Meal-kits: What drives consumption?

A research study on the drivers for the consumption of meal-kits, the difference between specialized providers and grocery stores and the influence of brand loyalty.

Tom van Schijndel (S4485068)

Counselors:
dr. M. Hermans
Prof. dr. B. Hillebrand
Preface

I proudly present to you my master’s thesis in marketing “Meal-kits: What drives consumption?”. This thesis investigates some drivers for the consumption of meal-kits by consumers, explores the difference between specialized providers and grocery stores offering meal-kits while looking at the moderating effect of brand loyalty. This topic is chosen because I was curious about the topic and interested to learn more about it. Completing this thesis will contribute to finishing my master’s degree at the Radboud University Nijmegen, with a specialization in Marketing. The marketing program started in September 2019 and ended August 2020.

This research builds on authors like Brunner, van der Horst and Siegrist (2010) who investigated the drivers for the consumption of convenience food. Meal-kits are a special form of convenience food and this topic has not received sufficient attention in the literature. This thesis investigates some of the most important drivers found multiple studies and applies them to the context of meal-kits. Furthermore, the difference in drivers between specialized providers and grocery stores is a central aspect of this study as well as the moderating effect of brand loyalty.

During the process of writing my thesis I started in a group of seven students and with Ms Hermans as our supervisor. There were three main topics in our group and after some group meetings the group was divided into three according to the subject you had chosen. The meetings were pleasant and the atmosphere was always contributing to overcome any obstacles. While writing my thesis I encountered multiple obstacles and sometimes felt a bit lost. But after consulting with Ms Hermans or other students it worked out at the end. Therefore, I would like to specially thanks Ms Hermans for the total guidance process even when this was made a bit trickier because of the corona virus. Moreover, she made the whole process of writing a master’s thesis a pleasant and informative experience.

Enjoy reading,

Tom van Schijndel

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Abstract

Meal-kits are becoming increasingly popular in Western society and this is reflected by the vast amount of meal-kit delivery services and grocery stores selling meal-kits. Western people are preoccupied with their job and perceive their life to be very busy. To decrease the time and effort involved with cooking a meal, the need for convenient meals is increasing. Prior work in the field of convenient meals is predominantly focussed on what exactly is convenience food and what drives the consumption and purchase intention of it. Drivers such as price, effort reduction and healthiness are identified as important factors in determining the consumption of convenience food. So far, little is known about what drives consumers to buy meal-kits and whether the drivers for convenience food are also important for the purchase intention of meal-kits. Further, the difference in drivers between specialized providers and grocery stores as well as the role of brand loyalty remains unclear.

This study verifies if the drivers for the consumption of convenience food are also important for meal-kits while accounting for the moderating effect of specialized providers versus grocery stores and brand loyalty. The results show that price, effort reduction and healthiness do not affect the consumption of meal-kits. Moreover, there is no difference in drivers between specialized providers and grocery stores offering meal-kits. Furthermore, brand loyalty does not affect the relationships between the drivers and the purchase intention but does affect the purchase intention directly. These findings help managers and marketers in developing more knowledge on what factors are not important when they want to increase the purchase intention of their customers.
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1. Introduction

The retailing industry is dynamic in nature and is increasingly being influenced by rapid technological changes and a changing competitive market structure (Kumar et al. 2017). As a result, retailers are trying to come up with new business models and practices to keep up with the changes and demands in this competitive environment. One important innovation in retailing and specifically the food industry are meal-kits (Shankar & Yadav, 2011).

1.1 Meal-kits

One of the developments in consumer behaviour is the increasing need for convenience (Brown & McEnally, 1992). Meal-kits are a way to meet this demand by retailers. Meal-kits are packages containing the right amount of ingredients and a detailed instruction on how to make a complete meal. By introducing meal-kits, task formerly done by the consumer are now offloaded to the producer which results in more convenience for the consumer (Inman, & Nikolova, 2017). Because specific tasks such as coming up with a recipe are now offloaded to the producer, meal-kits can be regarded as a form of convenience food (Jackson and Viehoff, 2015). When buying a meal-kit the consumer does not have to come up with recipes themselves and has a stepwise instruction to follow when preparing the meal, so purchasing a meal-kit saves time and effort (Jackson and Viehoff, 2015). Consumer research conducted by Friends and Goldin (2019) surveying more than 10,000 American Households, shows that the main reason for ordering meal-kits is convenience which is reflected by the amount of time and effort saved by cooking with meal-kits.

Meal-kit services where you can order a meal-kit online and have it delivered are becoming very popular with companies such as HelloFresh and BlueApron dominating this market (Financial Times, 2017). In 2017 the total meal-kit industry is valued around $2.2 billion and is expected to rise to over 6 billion in three years (Friends and Goldin, 2019). The annual growth rates for the meal-kit industry are forecasted at 25% to 30% for the coming 5 years (2017 to 2022) making it a promising area for development and further research (Friends and Goldin, 2019). Moreover, consumer research shows that 3.8% of the surveyed households ordered a meal-kit in the past 30 days and 27% says that they are interested in buying a meal-kit in the coming 30 days (Friends and Goldin, 2019). In the US alone approximately 150 meal-kit providers came to life from 2011 to 2016 (PYMNTS, 2019). With online and traditional retailers entering the market the bigger corporations such as Amazon
are also investing in the meal-kit market. For example, Amazon’s acquisition of Whole Foods to launch a meal-kit delivery service in the US (Amazon, 2019). Besides that, major food companies such as Nestlé and Unilever are investing in meal-kit providers (PYMNTS, 2019).

Because of the popularity, enormous growth potential and the potential threat they pose to traditional grocery retailers such as AlbertHeijn and Jumbo, these retailers are introducing their own meal-kits to compete against companies such as HelloFresh (AlbertHeijn, 2019). Thus, there are two types of meal-kits which deviate from another based on the provider offering the meal-kit. Meal-kits from specialized providers are offered online and are delivered to your address often on a subscription basis and meal-kits from grocery stores can be purchased in the physical store without subscription.

1.2 Research aim

The goal of this research is to verify if the drivers price, effort reduction and healthiness which are suggested to be important drivers for the consumption of convenience foods, (Brunner, 2010 Hertz and Halkier, 2017; McIntosh, 1996; Rappoport, et al., 1993) are also important for meal-kits. Additionally, two kind of providers, specialized providers and grocery stores, are compared based on those three drivers. Furthermore, the moderating effect of brand loyalty is taken into account to study whether varying levels of brand loyalty causes the drivers to be different.

1.3 Research question

The research question central in this thesis is: To what extent are price, effort reduction and healthiness drivers for the purchase intention of meal-kits?

Sub questions:

- To what extent does the difference between specialized providers and grocery stores moderate the relationship between price, effort reduction and healthiness on the purchase intention of meal-kits?
- To what extent does brand loyalty moderate the relationship between price, effort reduction and healthiness on the purchase intention of meal-kits?

1.4 Theoretical relevance
In the literature on convenience food the concept of meal-kits is relatively understudied (Jackson & Viehoff, 2016). Despite the promising potential of the overall meal-kit market and the fierce competition between providers, knowledge about the subject is scarce. The problem central to this study is that it is not known if the drivers for the consumption of convenience food also apply to meal-kits. When reviewing the literature multiple drivers for the consumption of convenience food are identified but it is not yet empirically verified if these drivers are also applicable to the consumption of meal-kits (Brunner, 2010; Hertz and Halkier, 2017). Meal-kits reduce time and effort involved with coming up with recipes and shopping for ingredients and are therefore often considered as convenience food. This is not correct because meal-kits still need mental and physical effort to cook the meal. Meal-kits are also more expensive and healthier compared to traditional convenience foods (Nielsen, 2017; Moorhead, 2016). This deviation from convenience foods is a reason to believe that the drivers for convenience food do not apply to meal-kits. There are many important drivers for the consumption of convenience food (Brunner, 2010). The drivers central in this study are price, effort reduction and healthiness because these are the aspects that cause meal-kits to be different from traditional convenience foods. The choice for these drivers is based on the literature on convenience food choice (McIntosh, 1996; Rappoport et al., 1993; Steptoe et al., 1996; Brunner et al., 2010). The first contribution is focused on verifying if the difference in underlying characteristics for meal-kits causes the drivers to deviate in comparison with convenience food in general.

The introduction of meal-kits in grocery stores is a reaction on the success of the specialized meal-kit providers. The concept of the meal-kits provided by two different producers is the same but the perceptions from consumers about both varies (Nielsen, 2017; Moorhead, 2016). Some authors argue that meal-kits from specialized producers are perceived to be of higher quality, more varied, healthier and give a better ‘eating-out’ experience (Nielsen, 2017; Moorhead, 2016). In addition, they argue that meal-kits from specialized providers are perceived as more expensive and demand more effort than meal-kits from grocery stores (Nielsen, 2017; Moorhead, 2016). The difference in perceptions of consumers about the meal-kits from specialized meal-kit providers versus those offered by grocery stores is not empirically verified (Hertz & Halkier, 2017). The effect of this difference in perception on the drivers price, effort reduction and healthiness is also not empirically verified. This is important because meal-kits cannot be understood as one concept. The provider that offers the meal-kit determines the configuration and the aspects such as price, effort reduction and healthiness. The most important theoretical distinction that must be made is that between
specialized providers and grocery stores because consumers perceive the meal-kits from both providers to be different (Nielsen, 2017; Moorhead, 2016). So, this study wants to empirically verify if the drivers for the consumption of meal-kits from both providers are different. This study specifically looks at price, effort reduction and healthiness as the drivers for the consumption of meal-kits because meal-kits from both providers differ the most from each other on these characteristics (Hertz and Halkier, 2017; Nielsen, 2017; Moorhead, 2016).

Furthermore, it is not known whether different levels of brand loyalty have an effect on the drivers price, effort reduction and healthiness. It is known that brand loyalty has implications for consumer behaviour (Morgan and Hunt, 1994; Zeithaml, 1994; Petty and Cacioppo, 1986a). Loyal customers behave differently than non-loyal customers do and tend to be more satisfied with and committed to a particular brand or provider (Morgan and Hunt, 1994). It is known that customers who buy a product once will better analyse the product and the implications it has for their personal health and are more critical regarding price and effort that is needed to consume the product (Petty and Cacioppo, 1986a). This is because their decision is made via central route processing were loyal customers often use peripheral route processing when making a repeat purchase (Petty and Cacioppo, 1986a). Resulting from this is that loyal customers are for example less price sensitive than non-loyal customers (Morgan and Hunt, 1994). Loyal customers stick with their brand or provider even when the price rises or a better alternative is introduced, which shows commitment (Morgan and Hunt, 1994). So loyal customers are in general less susceptible or motivated by price, effort or health considerations when they want to purchase a product (Morgan and Hunt, 1994). With more actors entering the market of meal-kits, providers need to have a solid understanding what drives people to purchase meal-kits and if brand loyalty has an moderating effect on the relationship between price, effort reduction and healthiness on the purchase intention for meal-kits. If meal-kit providers do not have enough knowledge on the drivers and the effect that brand loyalty has on these drivers, they cannot optimize their marketing actions (Morgan and Hunt, 1994). This study wants to contribute to solving this problem by generating useful insights. In sum, this study measures to what extent the level of brand loyalty moderates the relationship between the drivers and the purchase intention of meal-kits.

1.5 Practical relevance

This study can provide providers of meal-kits with useful insights to create knowledge on the drivers for the purchase intention of their customers so that they can optimize their
actions accordingly and stimulate purchases (Brunner et al., 2010). The information generated by this study can help providers of meal-kits to develop marketing strategies that clearly distance meal-kits from traditional convenience foods which are in general perceived as being cheap and unhealthy (Friends and Goldin, 2019). Moreover, obtaining new customers is more expensive than retaining old ones (Venugopal and Pulidindi, 2015) and therefore providers of meal-kits must do their best to keep their customer satisfied and create loyalty wherever possible.

This study will generate insights on the difference between specialized providers and grocery stores which can help both providers in making allocation decisions and in shaping their strategies aimed at competitors. When it is found that certain drivers are more important for consumers of meal-kits from grocery stores compared to specialized providers, retailers such as AlbertHeijn can shape there strategies and tactics to meet those demands and be able to better compete with popular specialized providers. In turn, HelloFresh can use these insights to counter such strategies from grocery stores.

Furthermore, this study is aiming to give insight on the possible effect of brand loyalty on the drivers for meal-kit purchase intention. This is important because when for example AlbertHeijn introduces a new kind of meal-kit is it useful for them to have insight on how the level of brand loyalty consumers have towards their provider affect their behaviour and reaction to changing levels of price, effort reduction and healthiness. Not every consumer of meal-kits has the same level of loyalty regarding their brand. This research wants to test whether consumers with varying levels of brand loyalty have different drivers for their consumption. This information can help retailers and marketers get a better understanding of who their loyal customers are and how to keep them satisfied. These insights can also help providers to create loyalty programs to keep their loyal customers close and increase their spending. Both HelloFresh and AlbertHeijn can develop more effective marketing strategies to foster their loyal customers and attract new ones with this information.

1.6 Outline

The remainder of this thesis is structured as followed: The next part will form the theoretical basis which explains the variables central in this study and the relationship between these variables. Thereafter the methods that are applied in this study will be discussed. Subsequently the analysis of the data is discussed follow by the results which ends in a conclusion. Thereafter a discussion of the results is carried out were the theoretical and
practical implications are discussed. To conclude, this study will explain its limitations and give possible future directions of research.
2. Theoretical framework

2.1 Introduction

This chapter will contain the theoretical background that forms the basis of this study. The key concepts will be defined and explained. The relations between the key concepts and the moderating variables will be explained according to the existing literature. The conceptual framework central to this study will be presented which will give a visual representation of the key concepts, moderating variables and their relationships. The expectations about possible outcomes will be presented by the formulation of hypotheses.

The next part will explain the theoretical background for this thesis. All variables will be discussed according to the existing literature and it will become clear what is meant by each variable in this specific study. The concepts discussed below are convenience food and its drivers, meal-kits, purchase intention and brand loyalty.

2.2 Convenience food

Convenience food is not clearly defined in the literature (Bech-Larsen and Grunert, 2003). But there is consensus that the purchasing and preparing of convenience foods involves saving time, mental and physical effort and in general making the process easier (Bech-Larsen and Grunert, 2003; Costa et al., 2001; Jackson and Viehoff, 2015).

