

Nijmegen School of Management – Master Thesis

The effect of monetary promotions on the purchase intention of hedonic versus utilitarian products when experiencing financial scarcity

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Abstract

Various types of products have been studied in the context of sales promotions. However, to our knowledge, the possible influence of financial scarcity has never been researched before. This study attempts to bridge this gap and therefore, the purpose of this research was to examine the possible moderating effect of financial scarcity on the effect of monetary promotions of hedonic and utilitarian products.

This was done via an online survey experiment with Qualtrics whereby participants had to answer questions about a utilitarian or hedonic product they were shown. The 265 respondents participated to the study, where randomly divided into the different groups. The chosen hedonic and utilitarian products were, respectively, crisps and rice. The product displayed was either with or without a monetary promotion. By answering the questions, the attractiveness of product offering and the purchase intention of respondents were measured while being exposed to the advertisement. First, the direct effect of the product type was examined on attractiveness of product offering and purchase intention. Second, the interaction effect of product type and financial scarcity was examined. Lastly, the interaction effect of product type, promotion and financial scarcity was examined.

The results showed a significant effect of promotions on the attractiveness and purchase intention of a utilitarian product. This was surprising because this was not proposed based on literature. Furthermore, a significant relationship between product type and financial scarcity on purchase intention was found, which was also contrary to the expectations. Lastly, the results showed that the interaction between product type, promotion and financial scarcity on attractiveness of product offering was not significant. However, the interaction between product type, promotion and financial scarcity on purchase intention was significant.

In conclusion, the effectiveness of a monetary promotion is differing per product type. In addition, financial scarcity has a moderating effect on the attractiveness and purchase intention of a product offering (with or without a promotion). Consumers who experience financial scarcity differ from the consumers who do not. Among other things, future research should try to examine the reasons behind the differentiating effect of financial scarcity more in-depth.

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1. Introduction

Sales promotions are often used to promote products and come in different shapes and forms. Two well-known categories of sales promotions are monetary and nonmonetary, but within those categories there is a broad range of sales promotion types. An example of a monetary promotion is a price discount (e.g., 50% off) and an example of a nonmonetary promotion is a free gift (e.g. a free beach bag when purchasing sun cream). A lot of research has been done about the effectiveness of sales promotions in general. Schultz and Block (2014) state that in the United States, coupons, home samples, in-store samples and retail shopper cards have the most influence on purchase behavior. McNeill (2013) states that in Malaysia and Singapore price discounts and volume offers are most effective. Mittal and Sethi (2011) state that buy-one-get-some-free offers are the most preferred in India, followed by bonus packs and price discounts. Thus, the effectiveness of sales promotions is country-dependent. Furthermore, there are studies about the difference in effectiveness of sales promotions within varying cultures (McNeill, 2013), ethnic groups (Kwok & Uncles, 2005) and online vs. offline channels (Arce-Urriza, Cebollada, & Tarira, 2017).

Prior research shows that the effectiveness of promotions is influenced by the type of products. A way to distinguish products is to categorize them as utilitarian or hedonic. To which category a product belongs depends on the benefits a product provides to consumers. Hedonic products provide practical, instrumental and functional benefits, whereas hedonic products provide emotional, sensational and experiential benefits (Batra & Ahtola, 1991; Hirschman & Holbrook, 1982; Lu, Liu, & Fang, 2016). This distinction aligns with the purchase goals set by Chitturi, Raghunathan and Mahajan (2008) which are more functionality-related goals with utilitarian products and more pleasure-related goals with hedonic products. Previous research has also sought to understand the relationship between the two promotion categories (monetary vs. nonmonetary) and the two product categories (hedonic vs. utilitarian). Chandon, Wansink and Laurent (2000) state a congruency effect, whereby monetary promotions are more effective for utilitarian products and non-monetary promotions are more effective for hedonic products. However, Kwok and Uncles (2005) argue that the congruency effect is influenced by various factors. For example, Sinha and Verma (2019) state that the relationship is influenced by the residential area of consumers. Urban consumers are more affected by sales promotion which are focused on the hedonic benefits, thus more focused on the pleasure aspects of the product. For rural consumers a sales promotion is more effective when it is focused on the utilitarian benefits, the more useful aspects of the product. Such findings raise questions about other factors influencing the effect

of promotions on the purchase decisions of hedonic and utilitarian products, one such factor being financial scarcity, to be considered next.

1.1 Problem statement

Financial scarcity is defined as a mindset in which people perceive that their income is too low to cover daily expenses (Mullainathan & Shafir, 2013). Financial scarcity is a relatively new subject in consumer psychology, related to poverty, which is a well-known phenomenon worldwide. Poverty within a household occurs when a household does not have sufficient resources to reach a certain minimum consumption level (Statistics Netherlands, n.d.). Poor households lack monetary resources and therefore experience financial scarcity. Even in developed countries, such as the Netherlands, financial scarcity often occurs within households. In 2019, more than 1 million people (6.2%) of the Dutch population were part of a household which lives below the low-income threshold. 398,000 Of those people were living under the low-income threshold for at least four subsequent years (Statistics Netherlands, 2020). Previous research shows financial scarcity has a lot of consequences on a person's daily life. For example, it has a negative effect on a person's social life (Mood & Jonsson, 2016), mental health (McKane & Richard, 2020), emotional state (Ali et al., 2018) and psychical health (Zukiewicz-Sobczak et al., 2014). Furthermore, financial scarcity creates cognitive load which influences how people experience problems and their decision-making process. People experiencing financial scarcity focus more on problems where the scarcity is most salient (Shah, Mullainathan, & Shafir, 2012). For example, the focus is on the upcoming supermarket visit and the rent for that month. When people have a low-income the thought about money is easily triggered and comes spontaneously. These thoughts are difficult to suppress once they are in the mind (Shah, Zhao, Mullainathan, & Shafir, 2018). This leads to the neglect of other problems because cognitive capacity is limited (Shah et al., 2012; Mani, Mullainathan, Shafir, & Zhao, 2013).

It is clear that financial scarcity has a lot of influence on a person's daily life, but it also influences a person as a consumer in their purchase behavior (Gbadamosi, 2009). The purchases made are based on habit and do not involve any brand loyalty. Research has shown that people with a low income are more aware of opportunity costs (Spiller, 2011) and surcharges or hidden taxes (Shah et al., 2012), indicating that this might make them more resilient against promotions whereby money is wasted. However, they are sensitive to sales promotion such as buy-one-get-one-free, free samples, coupons and discounts. The focus lies

on the value for money people get when purchasing (Gbadamosi, 2009). Therefore, the scope of this study is limited to monetary promotions.

However, the influence of monetary promotions on the intention to purchase different product types (hedonic vs. utilitarian) under different experiences of financial scarcity, has never been empirically tested. The purpose of this research is therefore to examine the possible moderating effect of financial scarcity on the effect of monetary promotions of hedonic and utilitarian products. The research question is as follows.

Does financial scarcity influence the effect of monetary promotions on the intention to purchase hedonic versus utilitarian products?

1.2 Research relevance

The insights generated by this study are two-fold. First, it will contribute to the upcoming topic of financial scarcity in consumer psychology. Up to now the topic of financial scarcity is mostly discussed within the area of social and cognitive psychology whereby current literature mostly focuses on the (negative) consequences of financial scarcity on a person's daily life. However, marketing scholars could also use the knowledge to understand the behavior of consumers who feel financially constrained. Furthermore, this study will add to the existing literature about the effectiveness of monetary promotions versus the type of product (hedonic vs. utilitarian). Various types of products have been studied in the context of sales promotions such as stock-up products versus nonstock-up products, high-risk-performance products versus low-risk-performance products and hedonic versus utilitarian products. However, an examination of the existent literature revealed that the possible influence of financial scarcity, to our knowledge, has never been researched. This study attempts to bridge this gap by examining the possible effect of financial scarcity on the effect of monetary promotions of hedonic and utilitarian products on both purchase intention and product offering attractiveness perceived by the consumer.

Second, it provides insights to marketing or product managers about the perception of product offerings, with and without monetary promotions, by financially constrained consumers and allows these managers to understand the role financial scarcity plays in the purchase behavior of these consumers. Previous research has shown that monetary promotions are highly effective by influencing brand switching, stockpiling and brand choice (Alvarez & Casielles, 2005; Bell, Iyer, & Padmanabhan, 2002; Gilbert & Jackaria, 2002). Furthermore, Gbadamosi (2008) has shown that monetary promotions are also effective for

financially constrained consumers, however this study deepens this knowledge by extending it to the type of product offered (hedonic versus utilitarian). This study will provide marketing or product managers with knowledge on how the effectiveness of monetary promotions differs with respect to product type (hedonic vs. utilitarian), and the consumer's financial situation. Nowadays, this type of knowledge is necessary because marketing practitioners increasingly need to use more knowledge about the consumer's needs and wants to get them to consider the offerings. Applying monetary promotion results in more sales, but it is a costly business for organizations and therefore knowledge about monetary promotions versus the type of product is useful for deciding on what type of product it is most useful to apply monetary promotions. This study focuses on convenience goods, however the two types of product (hedonics vs. utilitarian) also exist in other types of consumer goods such as shopping goods (Atkins & Kim, 2012). So, this study might be relevant to companies offering various types of goods. The findings will help managers to plan monetary promotions accordingly to the effective product type when targeting consumers.

1.3 Research structure

This study will start by providing the theoretical background in Chapter 2. This chapter will further elaborate on the three main topics of this study: (monetary) promotions, hedonic and utilitarian products, and financial scarcity. This chapter will result in formulating the hypotheses and drawing a conceptual model. After this, an elaboration on the methodology used during this study will be given in Chapter 3, results will be shown in Chapter 4, and Chapter 5 includes a discussion and provides practical and managerial implications, limitations and future research recommendations.

2. Theoretical background

2.1 Attractiveness of product offering and purchase intention

There are various ways to define and measure the effectiveness of sales promotions, for example, sales, profits or even market share (Kwok & Uncles, 2005). Effectiveness is also often measured with purchase likelihood (Homburg, Koschate, & Totzek, 2009; Kivetz & Zheng, 2017), deal proneness (Martínez & Montaner, 2006; Reid, Thompson, Mavondo, & Brunsø, 2015) or customer preference (Kwok & Uncles, 2005; Lowe, 2010; Roll & Pfeiffer, 2017). In this study the effectiveness of sales promotions is measured by product offering attractiveness and purchase intention. Attractiveness measurements are widely used in the literature, as for example, Büttner, Florack and Göritz (2015) measured promotion attractiveness and Thang and Tan (2003) measured store attractiveness. According to Khare, Achitani and Khattar (2014) promotions should enhance a consumer's feeling of pleasure and of getting a good deal to be perceived as attractive by a consumer, and store attractiveness is measured by the consumer preference for a store (Thang & Tan, 2003). Both examples show the attractiveness of a promotion is subjective. Product offering attractiveness is psychologically closer to the perception of a product offering than purchase intention, which follows the evaluation of the product offering (Howard & Sheth, 1969, p. 30). Thus, before a behavioral intention occurs a certain attitude precedes the intention. In this study, the attitude towards the product offering, in other words, the product offering attractiveness, precedes the purchase intention of a consumer.

When consumers are attracted by the product, either in-store or online, the next step is to examine what the influence of the sales promotions is on purchase intention. Purchase intention is a person's conscious plan to make an effort to purchase a product (Spears & Singh, 2004). Product offering attractiveness and purchase intention are related concepts, and therefore form the two dependent variables in this study.

