotional appeals of advertisement ($\beta = -0.288, p = 0.331$). Here is $p > 0.05$, thus $H2b$ is not supported.

For $H2c$, the effect of green consumer behavior on the attitude towards meal kits was not dependent by the functional and emotional appeals of advertisement ($\beta = -0.252, p = 0.474$). All in all, $H2a, H2b$ and $H2c$ were not supported here. Table 7, provides a model summary for the analysis.

4.3.3 Regression 3: Mediation analysis

The last regression analysis was executed by a mediation analysis to predict the relationship of purchase intention and green consumer behavior with attitude as a mediating variable. To make it more visible, a part of the conceptual model is presented in Fig 4.

Figure 4: Conceptual model for mediation analysis
Before conducting the mediation analysis all assumptions were checked and met. To check the assumptions of linearity and homoscedasticity a scatterplot was created. The normality was checked by again, a histogram and P-P Plot. Both can be found in Appendix D. The last assumption was met and presented in the Table 8, which exists out of the VIF score and the tolerance statistic. Again, in Table 8, all tolerance values are above .20 and VIF scores under 10 so also here the assumption of multicollinearity were met. All results can be found in Appendix D.

The mediation analysis was calculated by the bootstrap procedure of Hayes to predict purchase intention with the mediating effect of attitude towards meal kits (Hayes, 2017). Unfortunately, the direct effect between degree of green consumer behavior and the purchase intention towards meal kits was not found to be significant $b=-.120$ ($t=-.396, p=.692$). According to Hair et al. (2014), there is no mediating effect when the direct path between the independent and dependent variable is not significant.

In sum, because of no significant direct effect between green consumer behavior and purchase intention, no mediation effect can be found. For this reason, $H3$ was not supported here.

To summarize, all the stated hypotheses were not supported within this research. In Table 9, an overview is shown, which presents the formulized hypotheses and the conclusion of this analysis.
Table 9: Summary of the hypotheses

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>H1</strong> The greener the consumer the more negative the attitude towards meal kits.</td>
<td>Not supported</td>
</tr>
<tr>
<td><strong>H2a</strong> The negative attitude towards meal kits of the green consumer will become weaker while making the use of green appeals compared to no appeals</td>
<td>Not supported</td>
</tr>
<tr>
<td><strong>H2b</strong> The negative attitude towards meal kits of the green consumer will become weaker when making use of emotional appeals compared to functional appeals.</td>
<td>Not supported</td>
</tr>
<tr>
<td><strong>H2c</strong> The use of both emotional and functional appeal will have the strongest effect, by weakening the negative attitude towards meal kits of the green consumer.</td>
<td>Not supported</td>
</tr>
<tr>
<td><strong>H3</strong> The attitude towards meal kits is positively influenced by green advertising and therefore has a positive effect on purchase intention of meal kits.</td>
<td>Not supported</td>
</tr>
</tbody>
</table>

4.4 Additional analysis

After the main effects of this research were analyzed, it was interesting to see if the control variables showed any significant results on the dependent variable purchase intention. An additional regression analysis has been calculated to test if there were any significant effects of the control variables on the dependent variable. Before testing, again, the assumptions were checked and met.

The assumptions such as the scatterplot, P-Plot and histogram which were presenting linearity, homoscedasticity and the normality of the regression analysis. Table 10 presents the VIF score and the tolerance statistics to check the assumption of multicollinearity. Both can be found in Appendix D.
Surprisingly, none of the control variables showed any significant effect. Gender ($\beta=.042, p=.564$), age ($\beta=-.146, p=.044$), education ($\beta=-.024, p=.741$), price ($\beta=.001, p=.991$), consumer value ($\beta=.156 p=.055$), universalism ($\beta=.103, p=.223$), personal value ($\beta=-.062, p=.489$), environmental concern ($\beta=-.080 p=.437$), perceived consumer effectiveness ($\beta=.122, p=.165$) and environmental knowledge ($\beta=-.004, p=.969$). They all appear to be $p>.05$.