Interest in convenience food started around 1920 and from there a steady stream of research emerged (Scholliers, 2015). Academic interest in the topic gradually increased with the growth of convenience foods that are introduced into the ‘real’ world. Convenience foods is a very broad concept encompassing different themes and the interest of academics shifted a couple of times from 1920 till 2015 (Scholliers, 2015). Scholliers (2015) identified four themes with corresponding time periods by analysing the google scholar database from 1920 till 2014. The first theme called ‘Production’ included keywords like manufacturing, retailing, technology and advertisement of convenience foods. This theme showed the novelty of the subject and dominated the literature from 1920 till 1960. The literature in this period predominantly focused on how convenience foods were made, brought to the attention of the general public and sold to consumers. The second theme he identified is called ‘Choices’ and this theme included keywords like preferences, times, skills and quality. In this theme interest
was mainly focused on the reasons why convenience food was becoming more popular. This theme was dominant in the period from 1960 till 1980. The third theme is called ‘Households’ which focused on keywords like women, children, households, purchasing power and expenditures. The main interest in this theme was aimed at uncovering the way in which the keywords above contributed to the growth and success of convenience foods. This theme was most studied in the period from 1990 till 2010. The fourth and final theme Scholliers (2015) identified is called ‘Health’ and contained keywords like obesity and health. This theme took off from the year 2000 when interest into the negative effects and poor nutritional value of convenience food increased. The themes mentioned above are not mutually exclusive and in some periods there was academic interest in multiple themes at the same time (Scholliers, 2015).

There has been a lot of debate on how to properly define convenience food (Jackson and Viehof, 2015; Costa et al., 2001; Marshall and Bell, 2003). But there is consensus in the literature that convenience food makes the process of consuming a meal easier (Jackson and Viehof, 2015). This can be manifested in terms of time-saving, cost-saving or reduced effort involved (Jackson and Viehof, 2015). A formal definition is given by Brunner et al. (2010; p. 499) they define convenience foods “as those that help consumers minimalize time as well as physical and mental effort required for food preparation, consumption and clean-up” The process of consuming a meal consist of preparation, planning, eating and cleaning up afterwards (Bech-Larsen and Grunert, 2003). In this study the definition by Brunner et al. (2010; p. 499) is used to understand convenience foods. Convenience foods are forms of nutrition in which one of the phases of consuming a meal needs reduced effort in comparison with the ‘normal’ way of consuming a meal. The ‘normal’ or traditional way of cooking a meal entails buying or obtaining the ingredients yourself and then plan and carry out the task that make up cooking a meal (Jackson and Viehof, 2015).

There are different categories of convenience foods and Marshall and Bell (2003) argue that these categories cannot be seen as distinct from another but rather as on a continuum with convenience foods on the one side and traditional home-made meals on the other. The most convenient foods are meals from for example McDonalds or Burger King because with these meals the lowest amount of effort is needed to order and eat the meals they offer, often referred to as ‘fast-foods’ (Jackson and Viehoff, 2016). The least convenient meals are traditional home-made meals where a consumer must come up with a recipe, find the ingredients, plan, prepare and cook the meal themselves. The meal-kits central is this study are somewhere in the middle of the continuum between the most convenient foods (fast-
foods) and traditional home-made meals. This is because with meal-kits some tasks such as coming up with a recipe and finding the ingredients in the store are done for you by the producer, making it more convenient in comparison with traditional home-made meals. On the other hand, meal-kits still require the consumer to cook the meal themselves at home demanding more effort than ordering fast-food (Marshall & Bell, 2003).

In the literature on convenience food multiple drivers are identified as having an influence on the consumption and purchase intention of convenience food. In this study the drivers price, effort reduction and healthiness are chosen because these were the aspects were meal-kits differ the most from compared to traditional convenience foods (Nielsen, 2017; Moorhead, 2016). Furthermore, consumers perceived the meal-kits to be the most varying on these aspects between specialized providers and grocery stores.

The drivers price, effort reduction and healthiness apply to the functional and monetary dimensions that are mentioned above. Price is the quantity of payment or compensation given by one party to another in return for one unit of goods or services. In this thesis only monetary payment is included. Price consists of actual (objective) price and the reference price. The actual price is the objective price that must be paid to obtain a meal-kit and the reference price is the price against which the actual price is compared by consumers. The actual price is seen relative to the perceived worth of a meal-kit. This means that consumers compare the actual price with the product attributes and the price and attributes of a similar product to form the perceived value of a good, in this case meal-kits (Zeithaml, 1988). Previous studies indicated that price is an important factor in the decision making process regarding food consumption (Brunner et al, 2010; Hertz and Halkier, 2017; Steptoe et al., 1995; Zeithaml, 1988; Zeithaml et al., 2006; Lewis and Shoemaker, 1997). Price together with product features are the two most important decision variables used by marketers to influence the purchase behaviour of potential customers (Chang and Wildt, 1994). Price reflects the monetary dimension of perceived value and influences the purchase intention for meal-kits.

The second driver for convenience food is effort reduction. This is the amount of effort and time involved relative to the amount needed to make a ‘traditional’ meal. Meal-kits reduce effort because the recipe and the amounts of ingredients needed are specified. This way a consumer does not have to devote mental or physical effort to come up with or find a recipe online or weigh the right amount of ingredients (Brunner et al., 2010). Effort consist of mental and physical effort. Mental effort is the cognitive involvement needed to make a meal or think of making a meal (Hartmann et al., 2013). Thus, the time spent thinking about a
recipe or the right amount of ingredients for example is considered mental effort. Thinking about which provider to choose from or simply the mental stress that is caused by the thought of making a meal after a busy working day is considered mental effort. Physical effort, as the name suggests, is the amount of physical labour or effort that is needed to complete meal or meal-kit (Hartmann et al. 2013). The reduction of effort involved with cooking is being valued by many people who feel that they are under time pressure and therefore try to minimize time and effort spend on cooking a meal (Costa et al., 2007; Daniels and Glorieux, 2015). This is one of the main reasons for people to consume convenience foods (Brunner et al., 2010). Because meal-kits are a form of convenience food it plays a role as being a driver for the consumption of meal-kits (Brunner et al., 2010; Daniels and Glorieux, 2015).

The third and last driver is healthiness. Previous studies identified healthiness or the contribution of a meal to a healthy diet as an important determinant in the purchase decision of consumers (Brunner, 2010; Steptoe et al., 1995; Geeroms et al., 2008). Healthiness is a very broad term and there are multiple interpretations to what exactly constitutes healthiness (Geeroms et al., 2008). There is an important difference between personal health and the healthiness of a meal-kits in terms of nutritional value. Personal health refers to a person’s overall well-being and the healthiness of a meal refers to the nutritional value that a meal contains (Geeroms et al., 2008). Thus, in this study healthiness refers to the effect a meal-kit has on a human body and not the healthiness of the human body itself. In addition, healthiness only refers to nutritional value and vitamins it contains. Since the 1980’s the world health organization observed a rise in obesity and related diseases and brought this under the attention of the general public. This resulted in people being more conscious about what they consume (Kozup et al. 2003). People became more concerned with the nutritional value a meal contains and began analysing it before purchasing and consuming a meal. Therefore, the increased attention to the healthiness of convenience foods resulted in manufactures increasing the nutritional value and decreasing the amount of fat, sugar and salt that convenience foods contained (Kozup et al. 2003). Nowadays, the healthiness of a meal is one of the most important drivers for the purchase and consumption of food (Brunner, 2010; Steptoe et al., 1995; Geeroms et al., 2008; Hoffman, 2016). People are aware of the often poor nutritional value and amount of vitamins convenience foods contain. Therefore, healthiness is a less stronger driver for convenience foods then for meal-kits, because consumers expect a meal-kit to be healthy (Kozup, 2003; Geeroms, 2008).

2.2.1 Meal-kits
This study focusses on one specific form of convenience food namely meal-kits. Meal-kits are packaged meals containing the right amount of ingredients for a specified number of people and has a detailed instruction on how to make the meal (Nielsen, 2017). Because consuming a meal-kit takes away some effort of for example coming up with a recipe and shopping for the ingredients but still needs some effort in cooking the meal, it can be seen as a semi-convenience meal (Daniels and Glorieux, 2015). As explained in the introduction, the best way to look at the different categories of convenience food is that there exists a continuum, according to Marshall and Bell (2003). Meal kits are then somewhere in the middle of this continuum and can be termed as semi-convenience foods (Daniels and Glorieux, 2015).

The introduction of meal-kits in grocery store is a reaction on the success of the specialized meal-kit providers. The concept of the meal-kits provided by two different producers is the same but the perceptions from consumers about both varies (Nielsen, 2017). Some authors argue that meal-kits from specialized producers are perceived to be of higher quality, more varied, healthier and give a better ‘eating-out’ experience (Nielsen, 2017; Moorhead, 2016). Furthermore, they argue that meal-kits from specialized providers are also perceived as more expensive and time consuming than meal-kits from grocery stores (Nielsen, 2017; Moorhead, 2016). The difference in perceptions of consumers about the meal-kits from specialized meal-kit providers versus those offered by grocery stores is not empirically verified (Hertz and Halkier, 2017). The specialized providers tend to offer meal-kits on a subscription base where you can determine yourself how often you get a meal-kit send to your home (HelloFresh, 2015). Initially HelloFresh started with a subscription based meal-kit delivery service but consumers are now also able to order on-demand and just once (HelloFresh, 2015). When ordering a meal-kit from a specialized provider such as HelloFresh a consumer can choose the number of people the meal must serve and the number of meals the box must contain (HelloFresh, 2015). Thus, it is possible to specify the number of people the meals must feed and the number of different meals a consumer prefers. For example, a household consisting of four can order a meal-kit containing five different meals for Monday to Friday. This way the working parents do not have to put in effort coming up with recipes and buy the ingredients in the grocery store. The concept of meal-kits offered by grocery stores is the same as the meal-kits offered online by specialized providers (Nielsen, 2017; Hertz and Halkier, 2017). However, there are important differences regarding specific attributes such as price, ingredients, specific diets, nutritional value, production method
(organic/non-organic), preparation time and overall effort needed to make the meal (Hertz and Halkier, 2017). These attributes influence the perceived value of meal-kits for consumers (Taylor and Baker, 1994). In sum, meal-kits from specialized providers are more expensive, demand more effort and are healthier compared to meal-kits from grocery stores (Nielsen, 2017; Moorhead, 2016; Hertz and Halkier, 2017).

Brunner et al. (2010) conceptualizes convenience food in a broad sense making the distinction between highly processed foods, moderately processed foods, single components (canned beans, frozen fish sticks) and salads. Meal-kits cannot be attributed to one of these categories because meal-kits have elements from multiple categories. For example, a meal-kit often contains pre-cut vegetables or seasoned meat products. Those can be regarded as single components but also as moderately processed foods. Meal-kits therefore can be regarded as a separate and new category with providers being very creative and divers in the elements they include into their meal-kits (Nielsen, 2017).

2.2.2 Purchase intention

The perceived difference in meal-kits from specialized providers and grocery stores results in a perceived value difference (Kim and Chung, 2011). Many authors suggest that the perceived value of a product is influencing the purchase intention of consumers for that product. According to the theory of reasoned action, intention is the immediate antecedent of actual behaviour. (Fishbein and Ajzen, 1967). Thus, when meal-kit providers can uncover the customers’ intentions they have knowledge on what their behaviour will look like. The purchase intention of consumer is argued to be a reliable predictor of future sales and therefore a very useful construct for retailers (Ajzen, 1985; Kim and Chung, 2011). In this study purchase intention is defined as the probability that a consumer buys a meal-kit. This definition is based on the theory of planned behaviour developed by Ajzen (1985) the origin of this theory can be found in the theory of reasoned action first proposed by Fishbein and Ajzen (1967). According to the theory of reasoned action, if people evaluate the suggested behaviour as positive (attitude), and if they are convinced other people want them to perform a specific behaviour (subjective norm), this results in a higher intention (motivations) and they are more likely to behave in that way. A high correlation of attitudes and subjective norms to behavioural intention, and subsequently to behaviour, has been confirmed in many studies. Sheppard et al. (1988) conducted a meta-analysis of past research and found confirmation of this high correlation in multiple studies. Intentions in general cause behaviour and the
expected behaviour of consumers is valuable for meal-kit providers because it can be linked to purchase intention and subsequently purchase behaviour (Kim and Chung, 2011). Previous studies have indicated that providers of meal-kits can benefit from an indication of future sales and revenue in terms of amount of ingredients or package material to buy and stock (Kim and Chung, 2011; Sniehotta, 2009).

An important antecedent of purchase intention is the perceived value of a good. The perceived value of a product by consumers is based on an evaluation of the benefits and costs of product when compared with other products. It is defined as ‘the consumer’s overall assessment of the utility of a product based on perceptions of what is received and what is given’ (Zeithaml, 1988; p. 14). Perceived value consists of the dimensions functional value, monetary value, social value and psychological value.

2.2.3 Brand loyalty

Loyalty is a very broad concept and there are two main research streams regarding brand loyalty. These are attitudinal loyalty and behavioural loyalty. This study looks at brand loyalty from an attitudinal perspective. Consumers that have attitudinal loyalty engage in extensive problem-solving behaviour through which they form brand preferences by comparing brands and their attributes (Bennet and Rundle-Thiele, 2002). The following definition of attitudinal loyalty is adopted from Berkowitz, Jacoby and Chestnut (1978; p. 89). Attitudinal loyalty is “The consumer’s predisposition towards a brand as a function of psychological processes”. The psychological processes are attitudinal preference and commitment towards a brand (Jacoby and Chestnut, 1978).

The focus is on attitudinal loyalty because when a company want to design marketing programmes, they first have to understand attitudinal loyalty to be able to impact behavioural loyalty. Behavioural loyalty is the observable outcome of attitudinal loyalty reflected by for example market share or sales (Bennet and Rundle-Thiele, 2002). To ultimate goal of many marketers is to build a large loyal customer base. To reach this goal marketers must first develop an understanding of which customers have an attitude that results in potential brand loyalty (Bennet and Rundle-Thiele, 2002). Attitudinal loyalty can be understood on an individual level and on a brand level. The individual level is reflected by the propensity to be loyal. This means some people have a personality trait that causes them to stick with what they know and are loyal to the same provider in multiple product categories (Bennet and Rundle-Thiele, 2002). The brand level is reflected by the attitude towards the act of
purchasing a specific brand. This means some people have strong preferences for one brand or providers over another. The brand level of attitudinal loyalty is used to measure the concept in this study.