2.2 Promotions: monetary vs. non-monetary promotions

In marketing there are two main categories of sales promotions: monetary and nonmonetary (Büttner et al., 2015; Diamond & Johnson, 1990; Leclerc, 1997), but they are also known as price and nonprice promotions. The definitions of monetary and nonmonetary promotions vary in the literature. Many scholars use prospect theory (Kahneman & Tversky, 1979) whereby monetary promotions are experienced as reducing losses, i.e., a 50% discount will decrease spending, and nonmonetary promotions are experienced as gains, i.e., buy-one-get-

one-free results into more products and thus more gains. However, this only partly fits the conceptualization of other researchers (Büttner et al., 2015; Sinha & Verma, 2017) whereby monetary promotions have a direct influence on the cost–benefit relationship of a product in two ways: by reducing the price of a product or by increasing the content of a product while charging the same price (e.g., 50% discounts or buy-one-get-one-free). On the other hand, nonmonetary promotions are promotions which do not have a direct influence on the cost–benefit relationship (e.g., gifts or coupons). In this study, the definition of Büttner et al. (2015) and Sinha and Verma (2017) is used because, for example, a buy-one-get-on-free promotion, in the end, always results in the reduction of money spent, assuming that a consumer spends the same amount of monetary resources every year for certain products. For example, if a consumer buys a bottle of shampoo for two euros and gets another bottle for free, it will reduce the money spent on shampoos in a year.

Additionally, within monetary and nonmonetary promotions different types of sales promotions exist. Hawkes (2009) provides a useful overview of the types of sales promotions including examples (see Table 1). The overview clearly shows the broad range of promotions.

Table 1: Types of sales promotions used for food products (Hawkes, 2009)

Type of promotion	Type of promotion according to definition (Monetary vs. nonmonetary)	Examples
Price discounts	Monetary	Direct price discounts (e.g. 50% off) Coupons Discounts for loyalty card members Refunds
Extra-product price promotion	Monetary	Buy-one-get-one-free Reduced price with-purchase (e.g. second product costs €1) Multi-purchase (e.g. three for the price of two) Bonus-sized packages
Premium promotions	Nonmonetary	Free-with-purchase gift Reduced-price-with-purchase gifts
Collector promotions	Nonmonetary	Collecting vouchers/food labels/beverage container tops in return for gift
Prize promotions	Nonmonetary	Sweepstakes Lotteries Instant wins

		Free draws
		Competitions
Sampling promotions	Nonmonetary	Taste samples
		Free samples attached to a product
Feature and display promotions *	Not applicable	Front-of-store display
		End-of-aisle display
		In-aisle display
		“shelf-talker” (graphic or sign that draws attention to the shelf)
		Instore flyers
		Instore banners
		Advertising at point-of-sale
		Food packages designed to attract attention
		Leaflets with recipes using products on sale
		Flyers containing nutritional information for products on sale

*This type of promotions does not provide a direct benefit for the customer.

Previous research shows that the effectiveness of monetary versus nonmonetary promotions is influenced by its context. For example, variety-seeking consumers generally prefer nonmonetary promotions and repetitive consumers—consumers who repeat their purchases and are therefore more brand loyal—prefer monetary promotions (Owens, Hardman, & Keillor, 2001; Roll & Pfeiffer, 2017). This preference is explained by the risk-taking mindset of variety-seeking consumers (Roll & Pfeiffer, 2017). Büttner et al. (2015) state that the effectiveness depends on the shopping orientation of consumers whereby consumers with a task-focused shopping orientation prefer monetary promotions and experiential-shopping-focused consumers have no preference for a certain type of promotion. The preference of task-focused consumers for monetary promotions is explained by Chandon et al. (2000) who show that monetary promotions provide more utilitarian benefits (e.g., monetary savings, product quality and shopping convenience) when shopping than nonmonetary promotions. Task-focused consumers want to shop as efficiently as possible and therefore monetary promotions provide the shopping benefits sought by the task-focused consumer. In contrast, nonmonetary promotions provide more hedonic benefits (e.g., value expression, entertainment and exploration). This fits the findings of Carpenter and Moore (2008) who state that US consumers perceive nonmonetary promotions as providing high levels of fun.

Furthermore, the level of promotional benefits plays a role in the effectiveness of promotions. A low promotional benefit has little monetary value and, in contrast, a high promotional benefit has a lot of monetary value. Premiums (nonmonetary) are more effective when the promotional benefit level is low, price discounts (monetary) are more effective when the promotional benefit level is high (Palazon & Delgado-Ballester, 2009). Other examples of factors influencing promotion effectiveness are the life-stage of the consumers, with families being more affected by promotions than pensioners (Felgate, Fearne, DiFalco, & Martinez, 2012), or the place of the promotional encounter, with isolated promotions being more effective for premium brands than traditional shelf promotions in persuading consumers to purchase. This is because isolated promotions decrease the focus on price and increase the focus on quality (Sheehan & Van Ittersum, 2021).

Previous research has shown that monetary promotions are noticed faster by consumers (Campbell & Diamond, 1990) and monetary promotions are more preferred by consumers than nonmonetary promotions (Banerjee, 2009; Kwok & Uncles, 2005). The reason consumers prefer monetary promotions to non-monetary promotions is that consumers seem to be value conscious and want to minimize costs when purchasing (Sharma, Wali, & Joshi, 2020). Another explanation might be that monetary promotions decrease the consumer's motivation to use cognitive thinking (Aydinli, Bertini, & Lambrecht, 2014). The purchase decisions of monetary promoted products are guided by affective processing which is easier and faster. In other words, an incentive to purchase can be a disincentive to think. Therefore, monetary promotions are more appealing for affect-rich products (e.g., a Snickers bar) than for more healthy products (e.g., crackers). Eventually, monetary promotions lead to brand switching and trying out new products with discounts, and to brand switching and stockpiling with buy-one-get-one-free (Bell et al., 2002; Gilbert & Jackaria, 2002). This behavior aligns with Alvarez and Casielles (2005) who show that price promotions—monetary promotions—have an influence on buying behavior and brand choice behavior. Furthermore, monetary promotions are effective for products with low consumer brand awareness as well as high consumer brand awareness (Alnazer, 2013).

To limit the scope, this study will focus on monetary promotions. The choice for monetary promotions will be further elaborated on in Section 2.6.

2.3 Products: utilitarian vs. hedonic

One way of categorizing products is the distinction between utilitarian and hedonic products. Utilitarian and hedonic products are categorized by the benefits provided to consumers. For utilitarian products these are practical, instrumental and functional, whereas hedonic products provide emotional, sensational and experiential benefits (Batra & Ahtola, 1991; Hirschman & Holbrook, 1982; Lu et al., 2016). Within a product group, both utilitarian and hedonic products can exist. For example, within the product group of shoes, there are shoes which are more utilitarian and can be worn throughout the whole year such as sneakers, whereas high heels are more hedonic because they are only worn on special occasions. Additionally, even within a product type such as sneakers, there can be a difference between utilitarian and hedonic sneakers (e.g. regular sneakers vs. limited edition sneakers). Although the type of product can be classified into a product category, the type of benefits provided to the consumer is not unique to the product (Vieira, Santini, & Araujo, 2018). A product such as sneakers can provide both utilitarian and hedonic benefits by, for example, fulfilling a functional need of the sneakers being waterproof and providing an emotional benefit of feeling cool when wearing these sneakers.

Previous research shows that the type of emotional reactions emerging from purchasing utilitarian products differ from that of hedonic products. Consuming utilitarian products enhances customer satisfaction by arousing emotions of confidence and security, whereas consuming hedonic products enhances customer delight by arousing emotions of cheerfulness and excitement. Additionally, consumers pursue various goals when purchasing the two types of categories. With utilitarian products, consumers pursue more functionality-related goals and with hedonic products, they pursue more pleasure-related goals (Chitturi et al., 2008).

Furthermore, consumers feel more guilt when they purchase hedonic products than when they purchase utilitarian products; a hedonic choice asks for an internal justification (Lu et al., 2016; Okada, 2005). Thus, with guilt comes the justification of choice. Nevertheless, guilt and justification are interrelated concepts. A sense of guilt may be a result of making an unjustifiable choice, but something might also be unjustifiable if there is guilt associated with it (Okada, 2005). Because guilt is associated with a hedonic choice, consumers prefer to purchase hedonic products more for others than for themselves (Lu et al., 2016). However, Botti and McGill (2011) state that a self-made choice is more satisfying than the choice made by someone else when it concerns a hedonic choice, but not when it is utilitarian. The two types of reasoning seem to contradict each other. By purchasing hedonic products for others,

consumers limit their sense of guilt. However, if others purchase hedonic products for them it is less satisfying than if consumers purchase hedonic products themselves. An explanation for this contradiction might be the type of hedonic choices used in the study of Botti and McGill (2011), which were visiting a museum and exercising, which might be considered as utilitarian by some. Okada (2005) argues that a hedonic choice might be more appealing, but a utilitarian choice is easier to justify.

Eventually, it is the consumer who makes the choice between the two options and although the process of decision-making is not the focal topic of this study, it is useful to address the two types of processing because it will help understand the differences between purchasing utilitarian versus hedonic products. Melnyk, Klein, and Völckner (2012) state that consumers use different processing strategies when choosing between utilitarian and hedonic products. With utilitarian products, consumers generally use an attributed-based cognitive elaboration strategy, and with hedonic products consumers use a holistic-based processing strategy. The differences in decision making among consumers also have to do with the cognitive capability of the consumer. If the processing capability of a consumer is low, immediately evoked affective reactions have a greater impact on choice, and therefore, the consumer is more likely to choose the option that scores highest on the affective dimension. In contrast, if the processing capability of a consumer is high, consumers base their decisions on cognitions, which leads to choosing the option that scores highest on the cognitive dimension (Shiv & Fedorikhin, 1999). Furthermore, the presentation of the choices also plays a role in the decision-making process of consumers. Between two comparable options, for example, two headphones one of which is hedonic and one is utilitarian, consumers tend to choose the utilitarian option over the hedonic option when the two options are displayed together. However, when the two options are displayed individually and separated, consumers tend to choose the hedonic option (Okada, 2005).

In short, hedonic and utilitarian products provide different benefits and cause different emotional reactions. Relatively much information-based cognitive processing is used with utilitarian products whereas more emotion-based affective processing is used with hedonic products. In this study, the most dominant benefit a product provides is considered decisive to categorize it in the hedonic or utilitarian product category (e.g., for toothpaste, this is cleaning teeth, and thus utilitarian).

2.4 Linking promotions to products

Prior research about the effect of promotions on the purchase decision concerning hedonic versus utilitarian products is limited and contradictory. Chandon et al. (2000) state that promotions are more effective when they provide benefits that are corresponding with the benefits provided by the promoted product. Thus, monetary promotions are more effective for utilitarian products (vs. hedonic products) and non-monetary promotions are more effective for hedonic products (vs. utilitarian products). However, this reasoning contradicts Montaner, De Chernatony and Bui (2011) who state that product type does not influence the effectiveness of gift promotions (nonmonetary) and Kwok and Uncles (2005) who show that monetary promotions are applicable for both types of products. Kwok and Uncles (2005) argue that the congruency effect between the type of promotion and the type of product is influenced by various factors. For example, nonmonetary promotions might be effective for utilitarian products because they provide the hedonic benefit which the product itself is missing. This aligns with Gill (2008) and Klein and Melnyk (2016) who state that utilitarian products can benefit from hedonic arguments because it enhances information processing followed by a positive effect on purchase intentions. Those hedonic benefits, such as exploration, entertainment, value expression and the enjoyment of gambling, can be provided by nonmonetary promotions (Reid et al., 2015). For hedonic products, the mismatch of arguments had no effect on promotion effectiveness.

As mentioned in Section 2.3 consumers feel more guilt when they purchase hedonic products and with guilt comes the justification of choice. Kivetz and Simson (2002) state that with nonmonetary promotions, as part of a loyalty program, hedonic products are more preferred as a gift, but this preference decreases when monetary costs are increased. For example, if a (luxury brand) lipstick or aftershave was offered for free in a loyalty program with a certain amount of points saved, consumers would prefer it to a utilitarian product (e.g., toothpaste). However, if an additional ten euros was asked for the lipstick or aftershave, the preference for the hedonic type of gift would decrease. Without monetary costs, the preference for hedonic products elicits an acceptable amount of guilt. This emphasizes the guilt paired with the purchase of hedonic products.