The result of the additional regression analysis is summarized in Table 11.

### Table 11: Model summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>$R^2$</th>
<th>Adjusted $R^2$</th>
<th>$R^2$ change</th>
<th>F</th>
<th>Df1</th>
<th>Df2</th>
<th>Sig. F</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.266</td>
<td>.072</td>
<td>.024</td>
<td>.072</td>
<td>1.512</td>
<td>10</td>
<td>195</td>
<td>.137</td>
</tr>
</tbody>
</table>

A. Predictor: Age, Gender, Education, Price, Consumer value, Universalism, Personal value, Environmental concern, Perceived customer effectiveness, Environmental knowledge

Note: Dependent variable is purchase intention of meal kits

Another additional analysis was done to test if there are any important differences between different categories. First a median split was done to divide the greenness of consumer behavior into two groups, low and high involvement. Second, an independent sample t-test was performed to see if there was a difference between low involved green consumers and high involved green consumers. No different significant effect was found between low green consumers and consumers who are highly involved in green consumer behavior and their attitude towards meal kits ($p>.05$, mean difference of .148).

The last additional analysis is performed by an ANOVA analysis to test the difference between scenarios and the different levels on attitude. Still, no significant results were found ($F=1.511, p = .213$).
5. Discussion and conclusion

Within this thesis, the aim is to create deeper insights and understanding of the impact of green advertising on the attitude towards meal kits of green consumers. The next section will discuss and interpret the outcomes of the analyses and will answer the main research question: “How does green consumer behavior influence the attitude towards meal kits and what is the impact of green advertisement on this relationship?” As a result, conclusions will be drawn and followed up by the managerial and theoretical implications. Lastly, the limitations and future research recommendations will be discussed.

5.1 Theoretical implications

In conclusion, the results found within this research, do not confirm any previous research. However, it provides insights in the green consumer behavior towards meal kits and the influence of green advertisement on this relationship. This is something which is not researched up to this point.

Surprisingly, the independent variable green consumer behavior could not predict the variable attitude. This may suggest that the focus towards a broader target group is needed by the meal kits industry. A possible explanation for this could be that there are too many other variables that influence green consumer behavior. Within this research, only green consumer behavior based on grocery shopping by Gilg et al. (2005) was taken into account. As for the control variables, environmental knowledge, perceived consumer effectiveness and environmental concern were added and due to previous research would have an influence on attitude towards green products (Laroche et al., 1996). Perhaps the fact that these variables were not measured as a direct effect on green consumer behavior, led to a bias in the results. A research provided by Ricci, Banterle, and Stranieri (2018), concluded that sustainability and the attitude towards the consumption of convenience food have an existing negative relationship. This is concluded after testing for eco-friendly labels. This research confirms, that after testing for different variables, different outcomes may exist between green consumer behavior and the attitude towards meal kits.

Another interesting result is that all types of green advertisement did not have any proven impact on the relationship between green consumer behavior and attitude towards meal kits. This is in contrast with a study by Zinkhan and Carlson (1995), which emphasizes the importance of green appeals on the attitude towards a green product. Green appeals can fulfill the desires of green consumers and could therefore positively stimulate the relationship.
between green behavior and the attitude towards a product. More in detail, emotional appeals could not predict the relationship between green consumer behavior and the attitude towards meal kits. Again, this is in contrast with existing research, as several researchers highlight the importance of emotional appeal on the attitude towards green products (Grimmer & Woolley, 2014; Matthes et al., 2014). Apparently, the existing research about green advertisement and their positive influence on green products does not hold for every product. In this research, none of the appeals turned out to have any influence on the green consumer behavior and their attitude towards meal kits. This research provides a boundary condition, in which it declares the existing literature invalid.