Brand loyalty indicates the extent to which customers are devoted to a company’s products or services and how strong their tendency is to select one brand over the competition (Morgan and Hunt, 1994). Loyal customers behave differently than non-loyal customer. They tend to be more satisfied with and committed to a specific brand or provider (Morgan and Hunt, 1994). Brand loyalty has some favourable implications for providers of meal-kits. Loyal customers have a strong desire to maintain the relationship with their provider. Furthermore, loyal customers are less critical in evaluating a specific offer against those of the competition (Morgan and Hunt, 1994). This is because interaction with a specific provider in the past resulted in positive customer experiences and overall satisfaction with the product and relationship with the provider (Zeithaml, Berry and Parasuraman, 1994). Loyal customers are willing to pay extra or take an offer that does not precisely meet their demands because they perceive some unique value in the brand or provider that no alternative can meet (Zeithaml, Berry and Parasuraman, 1994).

It is known that customers who do not show any loyalty to one specific provider will compare the available providers and their offerings extensively before purchasing (Petty and Cacioppo, 1986a). This means they better analyse the different meal-kits and features regarding price, potential to reduce effort and health implications. This is because their decision is made via central route processing where loyal customers often use peripheral route processing when making a purchase because they are already familiar with a provider and his offerings (Petty and Cacioppo, 1986a). Resulting from this is that loyal customer are less price sensitive, less health orientated and are prepared to put in some extra effort regarding meal-kits provided by their preferred brand compared with non-loyal customers (Morgan and Hunt, 1994).

2.3 Conceptual framework

Because meal-kits can be regarded as a relatively new and understudied category of convenience food it is relevant to verify and measure if the drivers of convenience food differ in their importance when compared to meal-kits. The drivers price, effort reduction and healthiness are important drivers for the consumption of convenience food in general and meal-kits differ from convenience food on these drivers (Brunner et al., 2010; Daniels and
Glorieux, 2015; Hertz and Halkier, 2017; Nielsen, 2017). Another reason to select price, effort reduction and healthiness out of numerous drivers that are important (Brunner et al. 2010), is that consumers perceived meal-kits to differ most from each other on those characteristics (Nielsen, 2017; Moorhead, 2016). The moderating effect of the provider of meal-kits is taken into account because the drivers for the consumption of the meal-kits varied between providers (Nielsen, 2017; Moorhead, 2016). The moderating effect of brand loyalty is included because the level of brand loyalty a customer has determines to what extent price, effort reduction and healthiness are important when making a purchase decision (Morgan and Hunt, 1994; Petty and Cacioppo, 1986a; Zeithaml et al., 1994).

(Figure 1. Conceptual model)

2.4 Hypotheses.

The next part will discuss the hypotheses that will be tested in this study. The hypotheses reflect the expectations regarding the relationships between the variables being studied. These relationships are visually presented in the conceptual model. The hypotheses are grounded in previous research and this literature will be discussed below.

2.4.1 Price
Previous studies have indicated that price and quality are the two most important determinants for the perceived value of goods and therefore also meal-kits (Zeithaml, 1988; Zeithaml et al., 2006; Lewis and Shoemaker, 1997; Chang and Wildt, 1994; Dickson et al., 1985; Ahtola, 1984). Perceived value in turn determines to a large extent the purchase intention for convenience food. Price can be understood as an indicator of quality because in general a higher price indicates higher quality of a good. But this price-quality relationship only holds for products where the consumer can obtain little knowledge on product features and attributes (Chang and Wildt, 1994). The product attribute information for convenience foods is often clear and easy to find on the package. Therefore, when consumers purchase convenience foods, the price is not the most important factor in reflecting the quality of the food. People will form their perceived value more strongly relying on actual product attributes and for example reviews by other consumers. Therefore, consumers of convenience food are insensitive to price (Jensen and Yen, 1996). In other words, they are willing to pay more for convenient meals. This is because convenience foods decrease the amount of time and effort that is needed to complete a meal (Hertz and Halkier, 2017). Other factors such as an increase in income, more women participating in the labour force, changes in household demographics and changing lifestyles also cause consumers of convenience food to be less price sensitive (Jensen and Yen, 1996; Nayga, 1996; Prochaska and Schrimper, 1973). Meal-kits are a special form of convenience food because they still demand some effort and time to complete the meal. Consumers who buy meal-kits, value the aspect of time and effort saving, and at the same time want to experiment with new recipes and eat healthy (Geeroms, 2008; Moorhead, 2016; Nielsen, 2017). Therefore, consumers will better examine the options regarding the available meal-kits and all its attributes including price, by using central route processing (Petty and Cacioppo, 1986a). This causes consumers to be more price sensitive regarding meal-kits (Buckly, 2007; Hertz and Halkier, 2017). An empirical study done by Chang and Wildt (1994) resulted in 414 valid responses to an experimental design. One of the relations tested was the relationship between price and purchase intention. The actual (objective) price was found having a significant negative effect on purchase intention in all settings (Chang and Wildt, 1994). Based on these studies hypothesis 1 is formulated.

**H1: Price has a negative effect on the purchase intention for meal-kits.**

2.4.2 Effort reduction
One of the trends prevalent in Western societies these days is the ‘lack of time’ principle. People increasingly feel that they do not have enough time to shop, prepare or make a meal at home (Costa et al., 2001; Costa et al., 2007). Furthermore, people increasingly feel that cooking at home is a bother and perceive cooking a meal at home as time-consuming. Therefore, people tend to look for ways in which the time and effort spend on consuming dinner is minimalized (Daniels and Glorieux, 2015; Costa et al., 2007). Meal-kits are a solution to the problem explained above. In general meal-kits reduce time and effort compared to a ‘traditional’ meal cooked at home but not as much as ‘traditional’ convenience foods. Previous empirical studies have indicated that reduced effort is an important driver for the consumption of convenience food (Brunner et al., 2010; Hertz and Halkier, 2017; Daniels and Glorieux, 2015; Costa et al., 2007). One study used the food frequency questionnaire and found that a reduction in mental and physical effort as well as time-saving were significant drivers for the purchase behaviour and consumption of convenience food (Brunner et al., 2010). These findings are also applicable to meal-kits because meal-kits can be regarded as a distinct category of convenience foods. Therefore, the literature on convenience food is used to form expectations about meal-kits. Costa et al. (2007) found that Dutch citizens increasingly made use of home replacement meals (HRM) because they are convenient and time saving. Meal-kits can be seen as an HRM. Another study done in the UK found that the average amount of time spent on cooking a meal was 8 min and that the average number of meals cooked from scratch was one meal a week (Buckley, 2007). This was because UK housemothers increasingly perceived to be under high time-pressure and made use of convenience food to reduce effort (Buckley, 2007). Consistent with this literature hypothesis 2 is formulated.

**H2**: Effort reduction has a positive effect on the purchase intention for meal-kits.

### 2.4.3 Healthiness

The literature suggest that healthiness nowadays is one of the most important drivers for the purchase decision regarding food (Steptoe et al., 1995; Brunner et al., 2010; Geeroms et al., 2008). With a rise of obesity, diabetes and other health issues that can be attributed to foods with poor nutritional value, the public is becoming more conscious about their diets (Geeroms et al. 2008; Hoffman, 2016). Convenience foods already contain far less amounts of sugar, salt and saturated fat than twenty years ago (Hoffman, 2016) The growing awareness of the relationship between diet and overall health cause people to prefer healthy foods and even
choose healthiness over taste (Bogue et al., 2005). Convenience food is primarily consumed because it saves time and effort but people increasingly abstain from convenience foods because they are unhealthy (Steptoe et al., 1995; Geeroms, 2008). With meal-kits, the aspect of healthiness is more important for the purchase decision of consumers compared to convenience foods (Moorhead, 2016; Nielsen, 2017). Healthiness is becoming a determining factor for many people in the choice for the convenience foods and meal-kits they consume (Geeroms et al., 2008). In the study conducted by Geeroms et al. (2008) a couple of health-related motives orientations (HRMO) that were found to be decisive in the choice for convenience food were identified. HRMO’s are abstract goals that motivate people to eat healthy and thereby becoming or staying healthy (Geeroms et al., 2008). They conducted an online survey with N = 1934 valid responses. This resulted in identification of several motivations for people to eat healthy. Physical and emotional well-being as well as energy and enjoying life were the most important motivations for people to choose healthy forms of convenience food over less healthier forms. In a study by Steptoe et al. (1996) the Food Choice Questionnaire identified nine categories that were important for the choice of food. Health and Weight control were found as having the biggest effect on the ultimate food choice of people (Steptoe et al., 1996). What is interesting is that this study proves that people prefer healthiness over for example price, convenience or familiarity. Meal-kits are considered as being healthy and convenient at the same time (Geeroms, 2008). For both convenience foods and meal-kits, an increase in the healthiness of the meal will increase the purchase intention for consumers (Geeroms, 2008; Steptoe, 1996; Brunner, 2010). Taken this empirical material into account one can conclude that people are more intended to purchase healthier food relative to foods that are less healthy. Therefore hypothesis 3 is formulated.

**H3:** Healthiness has a positive effect on the purchase intention for meal-kits.

### 2.4.4 Specialized providers versus grocery stores

Because of this difference in perception about the price, effort reduction and healthiness from both providers the drivers for the intention to purchase them potentially varies (Nielsen, 2017; Moorhead, 2016; Hertz and Halkier, 2017). An empirical study conducted by Hertz and Halkier (2017) showed that the parents as decision makers have a more positive perception of meal-kits offered by specialized providers compared to meal-kits from grocery stores (Hertz and Halkier, 2017).
The meal-kits that specialized providers offer are more expensive than those offered by the grocery stores competing with them (Hertz and Halkier, 2017). Partly, this has to do with the shipping costs that many providers include in the total price that consumers must pay (Hertz and Halkier, 2017; Moorhead, 2016). This also has to do with the fact that, on average, more specialized and expensive ingredients are being used in meal-kits from specialized providers. When segmenting the market for meal-kits Buckley et al. (2007) found that families that subscribe to a meal-kit delivery service were mostly middle- and upper-class families with an above average disposable income. Those families are less price sensitive than families with an average or below average disposable income. (Buckley, 2007). Because meal-kits from specialized providers already being perceived as more expensive than those from grocery stores the same increase in price will result in a greater decline in purchase intention for meal-kit from grocery stores than for specialized providers. This is because families that buy meal-kits in the grocery store are more price sensitive (Buckley et al., 2007; Zeithaml et al., 2006; Lewis and Shoemaker, 1997). Consumers that buy meal-kits in the grocery store are more price sensitive because there are more available substitutes to choose from. Instead of buying a meal-kit, consumers can find and buy all ingredients separately and by doing so save money (Lewis and Shoemaker, 1997). Furthermore, consumers that shop in the grocery store have a better reference price than consumers that buy meal-kits from specialized providers (Zeithaml et al., 2006). This is because when consumer consider buying a meal-kit in the grocery store they will compare the price of the meal-kit to the price they last paid or the average price they spend on buying a meal in the grocery store (Zeithaml et al., 2006). With specialized providers, the meal-kits cost roughly the same and meal-kits of specialized providers are already perceived as more expensive as compared to those of grocery stores and therefore the reference price is also higher in the mind of the consumer (Zeithaml et al., 2006). Moreover, mostly middle- and higher-income families use specialized providers and their price limits are higher than those of the average consumer that buys meal-kits in the grocery stores (Zeithaml et al., 2006). Price limits means that if a price of a meal-kits falls below the lower limit consumers may doubt the quality and when it is above the upper limit it will be judged as too expensive (Zeithaml et al., 2006). Taken this literature into consideration, hypothesis 4a is developed.

**H4a: Price has a greater negative effect on the purchase intention for meal-kits from grocery stores than for specialized providers.**
The meal-kits offered by specialized providers demand more effort than meal-kits from grocery stores (Nielsen, 2017; Moorhead, 2016). This has multiple reasons. Specialized providers offer a broader assortment of meal-kits making the choice demanding more mental effort when compared with just three options in your local grocery store (Hertz and Halkier, 2017). Furthermore, specialized providers regularly offer recipes that are not very traditional. This is because customers from specialized providers prefer to be inspired with recipes they have never encountered before because this gives them an eating-out experience (Hertz and Halkier, 2017). So, in general the motivation for purchasing a meal-kit from a specialized provider is more strongly to experiment and the motivation for purchasing a meal-kit from a grocery store is more to get a quick meal (Hertz and Halkier, 2017). Because consumers are not familiar with the recipes and kitchen tools to use, meal-kits from specialized providers demand more effort than grocery store meal-kits. In addition, meal-kits from specialized providers are found to be more time-consuming than those from grocery stores. In a comparison of meal-kits from the five most popular brands in the Netherlands including HelloFresh and the Allerhande box from AlbertHeijn it was found that a box from the specialized providers took five a ten minutes longer on average to complete the meal (‘Maaltijdboxen Vergelijken; Welke past bij jou?’, 2020). Meal-kits from specialized providers are on average more effort demanding, but consumers are motivated by the fact of experimenting with new recipes and therefore do not care much about the extra effort (Nielsen, 2017). Consumer that buy meal-kits in grocery stores are stronger motivated by the effort reduction aspect, thus a reduction in effort will increase their purchase intention more than those of people that buy meal-kits from specialized providers (Moorhead, 2016). Therefore, hypothesis 4b is formulated.

*H4b: Effort reduction has a greater positive effect on the purchase intention for meal-kits from grocery stores than for specialized providers.*

Meal-kits from specialized providers are perceived to be healthier than those from grocery stores (Nielsen, 2017; Moorhead, 2016). The positive effect of an increase in healthiness for a meal kit from specialized providers is larger than for meal-kits from grocery stores. Consumers that buy meal-kits from grocery stores are motivated to get a quick meal and value the aspect of healthiness less than consumers that buy meal-kits from specialized providers (Bogue et al., 2005; Geeroms, 2008). The potential increase in purchase intention is greater for specialized providers because consumers from both providers have different reasons and motivations to make use of a specific provider (Hertz and Halkier, 2017).
Consumers who buy meal-kits from specialized providers are more health orientated and are willing to devote some extra effort to cooking a healthy meal (Nielsen, 2017; Geeroms, 2008). Consumer who buy meal-kits from grocery stores are less willing to put in extra effort to cook healthy. Therefore, healthiness is more important for consumers that buy meal-kits from specialized providers compared to grocery stores (Hertz and Halkier, 2017). Therefore, hypothesis 4c is formulated.