Kwok and Uncles (2005) argue that a way to decrease the sense of guilt associated with hedonic choices, is through monetary promotions. This aligns with the study of Kivetz and Zhen (2017) who state that both types of promotions have a larger effect on hedonic products than utilitarian products. This effect decreases when the justification for the hedonic purchase was established beforehand, the purchase quantity increased, or the decision for the

hedonic product was made by somebody else. The positive effect of promotions on hedonic purchases also decreased when the purchase was intended as a gift for others which aligns with the previously mentioned notion of Lu et al. (2016); consumers prefer to purchase hedonic products more for others than for themselves. Moreover, within monetary promotions, direct price discounts, compared to quantity promotions (extra-product-price promotions), are very effective in justifying and purchasing hedonic products. With a direct price discount, consumers only have to purchase one product, but with an extra-product-price promotion, consumers have to purchase multiple products. The sense of guilt consumers experience seems acceptable when one product is purchased but may increase when multiple products are purchased. Therefore, justifying one hedonic product seems achievable, but multiple hedonic products seem unconceivable (Kivetz & Zhen, 2017).

In short, more recent studies show that there is no congruency effect between the type of promotions and the type of product. With the purchase of hedonic products comes guilt and to reduce this sense of guilt monetary promotions seems highly effective. This leads to the first hypothesis:

H_{1a} = Consumers perceive a hedonic product offering with a monetary promotion as more attractive than a utilitarian product offering with a monetary promotion

H_{1b} = Monetary promotions have a more positive influence on the consumer's purchase intention for hedonic products than for utilitarian products

2.5 Financial scarcity

Mullainathan and Shafir (2013) define financial scarcity as a mindset in which people perceive that their income is too low to cover daily expenses. Financial scarcity implies having insufficient monetary resources from the person's own perspective. Financial scarcity differs from having a low income which is a threshold set by the researcher (Sommet, Morselli & Spini, 2018). This indicates that financial scarcity is more a subjective assessment than objective.

Van Dijk, Van der Werf and Van Dillen (submitted for publication) conceptualize financial scarcity as “the subjective experience in which pressing financial concerns exceed available resources and bring about responses that may endanger well-being” (p.4). In other words, every individual experiences financial scarcity differently. This conceptualization aligns with Cook and Sadeghein (2018) who state that financial scarcity is multidimensional

and does not only imply the absence of necessary financial resources. To assess this subjective state of financial scarcity Van Dijk et al. (submitted for publication) developed the Psychological Inventory of Financial Scarcity (PIFS). The PIFS captures the two topics of having insufficient monetary resources and lacking control over a person's own financial state by the inclusion of two assessments: "The (potential) harmfulness of the situation and the perceived ability to adequately deal with the (potential) harmful situation" (Van Dijk et al., submitted for publication, p. 4). Additionally, the PIFS assesses cognitive, affective and behavioral responses towards financial scarcity. The behavioral response focuses on a short-term orientation and the cognitive and affective responses focus on financial rumination and financial worry. De Bruijn and Antonides (2020) define financial rumination as "repetitive, passive, and pessimistic thinking about the possible causes and consequences of one's financial concerns" and they define financial worry as "repeated and negative thinking about the uncertainty of one's (future) financial situation" (p.1).

Previous studies show that financial scarcity has various consequences for a person's daily life. For example, it has a negative effect on a person's social life. Although people's primary needs are fulfilled with, for example, clothing and food, monetary issues may lead to declining social relationships or political participation. Thus, financial scarcity may result in social exclusion (Mood & Jonsson, 2016). Furthermore, financial scarcity negatively influences a person's mental well-being by creating feelings of unhappiness, shame, anger and frustration when not being able to keep up with other people in society (Ali et al., 2018; Sommet et al., 2018). In addition, financial scarcity may lead to more health problems by, for example, fewer preventive screenings for cancer (Katz & Hofer, 1994) and a higher prevalence of obesity (Zukiewicz-Sobczak et al., 2014). Moreover, financial scarcity can negatively affect a person's financial state even more. (Financial) scarcity creates a tendency to borrow because people are too focused on their scarcity which results in insufficient attention given to the consequences of borrowing (Cook & Sadeghein, 2018; Shah et al., 2012; Mani et al., 2013). Thus, because monetary problems are pressing, financial scarcity often goes hand in hand with increased chances of borrowing money and also overborrowing.

An explanation of these negative consequences of financial scarcity might be that it affects people's cognitive functions. Shah et al. (2012) and Mani et al. (2013) argue that (financial) scarcity creates cognitive load because people are more focused on problems where (financial) scarcity is prominent. Because of insufficient monetary resources, each expense is experienced as pressing. The monetary problems associated with, for example, buying groceries or paying rent, receive one's attention and the focus is on solving those

problems. This results in the neglect of other problems such as health problems or the consequences of borrowing money. Thus, financial scarcity influences people's problem-solving capabilities. Furthermore, financial scarcity influences people's decision-making process (Shah et al., 2012; Shah, Shafir, & Mullainathan, 2015). First, people experiencing scarcity experience the decision-making process as more tiring because they are deeper engaged in the process (Shah et al., 2012). Second, when valuing a price or a product, people are influenced by contextual cues. However, people who experience financial scarcity think more in trade-offs and are therefore less prone to contextual cues. They do not look to external factors (e.g., sales location of a product) but instead create their own comparison standards which are more consistent guides for valuation (Shah et al., 2015).

Shah et al. (2018) have begun to further examine the thoughts and concerns people facing financial scarcity have, more precisely they focus on the triggers of these monetary thoughts and concerns. They state that thoughts about money are easily triggered in the mind of poor people. These thoughts about money are not context dependent; even when money is not mentioned, they come spontaneously. As an example, Shah et al. (2018) state that visiting the doctor for serious health problems not only triggers thoughts about the health of a person, but also about the costs coming with this visit. Once these monetary thoughts are triggered, they stay persistent in the mind and are hard to suppress. Also, these monetary thoughts and concerns change the word associations poor people have formed in their mind about concepts. In other words, financial scarcity forms the connection between things in the mind of poor people.

In short, financial scarcity is a subjective state which has (negative) consequences on a person's daily life and cognitive function by creating cognitive load. This cognitive load influences the problem-solving and decision-making capabilities of people who experience financial scarcity.

2.6 Linking promotions to financial scarcity

Reid et al. (2015) state that consumers who feel financially constrained tend to buy products with in-store monetary and non-monetary promotions. This indicates that promotions play a large role in the purchase behavior of the poor. However, according to Martínez and Montaner (2006) people who feel financially constrained are not more prone to promotions than people who do not experience financial constraints. This makes sense because according to Martínez and Montaner (2006) deal proneness is defined as "the tendency to use promotional information as a reference to make purchase decisions" (p.158). As discussed in

Section 2.4, people experiencing financial scarcity are less influenced by external factors and create their own comparison standards when making a purchase decision (Shah et al., 2015). Additionally, other studies show that promotions do play a role in the purchase decisions of the poor. In the previous mentioned study of Büttner et al. (2015), the effect of shopping orientation on the effectiveness of the promotion is moderated by the budget of a consumer. When the budget is high, experiential-oriented consumers are more likely to choose nonmonetary promotions (vs. monetary promotions) than task-focused-oriented consumer. In contrast, when the budget is low, experiential-oriented and task-focused-oriented consumers both favored monetary promotions more than non-monetary promotions. This is in line with Sharma et al. (2020) who state that the preference for monetary promotions increases when the budget is low. Consumers who were more prone towards non-monetary promotions are becoming increasingly prone to monetary promotions under the condition of a low budget. Khare et al. (2014) states that consumers with a high income are less attracted by discounts than consumers with a low and middle income. Thus, when people are financially constrained, they prefer monetary promotions such as discounts because consumers with a low and middle income are more concerned with getting the best value for their money. This complies with Gbadamosi (2008) who argues that low-income (female) consumers are highly motivated by value for money in their purchases of low-involvement products and therefore are highly attracted to sales promotions whereby buy-one-get-one-free (monetary) is the preferred sales promotion, although it is depending on the type of product. The preference seems more related to long-shelf-life products than short-shelf-life products, or in other words, stock-up and nonstock-up products.

People experiencing financial scarcity more often and sooner see the monetary aspect in daily life situations (Shah et al., 2018). This fact might explain why people facing financial scarcity are more resilient against promotions whereby money is wasted (Shah et al., 2012; Spiller, 2011), but are sensitive to monetary promotions (Gbadamosi, 2009; Khare et al., 2014).

In short, previous research has shown that a low budget or low income plays a moderating role on the effectiveness of the monetary versus nonmonetary promotion whereby consumers prefer monetary promotions because they want to achieve the greatest value for their money. Therefore, based on the will of achieving greatest value and based on the finding that money is often in the mind of people facing financial scarcity, the focus of this study is on monetary promotions.

2.7 Linking type of products to financial scarcity

Financially constrained consumers often rationalize their purchases and their consumption patterns due to their limited monetary resources (Gbadamosi, 2008; Walker, Dobson, Middleton, Beardsworth, & Keil, 1995). Each expense is therefore experienced as important, they cannot afford to make careless decisions when money is involved, and according to Shah et al. (2018) money is often involved in the thoughts and decisions of the poor. Furthermore, Okada (2005) argues that financial constraint increases the need for the justification of choices. This implies a linear relationship between financial scarcity and the need for justification in making purchase decisions. Because people experiencing financial scarcity need to justify their choices more, they are more prone towards purchasing utilitarian products because this limits guilt which comes with purchasing hedonic products. This leads to the following hypothesis.

H₂ = The more consumers' experience financial scarcity, they more they tend towards purchasing utilitarian products than hedonic products

Consumers with a task-focused shopping orientation prefer monetary promotions which provide more utilitarian benefits (Büttner et al., 2015; Chandon et al., 2000). One of those benefits is to save money which is highly important for financially constrained consumers since monetary resources are scarce. When purchasing, people experiencing financial scarcity want to get the best value for their money (Gbadamosi, 2008; Khare et al., 2014). Monetary resources are therefore highly effective for financially constrained consumers. However, for which type of product this effect is stronger among financially constrained consumers is yet unknown. As mentioned before, the budget of financially constrained consumers is limited, and therefore, Okada (2005) argues that people experiencing financial scarcity need to justify their choices more, and are more prone to purchasing utilitarian products. Therefore, the following hypotheses is formulated.

H_{3a} = The more consumers experience financial scarcity, the more they perceive a utilitarian product offering with a monetary promotion as attractive

H_{3b} = Monetary promotions have a more positive influence on the purchase intention of utilitarian products the more consumers experience financial scarcity

Thus, when purchasing hedonic products, the need for internal justification increases, and with this the amount of guilt. However, monetary promotions may decrease the sense of guilt when purchasing hedonic products (Kivetz & Zhen, 2017; Kwok & Uncles, 2005). Moreover, Shiv and Fedorikhin (1999) and Melnyk et al. (2012) show that consumers use information-based cognitive processing with utilitarian products versus emotional-based affective processing with hedonic products. Information-based cognitive processing demands a high process capability, whereas emotion-based affective processing demands a low process capability. Additionally, monetary promotions decrease the consumer's motivation to use cognitive thinking (Aydinli et al., 2014). The purchase decisions of monetary promoted products are guided by affective processing which is easier and faster. This is especially true for people experiencing financial scarcity, which limits a person's cognitive process capability by creating cognitive load (Shah et al., 2012). This implies that people facing with financial scarcity would be more prone towards purchasing monetary promoted hedonic products. This leads to the following hypotheses.

H_{4a} = The more consumers' experience financial scarcity, the more they perceive a hedonic product offering with a monetary promotion as attractive

H_{4b} = Monetary promotions have a more positive influence on the purchase intention of hedonic products the more consumers experience financial scarcity

2.8 Conceptual model

The previously mentioned hypotheses are visualized in a conceptual model which is shown in Figure 1.