No relationship was found between green consumer behavior and purchase intention, while mediating for attitude. Unexpectedly, there was no direct effect between green consumer behavior and purchase intention, as many studies suggest that there should be a relationship when it comes to green products (Chai, 2010; Follows & Jobber, 2000; Joshi & Rahman, 2015).

The fact that none of the results showed any significance, implies that it is very interesting for academics to learn more about the attitude towards meal kits by other consumer segments and how they potentially can be influenced by green advertisement.

5.2 Managerial implications
This research provides several managerial implications for meal kits providers. This thesis could be helpful, for meal kits providers who are doubting to make investments into sustainability practices and promotions.

First, the results of this thesis state that there is no relationship found between green consumer behavior and attitude. It is suggested that marketers within the meal kits industry do not only have to focus on green consumers but should approach the market in a broader perspective and include a broader target group into their strategies than just green consumers.

Second, this research does not confirm any influence of different kinds of green advertisement (emotional appeal, functional appeal or a combination of both) on the relationship between green consumer behavior and attitude. For managers within the meal kits industry, it does not matter which sort of green advertisement is being presented towards the green consumer group. Investments could be made to analyze if green advertisement has influence on a broader target group, as for meal kits still exist out of two components; convenient and green.
5.3 Limitations and future research

Within this research there are several limitations and suggestions that could be further improved and explored in future research.

One of the limitations is that green consumer behavior originally exists out of multiple dimensions. This study only focused on the purchase dimension of green behavior (Gilg et al., 2005). Future research could explore other dimensions of green consumer behavior and define the relationships between them.

As for the moderating variable, green advertising, a between-subject was executed during the questionnaire. For future research, it could be interesting to test a within-subject design to explore the relationships and predictors between green consumer behavior and attitude. An advantage of a within-subject design is that it can determine any variance in data from individual differences (Vos, 2009). By showing respondents all the four scenarios, a difference in responses may occur, as the respondent will be influenced by previously showed scenarios. By testing preferences for one typical scenario, results between consumers differing in green behavior could be analyzed and tested to see if their attitude towards meal kits is influenced by one of the four scenarios.

Another limitation is the variety of offers within the meal kits industry. Within the questionnaire no specific meal kit was defined, only a broad spectrum of meal kits was described. Future research should focus on one definition of these meal kits e.g. Hello Fresh box or the kits which can be bought in supermarkets such as the Albert Heijn Fresh Box. A more specific explanation is needed to test if there is difference in the relationships, while testing for a specific kind of meal kit, between green consumer behavior, attitude and purchase intention and the way people react on the advertisements that are presented. Subsequently, for future research it would be interesting to test different sorts of stimuli, such as different brand names. In this research, no existing brand name is being tested.

None of the hypotheses were found significant within this research. Therefore, it could be interesting to test other factors which could have an influence on the attitude and purchase intention towards meal kits. Within this research no questions were asked about living and work circumstances of respondents. As mentioned earlier, these circumstances could have an influence on the attitude and purchase intention of convenience food. For future research, more of these dimensions could be explored and how they influence the attitude-purchase relationship.

In total, this research existed out of 208 respondents, all gathered by snowball sampling. In the future, the use of a larger sample size and the use random sampling would be
interesting to see if there is a difference in the relationship and predictors between the variables.
Bibliography


doi:https://doi.org/10.1016/j.resconrec.2019.04.008


Oxfamnovib. (n.d)). Hoe fair is fair trade? Retrieved from https://www.oxfamnovib.nl/blogs/dagelijks-leven/hoe-fair-trade-is-fairtrade?gclid=Cj0KCQjwpfHzBRCiARIsAHHzyZpnlzc1qxiiwNcm82rEDxwinb3yCpPW ygE1DWSfy1wPCBwkvtgCM4aAsVJEALw_wcB