**H4c:** Healthiness has a greater positive effect on the purchase intention for meal-kits from specialized providers than for grocery stores.

2.4.5 Brand loyalty

Previous studies have indicated that brand loyalty has a moderating effect on the drivers for consumption of convenience food. These studies indicated that loyal customers are less price sensitive, less health orientated and willing to put in some extra effort (Morgan and Hunt, 1994). Loyal customers are in general sticking with their brand and provider even when the price rises or a better alternative is introduced, which shows commitment (Morgan and Hunt, 1994). When customers are loyal to a provider of meal-kits they analyse the product less extensive before purchase and use peripheral route processing to come to a decision. This means that price, effort reduction and healthiness are less important for loyal customers because they strongly prefer one provider of meal-kits over another. Brand loyalty causes consumers to stick with their brand or provider even if there exist a better alternative in terms of product attributes such as price, effort reduction or healthiness of a meal-kit (Zeithaml, Berry and Parasuraman, 1996). Loyal customers are in other words more resistant to counter persuasion than non-loyal customers are (Dick and Basu, 1994). This means that non-loyal customers are prone to persuasion by competitors with offerings that have better price, effort reduction or healthiness levels. So, loyalty towards a specific meal-kit provider results in customer valuing the relationship they have with a provider so much that attributes like price, effort reduction or healthiness become subordinate. Sometimes a provider rewards this loyalty by using loyalty programs or giving discounts for repeat purchasing (McIntosh and Lockshin, 1997). In a study by (Bloemer and Kasper, 1995) loyalty towards a brand or provider was found to be causing consumers to make repeat purchases with the same provider even if a competitor had better alternatives. Furthermore, the effect of price and other product attributes on purchase intention was found to diminish with increasing loyalty towards a specific brand.
or provider (Bloemer and Kasper, 1995). Consistent with this literature hypothesis 5a, 5b and 5c are formulated.

\textit{H5a: Brand loyalty weakens the relationship between price and the purchase intention for meal-kits.}

\textit{H5b: Brand loyalty weakens the relationship between effort reduction and the purchase intention for meal-kits.}

\textit{H5c: Brand loyalty weakens the relationship between healthiness and the purchase intention for meal-kits.}
3. Method

3.1 Introduction

This study is designed to generate insights on the drivers for the purchase intention for meal-kits while accounting for the possible moderating effect of brand loyalty and the difference between specialized providers and grocery stores. The data that is used is generated by a survey specifically developed for this study.

The following part will explain the methods applied in this research. The research design will be explained by elaborating on the motivation for choosing quantitative research methods and the methods used to collect data. Thereafter, it will be discussed how the variables central in this study are operationalized according to which scales are used. The final section of this chapter will explain the analysis and which tools are used to generate insights.

3.2 Research design

This study is quantitative in nature. The choice for a quantitative research design is based on the fact that this study is aimed at giving a generalizable answer on the central question. A quantitative research design is better suited to generate generalizable results (Vennix, 2000; Field, 2014). Qualitative research based on interviews or observations will need a large sample to generate generalizable insights and this simply is to time and labour intensive for the subject of this master thesis. Quantitative research is described by Vennix (2000) as the collecting of data from a relatively large number of comparable research objects and subsequently subjecting this data to statistical analyses to come to conclusions. Within quantitative research there are different methods to collect data. The method that is used and validated the most is the survey (Vennix, 2000; Field, 2014). This method uses a questionnaire to collect data on opinions from a set of comparable research objects.

The data that is used in this study is collected through an online survey. The choice to use a survey in this research is based on multiple reasons. First, a survey enables a researcher to collect data from a large sample of respondents by handing out paper surveys or sending the surveys via e-mail or other online tools. When the sampling is done at random it is possible to generate insights which can be generalized to the total population of research objects. Second, a survey is the most cost-effective way to reach a lot of respondents. Third, a
survey ensures objectivity of the data because the respondents or their answers are not being influenced by the interpretation of an interviewer or subjective observations. Fourth, the questions in a survey are standardized so the answers will be unambiguous and easily interpretable. Finally, the data collected by a survey can be subjected to deeper statistical analysis with programmes such as SPSS which enables a researcher to make subgroups and uncover relationships between variables (Vennix, 2000; Field, 2014).

3.3 Procedure

The data is collected from a sample of the total population of Dutch meal-kits consumers. The sample is selected at random, so it is possible to generalize the insights from the sample to the total population of Dutch meal-kit consumers (Vennix, 2000; Field, 2014). Furthermore, the survey is written in the Dutch language and only distributed to people who are Dutch. Therefore, all respondents are native Dutch speakers. This research uses a survey to collect data which will be analysed using the statistical data analysis program SPSS. The sampling is based on consumers who are in the age group 18 to 70. The lower bound of this age group is chosen because children below 18 rarely are the ones responsible for coming up with and making dinner in a household (Costa et al., 2007). The upper bound of this age group is based on the fact that people above 70 have generally routinized their food choice so are less willing to try something new such as the concept of meal-kits (van Deursen and Helsper, 2015). In addition, people above 70 are in general not very familiar with the internet and therefore not likely to order meals from one of the specialized providers who offer their meal-kits online. (van Deursen and Helsper, 2015). Vennix (2000) states that the minimal number of respondents is 20 to 25 per variable used in the conceptual model. As the conceptual model central in this research shows, there are three independent variables, and two moderating variables. This means the minimal number of respondents needed to generate meaningful results is $5 \times 25 = 125$.

3.3.1 Survey

The questionnaire that is used to collect data is specially developed for this study. The questionnaire is made with the program Qualtrics. This is an online tool that helps developing and distributing the questionnaire online. This research compares differences between two groups of respondents. This is called a between subjects design (Hair, Black, Babin, and
Anderson, 2014, pp. 352–368). This design means that the total respondent set is split into two groups of approximately the same size. The respondents are randomly assigned to one of the two groups using Qualtrics.

The choice for a between subjects design is based the fact that this study is interested in the purchase intention for meal-kits from HelloFresh and AlbertHeijn. Thus, half of the respondents is manipulated by seeing a meal-kit from HelloFresh. The other half is manipulated by seeing a meal-kit from AlbertHeijn. After both manipulations, the two groups are asked about their purchase intention. Both groups get the same questions about their consumer characteristics and level of brand loyalty in the remainder of their questionnaires.

Two separate groups are needed to be able to compare the purchase intention after the manipulation of both groups in a valid way. This design is needed to counter learning and priming by respondents. Because, when a respondent is confronted with both manipulations they can learn, form expectations, or develop other forms of cognitive biases that affects the validity of their answers (Charness, Gneezy and Kuhn, 2012). Furthermore, between subjects designs have shorter questionnaires compared to within subjects designs. Shorter questionnaires are less tiring or boring compared with long questionnaires so there is less chance of response biases (Charness et al., 2012).

To minimize the number of missing values Qualtrics offers the option to force a response when answering the questions. This option is used, and this means respondents can only proceed to the next question if the previous one has a valid answer. In the survey the respondents are routed to either the HelloFresh manipulation or the AlbertHeijn manipulation. Because one independent variable is price and this study is partly interested in how price affects the purchase intention for meal-kits price is added below the picture of both manipulations. This price is the actual price that must be paid to obtain such meal-kits in real-life. So, below the meal-kit from HelloFresh you can see that this kit contains three meals for four persons and costs € 61,95. The meal-kit from AlbertHeijn also contains three meals for four persons but costs € 51,50. These prices are based on the websites of both providers and on a website that compares the five most popular meal-kits in the Netherlands on aspects such as price (‘Maaltijdboxen Vergelijken; Welke past bij jou?’, 2020).

This study did not use a control group which is manipulated to act as a baseline to compare the results with. The reason for this choice is that the results can easily be compared to the existing literature, so no control group is needed (Vennix, 2000). A control group is most needed for study’s were the effect of the manipulation is unknown. In this study the effect is strongly based on the extensive literature review and therefore not totally unknown.
Before distributing the survey, a pre-test was conducted to check for inconsistencies and whether the questions were clear or not. The survey was pre-tested by five people and some minor changes were needed. The goal of the survey and all the questions proved to be clear. There were some suggestions. First, three people suggested that the introduction is a bit too lengthy, so it was shortened. Second, some people suggested that the part were the consumer characteristic ‘inspanning’ is questioned also was a bit too long with fourteen items compared with the other characteristics only having five or six. Therefore, the items were reduced to ten. Some items had a lot in common, so deleting these items is not problematic for the validity of the measure. For healthiness one item was deleted because the pre-test showed that people found that item not appropriate in the context of meal-kits. Lastly, some spelling errors were resolved. The average time that was needed for the pre-test was eight minutes.

3.4 Research ethics

This research is conducted with important ethical considerations in mind. One crucial aspect of every research is that it does not cross any ethical boundaries (Goodwin, Pope, Mort and Smith, 2003). One of the most important rules is to carefully handle personal data collected from respondents. Privacy must be considered with every decision. To ensure this privacy respondents who take part in the survey do this completely anonymously. The personal information like age, gender and education will only be used for research purposes and not made public. The respondents who take part do this completely voluntarily and are not obliged to finish the survey when the want to stop. It is assured that respondents who complete the survey have the possibility to look at the results of this research when it is finished.

It is also crucial to conduct research according to the code of conduct regarding academic writing. In the ‘Nederlandse gedragscode wetenschappelijke integriteit’ (2018) the rules for proper academic writing are explained. The rules in this document are developed to ensure academic integrity. This research is conducted according to these rules.

3.5 Measures

The variables central in this study are measured according to different scales. For price, effort reduction, healthiness, brand loyalty and purchase intention the scales are already
validated and proven in other studies. For specialized versus grocery stores two scenarios are developed. To see the exact scales and items used to measure the constructs see Table 1.

3.5.1 Purchase intention

The scale used to measure purchase intention is adapted from Ajzen and Fishbein (1980). The original scale consisted of three items measuring purchase intention. This scale is developed in the context of the theory of planned behaviour.

3.5.2 Specialized provider versus grocery stores

This research is interested in meal-kits from two kinds of providers, namely specialized providers and grocery stores. The specialized provider central in this study is HelloFresh. The choice for HelloFresh is based on the fact that the most popular specialized meal-kit provider in the Netherlands is HelloFresh (Nielsen, 2017; Moorhead, 2016; SecondMeasure, 2017). HelloFresh started in Germany and soon delivered meal-kits across Europe. The success of HelloFresh resulted in many nationally oriented meal-kit providers to copy the concept of HelloFresh (SecondMeasure, 2017). HelloFresh is regarded by many as the leader in the meal-kit delivery market so it is useful to focus on HelloFresh in this study because results and insights will have implications for other specialized providers who operate using a comparable business model.

The Allerhande meal-kit from AlbertHeijn will be the representative for the meal-kits from grocery stores. The choice for the Allerhande meal-kit is based on the fact that AlbertHeijn has been the most popular grocery store in the Netherlands over the past 10 years (Meijsen, 2017). Also, and perhaps related, is the fact that the Allerhande meal-kits is the most popular meal-kit from a grocery store in the Netherlands (Meijsen, 2017). Lidl and Jumbo are the second and third most popular grocery stores in the Netherlands. These grocery stores also have their own meal-kits, but the concept is the same. The meal-kits from AlbertHeijn, Lidl and Jumbo are comparable on aspects such as price, effort needed to complete and healthiness (Meijsen, 2017). Therefore, the Allerhande meal-kit from AlbertHeijn is representative for the meal-kits from Lidl and Jumbo. This ensures that the results and insights regarding the Allerhande meal-kit will also have implications for the meal-kits from other grocery stores such as Lidl and Jumbo.
To measure the differences between the specialized provider HelloFresh and the grocery store AlbertHeijn two scenarios are created which are specifically developed for this study. The difference in purchase intention is measured for people buying meal-kits from HelloFresh and AlbertHeijn. Scenario based questions mean that the respondent will first get an introduction which is followed by a visual example of a meal-kits from HelloFresh after which purchase intention is measured on a seven-point Likert scale. This Likert scale ranges from “low purchase intention” to “high purchase intention”. An introduction followed by an example of a meal-kit from AlbertHeijn is given to the other group of respondents and the purchase intention for that meal-kits is also measured on the same Likert scale. This way the purchase intention for meal-kits from both providers is measured. Because specialized versus grocery stores is a nominal variable, a dummy is constructed. The dummy is called AlbertHeijn and 0 represents HelloFresh and 1 represents AlbertHeijn.

Thereafter, respondents are asked about their consumer characteristics regarding price, effort reduction and healthiness. Existing scales are used and statements are answered on a seven-point Likert scale ranging from “totally disagree” to “totally agree”.

3.5.3 Price

For price, the scale developed by Brunner et al. (2010) is used. They used four items to measure the variable price in the context of convenience food. The exact items used are listed in Table 1. Because convenience food has a lot in common with meal-kits the same scale is used to measure price in this study.

3.5.4 Effort reduction

Effort reduction consists of three dimensions. Brunner et al. (2010) developed scales for all three dimensions. Brunner et al. (2010) developed the scales in the context of convenience foods. Meal-kits have a lot in common with convenience food and therefore the scales can be used to measure meal-kits. For the first dimension four items are used to measure time saving. In this study only three of the original items are used because one item was not appropriate for meal-kits. The second dimension is mental effort which is measured by five items. Only three items are used in this study because the three items are sufficient to measure mental effort. The third and last dimension is physical effort which is measured by five items. Only three out of the five original items are used to measure physical effort. This is
because two items did not fit the context of meal-kits sufficiently. All the items that have been deleted did not fit the context of meal-kits. These items were developed for the ‘traditional’ convenience foods and would distract the respondents from the topic of meal-kits.

3.5.5 Healthiness

To measure healthiness the scale developed by Steptoe et al. (1995) is used. The original scale uses six items to measure healthiness. Only five items are used in this study to measure healthiness because one item is not appropriate in the context of meal-kits. This scale is used in a study to understand the motives underlying the choice of food. This study is interested in the choice for meal-kits and how consumer characteristics like the health orientation of people affect their choice for a meal-kit. Therefore, this scale is also applicable in this study.