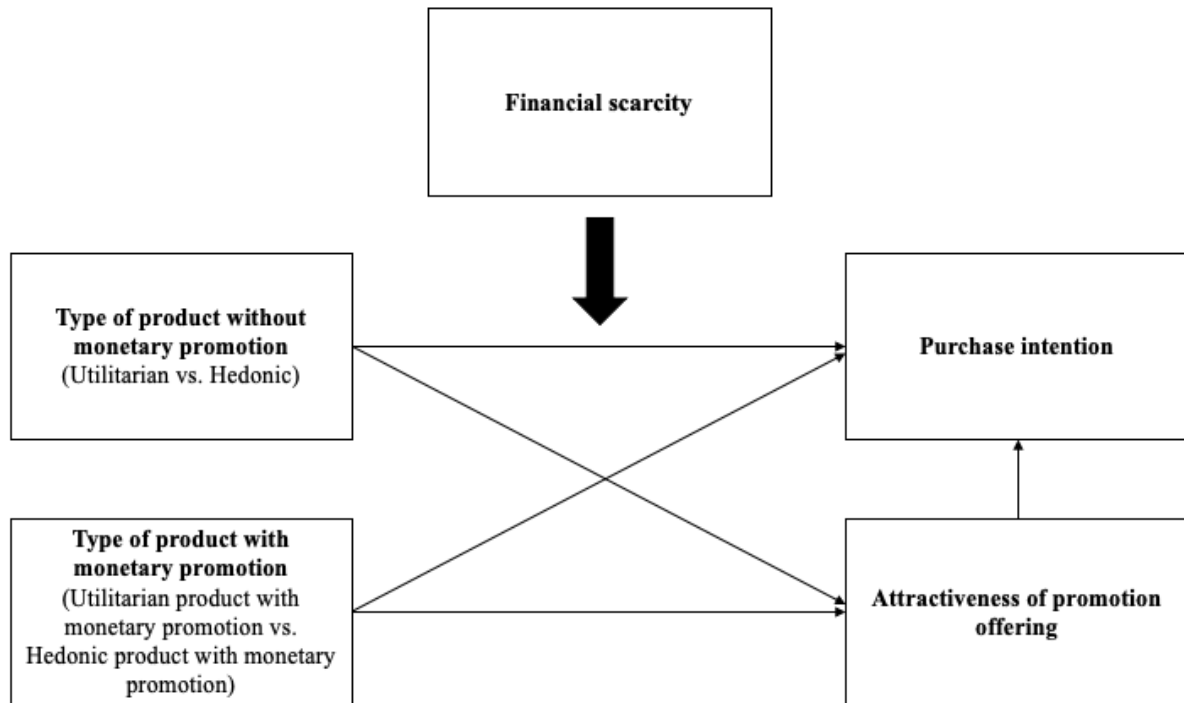


Figure 1. Conceptual model

3. Methodology

This chapter outlines the research design and methodology based on the hypotheses and conceptual model in Chapter 2.

3.1 Research design

This study aims to examine the possible influence of financial scarcity on the effect of monetary promotions of hedonic and utilitarian products on product offering attractiveness and purchase intention. To be able to answer the research question, a quantitative survey experiment was used with four conditions. This type of research design made it possible to test the previously derived hypotheses. The independent variables were manipulated by an ad stimulus and the effect on the dependent variables was measured by product offering attractiveness and purchase intention. The covariate of financial scarcity was measured after exposure to the ad stimulus.

For this study, a 2×2 between-subjects design (monetary promotion vs. no promotion × utilitarian product versus hedonic product) was used to study product offering attractiveness and purchase intention of consumers under different experiences of financial scarcity, included as a covariate. The between-subjects design with this study required four conditions and the participants were randomly assigned to a certain condition within Qualtrics, the online experimental setting of this study, so that comparisons could be made between the results of all groups. A between-subjects was chosen because with this design each person is exposed to only one condition and thus only needed to participate in the experiment once. This increases people's willingness to participate since it decreases participation time. Also, since the experiment was conducted online, there was an increased change that participants will drop out during the survey. By using a between-subjects design, participants only had to participate once, instead of multiple times, which increased the attractiveness to finish the survey experiment.

3.2 Ad stimuli

The same advertisement was used for all four conditions. However, two groups were a treatment group and they received the advertisement with a monetary promotion which was the same promotion for both treatment groups. This promotion was classified as an out-of-store promotion. This choice was validated by Gbadamosi (2008) who states that low-income consumers compare promotions from different stores. An assumption was made that the

comparisons are done before the actual shopping. Furthermore, the choice for out-store promotions was easily made since it is difficult to simulate an in-store promotion through an online experiment.

The advertisements contained an image of a product and were highly similar to real-life advertisements. The advertisements with a monetary promotion had the same product image but were displayed with a promotion. The type of monetary promotion chosen was buy-one-get-one-for-free. This choice was made because Gbadamosi (2008) argues that low-income consumers are highly attracted by buy-one-get-one-free promotions. Buy-one-get-one-for free is an extra-product price promotion and requires a certain purchase amount of two products to make use of the promotion. Although storage space might be limited within a household, a buy-one-get-one-for-free promotion provided the best chance to be able to measure the effect of monetary promotions of hedonic and utilitarian products under different experiences of financial scarcity.

Based on prior research, products with a long shelf-life were chosen, because this increased the opportunity for stockpiling, for small and large households, and thus the effectiveness of monetary promotions such as buy-one-get-one-for-free (Bell et al., 2002; Gbadamosi, 2008; Gilbert & Jackaria, 2002). Elaborating on Gbadamosi (2008), the choice was made for low-involvement products which led to the choice of food products. Due to the large role monetary resources play in this study, in real life low-priced products were chosen, all falling within the same price range. The products were pretested to see if they were perceived as intended. The products chosen in the advertisement did not include any brand name. However, since consumers might already be familiar with the packaging, products of the same brand were chosen. More specifically, the products chosen were from a private label of a particular supermarket. According to Gbadamosi (2008) private label brands are also often purchased by consumers with a low income. Examples of the advertisements, with and without promotion, are shown in Appendix A.

3.3 Pre-test

To validate the choice of products, a pre-test was conducted to see if the products assigned to the hedonic and utilitarian categories were actually perceived as those categories. This was tested by the hedonic/utilitarian (HED/UT) scale of Voss, Spangenberg and Grohmann (2003) which is a multi-item measurement. The HED/UT scale consists of five items which refer to a hedonic dimension (not fun/fun, dull/exciting, not delightful/delightful, not thrilling/thrilling, not enjoyable/enjoyable), and five items which refer to utilitarian dimensions

(ineffective/effective, unhelpful/helpful, not functional/functional, unnecessary/necessary, impractical/practical). Beforehand, ten participants were selected to fill out a survey in Qualtrics consisting those ten items for six different products (three hedonic and three utilitarian). The mean was calculated for every product and afterwards there was chosen for a bag of crisps as a hedonic product, and a pack of rice as utilitarian product. An overview of the pre-test results can be found in Appendix B. Furthermore, before the start of the experiment, the experiment was tested among a select group of people to detect possible flaws and to eliminate errors.

3.4 Sample

For this study, a survey experiment was conducted within Qualtrics. After conducting a power analysis with the software G*Power, with an expected effect of .0625 and a power of .95, which both met the thresholds for a medium effect and a recommended statistical power (Hair, Black, Babin, & Anderson, 2019), a sample size of 151 was recommended.

First, participants were recruited through door-to-door flyers with a link to the survey experiment. This was done in four (small) cities in three different regions within the Netherlands: Nijmegen (Gelderland), Eindhoven (Noord-Brabant), Wijk bij Duurstede (Utrecht) and Gemert (Noord-Brabant). A choice was made to explicitly choose neighborhoods with primarily social rental housing. Second, an announcement was made in the local newspaper of Gelderland. Third, flyers were distributed via a local volunteer organization. Last, an announcement was made in various swap and giveaway groups on Facebook. An incentive, in the form of a €15 gift card of own choice, was provided to increase the probability that people would participate.

According to Harmonn and Hill (2003), the traditional division of role within household is fading away, and therefore, both men and women could participate. However, the participants were required to be 18 years or older, and because the study focuses on product offering attractiveness and purchase intention of food products, the participants needed to be the decider and buyer when doing grocery shopping for their own consumption. A decider is the person who determines which products will be purchased, and a buyer is the one who actually purchases the product (Hoyer, Macinnis, & Pieters, 2018, p. 351). Since most of the recruitment of participants was done without personal contact, there was no guarantee that the sample would only consist of Dutch citizens. However, the survey was only provided in Dutch, so that the sample would mostly consist of Dutch citizens to limit possible effects of cultural influences.

3.5 Survey design and measurement scales

The survey consisted out of three sections. First, an introduction was given where was made clear that the respondents were participating in a study. Second, the respondents had to answer the control questions to check if they were eligible for the study. Third, the various dependent variables, followed by the covariate were measured through various items which are discussed below. Fourth, the respondent's information was asked (gender, age, residence, education, household composition and channel survey). The last section includes a closing word and respondents could enter their email address if they wanted to win the gift card or to be kept informed about the research results. The following section outlines the measurement scales used during this study. The survey design and measurement scales are shown in more detail in Appendix C.

3.5.1 Dependent variables

The effect of monetary promotions of hedonic and utilitarian products was measured through attractiveness of product offering and purchase intention.

Attractiveness of product offering

Participants rated product offering attractiveness and this was measured by two 7-point scales ("I like this product offering a lot" and "I'm interested in this product offering"). These scales are based on prior research (Büttner et al., 2015; Chandon et al., 2000; Shoham, Moldovan, & Steinhart, 2018).

Purchase intention

Purchase intention was measured by using three 7-point Likert scale whereby participants indicated how likely they are to make a purchase. Based on Dodds, Monroe and Grewal (1991) the scales varied from "The likelihood of me purchasing this product is", "The probability that I would consider this product is" and "My willingness to buy the product is". All varying from 1-very low to 7-very high. Similar measurement scales have been previously used in research about purchase intention (Bian & Forsythe, 2012; Wu, Lu, Wu, & Fu, 2012)

3.5.2 Covariate

During this study, the effect of monetary promotions on utilitarian and hedonic products was examined under different experiences of financial scarcity. Therefore, financial scarcity was

treated as a covariate. Since financial scarcity is a subjective experience, it needed to be measured accordingly. Therefore, in this study financial scarcity was measured with the recently developed Psychological Inventory of Financial Scarcity (PIFS) scale of Van Dijk et al. (submitted for publication) which consists of twelve statements measured by a 7-item Likert scale. The PIFS measures a person's financial situation, assessment of insufficient resources and lack of control, and the rumination, worry and short-term focus of a person.

3.6 Data analysis procedure

The purpose of this study is to examine the effect of the independent variable on the dependent variables under different experiences of financial scarcity. The independent variables were treated as nominal variables, the dependent variables as metric variables and the covariate was a metric variable. Therefore, the data analysis procedure for this study was ANCOVA performed in SPSS. ANCOVA provided the opportunity to examine the main effects and the interaction effect of product type, promotion and financial scarcity. Before ANCOVA, the data was cleaned with the procedure provided by Hair et al. (2019) whereby respondents below the age threshold of 18 years and incomplete survey responses were eliminated. Furthermore, a factor analysis was conducted to ensure that all items used to measuring product offering attractiveness, purchase intention and financial scarcity loaded on the corresponding factor. After this, the procedure of ANCOVA started with checking the assumptions, and afterwards the hypotheses were tested through ANCOVA and some additional analyses were performed.

3.7 Research ethics

Participating in the experiment was completely voluntary and they were treated fair and with respect. Before a participant started with the experiment, he or she was informed about his or her participation in the experiment and the type of experiment involved. Participants were asked for permission to use their data for research purposes only. Furthermore, they were informed that the experiment was conducted anonymously and that the data would be treated with high confidentiality to protect the participant's privacy. The data collected was treated anonymously. Lastly, there was a note explaining that participants could stop the experiment at any given time without any explanation.