Appendices

Appendix A – Operationalization of the variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Items</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green behavior</td>
<td>6 statements with 5-point Likert scales “I always – I never”</td>
<td>(Gilg et al., 2005)</td>
</tr>
<tr>
<td>Green advertising</td>
<td>Three dummy variables that indicates whether the advertisement is accompanied by a no appeal/green appeal, emotional appeal/functional appeal, emotional and functional appeal/no appeal</td>
<td>(Hair et al., 2014; Hartmann &amp; Apaolaza-Ibáñez, 2012)</td>
</tr>
<tr>
<td>Attitude towards meal kits</td>
<td>A four item-semantic differential scale is used with: “negative/positive”, “useless/useful”, “unfavorable/favorable”</td>
<td>(Hagtvedt, 2011; Hagtvedt &amp; Patrick, 2008)</td>
</tr>
<tr>
<td>(attitude towards a company in general)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Purchase intention</td>
<td>A 7 point Likert scale with “not likely” – “very likely”</td>
<td>(Mackenzie, 1986)</td>
</tr>
</tbody>
</table>
Goedendag,
Ik ben Myrthe Nijsten en voor mijn Master Marketing aan de Radboud universiteit doe ik een onderzoek naar houding ten opzichte van maaltijdpakketten.

Een maaltijdpakket bestaat uit een pakket van boodschappen met de nadruk op verse ingrediënten zoals groente, vlees/vis, pasta of rijst inclusief recepten. Deze maaltijdpakketten worden bij de klant thuisbezorgd maar zijn tegenwoordig ook te verkrijgen bij bepaalde supermarkten zoals de Albert Heijn (Albert Heijn, 2020; Hello Fresh, 2020b).

Het doel van dit onderzoek is om de onderliggende motivaties van consumenten te begrijpen wanneer zij een maaltijdpakket aanschaffen.

De ontvangen resultaten zullen vertrouwelijk worden behandeld en worden niet gedeeld met derden. Tevens zal uw anonimiteit gewaarborgd worden tijdens dit onderzoek. Het invullen van deze vragenlijst zal maximaal … minuten duren.

Ik wil u alvast hartelijk bedanken voor het invullen van deze vragenlijst.

Onderdeel I:
Vraag 1: Wat is uw geslacht?
  o Man
  o Vrouw
  o Genderneutraal
  o Zeg ik liever niet

Vraag 2: Wat is uw leeftijd?
(Open vraag)
Vraag 3: Wat is uw hoogst genoten opleiding?
  o Basisschool
  o Middelbare school
  o Mbo
  o HBO/WO Bachelor
  o HBO/WO Master
  o Doctoraal

Onderdeel II:
1 van de 4 scenario’s van “groene appeals” wordt hier getoond. (Bij scenario 1 waar geen advertentie wordt getoond zal meteen vraag 4 worden gesteld) Vervolgens door naar vraag 4.

Vraag 4:
Wat is uw houding ten opzichte van een maaltijdpakket? (7 punt Likert schaal)
  o Negatief - Positief
  o Ongunstig - Gunstig
  o Onbruikbaar - Bruikbaar

Vraag 5: Als u vandaag uw boodschappen moet doen. Hoe waarschijnlijk zou het zijn dat u dan een maaltijdpakket van “The Meal Kit Company” zou kopen?
  o De waarschijnlijkheid dat ik een maaltijdpakket zou kopen is
    (Erg laag 1 tot erg hoog 7)
  o Ik ben van plan om een maaltijdpakket te kopen als ik de volgende keer boodschappen ga doen.
    (Erg laag 1 tot erg hoog 7)
  o Ik zal in de toekomst maaltijdpakketten blijven kopen.
    (Erg laag 1 tot erg hoog 7)
Onderdeel III:
Consumer values

Seeking new experiences (value: stimulation)

Vraag 6:

Wat we gaan eten is heel vaak een spontane beslissing.
   o (Nooit 1 tot Altijd 5)