3.5.6 Brand loyalty

Attitudinal loyalty can be measured in two ways. On an individual level by looking at someone’s propensity to be loyal in general or on a brand level by looking at the attitude towards the act of purchasing a specific brand. According to Bennet and Rundle-Thiele (2002), attitudinal loyalty can best be measured on a brand level because an individual’s propensity to be loyal is just an average score and not brand or category specific. To measure attitudinal loyalty on a brand level the scale developed by Bennet and Rundle-Thiele (2002) is used. Attitudinal loyalty consists of multiple constructs and Mellens, Dekimpe and Steenkampe (1996) argued that a combination of commitment, brand preferences and recommendation is needed to accurately measure attitudinal brand loyalty. The scales that are selected are based on a recommendation by Mellens et al., (1996). The first scale measures the level of commitment to a brand on a five-point semantic differential scale. Followed by seven items measuring brand preferences also on a five-point semantic differential scale. The third scale measures the extent to which someone would recommend a brand to someone else. The recommendation is measured on a five-point Likert scale ranging from totally disagree to totally agree. The scales are combined by taking all scores regarding brand loyalty and calculate an average score. The validity and reliability of the combination of these scales is tested and confirmed by using structural equation modelling.
and factor analysis (Mellens et al., 1996) The semantic differential measuring the seven items of purchase intention is shown in figure 2.

3.5.7 Control variables

This study has four control variables. These are familiarity with meal-kits, age, gender and working status. Control variables are included to increase the accuracy of the findings and to reduce the confounding effect of irrelevant variables that are not the focus of this study (Field, 2014). The last question in the survey is about the extent to which someone is familiar with the concept of meal-kits. Familiarity with meal-kits is measured by looking at how often someone has cooked dinner by using a meal-kit. This frequency is measured on a five-point semantic differential ranging from never to always. This way of measuring the frequency of an event occurring is based on (Worthington and Whittaker, 2006). The second control variable is age and this variable is measured by asking the respondents to fill in their age. Age can be a sensitive topic so by assuring anonymity respondents will hopefully be honest. The third control variable is gender where respondents can choose between man, women and different. The ‘different’ option is added because some people might not identify with being a man or women. Gender is a nominal variable with three categories so two dummy variables (3-1) are constructed (Field, 2014). The fourth control variable is working status. This variable is measured by asking respondents to choose between four categories: student, working, retired and different. Again, the ‘different’ option is added because some people might not identify with the other options. Status is also a nominal variable with four categories so three dummy variables (4-1) are constructed. Age, gender and working status are based on Vennix (2000).

3.6 Analysis

The first step in the analysis was looking at the correlations between the items measuring the independent variables. The strength of the relationship between the items is checked to establish convergent validity (Hair et al., 2014).

Thereafter, a regression analysis is conducted to check whether the independent variables price, effort reduction and healthiness have a significant impact on the dependent variable purchase intention. A regression analysis is a powerful method that is used to examine the relationship between two or more variables of interest (Hair et al., 2014).
After the regression analysis confirmed if the independent variables price, effort reduction and healthiness have a significant effect on the dependent variable purchase intention the moderating variables are measured. The moderating variables are specialized providers vs grocery stores and brand loyalty. The moderator variable specialized provider versus grocery stores is a dichotomy so for this categorical variable a dummy variable is constructed (Hair et al., 2014). For the moderating variable brand loyalty, the outcomes are high or low, so this is also a categorical variable for which is dummy is constructed. Then, both interaction terms are included in the regression model. If the moderation effects are significant a simple slopes analysis is conducted to check for the nature of the moderation. (Field, 2014).

Table 1. Summary of the items used to measure the constructs and their source.

<table>
<thead>
<tr>
<th>Factor</th>
<th>Item</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Purchase intention</strong></td>
<td>1: “Wat is uw aankoopintentie?”</td>
<td>Ajzen and Fishbein (1980)</td>
</tr>
<tr>
<td></td>
<td><strong>Price</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Cronbach’s α = .735</strong></td>
<td>1: “De prijs van een maaltijdbox is voor mij een indicator van de kwaliteit.”</td>
<td>Brunner et al. (2010)</td>
</tr>
<tr>
<td></td>
<td>2: “Ik vind maaltijdboxen te duur in verhouding tot wat je ervoor krijgt.”</td>
<td>Brunner et al. (2010)</td>
</tr>
<tr>
<td></td>
<td>3: “Een ‘traditionele’ maaltijd maken is goedkoper dan een maaltijdbox.”</td>
<td>Brunner et al. (2010)</td>
</tr>
<tr>
<td></td>
<td>4: “Voor de voordelen die een maaltijdbox heeft moet je veel betalen.”</td>
<td>Brunner et al. (2010)</td>
</tr>
<tr>
<td></td>
<td>5: “Ik koop geen maaltijdboxen omdat ik hierdoor geld bespaar.”</td>
<td>Brunner et al. (2010)</td>
</tr>
<tr>
<td><strong>Effort reduction</strong></td>
<td><strong>Cronbach’s α = .883</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1: “Wanneer ik kook probeer ik hier zo min mogelijk tijd aan te besteden.”</td>
<td>Brunner et al. (2010)</td>
</tr>
<tr>
<td><strong>Time saving 1 to 3</strong></td>
<td>2: “Als ik thuis ben eet ik het liefst maaltijden die snel klaar zijn.”</td>
<td>Brunner et al. (2010)</td>
</tr>
<tr>
<td>Physical effort 4 to 6</td>
<td>3: “Het is tijdsverspilling om een ‘traditionele’ maaltijd klaar te maken.”</td>
<td>Brunner et al. (2010)</td>
</tr>
<tr>
<td>------------------------</td>
<td>-------------------------------------------------------------------------------------------------</td>
<td>------------------------</td>
</tr>
<tr>
<td></td>
<td>4: “Hoe minder fysieke energie het maken van een maaltijd me kost hoe beter.”</td>
<td>Brunner et al. (2010)</td>
</tr>
<tr>
<td></td>
<td>5: “Koken betekent fysieke inspanning en dat probeer ik te vermijden als dit mogelijk is.”</td>
<td>Brunner et al. (2010)</td>
</tr>
<tr>
<td></td>
<td>6: “Wanneer ik kook, probeer ik de fysieke inspanning van koken zo laag mogelijk te houden.”</td>
<td>Brunner et al. (2010)</td>
</tr>
<tr>
<td>Mental effort 7 to 9</td>
<td>7: “Ik heb vaak geen zin om een maaltijd te bedenken.”</td>
<td>Brunner et al. (2010)</td>
</tr>
<tr>
<td></td>
<td>8: “Wanneer ik kook, probeer ik de mentale inspanning tijdens het koken zo laag mogelijk te houden.”</td>
<td>Brunner et al. (2010)</td>
</tr>
<tr>
<td></td>
<td>9: “Hoe minder ik hoef na te denken over wat we gaan eten hoe beter.”</td>
<td>Brunner et al. (2010)</td>
</tr>
<tr>
<td>Healthiness</td>
<td></td>
<td>Steptoe et al. (1995)</td>
</tr>
<tr>
<td></td>
<td>1: “Veel vitaminen en mineralen moet bevatten.”</td>
<td>Steptoe et al. (1995)</td>
</tr>
<tr>
<td></td>
<td>2: “Me gezond houdt.”</td>
<td>Steptoe et al. (1995)</td>
</tr>
<tr>
<td></td>
<td>3: “Voedzaam is.”</td>
<td>Steptoe et al. (1995)</td>
</tr>
<tr>
<td>Brand loyalty</td>
<td></td>
<td>Bennet and Rundle-Thiele (2002)</td>
</tr>
<tr>
<td></td>
<td>1: “Kunt u aangeven hoe groot u toewijding is ten opzichte van deze aanbieder.”</td>
<td>Bennet and Rundle-Thiele (2002)</td>
</tr>
<tr>
<td>Control variables</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Familiarity with meal-kits</td>
<td>Hoevaak kookt u met een maaltijdbox?</td>
<td>Worthington and Whittaker (2006)</td>
</tr>
<tr>
<td>---------------------------</td>
<td>--------------------------------------</td>
<td>----------------------------------</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td><strong>Wat is uw leeftijd?</strong></td>
<td>Vennix (2000)</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td><strong>Wat is uw geslacht?</strong></td>
<td>Vennix (2000)</td>
</tr>
<tr>
<td><strong>Working status</strong></td>
<td><strong>Ik ben (een).</strong></td>
<td>Vennix (2000)</td>
</tr>
</tbody>
</table>

Figure 2. Semantic differential measuring brand loyalty (Bennet and Rundle-Thiele, 2002).

3: Een maaltijdbox kopen bij de aanbieder die mijn voorkeur heeft vind ik:

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Slecht</td>
<td>___ : ___ : ___ : ___ : ___ : Goed</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Onplezierig</td>
<td>___ : ___ : ___ : ___ : ___ : Plezierig</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ongunstig</td>
<td>___ : ___ : ___ : ___ : ___ : Gunstig</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negatief</td>
<td>___ : ___ : ___ : ___ : ___ : Positief</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ongewenst</td>
<td>___ : ___ : ___ : ___ : ___ : Gewenst</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dom</td>
<td>___ : ___ : ___ : ___ : ___ : Slim</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Onwaarschijnlijk</td>
<td>___ : ___ : ___ : ___ : ___ : Waarschijnlijk</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
4. Results

This chapter will elaborate on the execution of the analysis and presents the results. First, the descriptive statistics are presented with the help of a table. Second, the assumptions for a regression analysis are checked. Subsequently, the outcome of this analysis is presented.

4.1 Sample

This study used an online questionnaire developed and distributed with the program Qualtrics to generate responses. The age boundaries were set from 18 to 70 years old. The total amount of responses that were received was 219. By cleaning the data, 28 responses proved to be not complete, so these responses were deleted from the data set. After that, there were no outliers or contractionary answers identified. Therefore, the total valid responses are N = 191. In the method section it is explained why 191 valid responses are sufficient to conduct a regression analysis with the number of independent and moderating variables used in this study.

The average age of the respondents is 38. This is because the survey is deliberately distributed to people of all ages within the age boundaries. The intention was to have all ages represented evenly to counter the over presentation of one age or status group because this potentially distorts the results. Because the average age is 38, and most people of that age have a job in the Netherlands, the status of most of the respondents is that they have a job.

The total group of respondents is randomly split into two groups because this study compares two manipulations. Group 1 consisted of 94 respondents who were given the AlbertHeijn manipulation. Group 2 consisted of 97 respondents who were given the HelloFresh manipulation.

The descriptive statistics are listed in Table 2.

Table 2. Descriptive statistics

<table>
<thead>
<tr>
<th>Item</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchase Intention</td>
<td>191</td>
<td>1</td>
<td>7</td>
<td>3.33</td>
<td>1.765</td>
</tr>
<tr>
<td>Price</td>
<td>191</td>
<td>2.00</td>
<td>6.40</td>
<td>4.3518</td>
<td>.89336</td>
</tr>
<tr>
<td>Effort reduction</td>
<td>191</td>
<td>1.00</td>
<td>6.67</td>
<td>3.3281</td>
<td>1.1598</td>
</tr>
<tr>
<td>Healthiness</td>
<td>191</td>
<td>2.20</td>
<td>7.00</td>
<td>5.4848</td>
<td>.74278</td>
</tr>
<tr>
<td>Loyalty</td>
<td>191</td>
<td>1.20</td>
<td>4.75</td>
<td>3.0521</td>
<td>.84558</td>
</tr>
</tbody>
</table>
Before conducting the regression analysis, a couple of assumptions must be met to be able to conduct a valid analysis. In this section it is discussed how the data is tested to meet the assumptions for the analysis.

First, all continuous variables are mean centred to avoid multicollinearity issues and enhance interpretability of the results (Field, 2014). For the nominal variables group, gender and working status dummy variables are constructed.

Second, a reliability analysis is conducted to check for the internal consistency of the items measuring the different constructs. The items measuring a construct must have a Cronbach’s Alpha higher than 0.70 to be consistent enough (Field, 2014). The Cronbach’s Alpha values can be found in Table 1. For purchase intention, familiarity and age there is only one item in the questionnaire which measures the construct, so Cronbach’s Alpha is not relevant for these constructs (Field, 2014). The control variable gender and status are nominal variables, so a Cronbach’s alpha is also not relevant (Field, 2014).

Table 3. Correlation table
Table 3. shows that no variable has a Pearson’s correlations coefficient higher than .85 which would by an indication of multicollinearity (Field, 2014). Therefore, all variables can be used in the regression analysis.

Third, it is checked if the variables are normally distributed. This is done by analysing the skewness and kurtosis of the variables (Field, 2014). In SPSS, the histograms with normal curves are checked and all variables seem to be normally distributed. It is also checked if skewness/standard error of Skewness and kurtosis/standard error of kurtosis does not exceed their limits. Field (2014) states that the limits are between -3 and 3 for both calculations. There are some values that need further attention.

First, healthiness has a skewness of \(-1.067/\sqrt{176} = -6.062\). This indicates that most scores are above the average score. This means that most respondents find healthiness to be important. With an opinion it is possible that every respondent has roughly the same opinion which is reflected by the skewness (Field, 2014). This is reflected by the kurtosis \(3.332/\sqrt{350} = 9.52\). This means that the responses do not deviate much from each other regarding healthiness (Field, 2014). Second, purchase intention has a kurtosis of \(-1.258/\sqrt{350} = -3.594\). This means that the responses deviate much from each other. Third, familiarity with meal kits has a skewness of \(1.044/\sqrt{176} = 5.932\). This indicates that most respondents are not familiar with meal-kits. Fourth, age has a kurtosis of \(-1.416/\sqrt{350} = -4.046\). This indicates that the
scores deviate much from each other which is good because all ages are represented. Fifth and final, status has a kurtosis of $3.623/0.350 = 10.351$. This indicates that the scores do not deviate much from each other. When looking at the graph it shows that most respondents have the status of currently working which explains the high value of the kurtosis.

The next assumption that must be met to be able to conduct a regression analysis is linearity of the variables. This is done by checking if the polynomials are not significant. All variables are tested by compare means – means after which the ANOVA table shows the value of Deviation from Linearity which must be $>.05$ to be non-significant. All variables have a value of $>.05$ and therefore can be included in the regression analysis.

Subsequently, a ZPRED and ZRESID plot is constructed to check if there is a pattern in the data. The requirement is that there must be no pattern because this would indicate heteroscedasticity of the data. The scatterplot shows that there is no pattern in the data, so the requirement of homoscedasticity is fulfilled. This means that the error term is the same across all values of the independent variables (Field, 2014). The scatterplot can be found under Appendix II.