4. Results

4.1 Description of sample

In total, 292 participants began the survey. However, after data cleaning 265 participants remained. First, people who did not pass the control questions were excluded. One participant was below the age threshold of 18 and 11 participants were not the buyer or decider within their households, so they were excluded from further analysis ($N = 280$). Furthermore, 15 participants did not finish the survey and were therefore also excluded. Thus, the final sample size included 265 observations. An overview of the demographic information of participants is shown in Table 2.

The participants were randomly assigned by Qualtrics to one of the four groups and received the survey matching the assigned group. Before the data cleaning, every group consisted out of 73 participants. After excluding participants, the first group consists of 67 participants, the second of 66 participants, the third group of 65 participants, and the fourth group of 67 participants. Although the sample size of the four groups slightly differed, the differences between the four groups were not significant, and therefore disregarded.

Table 2: Demographic information of the sample

Gender	Age	Residential area	Education	Household composition	Survey channel
Male: 18.9%	0-18: 0.4%	Flevoland: 0.4%	Primary school: 3%	One: 21.1%	Flyer: 23.8%
Female: 80.8%	19-25: 9.4%	Gelderland: 21.5%	Secondary school: 14.7%	Two: 38.1%	Friend/family/colleague or acquaintance: 3.8%
Other: 1 0.4%	26-35: 16.6%	Limburg: 0.8%	MBO: 46.8%	Three: 17.4%	Social media: 57.4%
	36-45: 15.5%	North-Brabant: 23.4%	HBO: 27.2%	Four: 15.1%	Newspaper: 15.1%
	46-55: 22.3%	North-Holland: 0.8%	University: 7.5%	Five: 7.2%	
	56-64: 21.1%	Overijssel: 0.4%	Other: 0.8%	Six: 0.8%	
	65+: 14.7%	Utrecht: 52.8%		Seven or more: 0.4%	

4.2 Experience of financial scarcity

Financial scarcity was the covariate in this study which was measured by a 12-item scale developed by Van Dijk et al. (submitted for publication). The answers ranged from 1 (strongly disagree) to 7 (strongly agree). The average experience of financial scarcity was 2.33 with a standard deviation of 1.37.

4.3 Validity and reliability

4.3.1 Validity

Although the scales used within the survey were conducted from or based on prior research, multiple factor analyses were conducted to confirm that all items measured the equivalent factor. Therefore, a confirmatory factor analysis was done in the form of principal axis factoring with oblique rotation, because correlation between the two dependent variables was expected to be high. The value of KMO should be above $> .05$ and Bartlett's Test should be significant with $p < .05$. Both these conditions were fulfilled for the items of the dependent variables. KMO was .883 and Bartlett's Test was .000. Thus, the items were suitable for factor analysis. All communalities were above .20 and the factor correlation matrix showed that the dependent variables were highly correlated (.889). Furthermore, the pattern matrix showed no cross loaders, so no iterations were required. Another factor analysis was done separately for the covariate of financial scarcity. The KMO and Bartlett's Test were both sufficient. KMO was .944 and Bartlett's Test was .000. Communalities were all above .20 and only one factor exceeded the eigenvalue of 1.

4.3.2 Reliability

To test the reliability of the various scales used within the survey, the internal consistency of the items of each survey scale was measured with Cronbach's alpha. A scale is highly reliable when it has a value greater than .80 and is insufficient when it has a value lower than .70 (Hair et al., 2014). The overview of the reliability analyses of the scales used for the dependent variables can be found in Table 3. Both scales were reliable, since none had a Cronbach's alpha below .70 and none show a higher Cronbach's alpha when an item would be deleted.

Furthermore, a reliability analysis was done to test the reliability of the Psychological Inventory of Financial Scarcity (PIFS) scale which was used for measuring the covariate. Van Dijk et al. (Submitted for publication) had already tested the reliability among five samples, where the Cronbach's alphas ranged from .92 to .95. With the sample used in this study, the

Cronbach's alpha was even higher ($\alpha = .960$). Cronbach's alpha decreases for 11 of the 12 items included if the item was deleted. There was one exception for the item "*I don't take future expenses into account,*" if this item would be deleted the Cronbach's alpha would increase to .963 (see Table 3). However, because this difference was so small, the item was maintained.

Table 3: Reliability analysis

Attractiveness of product offering	
<i>Cronbach's alpha</i>	<i>Cronbach's alpha if item deleted</i>
$\alpha = .853$	-
Purchase intention	
<i>Cronbach's alpha</i>	<i>Cronbach's alpha if item deleted</i>
$\alpha = .964$	CH_Koop1: $\alpha = .951$
	CH_Koop2: $\alpha = .958$
	CH_Koop3: $\alpha = .933$
Financial scarcity	
<i>Cronbach's alpha</i>	<i>Cronbach's alpha if item deleted</i>
$\alpha = .960$	FS1: $\alpha = .956$
	FS2: $\alpha = .957$
	FS3: $\alpha = .956$
	FS4: $\alpha = .959$
	FS5: $\alpha = .958$
	FS6: $\alpha = .954$
	FS7: $\alpha = .955$
	FS8: $\alpha = .955$
	FS9: $\alpha = .956$
	FS10: $\alpha = .958$
	FS11: $\alpha = .963$
	FS12: $\alpha = .956$

4.4 Assumptions for analyses

4.4.1 Assumptions ANCOVA

To test the hypotheses formed in Chapter 3, ANCOVA was used. Before starting the analyses, the corresponding assumptions were checked. The first assumption was met, since both dependent variables were of metric scale, and the independent variable was of categorical

level. Furthermore, the experimental units should be independent and randomly distributed over conditions, which was the case in this study.

Additionally, the normal distribution of the dependent variables was checked. The normal distribution was checked by looking at the skewness and kurtosis via a univariate analysis. The range of acceptable skewness and kurtosis is between -3 and +3 when the variables are divided by the equivalent standard error (Hair et al., 2014). The skewness and kurtosis were not all within the acceptable range (see Table 4).

Table 4: Skewness and kurtosis of dependent variables

Variable	Skewness	Kurtosis
Attractiveness of product offering	$-.467 / .150 = -3.11$	$-.690 / .298 = -2.32$
Purchase intention	$-.139 / .150 = -.93$	$-1.254 / .298 = -4.21$

If the value of the Shapiro-Wilk's test is larger than .05, the data is normal distributed. However, the value was lower than .05 for every group, so the data was not normally distributed (see Appendix D). However, usually, the normal distribution is not a problem if the number of participants in a group exceeds 30, which was the case in this study, so no further actions were taken.

Furthermore, the assumption of homogeneity of the variances between the different groups was tested by Levene's test. The value of Levene's test should be above $> .05$. For this study, multiple compositions of groups were used for testing the hypotheses. The first two groups were utilitarian versus hedonic. Levene's test for those groups was not significant for both dependent variables. Therefore, we cannot assume that the variances between groups were homogeneous. However, the groups consist of roughly the same sample sizes, thus no further actions were taken. The second set of groups were promotion versus no promotion. Levene's test for those groups were significant for both dependent variables. The third combination of groups were a low experience of financial scarcity versus a high experience of financial scarcity. Levene's test for those groups were significant for both dependent variables. An overview of the results can be found in Appendix E.

In addition, the assumption of a correlation between the covariate of financial scarcity and the dependent variables was tested via Pearson's correlation. This test was not significant for attractiveness of product offering ($r = .081$; $p = .187$). Thus, a linear relationship between financial scarcity and attractiveness of product offering did not exist. However, for purchase

intention, the test was significant ($r = .121$; $p = .05$). Thus, linear relationship between financial scarcity and purchase intention existed.

The last assumption of homogeneity of the regression slopes was tested via General Linear Model. The assumption of homogeneity was met for attractiveness of product offering ($F(3,257) = 1.980$, $p = .117$). Thus, the effect of financial scarcity was equal in all groups. However, it was not met for purchase intention ($F(3,257) = 3.090$; $p < .05$). This was solved by creating a dummy variable for financial scarcity, with a cut-off point of 2.5. The group up to and including 2.5 contained 70.9% participants who hardly experienced financial scarcity and the group above 2.5 contained 29.1% participants who did experience (some) financial scarcity. This led to a non-significant interaction effect between the covariate of financial scarcity and purchase intention ($F(17,228) = .852$; $p = .631$), assuming equal regression slopes. When rerunning the test for attractiveness of product offering with the new dummy variable the assumption was still met for this dependent variable ($F(12,239) = 1.076$; $p = .381$). The dummy variable of financial scarcity was further used for testing all hypotheses involving financial scarcity.

4.5 Hypothesis testing

4.5.1 Hypotheses 1a and 1b

Hypothesis 1a states that consumers perceive a hedonic product offering with a monetary promotion as more attractive than a utilitarian product offering with a monetary promotion, and hypothesis 1b states that monetary promotions have a more positive influence on the consumer's purchase intention for hedonic products than for utilitarian products. These hypotheses were tested separately by ANCOVA (see Appendix F). Dummy variables were created for product type, with utilitarian as reference category, and for promotion, with no promotion as the reference category.

The control variables gender, age, education and household composition were included in the analysis. First, a dummy variable was created for the gender variable with the category woman as reference category. Second, a dummy variable was created for the age variable with the age 45 through 65+ as reference category. Third, a dummy variable was created for education with primary school, secondary school and MBO as reference category. Lastly, a dummy variable was created for household composition with one and two persons as reference category.

The results showed a significant main effect of promotion (with a hedonic or utilitarian product) on attractiveness of product offering ($F(1,253) = 4.462$; $p < .05$).

Furthermore, there was also a significant interaction effect between product type and promotion for attractiveness of product offering ($F(1,253) = 4.367; p < .05$). The parameter estimates showed that a utilitarian product with no promotion significantly influenced the attractiveness of product offering ($\beta = -.941; p < .05$). In addition, the profile plot showed that the effect of promotions was higher for the attractiveness of the utilitarian product versus the attractiveness of the hedonic product (see Appendix G). This effect can also be seen in the means of the different groups (see Table 5). Therefore, hypothesis 1a was not supported.

Furthermore, the results showed a significant main effect of promotion (with a hedonic or utilitarian product) on purchase intention ($F(1,253) = 4.064; p < .05$). Furthermore, there was also an almost significant interaction effect between product type and promotion for purchase intention ($F(1,253) = 3.468; p = .064$). Although not significant, the parameter estimates showed that a utilitarian product with no promotion influenced the purchase intention ($\beta = -.973; p = .064$). Additionally, the profile plot showed that the effect of promotions was higher for the purchase intention of the utilitarian product versus the purchase intention of the hedonic product (see Appendix G). This effect can also be seen in the means of the different groups (see Table 5). Therefore, hypothesis 1b was not supported.

Table 5: Overview of mean and standard error per group and dependent variable

<i>Dependent variable:</i>		
<i>Attractiveness of product offering</i>		
	Without promotion	With promotion
Hedonic product	Mean = 4.09	Mean = 4.30
	SE = .193	SE = .225
Utilitarian product	Mean = 4.73	Mean = 5.40
	SE = .177	SE = .153
<i>Dependent variable: Purchase intention</i>		
	Without promotion	With promotion
Hedonic product	Mean = 3.19	Mean = 3.61
	SE = .221	SE = .257
Utilitarian product	Mean = 4.14	Mean = 4.83
	SE = .214	SE = .181

4.5.2 Hypothesis 2

Hypothesis 2 states that the more consumers experience financial scarcity, the more they tend towards purchasing utilitarian products than hedonic products. This hypothesis was tested via ANCOVA (see Appendix F). Dummy variables were created for product type, with utilitarian

as reference category. The control variables gender, age, education and household composition were included in the analysis.