Ik plan altijd een paar dagen van tevoren wat we gaan eten.
   o (Nooit 1 tot Altijd 5)

Het is belangrijk dat ik niet vooruit hoef te plannen voor het avondeten.
   o (Nooit 1 tot Altijd 5)

Ik gebruik kant-en-klare gerechten die gewoon opgewarmd moeten worden
   o (Nooit 1 tot Altijd 5)

Ik gebruik kant-en-klar voedsel dat gewoon gekookt moet worden
   o (Nooit 1 tot Altijd 5)

Ik gebruik kant-en-klare of diepvriesgroenten
   o (Nooit 1 tot Altijd 5)

Ik gebruik kant-en-klare sauzen
   o (Nooit 1 tot Altijd 5)

Ik gebruik blikjes
   o (Nooit 1 tot Altijd 5)

Universalism (value: power)

Voor mij is het belangrijk om na het eten heel weinig of niet op te ruimen
   o (Nooit 1 tot Altijd 5)

Voedingsmiddelen die na een maaltijd niet hoeven te worden opgeruimd, vormen een belangrijk onderdeel van mijn boodschappenlijstje
   o (Nooit 1 tot Altijd 5)

Ik geef er de voorkeur aan om maaltijden te bereiden die niet veel rommel veroorzaken in de keuken
   o (Nooit 1 tot Altijd 5)
Personal interest (Personal value)
Hoe minder fysieke energie ik nodig heb om een maaltijd te bereiden, hoe beter
  o  (Nooit 1 tot Altijd 5)
Met weinig moeite kan de ideale maaltijd worden bereid
  o  (Nooit 1 tot Altijd 5)
Bij voorkeur besteed ik zo min mogelijk tijd aan het bereiden van maaltijden
  o  (Nooit 1 tot Altijd 5)
Thuis eet ik bij voorkeur maaltijden die snel bereid kunnen worden
  o  (Nooit 1 tot Altijd 5)
Het is tijdverspilling om veel tijd in de keuken door te brengen om een maaltijd te bereiden
  o  (Nooit 1 tot Altijd 5)

Environmental concerns:
Vraag 7:
Ik ben ongerust over het verslechteren van de kwaliteit van het milieu in de wereld.
  o  (Nooit 1 tot Altijd 5)
Het milieu in de wereld is mijn grootste zorg
  o  (Nooit 1 tot Altijd 5)
Ik ben emotioneel betrokken in het beschermen van het milieu.
  o  (Nooit 1 tot Altijd 5)
Ik denk vaak na over hoe de milieukwaliteit in de wereld verbeterd kan worden.
  o  (Nooit 1 tot Altijd 5)

Perceived consumer effectiveness:
Vraag 8:
Ieders gedrag kan een positief effect hebben op de samenleving door een oproep te ondertekenen ter ondersteuning van het milieu.
  o  (Nooit 1 tot Altijd 5)
Ik voel me in staat om de milieuproblemen op te lossen
  o  (Nooit 1 tot Altijd 5)
Ik kan het milieu beschermen door producten te kopen die milieuvriendelijk zijn.
  o  (Nooit 1 tot Altijd 5)
Environmental knowledge

Vraag 9:
Ik ben zeer goed geïnformeerd over milieukwesties
  o (Nooit 1 tot Altijd 5)
Ik weet meer van recycling dan de gemiddelde persoon.
  o (Nooit 1 tot Altijd 5)
Ik weet hoe ik producten en verpakkingen moet selecteren die de hoeveelheid stortafval verminderen.
  o (Nooit 1 tot Altijd 5)
Ik begrijp quotes die gaan over een duurzamer milieu en symbolen die verwijzen naar duurzaamheid op een productverpakking
  o (Nooit 1 tot Altijd 5)
Ik koop producten en verpakkingen die milieuvriendelijk zijn.
  o (Nooit 1 tot Altijd 5)