Thereafter, an ANOVA table is constructed in SPSS to check whether all variables can be included in the regression analysis. The significance of the F-test ($F = 8.926$, $p = .000$) implicates that the regression model is significant (Field, 2014). Table 4 shows the exact results of the ANOVA and can be found in Appendix III.

The model summary gives the R Square which indicates how much of the total variance is explained by the model (Field, 2014). The higher this number the better. The R Square for this model is .449. This indicates that the model explains 44.9% of the variance. Most variables are not significant with an alpha of .05. Only the control variable age is significant. Because only one model is used in this analysis the adjusted R Square is not interpreted. That is because the adjusted R Square is for comparing models (Field, 2014) Table 5 shows the model summary.

Table 5. Model summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.670^b</td>
<td>.449</td>
<td>.395</td>
<td>1.37285</td>
</tr>
</tbody>
</table>

All variables are listed with their Beta values in Table 6. In contrast to H1, price has no effect on purchase intention ($ß = -.220$, $p = .189$). The results also show that effort reduction has no
effect on purchase intention ($\beta = .202, p = .124$) which contrasts with H2. In contrast to H3, healthiness has no effect on purchase intention ($\beta = .146, p = .494$).

For the moderating effect of the difference between specialized providers and grocery stores three hypotheses were tested. Contrary to H4a, specialized versus grocery has no moderating effect on the relationship between price and purchase intention ($\beta = -.005, p = .982$). In contrast to H4b, specialized versus grocery store has no moderating effect on the relationship between effort reduction and purchase intention ($\beta = -.187, p = .297$). Surprisingly, specialized versus grocery has no moderating effect on the relationship between healthiness and purchase intention ($\beta = -.177, p = .533$).

To test the moderating effect of brand loyalty three hypotheses were formulated. Contrary to H5a, brand loyalty has no moderating effect on the relationship between price and purchase intention ($\beta = -.005, p = .973$). In contrast to H5b, brand loyalty has no moderating effect on the relationship between effort reduction and purchase intention ($\beta = .133, p = .188$). Also contradictory to H5c, brand loyalty has no moderating effect on the relationship between healthiness and purchase intention ($\beta = -.150, p = .360$).

The control variables central in this study were familiarity with meal-kits, age, gender and status. Only age has an effect on purchase intention ($\beta = -.033, p = .001$). Surprisingly, familiarity with meal-kits has no effect on purchase intention ($\beta = .264, p = .071$). Gender has no effect on purchase intention. Male ($\beta = -.060, p = .785$) and female ($\beta = .060, p = .785$). To conclude, working status also has no effect on purchase intention. Student ($\beta = -.497, p = .104$), working ($\beta = .497, p = .104$), retired ($\beta = .803, p = .293$) and different ($\beta = -1.201, p = .100$).

Table 6. Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>3.518</td>
<td>.190</td>
<td>18.532</td>
<td>.000</td>
</tr>
<tr>
<td>Price</td>
<td>-.220</td>
<td>.167</td>
<td>-.112</td>
<td>-1.139</td>
</tr>
<tr>
<td>Effortreduction</td>
<td>.202</td>
<td>.131</td>
<td>.133</td>
<td>1.544</td>
</tr>
<tr>
<td>Healthiness</td>
<td>.146</td>
<td>.214</td>
<td>.062</td>
<td>.685</td>
</tr>
<tr>
<td>Loyalty</td>
<td>.766</td>
<td>.157</td>
<td>.374</td>
<td>4.889</td>
</tr>
<tr>
<td>AlbertHeijn</td>
<td>-.157</td>
<td>.209</td>
<td>-.045</td>
<td>-.752</td>
</tr>
<tr>
<td>HelloFresh</td>
<td>.157</td>
<td>.209</td>
<td>.045</td>
<td>.752</td>
</tr>
<tr>
<td>Loyalty_Price</td>
<td>-.005</td>
<td>.136</td>
<td>-.002</td>
<td>-.034</td>
</tr>
<tr>
<td>Loyalty_Effortreduction</td>
<td>.133</td>
<td>.100</td>
<td>.080</td>
<td>1.323</td>
</tr>
<tr>
<td>Loyalty_Healthiness</td>
<td>.150</td>
<td>.164</td>
<td>.057</td>
<td>.917</td>
</tr>
<tr>
<td>AlbertHeijn_Price</td>
<td>-.005</td>
<td>.238</td>
<td>-.002</td>
<td>-.023</td>
</tr>
<tr>
<td>AlbertHeijn_Effortreduction</td>
<td>.187</td>
<td>.179</td>
<td>-.088</td>
<td>-1.046</td>
</tr>
<tr>
<td>AlbertHeijn_Healthiness</td>
<td>-.177</td>
<td>.284</td>
<td>-.055</td>
<td>-.624</td>
</tr>
<tr>
<td>Familiarity</td>
<td>.264</td>
<td>.145</td>
<td>.138</td>
<td>1.817</td>
</tr>
</tbody>
</table>
4.3 Robustness checks

An additional analysis is conducted to see whether a median split of the continuous variables result in interesting insights. Because all hypotheses are not significant, it is checked if this is due to the operationalization of the variables. The procedure of a median split means splitting your data file in two groups regarding a continuous variable. Group 1 is every respondent with a value above the median and group 0 is every respondent below the median value of the variable. By doing this you can compare groups based on high and low values regarding a variable. The continuous variables were a median split is conducted for are price, effort reduction, healthiness and brand loyalty. Some interesting findings are the result of the robustness check. First, healthiness has a significant effect on purchase intention ($\beta = -1.683$, $p = .027$) which means that healthiness has a significant effect on purchase intention when it is operationalized as a dichotomous variable which causes H3 to be accepted. Second, the moderating effect of brand loyalty on the relationship between healthiness and purchase intention is significant ($\beta = .549$, $p = .023$). When healthiness is operationalized as a dichotomous variable, hypothesis H5c would be accepted. Third, familiarity with meal-kits has a significant effect on purchase intention ($\beta = .321$, $p = .024$). This means that when price, effort reduction, healthiness and brand loyalty are operationalized as dichotomous variables, the familiarity with meal-kits has a significant effect on the purchase intention. Table 7. shows the results of the analysis when a median split is conducted for the variables price, effort reduction, healthiness and brand loyalty.

Table 7. Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>Price</td>
<td>.060</td>
<td>.718</td>
<td>.017</td>
<td>.083</td>
</tr>
<tr>
<td>Effortreduction</td>
<td>-.610</td>
<td>.716</td>
<td>-.173</td>
<td>-.852</td>
</tr>
<tr>
<td>Healthiness</td>
<td>-.1683</td>
<td>.756</td>
<td>-.472</td>
<td>-.226</td>
</tr>
<tr>
<td>Loyalty</td>
<td>.646</td>
<td>.303</td>
<td>.183</td>
<td>2.132</td>
</tr>
<tr>
<td>AlbertHeijn</td>
<td>.349</td>
<td>.418</td>
<td>.099</td>
<td>.835</td>
</tr>
<tr>
<td></td>
<td>HelloFresh</td>
<td>Loyalty_Price</td>
<td>Loyalty_Effortreduction</td>
<td>Loyalty_Healthiness</td>
</tr>
<tr>
<td>--------------------------</td>
<td>------------</td>
<td>--------------</td>
<td>-------------------------</td>
<td>---------------------</td>
</tr>
<tr>
<td></td>
<td>-0.349</td>
<td>0.418</td>
<td>-0.099</td>
<td>-0.835</td>
</tr>
<tr>
<td>Loyalty_Price</td>
<td>-0.068</td>
<td>0.227</td>
<td>-0.058</td>
<td>-0.298</td>
</tr>
<tr>
<td>Loyalty_Effortreduction</td>
<td>0.315</td>
<td>0.232</td>
<td>0.303</td>
<td>1.358</td>
</tr>
<tr>
<td>Loyalty_Healthiness</td>
<td>0.549</td>
<td>0.240</td>
<td>0.508</td>
<td>2.288</td>
</tr>
<tr>
<td>AlbertHeijn_Price</td>
<td>-0.236</td>
<td>0.413</td>
<td>-0.056</td>
<td>-0.573</td>
</tr>
<tr>
<td>AlbertHeijn_Effortreduction</td>
<td>-0.577</td>
<td>0.422</td>
<td>-0.141</td>
<td>-1.365</td>
</tr>
<tr>
<td>AlbertHeijn_Healthiness</td>
<td>-0.241</td>
<td>0.433</td>
<td>-0.061</td>
<td>-0.558</td>
</tr>
<tr>
<td>Familiarity</td>
<td>0.321</td>
<td>0.140</td>
<td>0.167</td>
<td>2.283</td>
</tr>
<tr>
<td>Age</td>
<td>-0.030</td>
<td>0.010</td>
<td>-0.244</td>
<td>-2.979</td>
</tr>
<tr>
<td>Female</td>
<td>0.112</td>
<td>0.214</td>
<td>0.031</td>
<td>0.521</td>
</tr>
<tr>
<td>Male</td>
<td>-0.112</td>
<td>0.214</td>
<td>-0.031</td>
<td>-0.521</td>
</tr>
<tr>
<td>Student</td>
<td>-0.521</td>
<td>0.297</td>
<td>-0.125</td>
<td>-1.752</td>
</tr>
<tr>
<td>Working</td>
<td>0.521</td>
<td>0.297</td>
<td>0.132</td>
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<tr>
<td>Retired</td>
<td>0.489</td>
<td>0.776</td>
<td>0.040</td>
<td>0.630</td>
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<tr>
<td>Different(status)</td>
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</table>

a. Dependent Variable: PurchaseIntention
5. Discussion

This chapter elaborates on the findings of this study. This study mainly focused on checking whether the drivers price, effort reduction and healthiness had an effect on the purchase intention for meal-kits while taking the moderating effect of brand loyalty and the difference between specialized providers versus grocery stores into consideration. The online survey developed specifically for this study generated the data that is used to validate the hypotheses. By comparing the results to the literature this study generates some theoretical and practical implications. This chapter concludes with the limitations of this study and some suggestions for future research.

5.1 Theoretical contributions

The increasing popularity of meal-kits in Western society resulted in many companies that specialized in delivering meal-kits. Traditional retailers soon followed their example by selling meal-kits in their shops. Meal-kits being a relatively new form of convenience food is a topic that is understudied. A better understanding of what exactly drives consumers to buy meal-kits is beneficial for both specialized providers and grocery stores (Brunner et al., 2010; Hertz and Halkier, 2017; Daniels and Glorieux, 2015). This study explores how the aspects price, effort reduction and healthiness of meal-kits drive the purchase intention of consumers. The difference between specialized providers and grocery stores as well as the effect of brand loyalty is also considered. By conducting a regression analysis, it was found that the price, effort reduction and the healthiness of meal-kits does not affect the purchase intention of consumers. Furthermore, there is no difference between specialized providers and grocery stores and brand loyalty does not have an effect on the drivers. This study used a sample of 191 Dutch consumers. The five key findings and their implications will be discussed below.

First, the price of a meal-kit has no effect on the purchase intention of consumers. This contradicts multiple authors who found that price is one of the most important factors in determining the purchase intention of consumers (Chang and Wildt; Zeithmal, 1988; Brunner, 2010; Lewis and Shoemaker, 1997; Dickson et al., 1985). Price together with product features determine to a large extent to what level a consumer has the intention to buy a product (Chang and Wildt, 1994; Zeithaml, 1988). Meal-kits differ from traditional convenience food in that they are more expensive (French et al., 2010). Meal-kits has been classified as semi-convenience food (Daniels and Glorieux, 2015) but this distinction from traditional
convenience foods does not cause consumers to be price sensitive. Price having no effect on the purchase intention can be explained by the fact that the product attributes of a meal-kits are known before the purchase. Therefore, consumers depend less on price as being an indicator of the quality of the meal-kits (Chang and Wildt, 1994). Furthermore, meal-kits are perceived as being expensive and mostly being bought by consumers with a relatively high disposable income (French et al., 2010). These individuals care less about the price but tend to value the benefits of a meal kit more (French et al., 2010). With meal-kits being a relatively understudied research topic the insight that price does not have an effect on the purchase intention of consumers contradicts the suggestion that price is an important factor when considering the purchase intention of meal-kits. This is in line with the literature on convenience foods which state that consumers of convenience food are not price sensitive (Nayga, 1996; Jensen and Yen, 1996; Prochaska and Schrimper, 1973). The assumption that consumers of meal-kits will better analyse its attributes such as price and therefore be more price sensitive compared to convenience food is wrong (Petty and Cacioppo, 1986a). Increasing income, women participating more in the labour force, changing household demographics and changing lifestyles are reasons for consumers of convenience food to be price insensitive. These factors can also explain why consumers of meal-kits are not price sensitive because meal-kits are in essence convenience food because they reduce time and effort (Brunner et al., 2010; Hertz and Halkier, 2017; Jensen and Yen, 1996).

Second, the amount of effort reduction has no effect on the purchase intention of consumers. The reduction of effort is one of the main reasons people buy convenience foods (Brunner, 2010; Hertz and Halkier, 2017; Costa et al., 2007). Meal-kits are semi-convenience foods because they reduce some effort but still need effort in the form of making the meal. The fact that effort reduction has no effect on the purchase intention of consumers of meal-kits contradicts the literature on convenience food (Brunner et al, 2010; Hertz and Halkier, 2017; Costa et al, 2007). This can be explained by the fact that meal-kits are semi-convenience foods and people who buy them are prepared to put in some effort but not as much as making a traditional meal (Daniels and Glorieux, 2015). Moreover, the finding that effort reduction does not affect the purchase intention for meal-kits indicates that meal-kits differ from convenience food and should be treated differently when being examined.

Third, the healthiness of a meal-kit has no effect on the purchase intention of consumers. This finding indicates that healthiness is not an important factor for consumers when considering buying a meal-kit. This is contradictory to the literature on convenience foods where healthiness does play an important role (Geeroms et al., 2008; Brunner, 2010;
Steptoe et al., 1996). The difference between convenience foods and meal-kits being semi-convenience foods can explain why healthiness is less important for meal-kits. People who buy meal-kits value the aspect that it cost less time and effort to make dinner. The aspect of a meal-kit having good nutritional value or containing a lot of vitamins is not as important in influencing the purchase intention as expected. This means that the aspect of healthiness which is found to be an important factor for the choice of food by many authors (Geeroms et al., 2008; Steptoe et al., 1996; Brunner et al., 2010; McIntosh, 1996) does not apply to meal-kits. With meal-kits being a relatively understudied topic the evidence that can explain this finding is lacking. When healthiness is operationalized as a dichotomous variable with high and low groups, it has a significant effect on purchase intention. This means that people who score high on healthiness, and thus find healthiness important, have a higher purchase intention compared to people who do not find healthiness important. This can be explained by the fact that meal-kits, compared to convenience food, are perceived as being healthier (Geeroms, 2008). Therefore, people who find healthiness important choose meal-kits because there good for their health.