The results showed that the main effect of product type on purchase intention was significant ($F(1,253) = 28.859; p < .01$). The main effect of the dummy variable of financial scarcity on purchase intention was not significant ($F(1,253) = .860, p = .355$). However, the interaction effect between the product type (hedonic vs. utilitarian) and financial scarcity on the purchase intention was significant ($F(1,253) = 3.967; p < .05$). The parameter estimates showed financial scarcity had a significant negative effect on the purchase intention of utilitarian products as compared with the effect for hedonic products ($\beta = -2.151; p < .01$), contrary to expectations. The means also do not indicate support for the hypothesis (see Table 6). Therefore, hypothesis 2 was not supported.

Table 6: Mean purchase intention for by type of product and financial scarcity experience

	<i>Utilitarian product (Without and with promotion)</i>	<i>Hedonic product (Without and with promotion)</i>
Low experience of financial scarcity	Mean = 4.54 SE = 1.75	Mean = 3.19 SE = .193
High experience of financial scarcity	Mean = 4.39 SE = .253	Mean = 4.00 SE = .340

4.5.3 Hypotheses 3a and 3b

Hypothesis 3a states that the more consumers experience financial scarcity, the more they perceive a utilitarian product offering with a monetary promotion as attractive, and hypothesis 3b states that monetary promotions have a more positive influence on the purchase intention of utilitarian products, the more they experience financial scarcity. Both hypotheses were tested via ANCOVA (see Appendix F). Dummy variables were created for product type, with utilitarian as reference category, and for promotion, whereby without promotion as the reference category. The control variables gender, age, education and household composition were included in the analysis.

The results showed that the interaction between product type, promotion and financial scarcity on attractiveness of product offering was not significant ($F(1,253) = 3.124; p = .078$). Although non-significant, the parameter estimates showed that there was a significant positive effect of a utilitarian product type with no promotion on attractiveness of product offering under different experiences of financial scarcity ($\beta = 1.487; p < .078$). The means of

attractiveness of the utilitarian product offering with promotion, per financial scarcity group, also do not provide support for hypothesis 3a (see Table 7). Therefore, hypothesis 3a was not supported.

Table 7: Mean of attractiveness of utilitarian product with promotion per financial scarcity experience

<i>Utilitarian product with promotion</i>	Mean	Standard error
Low experience of financial scarcity	5.61	.172
High experience of financial scarcity	5.04	.284

Furthermore, the results showed that the interaction between product type, promotion and financial scarcity on purchase intention was significant ($F(1,253) = 5.854; p < .05$). The parameter estimates showed that a utilitarian product type with no promotion had a significant positive effect on the purchase intention under different experiences of financial scarcity ($\beta = 2.362; p < .05$). In addition, the means of purchase intention of the utilitarian product offering with promotion, per financial scarcity group, also did not indicate support for hypothesis 3b (see Table 8). Therefore, hypothesis 3b was not supported.

Table 8: Mean of purchase intention of utilitarian product with promotion per financial scarcity experience

<i>Utilitarian product with promotion</i>	Mean	Standard error
Low experience of financial scarcity	5.06	.212
High experience of financial scarcity	4.43	.323

4.5.4 Hypothesis 4a and 4b

Hypothesis 4a states that the more consumers' experience financial scarcity, the more they perceive a hedonic product offering with a monetary promotion as attractive, and hypothesis 4b states that monetary promotions have a more positive influence on the purchase intention of hedonic products, the more consumers experience financial scarcity. Both hypotheses were tested via ANCOVA (see Appendix F). Dummy variables were created for product type, with utilitarian as reference category, and for promotion, whereby without promotion as the

reference category. The control variables gender, age, education and household composition were included in the analysis.

As mentioned above, the results showed that the interaction between product type, promotion and financial scarcity on attractiveness of product offering was not significant ($F(1,253) = 3.124; p = .078$). Although non-significant, the parameter estimates showed that there was a significant positive effect of a utilitarian product type with no promotion on attractiveness of product offering under different experiences of financial scarcity ($\beta = 1.487; p < .078$). The means of attractiveness of the hedonic product offering with promotion, per financial scarcity group, did provide support for hypothesis 4a (see Table 9). However, because the results were not significant, hypothesis 4a was not supported.

Table 9: Mean of attractiveness of hedonic product with promotion per financial scarcity experience

<i>Hedonic product with promotion</i>	Mean	Standard error
Low experience of financial scarcity	4.07	.257
High experience of financial scarcity	4.83	.437

Furthermore, as mentioned before, the results showed that the interaction between product type, promotion and financial scarcity on purchase intention was significant ($F(1,253) = 5.854; p < .05$). The parameter estimates showed that a utilitarian product type with no promotion had a significant positive effect on the purchase intention under different experiences of financial scarcity ($\beta = 2.362; p < .05$). The means of the purchase intention of the hedonic product offering with promotion, per financial scarcity group, did provide support for hypothesis 4b (see Table 10). Nonetheless, because no (significant) effect was found for a hedonic product type, hypothesis 4b was not supported.

Table 10: Mean of purchase intention of hedonic product with promotion per financial scarcity experience

<i>Hedonic product with promotion</i>	Mean	Standard error
Low experience of financial scarcity	3.19	.290
High experience of financial scarcity	4.58	.468

4.6 Additional analyses

As can be seen in the conceptual model in Section 2.8, a relationship between the two dependent variables, attractiveness of product offering and purchase intention, was expected. This was tested via Pearson's r that showed that there was a significant high positive correlation between attractiveness of product offering and purchase intention ($r = .839$; $p < .001$; $N = 265$).

Additionally, ANCOVA was used to examine the influence of demographic variables such as gender, age, education and household composition on the attractiveness of product offering and purchase intention (see Appendix F). ANCOVA showed that gender did not significantly affect the attractiveness of product offering ($F(1,253) = .026$; $p = .872$) nor purchase intention offering ($F(1,253) = .392$; $p = .532$).

Second, the results showed that the main effect of age was not significant for attractiveness of product offering ($F(1,253) = 1.076$; $p = .301$) nor for purchase intention ($F(1,253) = .086$; $p = .770$).

Third, the results showed that the main effect of education was significant for attractiveness of product offering ($F(1,253) = 4.942$; $p < .05$), but, although it was close, not significant for purchase intention ($F(1,253) = 3.521 = .062$). Apparently, a higher education had a negative effect on the attractiveness of a product offering ($\beta = -.451$; $p < .05$).

Last, the results showed that the main effect of household composition was not significant for attractiveness of product offering ($F(1,253) = .097$; $p = .755$) nor for purchase intention ($F(1,253) = .015$; $p = .902$).

5. Discussion and conclusion

This section contains a discussion and conclusion based on the empirical results obtained in Chapter 4. First, the discussion and conclusion will be outlined. Second, the managerial and theoretical implications will be discussed followed by the limitations of this study and future research.

5.1 Discussion and conclusion

Prior literature about the influence of monetary promotions on different product types (hedonic vs. utilitarian) were paradoxical, and in particular, the literature has been silent about the influence of monetary promotion on the intention to purchase different products under different experiences of financial scarcity. Financial scarcity is a relatively new concept in the field of consumer psychology and therefore, the aim of this study was to add knowledge to this new stream of literature. An online experiment was used with a buy-one-get-one-free monetary promotion as the manipulation for the advertisement of the products shown. Crisps and rice were chosen as a hedonic and as a utilitarian product in this experimental study via a pre-test. Both men and women were shown one of the four conditions where they would see one of the products, with or without a buy-one-get-one-free promotion.

Chandon et al. (2000) claim that there is a congruency effect between the type of promotion (non-monetary vs. monetary) and the type of product (hedonic vs. utilitarian). However, more recent studies have denied the congruency effect, stating that with the purchase of hedonic products comes guilt and this guilt is reduced by the usage of monetary promotions, and therefore monetary promotions are more effective for hedonic products (Lu et al., 2016; Kivetz and Zhen, 2017; Kwok and Uncles, 2005; Okada, 2005). However, the results of this study are contradicting this effect because the effect of promotions on the attractiveness of a product offering and purchase intention is (almost) significantly higher for a utilitarian product (vs. a hedonic product) (H1a/H1b). An explanation for this might be that with a buy-one-get-one-free promotion, consumers have to purchase two products instead of one. The guilt paired with purchasing a hedonic product may increase when multiple products are purchased, and therefore, a buy-one-get-one-free promotion is not effective for hedonic products. However, this does not fully explain the higher perceived attractiveness of a utilitarian product. It might also have to do with the goal pursued while consuming. In general, grocery shopping might be perceived as a functionality-related goal. Utilitarian products provide matching functional benefits such as obtaining a nutritious meal or a healthier lifestyle, whereas hedonic products provide emotional benefits, which might be

sought more for when pursuing pleasure-related goals (Batra & Ahtola, 1991; Chitturi et al., 2008; Hirschman & Holbrook, 1982; Lu et al., 2016). Obtaining more utilitarian products for the same amount of money, during grocery shopping, might lead to the double amount of customer satisfaction. The deed is good for the wallet and good for the person itself.

Therefore, a utilitarian product with promotion might be more attractive to a consumer.

Furthermore, results of this study showed that there is an interaction effect between the product type and financial scarcity on purchase intention (H2). However, it was not in the direction which was proposed. The hypotheses formed based on the existing literature was rejected, because financial scarcity had a significant negative effect on the purchase intention of utilitarian products instead of a positive effect. Thus, the willingness to purchase a utilitarian product actually decreases when experiencing financial scarcity as compared with the willingness to purchase a hedonic product. This was surprising, because consumers experiencing financial scarcity often rationalize their purchases and their consumption patterns due to their limited monetary resources (Gbadamosi, 2008; Walker, Dobson, Middleton, Beardsworth, & Keil, 1995). Rice is a nutritious meal and can be part of one of the main meals within a household, other than crisps which is more a snack. One would expect that people facing financial scarcity would be allocating their budget with careful considerations, and prefer utilitarian products. An explanation of the consumption pattern of the financially constrained consumers might be that financial scarcity has multiple negative influences on a person. Financial scarcity may result in social exclusion and leads to feelings of unhappiness and frustration (Ali et al., 2018; Mood & Jonsson, 2016; Sommet et al., 2018). By consuming hedonic products, consumers experience emotions of cheerfulness and excitement (Chitturi et al., 2008). This might be particular attractive to financially constrained consumers.

In addition, prior literature states that monetary promotions are highly effective for financially constrained consumers (Gbadamosi, 2008; Khare et al., 2014). However, what the effect of monetary promotions is on the different product types under various experiences of financial scarcity was still unknown. Okada (2005) argues that people experiencing financial scarcity need to justify their choices more, and are more prone to purchasing utilitarian products. The results show that monetary promotions do not have a significant effect on the attractiveness of a utilitarian product offering nor on the purchase intention for utilitarian products under different experiences of financial scarcity (H3a/H3b). Remarkable is that the mean attractiveness and purchase intention of a utilitarian product offering with a buy-one-get-one-free promotion is even higher for people who hardly experience financial scarcity,

indicating that a promoted utilitarian product is perceived as more attractive and more often purchased by people not experiencing financial scarcity. However, since the attractiveness of a food-related product is subjective, it is also possible that the participants in the high experience of financial scarcity simply are less fond of rice, and therefore, are less attracted or willing to purchase rice.

On the other hand, based on Shiv and Fedorikhin (1999) and Melnyk et al. (2012), consumers use information-based cognitive processing with utilitarian products versus emotional-based affective processing with hedonic products. The emotional-based effective processing demand a low process capability relative to information-based. Financial scarcity limits a person's cognitive process capability (Shah et al., 2012), and combined with a monetary promotion, which decrease the consumer's motivation to use cognitive thinking (Aydinli et al., 2014), people with financial scarcity seem more prone to purchasing promoted hedonic products. The results showed that financial scarcity does influence the attractiveness and purchase intention of the two product offerings (almost) significantly. A positive effect was found for financial scarcity on the attractiveness and purchase intention of utilitarian products without promotion. Although no significant effect was found for the effect of financial scarcity on the attractiveness and purchase intention of a hedonic product with promotion, the mean attractiveness and purchase intention of a hedonic product offering with a buy-one-get-one-free promotion is higher for people who experience a high amount of financial scarcity compared to people who experience a low amount of financial scarcity (H4a). These results seem plausible, because of the cognitive load financially constrained consumers experience. This leads them to purchasing more hedonic products because those products demand a low process capability.