Vraag 10: Als u voedingswaren koopt, is de prijs van het product de belangrijkste prioriteit
  o (Nooit 1 tot Altijd 5)

Vraag 11: Koopt u biologische producten?
  o (Nooit 1 tot Altijd 5)

Een Fair trade keurmerk houdt in dat duurzame producten onder de hoogste eisen worden geproduceerd. Hierbij wordt streng gecontroleerd in verschillende productieketens om zo de waarde van het keurmerk te blijven garanderen. Als u een Fair trade logo op bijvoorbeeld koffie ziet dan weet u dat de leverancier een minimumprijs betaalt waarmee boeren de kosten van het productieproces kunnen betalen. Deze minimumprijs voorkomt dat de boer een verlies draait wanneer prijs van een product daalt (Oxfamnovib, (n.d)).

Vraag 12: Koopt u “Fair trade” producten?
  o (Nooit 1 tot Altijd 5)

Vraag 13: Koopt u lokaal geproduceerde voedingswaren?
  o (Nooit 1 tot Altijd 5)
Vraag 14: Koopt u bij een lokale winkel (die geen onderdeel is van een keten) uw voedingswaren?
   o (Nooit 1 tot Altijd 5)

Vraag 15: Gebruikt u een eigen tas tijdens het winkelen?
   o (Nooit 1 tot Altijd 5)

Vraag 16: Vermijd u verpakkingsmateriaal tijdens het kopen van voedingswaren?
   o (Nooit 1 tot Altijd 5)

Vraag 17: Doet u aan recycling van kartonnen verpakkingen die om voedingswaren zitten?
   o (Nooit 1 tot Altijd 5)

Vraag 18: Doet u aan recycling van plastic en glazen flessen?
   o (Nooit 1 tot Altijd 5)

Ik wil u van harte bedanken voor het invullen van de vragenlijst. Heeft u nog op-/aanmerkingen dan kunt u dat hieronder invullen.

Met vriendelijke groet,

Myrthe Nijsten – Studente Marketing aan de Radboud Universiteit
### Appendix C – The Pearson correlation matrix

Table 3: Correlation matrix

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Green Cons. Beh.</td>
<td>1</td>
<td>-.060</td>
<td>-.097</td>
<td>-.259**</td>
<td>-.324**</td>
<td>-.151*</td>
<td>-.262**</td>
<td>-.505**</td>
</tr>
<tr>
<td>Attitude</td>
<td>-.060</td>
<td>1</td>
<td>.382**</td>
<td>.007</td>
<td>.058</td>
<td>.105</td>
<td>.020</td>
<td>-.075</td>
</tr>
<tr>
<td>Purch. Int</td>
<td>-.097</td>
<td>.382**</td>
<td>1</td>
<td>.037</td>
<td>-.168*</td>
<td>.123</td>
<td>.071</td>
<td>-.032</td>
</tr>
<tr>
<td>Price</td>
<td>-.259**</td>
<td>.007</td>
<td>.037</td>
<td>1</td>
<td>.150*</td>
<td>.268**</td>
<td>.171*</td>
<td>-.019</td>
</tr>
<tr>
<td>Cons. Value</td>
<td>-.324**</td>
<td>.058</td>
<td>.168*</td>
<td>.150*</td>
<td>1</td>
<td>.323**</td>
<td>.443**</td>
<td>-.106</td>
</tr>
<tr>
<td>Universalism</td>
<td>-.151*</td>
<td>.105</td>
<td>.123</td>
<td>.268**</td>
<td>.323**</td>
<td>1</td>
<td>.510**</td>
<td>.018</td>
</tr>
<tr>
<td>Pers. value</td>
<td>-.262</td>
<td>.020</td>
<td>.071</td>
<td>.171*</td>
<td>.443**</td>
<td>.510**</td>
<td>1</td>
<td>-.045</td>
</tr>
<tr>
<td>Env. concern</td>
<td>.505**</td>
<td>-.075</td>
<td>-.032</td>
<td>-.019</td>
<td>-.106</td>
<td>.018</td>
<td>-.045</td>
<td>1</td>
</tr>
<tr>
<td>PCE</td>
<td>.481**</td>
<td>.119</td>
<td>.058</td>
<td>-.108</td>
<td>-.192**</td>
<td>-.048</td>
<td>-.092</td>
<td>.570**</td>
</tr>
<tr>
<td>Env. Knowledge</td>
<td>.522**</td>
<td>-.069</td>
<td>-.058</td>
<td>-.187**</td>
<td>-.161*</td>
<td>-.157*</td>
<td>-.259**</td>
<td>.633**</td>
</tr>
</tbody>
</table>