Fourth, there is no evidence that there is a difference in drivers for the purchase intention of meal kits from specialized providers and of grocery stores. Some authors argue that there is an important difference in the perceived value of meal-kits from specialized providers versus grocery stores. (Nielsen, 2017; Moorhead, 2016; Hertz and Halkier, 2017) Therefore, it was expected that there would be a difference in the drivers affecting the purchase intention for both providers. No evidence supported this assumption. This finding indicates that there is no difference in drivers for the purchase of meal-kits from specialized providers and grocery stores. This can be explained by the fact that the two providers central in this study, HelloFresh and AlbertHeijn, did not vary much in the eyes of the consumer regarding price, effort reduction or healthiness. The fact that both providers are perceived roughly the same can be explained by the popularity of both providers. HelloFresh is the most popular meal-kit delivery service in the Netherlands and AlbertHeijn is the most popular grocery store (Nielsen, 2017; Meijsen, 2017). As a result, the opinion of the Dutch consumers is generally positive about the provider there familiar with. Furthermore, AlbertHeijn started selling meal-kits as a reaction to the success of specialized providers such as HelloFresh (AlbertHeijn, 2019). Because their meal-kits have to compete with meal-kits from for example HelloFresh, they must offer a comparable alternative. When they offered an inferior meal-kit regarding product attributes and overall quality, no consumer would prefer the meal-kits from AlbertHeijn over the meal-kits from HelloFresh. there is no difference in drivers for
the purchase intention for both providers, which indicates that there is no perceived value difference between specialized providers and grocery stores. Thus, the notion that there exists a difference must be reviewed (Hertz and Halkier, 2017; Nielsen, 2017; Moorhead, 2016).

Fifth, brand loyalty has no moderating effect on the relationships between price, effort reduction and healthiness on the purchase intention of consumers but does affect purchase intention directly. The direct effect is in line with the literature on brand loyalty (Morgan and Hunt, 1994; Dick and Basu, 1994; Bloemer and Kasper, 1995; McIntosh and Locksin, 1997). The finding that brand loyalty has no moderating effect on price, effort reduction and healthiness indicates that there is no difference between loyal and non-loyal customers regarding the drivers price, effort reduction and healthiness. This contradicts authors that suggest that loyal customer are less price sensitive and care less about the amount of effort that is needed or the level of healthiness of a meal-kit than non-loyal customers do (Morgan and Hunt, 1994; Zeithaml et al., 1996). What this adds to the literature is that brand loyalty does increase the purchase intention of meal-kits but that this is not because the drivers are different for loyal customers compared to non-loyal customer. This is an interesting finding and it indicates that other factors than price, effort reduction and healthiness are important in causing loyal customers to have a higher purchase intention than non-loyal customers.

The control variables gender, working status and familiarity with meal-kits have no effect on the purchase intention for meal-kits. On the other hand, age does have an effect on the purchase intention of meal-kits. The younger consumers are the higher their purchase intention is for meal-kits. This can be explained by the fact that younger people are more aware of the existence of meal-kits and are eager to learn new cooking skills (Hartman et al., 2013). Older people are in general more used to making a traditional meal. The fact that gender has no effect is contradictory to Hartman et al. (2013) who found that women had higher cooking skills and cooked more often compared to men. Working status has no effect which is contradictory to the expectation that people who had a job were busy and therefore more inclined to save time and effort by buying meal-kits. The familiarity with meal kits has no effect on the purchase intention. This contradicts the assumption that the more familiar people are with meal-kits the higher their purchase intention will be. This can be explained by the fact that familiarity will not per definition result in a higher purchase intention. Familiarity can also result in people not wanting to buy meal-kits because they are convinced that meal kits are too expensive or not healthy enough compared to traditional meals (Nielsen, 2017; Moorhead, 2016).
In sum, I conclude that the drivers price, effort reduction and healthiness are not important in determining the purchase intention for meal-kits. Furthermore, there is no difference in drivers for the purchase intention of meal-kits for specialized provider compared to grocery stores offering meal-kits. There also exist no difference in drivers for loyal customers compared to non-loyal customer. The age of consumer is important for the purchase intention because younger consumer have a higher purchase intention for meal-kits.

5.2 Practical implications

The results of this study offer guidelines for manager, marketers and practitioners of companies that offer meal-kits. First, this research suggests that managers of both specialized providers and grocery stores should not focus on price, effort reduction and healthiness of their meal-kits to increase the purchase intention of meal-kits. It is useful for managers to be aware of the fact that they can increase the price, increase the amount of effort that is needed or decrease the nutritional value and vitamins without it having an effect on the purchase intention of meal-kits. I would recommend, that managers who want to increase the purchase intention of their customers, to search for other aspects or product attributes that do have an effect on the purchase intention because those will be important areas of attention when developing a marketing strategy. One way to do this is to experiment with changes in recipes, cooking skills needed or to add vegetarian/vegan options (Brunner et al., 2010; Hertz and Halkier, 2017). This way managers can get an idea to what will increase purchases.

Second, there is no difference in drivers for the purchase intention of meal-kits for specialized providers and grocery stores. Therefore, a manager for AlbertHeijn must learn from actions and strategies that HelloFresh applies. If an action or marketing strategy from HelloFresh is successful AlbertHeijn can learn from it and apply some aspects of it in their own strategy. It will have roughly the same effect on the purchase intention of their customers because this study proved there is no perceived difference of the two providers. I would recommend managers from both providers to actively develop a distinct strategy that really stand out from the competition and is hard to imitate. This way is easier for consumer to feel connected to a brand when it conforms to their needs and preferences (Morgan and Hunt, 1994). This can also increase the chance to build a loyal customer base which is proven to be good for revenue and profit (Morgan and Hunt, 1994).

Third, managers must ensure brand loyalty. Loyalty has a direct effect on the purchase intention of their customer. As a result, loyal customers have a higher purchase intention for
meal-kits than non-loyal customer. What manager can do to create brand loyalty is using loyalty programs or giving discounts for repeat purchasing (McIntosh and Lockshin, 1997). Managers do not have to worry about altering the price, the level of effort that is needed or the level of healthiness because these drivers have the same effect on purchase intention for loyal and non-loyal customers. I would recommend adapting the marketing strategy to make the meal-kits as attractive as possible for all sorts of people. One way of doing this is to create different categories and excel in each category. For example, create menus based on nationalities such as Italian or Indian, or based on taste such as spicy food. Another option is to make meal-kits appealing for pro athletes and bodybuilders by including protein rich meal-kits. By creating those distinct categories consumers can feel connected, form a bond with a brand and ultimately become loyal customer (Zeithaml et al., 1994). Fourth, managers from both HelloFresh and AlbertHeijn must focus on aiming their marketing strategies on young individuals. These people have the highest purchase intention for meal-kits. One way of reaching these young individuals is by developing campaigns on social media platforms such as Facebook and Instagram (Tsimonis and Dimitriadis, 2014). They can develop all sorts of games and actions on social media that will enhance awareness and stimulate word of mouth advertising (Tsimonis and Dimitriadis, 2014). The best way to do this, is to create a social media department with young employees who are very familiar with the most popular social media platforms.

Mangers from HelloFresh and AlbertHeijn should not devote time and money into campaigns specifically aimed at women or people who have busy lives because gender and working status do not affect the purchase intention of consumers. I would recommend that manager devote attention to increase the familiarity with meal-kits. The robustness check showed that familiarity does play an important role for the purchase intention. One way of increasing familiarity is to give away free samples on busy places. If it is free, people who are hesitant to purchase a meal-kit will be more willing to try it. This will increase the familiarity with meal-kits for more consumers.

5.3 Limitations and future research

This study is subject to several limitations. First, the drivers price, effort reduction and healthiness are just one of the numerous factors playing a role in determining the purchase intention for meal-kits. When other significant drivers identified by Brunner et al. (2010) are
included in the analysis the results might be different. Second, the providers HelloFresh and AlbertHeijn are chosen because of their leading role in the meal-kit market. Their direct competitors like BlueApron and Jumbo have their own characteristics which makes their meal-kits unique which could result in different results. Therefore, the results cannot easily be applied to other providers of meal-kits. Third, this study is focused on the Dutch meal-kit market. Every country has its own cultural values (Hofstede, 1980) which can result in people in different regions and countries valuing different drivers for the purchase intention of meal-kits. Thus, the lack of attention to cultural values has potentially distorted the results. Fourth, the operationalization of familiarity with meal-kits only measures the frequency a person has bought meal-kits. This operationalization does not account for the familiarity with meal-kits as being positive or negative. This can explain why people who are familiar with meal-kits do not have a higher purchase intention than people who are not familiar. Fifth, loyalty is operationalized as attitudinal loyalty that people have towards brands. It is possible that people are loyal to the concept of meal-kits and cooking with it but do not care about which brand there from. This limits the findings regarding loyalty. Finally, the overall setup of the survey can explain the non-significant results. The questions about the drivers were not asked with regard to the specific meal-kits central in the survey. In other words, the questions about price, effort reduction and healthiness were asked regarding the overall concept of meal-kits. Therefore, the questions measuring the drivers did not measure the importance of the drivers for a meal-kit from HelloFresh or AlbertHeijn specifically, but for meal-kits in general.

With meal-kits being a relatively understudied topic, this study provides several interesting research avenues. First, while knowledge on the drivers of convenience food consumption and purchase intention has been well established, research into what drives people to purchase meal-kits is lacking. Therefore, more extensive research must be conducted to check to what extent all drivers that are found to have an effect on purchase intention of convenience food also hold for meal-kits. This study provides evidence that price, effort reduction and healthiness does not have an effect on the purchase intention but does not account for all the other drivers that could play a role. Second, this study compares two of the leading meal-kit providers, HelloFresh and AlbertHeijn, but leaves the other providers untouched. It would be interesting to compare other leading meal-kits providers to see if the results hold for those companies. It would also be interesting to compare the leading specialized providers with each other and the leading grocery stores with each other to uncover the role of specific firm characteristics. Third, this study focussed on the Dutch meal-kit market. It would be interesting to repeat this study in different countries and compare the
results. Further research could also take the cultural values distinguished by Hofstede (1980) into account. One question could be how the different cultural values such as risk aversion and masculinity/femininity result in different drivers for the purchase intention of meal-kits. Fourth, this study deliberately focussed on the brand level of attitudinal loyalty. However, further research could explore the effect of the individual level of attitudinal loyalty on the relationships between the drivers and the purchase intention for meal-kits. Moreover, the behavioural loyalty resulting form attitudinal loyalty can also be interesting to consider in future studies. Finally, for future research into the drivers price, effort reduction and healthiness, a survey must be developed in a way that measure the importance of the drivers specifically to one brand of meal-kits and not to the overall concept of meal-kits.

In conclusion, this study responds to the lack of knowledge on what drives people to buy meal-kits and attempts to shed light on the differences between specialized providers versus grocery stores and the role of brand loyalty. Despite the limitations mentioned above, this study serves as an important step into building more knowledge about meal-kits. Future research can build upon the findings of this study and complement the methods used.
References.


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https://doi.org/10.1509/jmkg.66.1.15.18449


Appendixes

Appendix I: Survey

Survey

Two questionnaires are developed for this study that are designed to measure the purchase intention for meal-kits. Half of the respondents will be confronted with meal-kits from HelloFresh and the other half with a meal-kit from AlbertHeijn. In both questionnaires the respondents will be asked about their consumer characteristics like price, effort reduction and healthiness and how these affect their purchase decision. Finally respondents are asked about their level of loyalty towards the provider of meal-kits and how this affects their purchase decision. Two questionnaires are developed to measure how respondents react to different manipulations.

Enquête 1

Hallo, mijn naam is Tom van Schijndel en ik ben momenteel aan het afstuderen voor de masteropleiding marketing aan de Radboud Universiteit in Nijmegen. Voor mijn scriptie doe ik onderzoek naar de aankoop intentie van mensen voor maaltijdboxen. Een maaltijdbox is een pakket waarmee u een volledige maaltijd kunt maken. Het pakket bevat alle benodigde ingrediënten en een instructie die je uitlegt hoe je het gerecht moet maken. Het is niet erg als u niet bekend bent met het concept. Deze vragenlijst is bedoeld voor mensen tussen de 18 en 70 jaar oud. Uw antwoorden zullen volledig anoniem blijven en enkel voor dit onderzoek gebruikt worden. Het duurt ongeveer 10 minuten om de vragenlijst in te vullen. Lees onderstaande introductie goed door voordat u begint. Alvast hartelijk bedankt voor uw deelname.

Stel u bent op zoek naar inspiratie voor het maken van een gerecht voor het diner. U wilt iets nieuws uitproberen wat niet veel tijd of moeite in beslag neemt. De maaltijdbox kan dan een interessante optie zijn. Er zijn verschillende bedrijven die maaltijdboxen aanbieden. Er zijn bedrijven die ze online aanbieden en ze vervolgens bezorgen maar ook steeds meer supermarkten hebben ze in de schappen liggen. Hierdoor hoeft u zich geen zorgen meer te maken over de vraag: “Wat gaan we vanavond eten?”

Hieronder ziet u een maaltijdbox van de online aanbieder HelloFresh. Kunt u aangeven wat uw aankoop intentie is? Met aankoop intentie wordt uw voornemen om de maaltijdbox te kopen bedoeld. De antwoord categorieën lopen van 1 = lage aankoopintentie tot 7 = hoge aankoopintentie.
Bovenstaande maaltijdbox bevat 3 maaltijden voor 4 personen en kost 61,95.

Wat is uw aankoopintentie?

Lage aankoopintentie  1  2  3  4  5  6  7  Hoge aankoopintentie

De volgende vragen gaan over uw consumenten karakteristieken die wellicht een rol kunnen spelen wanneer u overweegt om een maaltijdbox aan te schaffen. Per karakteristiek volgen een aantal stellingen. De antwoordcategorieën lopen van 1 = helemaal niet mee eens tot 7 = helemaal mee eens.

Prijs

1: De prijs van een maaltijdbox is voor mij een indicator van de kwaliteit.

Helemaal niet mee eens  1  2  3  4  5  6  7  Helemaal mee eens

2: Ik vind maaltijdboxen te duur in verhouding tot wat je ervoor krijgt.

Helemaal niet mee eens  1  2  3  4  5  6  7  Helemaal mee eens
3: Een ‘traditionele’ maaltijd maken is goedkoper dan een maaltijdbox. (Met traditioneel wordt een maaltijd bedoelt die zelf bedacht, ingekocht en gemaakt is.)
Helemaal niet mee eens  1  2  3  4  5  6  7  Helemaal mee eens
4: Voor de voordelen die een maaltijdbox heeft moet je veel betalen.
Helemaal niet mee eens  1  2  3  4  5  6  7  Helemaal mee eens
5: Ik koop geen maaltijdboxen omdat ik hierdoor geld bespaar.
Helemaal niet mee eens  1  2  3  4  5  6  7  Helemaal mee eens

Inspanning
1: Wanneer ik kook probeer ik hier zo min mogelijk tijd aan te besteden.
Helemaal niet mee eens  1  2  3  4  5  6  7  Helemaal mee eens
2: Als ik thuis ben eet ik het liefst maaltijden die snel klaar zijn.
Helemaal niet mee eens  1  2  3  4  5  6  7  Helemaal mee eens
3: Het is tijdsverspilling om een ‘traditionele’ maaltijd klaar te maken. (Met traditioneel wordt een maaltijd bedoelt die zelf bedacht, ingekocht en gemaakt is.)
Helemaal niet mee eens  1  2  3  4  5  6  7  Helemaal mee eens
4: Hoe minder fysieke energie het maken van een maaltijd me kost hoe beter.
Helemaal niet mee eens  1  2  3  4  5  6  7  Helemaal mee eens
5: Koken betekent fysieke inspanning en dat probeer ik te vermijden als dit mogelijk is.
Helemaal niet mee eens  1  2  3  4  5  6  7  Helemaal mee eens
6: Wanneer ik kook, probeer ik de fysieke inspanning van koken zo laag mogelijk te houden.
Helemaal niet mee eens  1  2  3  4  5  6  7  Helemaal mee eens
7: Ik heb vaak geen zin om een maaltijd te bedenken.
Helemaal niet mee eens  1  2  3  4  5  6  7  Helemaal mee eens

8: Wanneer ik kook, probeer ik de mentale inspanning tijdens het koken zo laag mogelijk te houden.
Helemaal niet mee eens  1  2  3  4  5  6  7  Helemaal mee eens

9: Hoe minder ik hoef na te denken over wat we gaan eten hoe beter.
Helemaal niet mee eens  1  2  3  4  5  6  7  Helemaal mee eens

**Gezondheid**

Ik vind het belangrijk dat een maaltijdbox... (maak de stelling af)

1: *Veel vitamineën en mineralen moet bevatten.*
Helemaal niet mee eens  1  2  3  4  5  6  7  Helemaal mee eens

2: *Me gezond houdt.*
Helemaal niet mee eens  1  2  3  4  5  6  7  Helemaal mee eens

3: *Voedzaam is.*
Helemaal niet mee eens  1  2  3  4  5  6  7  Helemaal mee eens

4: *Veel eiwitten bevat.*
Helemaal niet mee eens  1  2  3  4  5  6  7  Helemaal mee eens

5: *Veel vezels bevat.*
Helemaal niet mee eens  1  2  3  4  5  6  7  Helemaal mee eens
Loyaliteit van klanten

Deze vragen gaan over de aanbieder van maaltijdboxen die centraal staat in deze vragenlijst. De aanbieder is HelloFresh.

1: Kunt u aangeven hoe groot u toewijding is ten opzichte van HelloFresh?

Niet toegewijd 1 2 3 4 5 Toegewijd

2: Kunt u aangeven hoe groot u toewijding is ten opzichte van maaltijdboxen van HelloFresh?

Niet toegewijd 1 2 3 4 5 Toegewijd

Hieronder vindt u een schaal die gaat over uw houding ten opzichte van HelloFresh. Kunt u bij elke rij aangeven wat uw mening het beste weerspiegelt. Het is de bedoeling dat u één vakje aanklikt.

3: Een maaltijdbox kopen bij de aanbieder die mijn voorkeur heeft vind ik:

Slecht  _____  :  _____  :  _____  :  _____  :  _____  :  Goed
Onplezierig  _____  :  _____  :  _____  :  _____  :  _____  :  Plezierig
Ongunstig  _____  :  _____  :  _____  :  _____  :  _____  :  Gunstig
Negatief  _____  :  _____  :  _____  :  _____  :  _____  :  Positief
Ongewenst  _____  :  _____  :  _____  :  _____  :  _____  :  Gewenst
Dom  _____  :  _____  :  _____  :  _____  :  _____  :  Slim
Onwaarschijnlijk  _____  :  _____  :  _____  :  _____  :  _____  :  Waarschijnlijk

4: Kunt u aangeven in hoeverre het eens ofwel oneens bent met de volgende stelling: Ik zou de aanbieder die mijn voorkeur heeft aan anderen aanbevelen.

Helemaal niet mee eens 1 2 3 4 5 Helemaal mee eens

Bekendheid met maaltijdboxen

De volgende vraag gaat over uw bekendheid met het koken met een maaltijdbox.

Hoe vaak kookt u met een maaltijdbox?

Nooit 1 2 3 4 5 Altijd

Persoonlijke gegevens
Wat is uw leeftijd?

...

Wat is uw geslacht?
0 man 0 vrouw 0 anders

Ik ben (een)
0 student 0 werkende 0 gepensioneerde 0 anders

Hartelijk dank voor uw deelname aan dit survey. Uw antwoorden zijn anoniem opgeslagen en zullen alleen voor dit onderzoek gebruikt worden. Bij eventuele vragen/opmerkingen of wanneer u na afronding van het onderzoek de resultaten wilt inzien mail T.vanschijndel@fm.ru.nl.
Enquête 2

Hallo, mijn naam is Tom van Schijndel en ik ben momenteel aan het afstuderen voor de masteropleiding marketing aan de Radboud Universiteit in Nijmegen. Voor mijn scriptie doe ik onderzoek naar de aankoop intentie van mensen voor maaltijdboxen. Een maaltijdbox is een pakket waarmee u een volledige maaltijd kunt maken. Het pakket bevat alle benodigde ingrediënten en een instructie die je uitlegt hoe je het gerecht moet maken. Het is niet erg als u niet bekend bent met het concept. Deze vragenlijst is bedoeld voor mensen tussen de 18 en 70 jaar oud. Uw antwoorden zullen volledig anoniem blijven en enkel voor dit onderzoek gebruikt worden. Het duurt ongeveer 10 minuten om de vragenlijst in te vullen. Lees onderstaande introductie goed door voordat u begint. Alvast hartelijk bedankt voor uw deelname.

Stel u bent op zoek naar inspiratie voor het maken van een gerecht voor het diner. U wilt iets nieuws uitproberen wat niet veel tijd of moeite in beslag neemt. De maaltijdbox kan dan een interessante optie zijn. Er zijn verschillende bedrijven die maaltijdboxen aanbieden. Er zijn bedrijven die ze online aanbieden en ze vervolgens bezorgen maar ook steeds meer supermarkten hebben ze in de schappen liggen. Hierdoor hoeft u zich geen zorgen meer te maken over de vraag: “Wat gaan we vanavond eten?”

De volgende maaltijdbox wordt aangeboden door offline aanbieder AlbertHeijn. Kunt u aangeven wat uw aankoop intentie is? Met aankoop intentie wordt uw voornemen om de maaltijdbox te kopen bedoeld. De schaal loopt van 1 = lage aankoopintentie tot 7 = hoge aankoopintentie.
Bovenstaande maaltijdbox bevat 3 maaltijden voor 4 personen en kost € 51,50.

Wat is uw aankoopintentie?

Lage aankoopintentie 1  2  3  4  5  6  7  Hoge aankoopintentie

De volgende vragen gaan over uw consumenten karakteristieken die wellicht een rol kunnen spelen wanneer u overweegt om een maaltijdbox aan te schaffen. Per karakteristiek volgen een aantal stellingen. De antwoordcategorieën lopen van 1 = helemaal niet mee eens tot 7 = helemaal mee eens.

**Prijs**

1: *De prijs van een maaltijdbox is voor mij een indicator van de kwaliteit.*

Helemaal niet mee eens  1  2  3  4  5  6  7  Helemaal mee eens

2: *Ik vind maaltijdboxen te duur in verhouding tot wat je ervoor krijgt.*

Helemaal niet mee eens  1  2  3  4  5  6  7  Helemaal mee eens
3: Een ‘traditionele’ maaltijd maken is goedkoper dan een maaltijdbox. (Met traditioneel wordt een maaltijd bedoelt die zelf bedacht, ingekocht en gemaakt is.)

Helemaal niet mee eens  1  2  3  4  5  6  7  Helemaal mee eens

4: Voor de voordelen die een maaltijdbox heeft moet je veel betalen.

Helemaal niet mee eens  1  2  3  4  5  6  7  Helemaal mee eens

5: Ik koop geen maaltijdboxen omdat ik hierdoor geld bespaar.

Helemaal niet mee eens  1  2  3  4  5  6  7  Helemaal mee eens

**Inspanning**

1: Wanneer ik kook probeer ik hier zo min mogelijk tijd aan te besteden.

Helemaal niet mee eens  1  2  3  4  5  6  7  Helemaal mee eens

2: Als ik thuis ben eet ik het liefst maaltijden die snel klaar zijn.

Helemaal niet mee eens  1  2  3  4  5  6  7  Helemaal mee eens

3: Het is tijdsverspilling om een ‘traditionele’ maaltijd klaar te maken. (Met traditioneel wordt een maaltijd bedoelt die zelf bedacht, ingekocht en gemaakt is.)

Helemaal niet mee eens  1  2  3  4  5  6  7  Helemaal mee eens

4: Hoe minder fysieke energie het maken van een maaltijd me kost hoe beter.

Helemaal niet mee eens  1  2  3  4  5  6  7  Helemaal mee eens

5: Koken betekent fysieke inspanning en dat probeer ik te vermijden als dit mogelijk is.

Helemaal niet mee eens  1  2  3  4  5  6  7  Helemaal mee eens

6: Wanneer ik kook, probeer ik de fysieke inspanning van koken zo laag mogelijk te houden.

Helemaal niet mee eens  1  2  3  4  5  6  7  Helemaal mee eens
7: Ik heb vaak geen zin om een maaltijd te bedenken.
Helemaal niet mee eens 1 2 3 4 5 6 7 Helemaal mee eens

8: Wanneer ik kook, probeer ik de mentale inspanning tijdens het koken zo laag mogelijk te houden.
Helemaal niet mee eens 1 2 3 4 5 6 7 Helemaal mee eens

9: Hoe minder ik hoef na te denken over wat we gaan eten hoe beter.
Helemaal niet mee eens 1 2 3 4 5 6 7 Helemaal mee eens

Gezondheid
Ik vind het belangrijk dat een maaltijdbox... (maak de stelling af)

1: Veel vitamine en mineralen moet bevatten.
Helemaal niet mee eens 1 2 3 4 5 6 7 Helemaal mee eens

2: Me gezond houdt.
Helemaal niet mee eens 1 2 3 4 5 6 7 Helemaal mee eens

3: Voedzaam is.
Helemaal niet mee eens 1 2 3 4 5 6 7 Helemaal mee eens

4: Veel eiwitten bevat.
Helemaal niet mee eens 1 2 3 4 5 6 7 Helemaal mee eens

5: Veel vezels bevat.
Helemaal niet mee eens 1 2 3 4 5 6 7 Helemaal mee eens
Loyaliteit van klanten

Deze vragen gaan over de aanbieder van maaltijdboxen die centraal staat in deze vragenlijst. De aanbieder is AlbertHeijn.

1: Kunt u aangeven hoe groot u toewijding is ten opzichte van AlbertHeijn?
Niet toegewijd 1 2 3 4 5 Toegewijd

2: Kunt u aangeven hoe groot u toewijding is ten opzichte van maaltijdboxen van AlbertHeijn.
Niet toegewijd 1 2 3 4 5 Toegewijd

Hieronder vindt u een schaal die gaat over uw houding ten opzichte van AlbertHeijn. Kunt u bij elke rij aangeven wat uw mening het beste weerspiegelt. Het is de bedoeling dat u één vakje aanklikt.

3: Een maaltijdbox kopen bij de aanbieder die mijn voorkeur heeft vind ik:


4: Kunt u aangeven in hoeverre het eens ofwel oneens bent met de volgende stelling: Ik zou de aanbieder die mijn voorkeur heeft aan anderen aanbevelen.
Helemaal niet mee eens 1 2 3 4 5 Helemaal mee eens

Bekendheid met maaltijdboxen

De volgende vraag gaat over uw bekendheid met het koken met een maaltijdbox.

Hoe vaak kookt u met een maaltijdbox?
Nooit 1 2 3 4 5 Altijd
Persoonlijke gegevens

Wat is uw leeftijd?
...

Wat is uw geslacht?
0 man       0 vrouw       0 anders

Ik ben (een)
0 student   0 werkende    0 gepensioneerde 0 anders

Hartelijk dank voor uw deelname aan dit survey. Uw antwoorden zijn anoniem opgeslagen en zullen alleen voor dit onderzoek gebruikt worden. Bij eventuele vragen/opmerkingen of wanneer u na afronding van het onderzoek de resultaten wilt inzien mail T.vanschijndel@fm.ru.nl.

Appendix II: Figure 1. Scatterplot ZPRED and ZRESID
Appendix III: Table 4. ANOVA results

Table 4. ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
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<tr>
<td>1</td>
<td>Regression</td>
<td>265.818</td>
<td>17</td>
<td>15.636</td>
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<td></td>
<td>Residual</td>
<td>326.056</td>
<td>173</td>
<td>1.885</td>
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<td></td>
<td>Total</td>
<td>591.874</td>
<td>190</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

b. Predictors: (Constant), Price, Effortreduction, Healthiness, Familiarity, Age, Male, Student, Retired, different_status, AlbertHeijn, ModerationLoyalty_Price, ModerationLoyalty_Effortreduction, ModerationLoyalty_Healthiness, ModerationAlbertHeijn_Price, ModerationAlbertHeijn_effortreduction, ModerationAlbertHeijn_Healthiness