In addition, comparing the means of attractiveness and purchase intention of the two promoted products indicated that consumers who have high experience of financial scarcity prefer hedonic products with promotions over utilitarian products with promotions while the consumers who have a low experience of financial scarcity prefer a utilitarian product with promotion compared to a hedonic product with promotion. The guilt associated with consuming hedonic products (Okada, 2005) does not seem to apply to consumers experiencing financial scarcity. Perhaps because people experiencing financial scarcity are less influenced by external factors and create their own comparison standards when making a purchase decision (Shah et al., 2015), the guilt financially constrained consumers feel when purchasing hedonic products is different from consumers who are not financially constrained. Another reason might be the presentation of choices in this study. A study by Okada (2005)

showed that between two comparable options, one of which is hedonic and one is utilitarian, consumers tend to choose the utilitarian option over the hedonic option when the two options are displayed together. However, when the two options are displayed individually and separated, consumers tend to choose the hedonic option. In this study, the products were shown separately and no choices had to be made between those products.

To conclude, in general, a monetary promotion has a stronger effect on utilitarian products than on hedonic products. However, high experiences of financial scarcity positively influence the attractiveness and purchase intention of utilitarian products without a promotion compared to utilitarian products with a promotion. In addition, consumers experiencing a high level of financial scarcity prefer a hedonic product with promotion more than people who do not experience financial scarcity. In general, the willingness to purchase a utilitarian product actually decreases when experiencing financial scarcity as compared with the willingness to purchase a hedonic product. Thus, the attractiveness and purchase intention of products depends upon the product type rather than the promotion for people experiencing financial scarcity.

5.2 Theoretical and managerial implications

This study has a few theoretical implications. First, the effect of promotions in combination with different product types has been a widely researched topic within marketing, in addition to the study of effect of promotions on hedonic versus utilitarian products. However, results of prior studies were conflicting. This study contributes to this ongoing debate and shows that monetary promotions are more effective for utilitarian products.

Second, financial scarcity is a relatively new concept in this literature stream, and has never been combined before with promotions and product type. This study shows that people who experience financial scarcity do differ as a consumer compared to people who do not experience financial scarcity. Although the results were not all significant, this study shows that financial scarcity is an interesting topic to delve further into. Hopefully this study can act as a starting point for a future with more research into the effect of financial scarcity on people as consumers.

Furthermore, this study has a few managerial implications. First, the effect of buy-one-get-one-free promotions is stronger for the attractiveness and purchase intention of a utilitarian product versus a hedonic product.

Second, this study showed that financial scarcity has a negative effect on the purchase intention of utilitarian products compared to hedonic products. Indicating that a financially constrained consumers prefer a hedonic product more, at least in the context of this study.

Third, it was already known that monetary promotions are effective for financially constrained consumers (Gbadamosi, 2008). However, it was unknown if this differed per product type and if so, for which product type this effect was stronger. This study implicates that when people experience financial scarcity, monetary promotions have a more positive influence on the attractiveness and purchase intention of hedonic products versus utilitarian products.

Marketing managers should be aware that consumers who experience financial scarcity differ from the consumers who do not. Applying monetary promotion results in more sales, but it is a costly business for organizations, and therefore it is wise to know what the best fit is between a product and a promotion. If the target group are the consumers who are financially more constrained, then they should focus their monetary promotion on the hedonic products, and not on the utilitarian product. However, if the target group has more financial resources, the buy-one-get-one-free promotions are better suited for utilitarian products.

5.3 Limitations and future research

A few limitations were identified in this study which also open up areas for future research. First, although random sampling has been used, the sample used in this study mostly includes women. Although, traditional role division is fading, this might be because women are more often the decider and buyer when purchasing groceries. However, men might differ in their perception of attractiveness and purchase behavior of different types of products. Therefore, the sample was not representative for the whole population and this could be improved when repeating the studies.

Second, the number of people experiencing financial scarcity was lower than the number of people who did not. Therefore, it was decided to divide the sample into two groups regarding the experience of financial scarcity; they either did experience financial scarcity or they did not. This division limited the study to only those two conditions of financial scarcity. Future studies might incorporate more conditions of financial scarcity, so that relationships between the various experiences could be examined more in detail.

Third, only one monetary promotion was selected for this study (buy-one-get-one-for-free). The effect of other monetary promotions, on the hedonic versus utilitarian product type, under different experiences of financial scarcity might be different. Therefore, the effect of

other monetary promotions such as a direct price discount or a coupon could be examined in a subsequent study.

Fourth, the two products chosen for this study were rice and crisps which are low-involvement and convenience goods. The study can be repeated with high-involvement hedonic and utilitarian products, such as shopping goods or specialty goods, to see if there are differences in the effect of promotions on high-involvement products under different experiences of financial scarcity versus low-involvement products.

Lastly, this study was a quantitative study and did not examine the differences between the two product types under different experiences of financial scarcity in-depth. Reasons behind the differences are not yet known. Perhaps the guilt which Okada (2005) proposes plays less of a role when consumers experience financial scarcity or the presentation of the two products has an influence on the choice of a consumer. The reasons may be examined more in-depth via a future study which is more qualitative in nature.

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7. Appendix

7.1 Appendix A: Examples of advertisements



The advertisement features a bowl of cooked silver leaf rice garnished with green herbs. Above the bowl, the text reads 'vezelrijke ZILVERVLIES RIJST' and 'kernels met vlies'. A yellow circular sticker with the text '1+1 GRATIS' is placed over the bottom right of the bowl. Below the image, the product name 'Zilvervliesrijst' and weight '400 gram' are listed, followed by the price '€ 0,74'.

Zilvervliesrijst
400 gram

€ 0,74



The advertisement features a bowl of cooked silver leaf rice garnished with green herbs. Above the bowl, the text reads 'vezelrijke ZILVERVLIES RIJST' and 'kernels met vlies'. A yellow circular sticker with the text '1+1 GRATIS' is placed over the bottom right of the bowl. Below the image, the product name 'Zilvervliesrijst' and weight '400 gram' are listed, followed by the price '€ 0,74'.

Zilvervliesrijst
400 gram

€ 0,74



Naturel chips
250 gram

€ 0,74



1+1
GRATIS

Naturel chips
250 gram

€ 0,74

7.2 Appendix B: Pre-test results

Table B1: Pre-test results

	Mean	Standard deviation
Hedonic		
<i>Chocolate biscuits</i> (125g, € 0,68)	3.49	.76
<i>Bag of crisps</i> (250g, € 0,78)	3.58	.52
<i>Bag of chocolate peanuts</i> (250g, €0,89)	3.42	.72
Utilitarian		
<i>A can of brown beans</i> (400g, € 0,68)	3	1.03
<i>A pack of rice</i> (400g, € 0,69)	3.87	.92
<i>A jar of corn</i> (180g, € 0,83)	3.54	.97

7.3 Appendix C: Survey design and measurement scales

Section 1: Introduction

Dear participant,

First of all, I would like to thank you for participating in this study. Currently, I am finishing my master in Marketing at the Radboud University. For my master thesis, I am researching the effect of promotions on different types of products.

For this study, you have to be 18 years or older and be the decider (in consultation or alone) and purchaser of groceries within your household. The survey will take approximately 6 minutes of your time. Your data will be handled with high confidentiality and the results will be processed completely anonymously. Please note that by filling out this survey you participate in a study. By continuing this survey, you agree that the participation was voluntary and your data can be used for research purposes only. You are entitled to stop the survey at any given time without any explanation.

And finally, by completing this survey, you have the chance to win a gift card of your own choice worth € 15, -. To be eligible for this price, you must complete the survey completely and fill in your e-mail address on the last page.

If you have any questions or comments about the study, please contact me at chantal.brouwer@student.ru.nl.

Thank you again for participating in this study.

Kind regards,

Chantal Brouwer

Section 2: Control questions

Table C1: Items and measurement scales

Section 2: Control questions	Items	Measurement scale
Age requirement	1. <i>Are you 18 years or older?</i>	<ul style="list-style-type: none"> • Yes • No
Decider and buyer	1. <i>Within your household, do you decide which groceries to purchase and do you purchase the groceries?</i>	<ul style="list-style-type: none"> • Yes • No

Section 3: Dependent variables

Table C2: Items and measurement scales

Section 3: Dependent variables	Items	Measurement scale
Attractiveness of product offering	1. <i>I like this product offering a lot.</i> 2. <i>I'm interested in this product offering.</i>	1 = strongly disagree 2 = disagree 3 = somewhat disagree 4 = neutral 5 = somewhat agree 6 = agree 7 = strongly agree
Purchase intention	1. <i>The likelihood of me purchasing this product is.</i> 2. <i>The probability that I would consider this product is.</i> 3. <i>My willingness to buy the product is.</i>	1 = very low 2 = low 3 = somewhat low 4 = neutral 5 = somewhat high 6 = high 7 = very high

Section 4: Covariate

Table C3: Items and measurement scales

Section 4: Covariate	Items	Measurement scale
Financial scarcity	<ol style="list-style-type: none"> 1. <i>I often don't have enough money.</i> 2. <i>I am often not able to pay my bills on time.</i> 3. <i>I often don't have money to pay for the things that I really need.</i> 4. <i>I experience little control over my financial situation.</i> 5. <i>I think I am not able to manage my finances properly. / I think I am able to manage my finances properly.</i> 6. <i>When I think about my financial situation, I feel powerless.</i> 7. <i>I am constantly wondering whether I have enough money.</i> 8. <i>I have a hard time thinking about things other than my financial situation.</i> 9. <i>I worry about money a lot.</i> 10. <i>I am only focusing on what I have to pay at this moment rather than my future expenses.</i> 11. <i>I don't take future expenses into account. / I take future expenses into account.</i> 12. <i>Because of my financial situation, I live from day to day.</i> 	<p>1 = strongly disagree</p> <p>2 = disagree</p> <p>3 = more or less disagree</p> <p>4 = neutral</p> <p>5 = more or less agree</p> <p>6 = agree</p> <p>7 = strongly disagree</p>

Section 5: Respondent information

Table C4: Items and measurement scales

Section 5: Respondent information	Item	Measurement scale
Gender	<i>1. What is your gender?</i>	<ul style="list-style-type: none"> • Male • Female • None of the above
Age	<i>1. What is your age?</i>	<ul style="list-style-type: none"> • 0-18 • 19-25 • 26-35 • 36-45 • 46-55 • 56-64 • <u>65+</u>
Residence	<i>1. In which province do you live?</i>	<ul style="list-style-type: none"> • Drenthe • Flevoland • Friesland • Gelderland • Groningen • Limburg • North Brabant • North Holland • Overijssel • South Holland • Utrecht • Zeeland • None of the above
Education	<i>1. What is the highest level of education you completed?</i>	<ul style="list-style-type: none"> • Primary school • Secondary school • MBO

		<ul style="list-style-type: none"> • HBO • University • None of the above
Household composition	1. <i>How many persons does your household consists of (including yourself)?</i>	<ul style="list-style-type: none"> • One • Two • Three • Four • Five • Six • Seven or more
Survey channel	1. <i>How did you hear about this research?</i>	<ul style="list-style-type: none"> • Through a flyer • Through a friend/family/colleague or acquaintance • Through social media • Through the newspaper

Closing word

Thank you for participating. If you want to win the gift card, please enter your email address here. If you would like to be kept informed of the research results, please enter your e-mail address here.

7.4 Appendix D: Shapiro-Wilk test

Table D1: Shapiro-Wilk test

Attractiveness of product offering			
	Statistic	df	Significance
<i>Hedonic</i>	.963	67	.046
<i>Hedonic with promotion</i>	.939	67	.003
<i>Utilitarian</i>	.932	65	.002
<i>Utilitarian with promotion</i>	.907	66	.000
Purchase intention			
	Statistic	df	Significance
<i>Hedonic</i>	.904	67	.000
<i>Hedonic with promotion</i>	.895	78	.000
<i>Utilitarian</i>	.931	65	.001
<i>Utilitarian with promotion</i>	.929	66	.001

7.5 Appendix E: Levene's test

Table E1: Levene's test

Hedonic vs. Utilitarian				
	Levene Statistic	df1	df2	Significance
<i>Attractiveness of product offering</i>	11.855	1	263	.001
<i>Purchase intention</i>	14.386	1	263	.000
Without promotion vs. With promotion				
	Levene Statistic	df1	df2	Significance
<i>Attractiveness of product offering</i>	.566	1	263	.453
<i>Purchase intention</i>	.017	1	263	.895
Low experience of financial scarcity vs. High experience of financial scarcity				
	Levene Statistic	df1	df2	Significance
<i>Attractiveness of product offering</i>	.572	1	263	.450
<i>Purchase intention</i>	1.344	1	263	.245

7.4 Appendix F: ANCOVA results

Table F1: Attractiveness of product offering – *Test of Between-Subjects Effects*

Attractiveness of product offering	Type III Sum of Squares	Df	Mean Square	F	Significance
<i>Corrected model</i>	96.945	11	8.813	3.788	.000
<i>Intercept</i>	1939.355	1	1939.355	833.643	.000
<i>Hed</i>	54.442	1	54.442	23.402	.000
<i>Prom</i>	10.380	1	10.380	4.462	.036
<i>fsdum</i>	.404	1	.404	.174	.677
<i>Hed*Prom</i>	10.159	1	10.159	4.367	.038
<i>Prom*fsdum</i>	.002	1	.002	.001	.978
<i>Hed*fsdum</i>	7.209	1	7.209	3.099	.080
<i>Hed*Prom*fsdum</i>	7.267	1	7.267	3.124	.078
<i>Dummy_Geslacht</i>	.060	1	.060	.026	.872
<i>Dummy_Leeftijd</i>	2.503	1	2.503	1.076	.301
<i>Dummy_Education</i>	11.496	1	11.496	4.942	.027
<i>Dummy_Huishouden</i>	.227	1	.227	.097	.755
<i>Error</i>	588.570	253	2.326		
<i>Total</i>	6357.500	265			
<i>Corrected Total</i>	685.515	264			

Table F2: Attractiveness of product offering – *Parameter Estimates*

Attractiveness of product offering	B	Standard Error	t	Significance
Intercept	4.356	.254	17.137	.000
Hed = .00	1.558	.324	4.808	.000
Hed = 1.00	0 ^a	.	.	.
Prom = .00	-.004	.310	-.012	.991
Prom = 1.00	0 ^a	.	.	.
Fsdum	.840	.419	2.004	.046
Hed = .00 * Prom = .00	-.941	.450	-2.090	.038
Hed = 0.00 * Prom = 1.00	0 ^a	.	.	.
Hed = 1.00 * Prom = .00	0 ^a	.	.	.
Hed = 1.00 * Prom = 1.00	0 ^a	.	.	.

Prom = .00 * fsdum	-.755	.607	-1.245	.214
Prom = 1.00 * fsdum	0 ^a	.	.	.
Hed = .00 * fsdum	-1.483	.568	-2.609	.010
Hed = 1.00 * fsdum	0 ^a	.	.	.
Hed = .00 * Prom = .00 * fsdum	1.489	.842	1.767	.078
Hed = .00 * Prom 1.00 * fsdum	0 ^a	.	.	.
Hed = 1.00 * Prom = .00 * fsdum	0 ^a	.	.	.
Hed = 1.00 * Prom = 1.00 * fsdum	0 ^a	.	.	.
Dummy_Geslacht	-.041	.252	-.161	.872
Dummy_Leeftijd	-.213	.206	-1.037	.301
Dummy_Education	-.451	.203	-2.223	.027
Dummy_Huishouden	-.063	.202	-.312	.755

Table F3: Purchase intention – Test of Between-Subjects Effects

Purchase inention	Type III Sum of Squares	Df	Mean Square	F	Significance
<i>Corrected model</i>	148.531	11	13.503	4.313	.000
<i>Intercept</i>	1371.343	1	1371.343	438.035	.000
<i>Hed</i>	90.348	1	90.348	28.859	.000
<i>Prom</i>	12.724	1	12.724	4.064	.045
<i>fsdum</i>	2.694	1	2.694	.860	.355
<i>Hed*Prom</i>	10.857	1	10.857	3.468	.064
<i>Prom*fsdum</i>	.824	1	.824	.263	.608
<i>Hed*fsdum</i>	12.418	1	12.418	3.967	.047
<i>Hed*Prom*fsdum</i>	18.326	1	18.326	5.854	.016
<i>Dummy_Geslacht</i>	1.226	1	1.226	.392	.532
<i>Dummy_Leeftijd</i>	.269	1	.269	.086	.770
<i>Dummy_Education</i>	11.024	1	11.024	3.521	.062
<i>Dummy_Huishouden</i>	.048	1	.048	.015	.902
<i>Error</i>	792.059	253	3.131		
<i>Total</i>	5053.556	265			
<i>Corrected Total</i>	940.590	264			

Table F4: Purchase intention – *Parameter Estimates*

Purchase intention	B	Standard Error	t	Significance
Intercept	3.437	.295	11.658	.000
Hed = .00	1.887	.376	5.020	.000
Hed = 1.00	0 ^a	.	.	.
Prom = .00	-.039	.360	-.107	.915
Prom = 1.00	0 ^a	.	.	.
Fsdum	1.440	.486	2.961	.003
Hed = .00 * Prom = .00	-.973	.523	-1.862	.064
Hed = 0.00 * Prom = 1.00	0 ^a	.	.	.
Hed = 1.00 * Prom = .00	0 ^a	.	.	.
Hed = 1.00 * Prom = 1.00	0 ^a	.	.	.
Prom = .00 * fsdum	-1.431	.704	-2.034	.043
Prom = 1.00 * fsdum	0 ^a	.	.	.
Hed = .00 * fsdum	-2.151	.659	-3.263	.001
Hed = 1.00 * fsdum	0 ^a	.	.	.
Hed = .00 * Prom = .00 * fsdum	2.362	.976	2.419	.016
Hed = .00 * Prom 1.00 * fsdum	0 ^a	.	.	.
Hed = 1.00 * Prom = .00 * fsdum	0 ^a	.	.	.
Hed = 1.00 * Prom = 1.00 * fsdum	0 ^a	.	.	.
Dummy_Geslacht	-.183	.293	-.626	.532
Dummy_Leeftijd	-.070	.239	-.293	.770
Dummy_Education	-.442	.236	-1.877	.062
Dummy_Huishouden	-.029	.235	-.124	.902

7.5 Appendix G: Profile plots

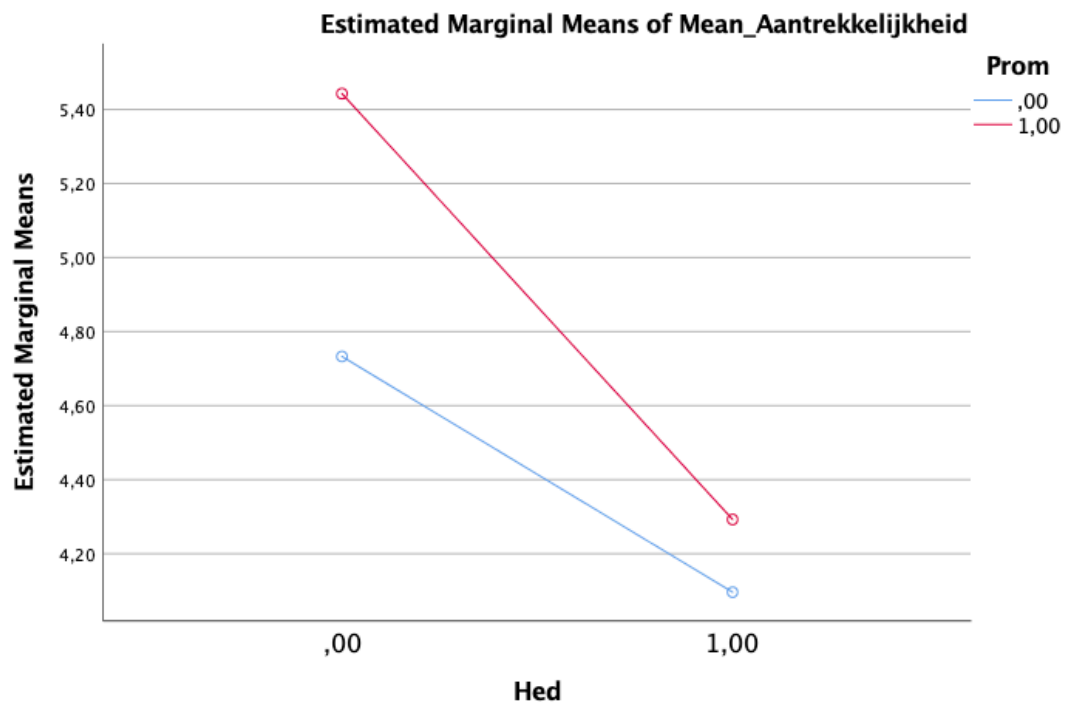


Figure G1: Profile plot of attractiveness of product offering

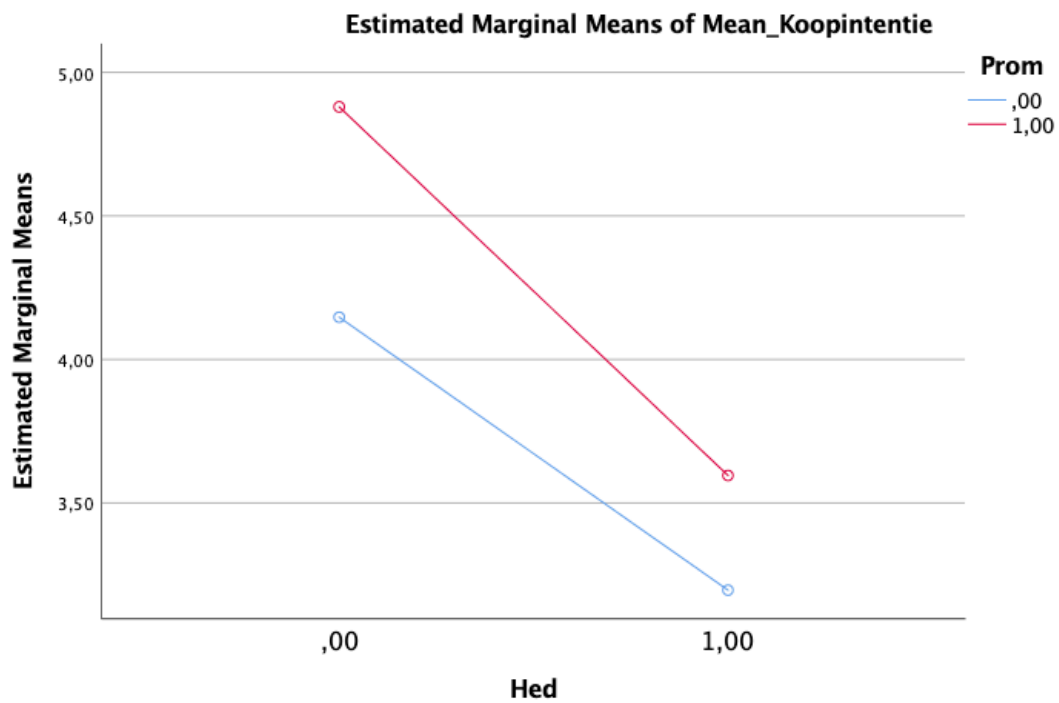


Figure G2: Profile plot of purchase intention