Note**: Correlation is significant at α=.01, *. Correlation is significant at α=.05 (both 2 tailed), N=208
Appendix D – Assumptions for regression analysis

1. Regression analysis for predicting attitude towards meal kits

Multicollinearity:

Table 4: Coefficients table

<table>
<thead>
<tr>
<th>Unstandardized coefficients</th>
<th>Standardized coefficients</th>
<th>T</th>
<th>Sig</th>
<th>Collinearity statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td>Tolerance</td>
<td>VIF</td>
</tr>
<tr>
<td>Constant</td>
<td>5.688</td>
<td>.772</td>
<td>7.364</td>
<td>.000</td>
</tr>
<tr>
<td>Green Consumer Behavior</td>
<td>-.188</td>
<td>.216</td>
<td>-.060</td>
<td>.868</td>
</tr>
</tbody>
</table>

Note: Dependent variable is attitude towards meal kits

Linearity and homoscedasticity:
Normality:

Histogram
Dependent Variable: Attitude_tov_maaltijdbox

Normal P–P Plot of Regression Standardized Residual
Dependent Variable: Attitude_tov_maaltijdbox
2. Regression analysis for predicting moderation effect of green advertisement on green behavior and attitude:

Multicollinearity:

Table 6: Coefficients table

<table>
<thead>
<tr>
<th></th>
<th>Unstandardized coefficients</th>
<th>Standardized coefficients</th>
<th>T</th>
<th>Sig</th>
<th>Collinearity statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>5.092</td>
<td>.220</td>
<td></td>
<td>23.153</td>
<td>.000</td>
</tr>
<tr>
<td>Green Consumer Behavior</td>
<td>.108</td>
<td>.230</td>
<td>.072</td>
<td>.468</td>
<td>.640</td>
</tr>
<tr>
<td>Emotional appeal</td>
<td>-.413</td>
<td>.301</td>
<td>-.121</td>
<td>-.372</td>
<td>.172</td>
</tr>
<tr>
<td>Functional appeal</td>
<td>.032</td>
<td>.304</td>
<td>.009</td>
<td>.106</td>
<td>.916</td>
</tr>
<tr>
<td>Emotional and functional appeal</td>
<td>.186</td>
<td>.308</td>
<td>.054</td>
<td>.468</td>
<td>.640</td>
</tr>
<tr>
<td>All appeals</td>
<td>-.071</td>
<td>.251</td>
<td>-.020</td>
<td>-.282</td>
<td>.779</td>
</tr>
<tr>
<td>Emotional appeal *</td>
<td>-.288</td>
<td>.296</td>
<td>-.108</td>
<td>-.974</td>
<td>.331</td>
</tr>
<tr>
<td>Green consumer behavior</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Functional appeal *</td>
<td>-.225</td>
<td>.300</td>
<td>-.081</td>
<td>-.974</td>
<td>.331</td>
</tr>
<tr>
<td>Green consumer behavior</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Functional and emotional appeal*</td>
<td>-.252</td>
<td>.352</td>
<td>-.068</td>
<td>-.718</td>
<td>.474</td>
</tr>
<tr>
<td>Green consumer behavior</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All appeals * Green consumer behavior</td>
<td>-.250</td>
<td>.260</td>
<td>-.146</td>
<td>-.962</td>
<td>.337</td>
</tr>
</tbody>
</table>

*Note: Dependent variable is attitude towards meal kits*
Linearity and homoscedasticity:

![Scatterplot](image)

Normality:

![Histogram](image)
Normal P-P Plot of Regression Standardized Residual

Dependent Variable: Attitude_tov_maaltijdbox

Expected Cum Prob

Observed Cum Prob
3. Mediation analysis:

Multicollinearity:

Table 8: Coefficients table

<table>
<thead>
<tr>
<th></th>
<th>Unstandardized coefficients</th>
<th>Standardized coefficients</th>
<th>T</th>
<th>Sig</th>
<th>Collinearity statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
<td>Tolerance</td>
</tr>
<tr>
<td>Constant</td>
<td>1.699</td>
<td>.844</td>
<td>2.015</td>
<td>.045</td>
<td></td>
</tr>
<tr>
<td>Green consumer</td>
<td>-.244</td>
<td>.210</td>
<td>-.075</td>
<td></td>
<td>-1.159</td>
</tr>
<tr>
<td>Attitude towards meal kits</td>
<td>.397</td>
<td>.068</td>
<td>.378</td>
<td></td>
<td>5.858</td>
</tr>
</tbody>
</table>

*Note: Dependent variable is purchase intention*

Linearity and homoscedasticity:

![Scatterplot](image)
Normality:
4. Additional analysis:

Multicollinearity:

Table 9: Coefficients table

<table>
<thead>
<tr>
<th></th>
<th>Unstandardized coefficients</th>
<th>Standardized coefficients</th>
<th>T</th>
<th>Sig</th>
<th>Collinearity statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
<td>Tolerance</td>
</tr>
<tr>
<td>Constant</td>
<td>1.363</td>
<td>1.415</td>
<td>.963</td>
<td>.337</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>.147</td>
<td>.254</td>
<td>.042</td>
<td></td>
<td>.577</td>
</tr>
<tr>
<td>Gender</td>
<td>-.016</td>
<td>.008</td>
<td>-.146</td>
<td></td>
<td>-2.025</td>
</tr>
<tr>
<td>Education</td>
<td>-.043</td>
<td>-.131</td>
<td>-.024</td>
<td></td>
<td>-.331</td>
</tr>
<tr>
<td>Price</td>
<td>.002</td>
<td>.150</td>
<td>.001</td>
<td></td>
<td>.012</td>
</tr>
<tr>
<td>Consumer value</td>
<td>.593</td>
<td>.307</td>
<td>.156</td>
<td></td>
<td>1.931</td>
</tr>
<tr>
<td>Universalism</td>
<td>.206</td>
<td>.168</td>
<td>.103</td>
<td></td>
<td>1.223</td>
</tr>
<tr>
<td>Personal value</td>
<td>-.130</td>
<td>.188</td>
<td>-.062</td>
<td></td>
<td>-.693</td>
</tr>
<tr>
<td>Environmental knowledge</td>
<td>-144</td>
<td>.185</td>
<td>-.080</td>
<td></td>
<td>-.778</td>
</tr>
<tr>
<td>PCE</td>
<td>.252</td>
<td>.181</td>
<td>.122</td>
<td></td>
<td>1.393</td>
</tr>
<tr>
<td>Environmental concern</td>
<td>-.008</td>
<td>.213</td>
<td>-.004</td>
<td></td>
<td>-.039</td>
</tr>
</tbody>
</table>

Note: Dependent variable is purchase intention of meal kits
Linearity and homoscedasticity:

![Scatterplot](image)

**Dependent Variable: Purch**

![Histogram](image)

**Dependent Variable: Purch**

Mean = 4.71E-16
Std. Dev. = 0.075
N = 206

Normality: