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Promotion Framing at NS retailers

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Promotion framing at NS retailers

“To what extent does promotion framing increase promotion effectiveness”

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SUMMARY

In recent years, the number of NS train travelers increased substantially and gave rise to a jump in consumption at NS train stations. The jump in consumption has led to a noticeable increase in the number of retailers at NS stations. Nowadays more than ten foodservice chains are located at NS train stations all over the Netherlands (e.g. Kiosk, Julia's, de Broodzaak, Enoki, Hema, Starbucks, AH to go, and so on). These retail chains are operative in a peculiar consumption market where consumers are dealing with time pressure on the one hand, and spare time on the other hand. These peculiar conditions and the lack of prior research contribute to a deficiency in knowledge concerning consumption behavior at the NS retail outlets. This deficiency especially counts for the behavior towards promotions. Promotion literature is frequently associated with framing which is known as presenting promotional price offers in various ways, while keeping the discount the same. This research aims to provide insights in how the train travelers behave towards differently framed promotions such as reference framing (was...now), absolute framing (€1 off), relative framing (50% off), zero-price framing (extra free product), and couponing (€1 at your next visit). To answer this question the following research question is formulated:

“To what extent does promotion framing increase promotion effectiveness?”.

A quantitative analysis was performed based on an online questionnaire that was constructed in collaboration with the market research institute GfK. The questionnaire was executed among GfK's consumer panel and was filled out by 2080 respondents who recently traveled by train. From these respondents 9 equally divided groups were formed and exposed to 9 different promotion frames (scenario's) that offered one's favorite drink. Each promotion frame was followed by questions regarding attractiveness, willingness to buy and return intention. Besides this, the tendency of the respondents for impulsive buying behavior was measured. Socio-demographics and traveler profiles were questioned to find extra potential insights. Based on the results, train travelers showed reference dependent preference since they valued the reference promotion frame (was...now) highest. Offering an extra free product (the same, or different product) was valued lowest according to the results. Furthermore, train travelers in general valued promotions that offered more than one product worse than promotions offering a single product. Impulsiveness played an important role in the promotion evaluation as it seemed that higher impulsiveness led to higher promotion valuation. Additionally, train travelers at higher age showed significant lower impulsivity and significant lower evaluation of the promotion. From an educational perspective, lower educated train travelers valued the promotion frames higher than middle or higher educated train travelers. It is recommended for NS retailers to adopt reference promotion framing and avoid promotions including more than one product. Triggering the impulsiveness of the train traveler may also lead to increase in sales. Recommendations for further research suggest to test the outcomes of this study in real-life situations and on multiple products. Furthermore, these frames can be researched in other retail environments and contexts as well. Finally, research in how to increase impulsiveness may provide interesting and useful insights.

PREFACE

This Msc thesis is written as part of the master program Management, Economics and Consumer studies at Wageningen University. The subject concerns consumer behavior towards different promotion frames at NS retailers. This thesis is written for the department Economics of Consumers and Households. Furthermore, this research has been conducted in collaboration with the market research institute Gfk. Together with Gfk I found opportunities for research in the growing and relatively young market of NS retailers. With my interest in consumer behavior and retail I came up with the idea to test different ways of promotions at these retail outlets. This research has been executed from November 2016 until the end of April 2017.

Results of this research were made possible by a group of people who supported and helped me throughout the process. I would like them to thank for their help, time and effort they have put into this thesis. First, I would like to thank my supervisor Prof.dr. Gerrit Antonides for his helpful guidance and support during the period. Second, I would like to thank my Gfk colleagues, Bas van Eekelen, Rob van Dongen, Sander Cooljmans and Ingrid Hoogwerf for their help, input, and feedback to improve the content of my thesis. Besides, I would like to thank Gfk in general for the permission to use their consumer panel and help in distributing my questionnaire. Furthermore, I would like to thank Dr. Michel Handgraaf for reading my thesis and his useful feedback during my proposal presentation. Finally, a special thanks to my family and friends who have supported me and kept me motivated from the beginning to the end.

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1. INTRODUCTION

1.1 Foodservice market and out-of-home consumption

The Dutch foodservice market is an increasing and upcoming market segment. Foodservice is the area in which suppliers provide ready-to-consume foods and drinks to consumers (Grievink, 2016). The definition “foodservice” does not determine exactly whether a place that sells food and drinks is a foodservice, which causes uncertainty about the market and its size. Therefore the terms out-of-home consumption and in-home-consumption are used to distinguish more clearly between these concepts. Home consumption focuses on the services where consumers buy their food products to take along to consume it at home (e.g. supermarket retailers, bakeries and the marketplace). Out-of-home (OOH) consumption is divided into the following categories and subcategories:

- ❖ Classic hospitality (hotels, café/bars, restaurants and leisure)
- ❖ Catering (business, institutions, education, events)
- ❖ Convenience (fast service, fast service in travel and retail, petrol, lunchrooms, coffee bars, food delivery)

The majority of these OOH categories are growing in terms of the number of visits and therefore retailers and suppliers find it important to increase their knowledge of how consumers use their services. Compared to services that focus on in-home-consumption (e.g. supermarket retailers) less knowledge of consumer behaviour has been acquired in the area of OOH services. This deficiency in knowledge has led OOH retailers and suppliers to initiate for more research on consumer behaviour in the specific area of out-of-home consumption (Grievink, 2016) (Merkx, 2017).

1.2 NS Retail

One increasing market that suffers from a deficiency in knowledge is the railway station retail market. With an increase in train use in the Netherlands of almost 20% from 2005 to 2015 more people are consuming at railway retailers located at NS train stations (Grievink, 2016) (Peter Jorritsma, 2016). In the last ten years the number of retailers operating at NS train stations has increased from almost none to more than ten foodservice chains (e.g. Kiosk, Julia’s, de Broodzaak, Enoki, HEMA, Starbucks, AH to go) with over 300 shops all around the Netherlands (NSRetail, 2016). This growth in terms of travellers, consumption, and shops makes NS retail an important player in the Dutch OOH market with much growth potential. The deficiency in knowledge at NS retail mostly concerns knowledge of promotional activities

and especially how consumers react to this way of growing service performance (Merkx, 2017). Many studies can be found on consumer behaviour towards promotions at a wide range of consumer markets. To the best of my knowledge, there has not yet been any study or research that focused on consumer behaviour towards promotions at railway station retail markets. This is the reason why this study focuses on consumer behaviour towards promotional activities at the NS railway market.



Figure 1.1 Logo's of several NS retailers

1.3 Consumer behavior, framing promotions and the zero-price effect

The NS Retail shops sell ready-to-consume food products to “transumers”, a terminology for consumers in transit used by Newman & Jones (1999). Transumers have different shopping behaviors compared to consumers visiting towns or city based retailers (Crawford & Melewar, 2003). One main difference is related to time pressure. Some transumers deal with high time pressure to catch their train, while others have plenty of time as they are waiting for their’s to leave. This may result in buying behaviors in the form of hasty decisions on the one hand, and on the other hand purchase behavior because of spare time (Merkx, 2017). In line with this, Schwartz et al. (2002), also found that a two-way distinction in purchase behavior can be made with time as a fundamental factor. Where one group of people make choices based on lots of time and effort (known as maximizers), do others make fast, irrational and more impulsive decisions (known as satisficers) (Schwartz et al., 2002). These differences make these shops operating in a peculiar market which makes new insights even more useful. These new insights may overcome the deficiency in knowledge of how the promotions are conceived by the consumers at NS retailers. The retailers mentioned before offer all kinds of foods and drinks in order to serve the demand of the travelling customer. Currently, these shops use a few promotional techniques to attract and retain (new) customers in the form of social media promotion and sales promotions presented in and outside the shops. Currently, the decisions concerning these promotional activities are not based on any underlying research or studies on “transumer” behavior towards promotions (Merkx, 2017). This research will attempt to fill this gap by testing different promotion frames on drinks in order to find out which presentation leads to the highest

consumer promotion evaluation. In this research, the promotion evaluation will be measured by the constructs attractiveness of the promotion, willingness to buy the promotion and intention to return to the retail outlet.

Browsing literature concerning promotions brought me some insights on promotion framing. Framing promotions can be explained as differentiating the way a promotional price message is presented which changes the perception of the discount value for consumers, even when the offers are equivalent in value (Chen, Monroe, & Lou, 1998). Many studies have shown that consumers frequently deviate from rational behavior and instead use non-rational behavior due to several heuristics and biases. The framing effect is an example of such cognitive biases and is frequently applied in sales and especially price promotions (Sinha & Smith, 2000; Thaler, Kahneman, & Tversky, 2000a). In line with the term framing, Shampanier et al. (2007) found that consumers experience positive affections when they are exposed to an offer that is framed as being for free. This so-called zero-price effect on promotions has an added positive element where consumers feel attracted to (Shampanier, Mazar, & Ariely, 2007a). Besides this zero-price effect also other promotions have been associated with framing such as reference price frames, relative and absolute price frames and couponing/cashback price frames. The lack of insights into NS retail, promotions, and the new behavioral economic insights into promotional framing and the zero-price effect have led to the research question stated next.

1.4 Research question

Three constructs are measured in order to evaluate several promotional frames.

- Attractiveness guides the success or failure of a promotion since it decides whether a consumer sees and reacts to a promotion (Dodds, Monroe, & Grewal, 1991; Simonson, Carmon, & Curry, 2016).
- Willingness to buy then determines if the consumer actually does, or does not purchase the offered product.
- Return intention is the construct that captures whether customers come back to the shop. Nagar (2009) states that returning customers are extremely important since this will result in repeat purchases and thus increasing sales (Nagar, 2009).

In this study the combination of these three construct together is defined as promotion effectiveness. Together with the insights from the previous section the research question is as follows:

To what extent does promotion framing increase promotion effectiveness?

1.5 Relevance

This study aims to contribute to the area of consumer behavior towards promotions. This is done with an exploratory study on the effects of zero-price framing, and other promotion frames, on attractiveness, willingness to buy and return intention. A survey is held among consumers who recently travelled by train in order to find out about their behavioral intentions towards promotions. NS retail is eager to acquire this information so that they can take the results into account and improve their shop management. Recent studies showed that there is a positive relation between consumer behavior and zero-pricing (Shampanier, Mazar, & Ariely, 2007b). Most of these studies solely focus on a zero price promotion and a non-zero price promotion (Darke & Chung, 2005a; Shampanier et al., 2007b). This research includes a comparison between zero pricing and other ways of promotional framing. Attraction, willingness to buy and retention are constructs that have been studied frequently in slightly different contexts such as attractiveness on coupon promotions, effects of price, store, and brand on the willingness to buy and retention rates in relation with brand loyalty. By measuring these constructs on different promotion frames a new context is addressed.

The results of this study are also applicable in practice. Results of this study will give insights into consumer behavior towards price promotions, willingness to buy and retention in particular. Retailers and fast moving consumer goods (FMCG) suppliers working in the area of the railway station retail market can use these outcomes in their marketing programs in order to attract and retain consumers.

This research is organized in the following way. The introduction is followed by a literature study on promotions, framing and consumer behavior. Within this part, the different promotion frames are being explained. After this, a conceptual framework and the hypothesis derived from the literature research are clarified. Subsequently, the methodology of the study is explained. Next, the results of the study are presented and finally the theoretical and practical implications are discussed. Also, the study limitations are included in this part.

2. THEORETICAL FRAMEWORK

This chapter includes insights retained from existing studies and literature on consumer behavior, promotional framing and promotion effectiveness. First, consumer evaluation of promotions is explained. This is followed by different promotion frames that are used in this study. Furthermore it is explained how these frames affect consumer behavior and how they are related with the consumer value ,function in prospect theory. The end of this chapter concerns other influencing factors that affect behavior towards promotions. Also it is explained how these influences are included in this study.

2.1 Evaluation of promotions

Sales promotions have been defined by Kotler (1997) as a diverse collection of incentive tools designed to stimulate faster and/or larger purchases of products or services by consumers or the trade. A common sales promotion is price promotion. Promotional pricing can be defined as temporarily offering a discounted price to stimulate the product sales to cost-sensitive consumers. Retailers that use price promotions drive category demand and encourage product and brand switching of consumers. Consumers themselves feel good about the economic savings received in a price promotion and therefore price promotions guide buying decisions and stimulate product trials (Lee & Tsai, 2014). Various studies on consumer behavior and sales promotions show that consumers respond to promotions in different ways. Some consumers are more sensitive to one promotion than to another which leads to differences in promotion evaluation (Blattberg & Neslin, 1989). Previous studies on promotions and deals use different constructs to measure deal or promotion evaluation. In this study, three evaluation constructs are used in order to measure how consumers at NS retailers evaluate the framed promotions, namely attractiveness, willingness to buy and return intention. These construct will be considered next.

2.1.1 Attractiveness

Whether consumers find a promotion attractive is a guiding factor that indicates the success or failure of a promotion (Simonson et al., 2016). Attractiveness is measured in this study as the construct that comes prior to the willingness to buy and is indicating whether consumers like the promotion or not. Attractiveness does not lead to buying behaviour directly, but it seems leading in the purchase intentions of products and so may lead to purchase behaviour indirectly (Inman, Peter, & Raghubir, 1997).

Promotion attractiveness is also measured by an additional hedonic process that influences purchase decisions, which is called “the pain of paying”. The pain of paying can be defined as a displeasure evoked by paying for something. Earlier studies and literature shows, for example, that paying with cash

is felt to be more painful than paying with less painful methods (e.g. credit-cards) (Zellermayer & Zellermayer, 2015). Mazar et al. (2016) performed further research on the pain of paying and delivered direct evidence of the construct. They conducted three experiments among which one included so-called functional magnetic resonance imaging (fMRI). fMRI was used to keep track of the neural activities while respondents were making decisions without influencing their choice behaviour. These experiments proved that consumers indeed activate pathways in the affective brain regions (emotions) while paying with money. With these findings it can be assumed that the amount of pain felt when paying for something determines the decision making behaviour. Promotions can lead to a lower price to be paid which is assumed to lower the pain of paying.

2.1.3 Willingness to buy

Willingness to buy can be defined as the likelihood that a consumer intends to really buy a certain product (Dodds et al., 1991). Different studies performed on promotions include willingness to buy as the indicator to measure whether consumers have the intention to buy the product on sale, also known as the purchase intention. Willingness to buy is measured since it is a logical continuation on the measurement of attractiveness of the promotion. Where attractiveness measures consumer evaluation, willingness to buy is more focused on the actual buying behaviour of the consumer. Prior research shows that willingness to buy is strongly linked with promotional framing (Bitta, Monroe, & McGinnis, 1981).

2.1.4 Return intention

The third dependent variable that will be measured is the intention to return to the retail outlet. Customer retention is according to Hayes (2008), next to advocacy and purchasing, a general component of customer loyalty. Returning customers are very important because it leads to repeated purchases and thus increasing sales. Improving customer loyalty leads therefore to faster business growth (Hayes, 2008; Nagar, 2009). A meta-analysis done by Santini et al. (2016) tested and confirmed the empirical evidence of positive relations between promotions and customer loyalty. They found that these positive relations are established by consumers' willingness to try promoted products and brands which lead to repurchase intention. Other studies show similar results and explain that promotions strengthen consumers' preferences of a promoted brand or product (Lattin & Bucklin, 1989).

2.2 Framing promotions

Prior research shows that differentiating the way a promotional price message is communicated changes the perception of the discount value for consumers, even when all the offers are equivalent in value (Sinha & Smith, 2000). Different ways of framing promotions have been studied in the past and the most relevant types of price framing with associating examples are discussed in the following sections. First, the term framing is explained according to a study done on “decision framing” by Kahneman and Tversky (1981).

2.2.1 Decision framing

According to Kahneman & Tversky (1981) consumer choice behavior is founded on the assumption of human rationality. Rationality can be defined in many ways. Kahneman and Tversky (1981) define it as follows: “rational choices are made in order to satisfy some elementary requirements of consistency and coherence”. Consumers sometimes violate rationality in making decisions to a construct called “decision framing”. Decision framing leads consumers to make decisions that are influenced by the way a choice is formulated. Decision problems can be framed in different ways and results show that consumers’ cognitive judgments, and thus behaviors, are influenced by the way of framing the decision (Kahneman & Tversky, 1984).

Prospect theory and the value function

Different types of framing can be applied when composing promotions. This is confirmed by Chen et al. (1998) who say that presenting promotional price offers in various ways, while keeping the benefits and costs constant, is similar to decision framing. Chen et al. (1998) also state that framing price promotions stimulate purchase behavior. The majority of the studies done on price framing refer to prospect theory which explains the consumers’ value function of losses and gains. Prospect theory has some important fundamental features. First, the consumers’ value function includes gains and losses relative to a point of reference (for example, a price expectation) where consumers base their decisions on. This is known as the adaptation level. Second, consumers show diminishing sensitivity over gains and losses (for example, the difference between €5, - and €10, - is perceived as larger than the difference between €100, - and €105,-). And third, consumers are loss averse (losing €50,- seems to hurt more than gaining €50,- is pleasurable) (Kahneman & Tversky, 1984; Thaler, Kahneman, & Tversky, 2000b). Many other studies contributed to the literature that focuses on consumer choice behavior, prospect theory, and the corresponding value function. They have shown that there is another event called the zero-price effect that influences rational choice behavior. Offering a zero price (“for free”) to consumers is apparently treated differently from discounted prices that are still above zero. This so-called zero-price effect

apparently leads to higher intrinsic product value compared to a product that is only decreased in price, and thus, still above zero. This effect leads to a discontinuity, or interruption, in the value function at zero (see Figure 2.1). This discontinuity can be considered as a special case of concavity where the function jumps upwards from the reference point from where it continues further on the upward slope. Evidence shows that products with a zero-price effect lead to differences in decision behavior (Chandran & Morwitz, 2006; Mazar, Shampanier, & Ariely, 2015; Palmeira, 2011; Shampanier et al., 2007a). Figure 2.1 shows the value function with previously discussed features of prospect theory are shown.

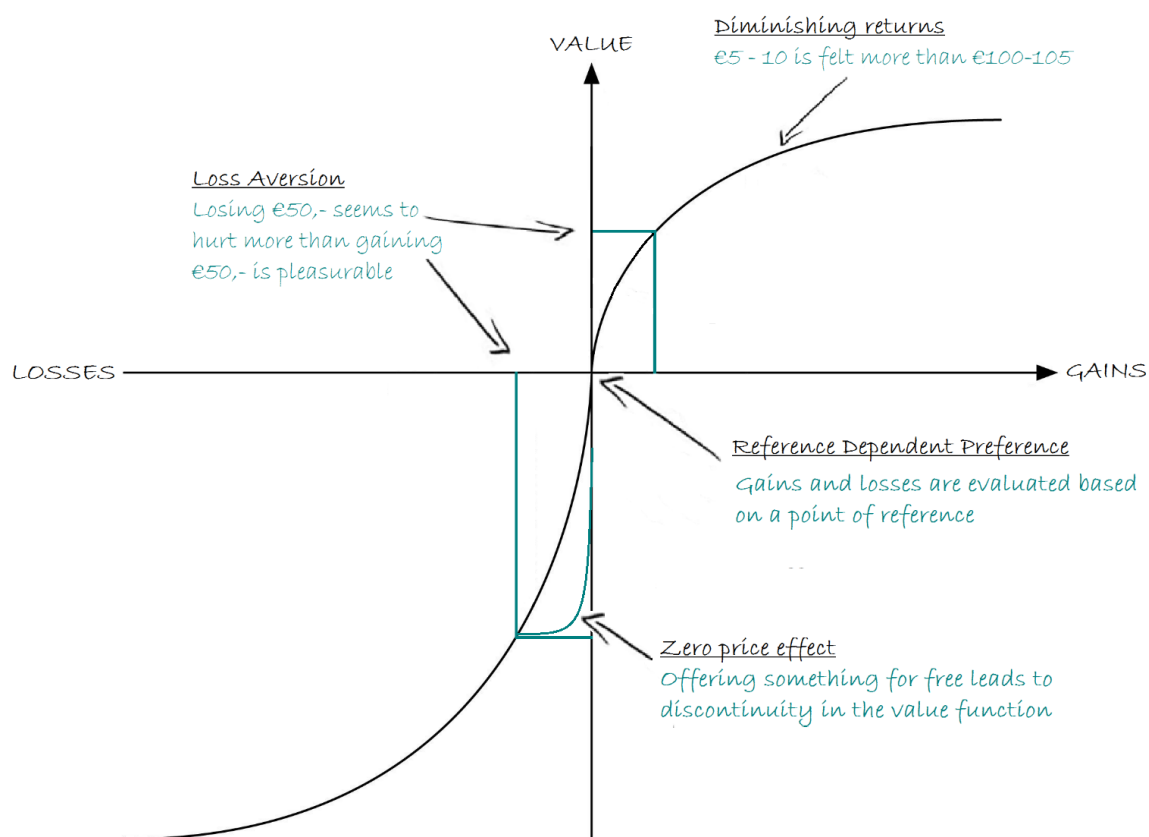


Figure 2.1 The value function of prospect theory and the zero price effect

Many ways of price framing show coherence with the previously discussed features of prospect theory. Reference price promotions are for example based on adaptation level theory where gains and losses are perceived relative to a point of reference. Furthermore, the marginally diminishing character of gains and losses in the value function shows that consumers evaluate price discounts in a relative rather than an absolute way. Zero-priced promotions also show coherency with the value function as it leads to

a differentiation in product valuation by consumers. The next sections will further elaborate on these different price frames and promotions and how these relate to the consumers value function and decision behavior.

2.2.3 Framing in relative and absolute terms

In line with prospect theory, it is confirmed that consumers evaluate price discounts in relative rather than in absolute ways (Kahneman & Tversky, 1984). The value function in prospect theory, which is defined on gains and losses, shows diminishing sensitivity for consumption levels that lie further away from the point of reference. This results in events where, for example, consumers feel a gain of €5 to €10 as more than a gain of €100 to €105 (see Figure 2.1).

Several studies found consistency between this feature of prospect theory and the area of promotional pricing. Kahneman & Tversky (1984), for example, showed that consumers rather choose a price discount of \$5,- on a low priced product worth \$15,- (relatively high discount) than on a high priced product worth \$125,- (relatively low discount). Grewal and Marmorstein (1994) elaborated further on this behavior by comparing different valued products with equal discounts. It seems again that consumers chose the high percentage discount over the low percentage discount. This choice behavior can be explained by the fact that consumers evaluate prices in terms of a proportion of a certain reference point. Therefore it can be assumed that consumers evaluate prices and discounts in relative ways (Grewal & Marmorstein, 1994) (Hardesty & Bearden, 2003). This relative way of thinking has been further investigated by several studies in terms of different promotional frames. Equivalent semantic cues (percentage-off and absolute discounts) were tested on both high and low valued offers. It seems that consumers evaluated the different frames also in a relative and proportional way. According to these studies, high valued products are recommended to be promoted in absolute (€) terms, and low valued products in relative terms (%) (Chen et al., 1998; Hardesty & Bearden, 2003; Heath, Chatterjee, & France, 1995). Furthermore, McKechnie et al. (2012) found that the amount of discount given also plays an important role in promotion and discount evaluation. Larger discounts (e.g. 45 percent) result in higher intention to purchase when these are framed in percentage terms. Small discounts (e.g. 10 percent) are recommended to be framed in absolute terms in order to increase the intention to purchase (McKechnie, Devlin, Ennew, & Smith, 2012).

In this study, the drinks and discounts offered at NS retail are considered as low valued products with high discounts. Considering that consumers behave according to prospect theory, and thus evaluate

price discounts in rather relative than absolute ways, it is assumed that the drinks at NS retailers that are promoted with a relative frame (%) are evaluated higher than promotions framed in absolute terms (€). Higher evaluation is expected to cause higher attractiveness, willingness to buy and finally intention to return. These assumptions lead to the following hypothesis.

H1: Relative-price-framed promotions at NS retailers lead to higher promotion effectiveness than promotions framed in absolute terms.

Table 2.1 shows how the two differently framed promotion are going to be tested in this research.

Table 2.1 Relative & Absolute frames

Promotion Type	Scenario
Price Discount <i>Relative frame</i>	Uw favoriete €2 drankje met 50% korting <i>Your favorite €2 drink with 50% discount</i>
Price Discount <i>Absolute frame</i>	Uw favoriete €2 drankje met €1,- korting <i>Your favorite €2 drink with €1,- discount</i>

2.2.3 Reference price frame

One of the fundamental principles of prospect theory is the reference-dependent preference that occurs in consumer behavior. The value function in Figure 2.1 shows a point of reference which is used by consumers to evaluate certain outcomes relatively. Gains and losses are then evaluated based on this point of reference. Loss aversion causes consumers to dislike losses relative to their reference point more than to like same-sized gains (Kahneman & Tversky, 2007). Since that purchasing behavior is closely linked with loss aversion and the theory of reference-dependent preference marketers often use reference price frames in their promotional activities. Reference pricing is a tool that shows the price in comparison to another price and thus responds to the consumers value function with the corresponding reference point.

Transaction utility theory

Reference pricing influences consumer behavior towards prices because by showing both the selling and comparison price the saving is made visible for the consumer (Blair & Landon, 1981). One underlying meaning why reference price frames influence consumer decision making can be linked with transaction

utility theory (Thaler et al., 2000b). This theory states that promotions provide both acquisition utility and transaction utility. Acquisition utility is the real economic value that is received in the promotion. Transaction utility goes beyond these economic outcomes and contains the merits a consumer receives from the deal itself. The valuation of transaction utility comes from comparing the discount given with the earlier discussed reference point. In transaction utility theory this point is called the internal reference price (IRP) and is the price stored in the memory of the consumer. Various researches have been done on this topic and show that among others expected price, aspiration price and last price paid are being used by the consumer as a referent to base their decision on. The valuation of the transaction becomes higher when the discount meets or falls below this IRP (Biswas & Blair, 1991; Bitta et al., 1981; Krishna, Briesch, Lehmann, & Yuan, 2002). The IRP corresponds directly with the external reference price (ERP), known as the price the consumer can actually see at, for example, the retailer. Framing the ERP can, therefore, help to influence and manipulate the IRP (Darke & Chung, 2005b). Thus, besides the size of the discount, the way of communicating the discount is important for the consumer. Research on external reference pricing showed that using the regular price (e.g. was €., now €.) as a promotional frame increases perceived savings which may lead to higher promotion effectiveness (Krishna et al., 2002). Also, Grewal, Marmorstein and Sharma (1996) show similar findings that communicating the regular price next to the discounted price in the store leads to higher perceived promotion value.

Considering theories of reference-dependent preference and transaction utility in combination with the outcomes of previously conducted experiments on reference pricing it is assumed that this leads to higher promotion effectiveness. This effectiveness will be measured by means of attractiveness, willingness to buy and intention to return. The promotional frame in Table 2.2 should test the following hypothesis:

H2: Showing the regular price as a reference in a promotion leads to higher promotion effectiveness than a promotion not framed with a reference price.

Table 2.2 Reference price frame

Promotion Type	Scenario
Price Discount	Uw favoriete drankje van €2,- voor €1,-
Reference frame	Your favorite drink from €2,- for €1,-

2.2.4 Zero-Price effect

The zero-price model assumes that when something is offered at zero price (“for free”), consumers do not use standard cost-benefit models due the psychological effects that a free good invokes. As mentioned earlier the zero-price effect also shows consistency with prospect theory and its corresponding value function. Prospect theory suggests that consumer decision making is framed with respect to a point of reference in this value function (Kahneman & Tversky, 2007). In case a good is offered for free, the consumer compares the reference point with the zero which seemingly differentiates from comparing to a price above zero in, for example, an equivalent monetary promotion (Chandran & Morwitz, 2006). Similar results are found in other studies that showed that monetary framed promotions (e.g. a straight price discount) result in a small gain compared to a larger loss. Non-monetary framed promotions (considered as zero-priced or “free”) show the opposite and are therefore evaluated higher (Diamond & Sanyal, 1990). Furthermore, the diminishing sensitivity of the consumers value function indicates that consumer decision making is not absolute and not based on standard economics of cost and benefits (Palmeira, 2011). These theories around the zero-price effect have been confirmed by Ariely and Shampanier (2007) who showed that consumers behave irrationally towards ‘free’ products.

In their experiment consumers were asked to make a choice between high and low valued chocolates with three different discount conditions. 1) *high valued chocolate costs 15¢, low valued chocolate costs 1¢*, 2) *high valued chocolate costs 14¢, low valued chocolate costs 0¢*, 3) *high valued chocolate costs 10¢, low valued chocolate costs 0¢*. When the chocolates were discounted from condition 1 to condition 2 the demand for the low valued chocolate (0¢) increased substantially whereas the demand for the high valued chocolate (14¢) decreased substantially. Even more interesting is the result of the third condition. Although the price drop of the high valued product (from 15¢ to 10¢) is five times higher than the price drop of the low valued product (from 1¢ to 0¢) the majority of the respondents still chose the price drop to zero (64%). This means that it can be assumed that consumers neglect the standard economic model and feel that zero pricing decreases costs and increases benefits (Shampanier et al., 2007a).

Affect

Several other studies focused on the zero-price effect and found even more proof of its existence and psychological explanations next to the fundamentals of prospect theory. It seems that the affect heuristic is another core explanation of the zero-price effect. This heuristic allows consumers to evaluate quickly and efficiently in relation to certain stimuli (e.g. a promotion). These evaluations are formed by emotional

response, also known as affect, which leads to a shorter process of decision making. Affection results in less extensive information search and so less cognitive evaluation by consumers (Finucane, Alhakami, Slovic, & Johnson, 2000). Shampanier et al. (2007) found that choices without a downside (in their case no costs) result in positive affection. Accordingly, consumers feel attracted to free product promotions and therefore rather opt for a free than a non-free option (Shampanier et al., 2007a). In line with this positive affection that the zero-price effect causes, another study found that free products are processed by consumers as independently from price which leads to high salient evaluations. Conversely, price discounts, for example, are connected with price and thus incorporated value assessment resulting in less salient features of the product or promotion. Higher salience seems to provide consumers positive affection with the promotion (Chandran & Morwitz, 2006).

Product bundles

Regarding previously described findings on the zero-price effect, it is assumed that promotions with a zero price frame are beneficial and result in higher promotion effectiveness than monetary promotions. In order to test whether this is also true in the NS retail market two types of product bundles including a zero-price frame will be tested. Bundling is known as the marketing practice in which retailers and other sellers combine two or even more products in one package for a single price. Often, bundles are offered at a lower price than the individual products together and so provide monetary savings for the buyer. This makes product bundles attractive for consumers (Kim, Warnick, & Bojanic, 2009). In the foodservice market, two types of product bundles are currently used, the multi-buy and the combination-deal (NSRetail, 2016).

The first product bundle provides a discount when the consumer buys more than one of the same products (e.g. the second bottle of coke for free). The second product bundle is based on the same structure but then the discount is provided on a different, more complementary product (e.g. a free snack when buying a bottle of coke). In the product bundle literature, a complementary product can be defined as a product that has a good fit and is functionally related to the other product in a certain context. Many studies have been conducted on testing product bundle types in different contexts including, for example, food and drinks deals in the fast-food market (Varadarajan, 1986) (Estalami, 1999). Results show that complementary bundles in relation to unrelated bundles, provoke higher satisfaction and more positive evaluation by consumers. This is because complementary bundles assist in the consumers daily practices and the combination of the two products in the deal make both products more attractive (Kim, Warnick, & Bojanic, 2009). Besides, it is also expected that the multi-buy promotion (two of the same products)

may provoke saturation among consumer regarding the law of diminishing marginal utility (Kahneman & Tversky, 2007). This means that the utility of a good decreases when an individual purchases or consumes more than one unit of the same product. In other words, if more and more units of the same product are consumed, every extra product gives utility with a decreasing rate (this can also be seen in the value function in Figure 2.1). Regarding this theory in the context of the multi-buy promotion it is expected that two of the same products will also cause saturation and diminishing marginal utility.

The combination deal in this study (snack and drink) can be compared with a complementary product bundle. The multi-buy, which offers two of the same products, will be considered as an unrelated product bundle. The zero-price effect is going to be tested on these two product bundles. The assumption that the zero price effect leads to higher promotion effectiveness will be tested with hypothesis 3. Furthermore, it is expected that the combination-deal will result in higher promotion effectiveness than the multi-buy deal since offering two complementing goods is expected to lead to higher satisfaction for consumers. Besides, it is expected that more than one of the same products leads to saturation and diminishing marginal utility. This assumption will be tested with hypothesis 4. Below, both hypotheses are described and followed by Table 2.3 which shows how the two differently framed promotions are going to be tested in this research.

H3: The zero-price effect leaves consumers to evaluate promotions with a free product as higher than promotions without a free product which results in higher promotion effectiveness.

H4: The combination-deal will score higher on promotion effectiveness than the multi-buy deal.

Table 2.3 Zero-price frames

Promotion Type	Scenario
Multibuy	2 van uw favoriete drankjes voor €2,-
<i>Non-zero price</i>	<i>2 of your favorite drinks for €2,-</i>
Multibuy	Bij aankoop van uw favoriete drankje krijgt u de tweede gratis
<i>Zero-price</i>	<i>When buying your favorite drink you get the second for free</i>
Combination – Deal	Uw favoriete drankje + een tussendoortje (candybar, granenreep, koek etc.) voor €2,-
<i>Non-zero price</i>	<i>You favorite drink for + a snack (candybar, cereal bar, cookie etc.) for €2,-</i>
Combination – Deal	Bij aankoop van uw favoriete drankje ontvangt u een tussendoortje (candybar, granenreep, koek, etc.) gratis
<i>Zero-price</i>	<i>When buying your favorite drink get a snack (candy-bar, cereal bar, cookie etc.) for free</i>

2.2.5 Couponing

A rebate is a form of cashback promotion where the consumer can get a partial refund of the original payment made for a certain service or good. Rebates are often communicated as coupon promotions in the form of tickets or documents to redeem the discount at a moment in the future (Lichtenstein, Netemeyer, & Burton, 1995). A large amount of studies shows that coupons attract new customers and give consumers the intention to return to the brand, store or product in order to redeem (Ben-Zion, Hibshoosh, & Spiegel, 1999; Blattberg, Eppen, & Lieberman, 1981; Neslin & Shoemaker, 1983). Based on the fact that consumer choices are influenced by whether different options are framed as gains or as losses, the coupon may also account for a differentiation in consumer choice. A partial refund of the original payment can be considered as a gain on an earlier spending (i.g. reduced loss). As mentioned before, promotions framed as a gain appear to be more desirable than those framed as a loss (Diamond & Sanyal, 1990). For this reason, the coupon promotion added to the set of promotional frames discussed in previous sections. Further research on coupon promotions shows that the nature of coupon behavior can be explained by several fundamentals where operant conditioning theory, and effort play an important role (Blattberg & Neslin, 1989; Lichtenstein et al., 1995). Therefore, these two theories will be considered next.

Operant conditioning theory

Blattberg & Neslin (1990) state that the nature of coupon promotions is based on the theory of operant conditioning. This theory explains that reinforced behavior is more likely to lead to repeat behavior. In the case of coupon promotions, the coupon with associated discount can be considered as the reward or gain that reinforces the consumer behavior to continue to buy the product or brand. Operant conditioning is different from classical conditioning. In case of classical conditioning, the discount is given first and then the response of the consumer follows, also known as stimulus-response theory. In the case of operant conditioning, the response is first elicited and followed by a reinforcement, also known as the response-reinforcement theory (Kazmi & Batra, 2008). Several studies showed that a reinforcement in the form of a coupon encourages consumers to revisit a store or continue to buy a certain product (Blattberg & Neslin, 1990) (Cohen, Ghiselli, & Schwartz, 2006).

Effort

Besides the expectation that couponing leads to return intention due to the theory of operant conditioning, does the effort to redeem also plays an important role. The redemption rates, known as the percentage of coupons that are used to get the discount, are very much depending on the effort and time the consumer wants to put into it. Blattberg & Neslin (1989) found that coupon-deals may request too much effort due to searching and going back to the shop in order to redeem the coupon. Coupon redemption can be seen as a tradeoff between the costs in terms of effort to redeem, and benefits in terms of the value the coupon provides. This means that, the higher the effort to redeem the coupon, the lower the net benefit of the coupon promotion. Hence, lowering the effort to redeem the coupon leads to higher benefit and thus higher promotion effectiveness (Chakraborty & Cole, 2006). Considering that people who are travelling by train often depart from, and arrive close to the same retail outlets, it is assumed that this reduces effort in a way that it costs less time to find and go back to the shop to redeem the coupon (NSRetail, 2016).

Taken into account that couponing may lead to return intention and that the effort to redeem is low, the following hypothesis is derived. Table 2.4 shows the scenario that will be tested in order to test this hypothesis.

H5: Coupon promotions lead consumers to higher return intention than discount promotions.

Table 2.4 Coupon Frame

Promotion Type	Scenario
Coupon	Koop uw favoriete drankje en ontvang €1,- terug bij uw volgende aankoop <i>Buy your favorite drink and get €1,- back at you next purchase</i>

2.2.6 Control condition

Four different promotional frames have been discussed in previous sections, namely the relative price frame, reference price frame, zero-price frame and the coupon. Besides these frames, a control condition will be included in this study. This control condition will not contain any frame and will function as a standard. This control condition can subsequently be used as the standard against which other conditional frames can be compared. Furthermore, the control condition will be used to test a moderator that will be considered in the next section. The control condition only mentions the discounted price without any indication that it concerns a promotion. Table 2.5 shows how the control condition will be questioned. By including this control condition the following hypothesis can be tested.

H5: Offering a product without a promotion frame leads to lower promotion effectiveness than products offered with a promotional frame.

Table 2.5 Control condition

Promotion Type	Scenario
Control condition	Uw favoriete drankje voor €1,- <i>Your favourite drink for €1,-</i>

2.3 Other Influencing factors

This section describes other influencing factors, such as impulsiveness, socio-demographic, traveler profiles and situational factors that determine the consumer's promotion evaluation and how these factors are taken into account in this research.

2.3.1 Impulsiveness

In addition to the hypotheses described earlier, the model may have a possible moderator variable that influences the evaluation of the promotion frames. This moderator variable is impulsiveness.

According to Rook (1987), impulsiveness is the occurrence of spontaneous positive affections felt by consumers when presented with a product. Affection often leads to an impulse or urge to choose the product that triggers the affective reaction. One explanatory factor of impulsive behavior is the accessibility of cognitions related to impulsive behavior. A distinction can be made between impulsive and “prudent” (careful) consumers. “Prudents” apparently show more rational and cognitive behavior. These people think more about the consequences for choice behavior. Impulsive shoppers have sometimes less access to their cognitions and therefore can be considered as more irrational. Puri (1996) states that irrational and impulsive consumers are more likely to choose products that bring positive affections. Shiv and Fredorikhin (1999) confirmed this affective-cognitive model by showing that some people are more impulsive than others and that impulsiveness influences choice behavior. In their study, the availability of processing resources was manipulated by asking consumers to remember a 2-digit number (higher availability of information processing resources) or a 7-digit number (lower availability of information processing resources). While remembering these numbers the respondents were asked to choose between a product that triggered positive affections (chocolate cake) and a product that triggered cognitive feelings (fruit salad). Results showed that only the impulsive consumers chose the chocolate cake when they had low availability of processing resources. Consumers with low impulsivity showed no difference in product choice due to lower availability of processing resources. From this experiment, it can be assumed that consumers who score high on impulsive behavior are more likely to switch to more irrational choice behavior.

Impulsiveness is not only limited to the product itself, promotions can also trigger impulsivity that can lead to purchases. Promotions are often used by retailers to stimulate faster or more purchases. Triggering impulsive and unplanned purchases is, therefore, an important purpose of promotions. A large set of studies have been done on the relationship between impulsive behavior and price promotions and conclude that impulsiveness is positively associated with deal proneness (those consumers who respond to store promotions). Martinez & Montaner (2006) show, for example, that deal proneness is positively related with the consumer’s impulsiveness. Lichtenstein, Burton & Netemeyer (1997) confirm this finding and state that impulsiveness and deal proneness are positively related. Therefore it is assumed that consumers with an impulsive character are more attracted to promotions. Other research studied

impulsivity from a different perspective and mentions that presenting promotions leads to more impulsive behavior. Results of these studies show for example that marketing stimuli (e.g. display and promotional activities) and framing price promotions evoke more impulsive behavior among consumers which may lead to spontaneous consumption behaviors (Dholakia, 2000; Zhou & Gu, 2015).

Figure 2.2 shows how impulsiveness may moderate consumer behavior towards promotions. It will be measured whether there is a moderating effect of impulsivity on the consumer behavior towards the promotion frames. The expectation of impulsiveness as a moderating variable leads to the following hypothesis.

H7: Consumers with high level of impulsiveness will evaluate the promotion frames better than consumers with low level of impulsiveness.

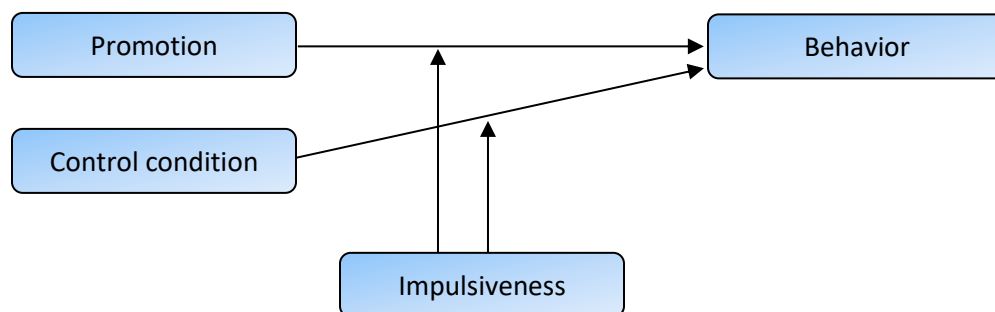


Figure 2.2 Impulsiveness as a moderator

Traveller profiles and impulsiveness

Based on the travellers profiles that are currently used by NS, a distinction is made between students, business travellers, recreational travellers, commuters and train station visitors (Merkx, 2017). Studies on consumer choice behaviour found that there are roughly two kind of decision makers, namely maximizers and satisficers. Maximizers are consumers who want to make the best decision possible. These people tend to need more time and effort before they make a purchase or choice decision than the satisficers. Satisficers are those who quickly settle for a “good enough” option and distinct from maximizers by making faster and above all, impulsive decisions (Schwartz et al., 2002). The difference in time needed for a maximizer or satisficer to make a good decision can also play an important role in deciding whether or not to buy a promotion at a NS retailer. As mentioned in a previous section, will some travellers coop with high time pressure which may lead to more satisficing and thus more impulsive decisions than travellers who coop with lower time pressure (Chowdhury, Ratneshwar, & Mohanty, 2009). In this

research the different travellers profiles will also be analysed in order to find potential insights for NS and perhaps further research on this topic. Possible insights are included in the results and conclusion part of this report.

2.3.3 Socio-demographics

Demographics are factors like age, gender, economic situation, household status, education level, occupation and nationality. These factors also influence consumer behaviour and promotion evaluation. The same holds for psychological factors that determine consumer behaviour (e.g. loyalty, variety seeking, healthiness and so on) (Martínez & Montaner, 2006). Regarding the time available and the scope of this research, only age, gender, education are used.

2.5.2 Situational factors

Situational factors encompass all other variables that determine consumer promotion evaluation (Krishna et al., 2002). Some examples are store and product type. Consumer reactions to promotions are different in a discount store than in a specialty store. The shop assistant also impacts consumer behaviour by adopting an active selling attitude (Krishna et al., 2002). Furthermore, the product characteristics play an important role. Hedonic luxury products, for example, lead consumers to be more deal prone because they are more sensitive to external justifications like deals and promotions (Zheng & Kivetz, 2009). Furthermore, the product type loyalty and brand loyalty determine consumer behaviour towards promotions (Laroche, Pons, Zgolli, & Kim, 2001). Also, the promotion itself has some influencing characteristics such as promotion placement (e.g. in or outside the shop) and promotion display and visualization (e.g. a shelf display or an advertising poster) (Yeshin, 2006).

In the framework of this study, these influencing factors are limited as much as possible by testing comparable shops with identical and matching products and categories. The scenarios refer to the “favorite drink” of the respondents which excludes brand and product type preference. Furthermore, there is no reference to one shop in particular in order to exclude influencing factors (e.g. store loyalty) of the store itself. The different scenarios discussed in previous sections are all visualized in a similar way. This means that no details such as, where the promotion is placed and how it looks like in the shop, are given. In order to let the consumers evaluate the scenario’s as equal as possible, all possible distractions are excluded by just showing a sentence that explains the promotional frame as can be seen in Tables 2.1 – 2.5.

3. CONCEPTUAL FRAMEWORK

Different variables that could affect the promotion evaluation of the consumers at NS retail have been described in previous sections. According to this, the conceptual model has been constructed (see Figure 3.1). On the left side of the model the different promotional frames are listed and together form the variable promotions that are going to be tested in the form of scenario's. Promotions will be evaluated according to the three constructs attractiveness, willingness to buy and return intention. Impulsiveness is also added in the model as the possible moderator between the promotions and the behaviour towards them. Between the promotion and the evaluation of the promotions, 6 hypothesis were added. These hypotheses together should answer the main research question as explained in Chapter 1. Additionally, socio-demographics and traveler profiles will be analysed in order to find useful insights for NS and perhaps further research. Table 3.1 on the next page recaps the list of hypotheses that have been constructed according to the theoretical framework for this research.

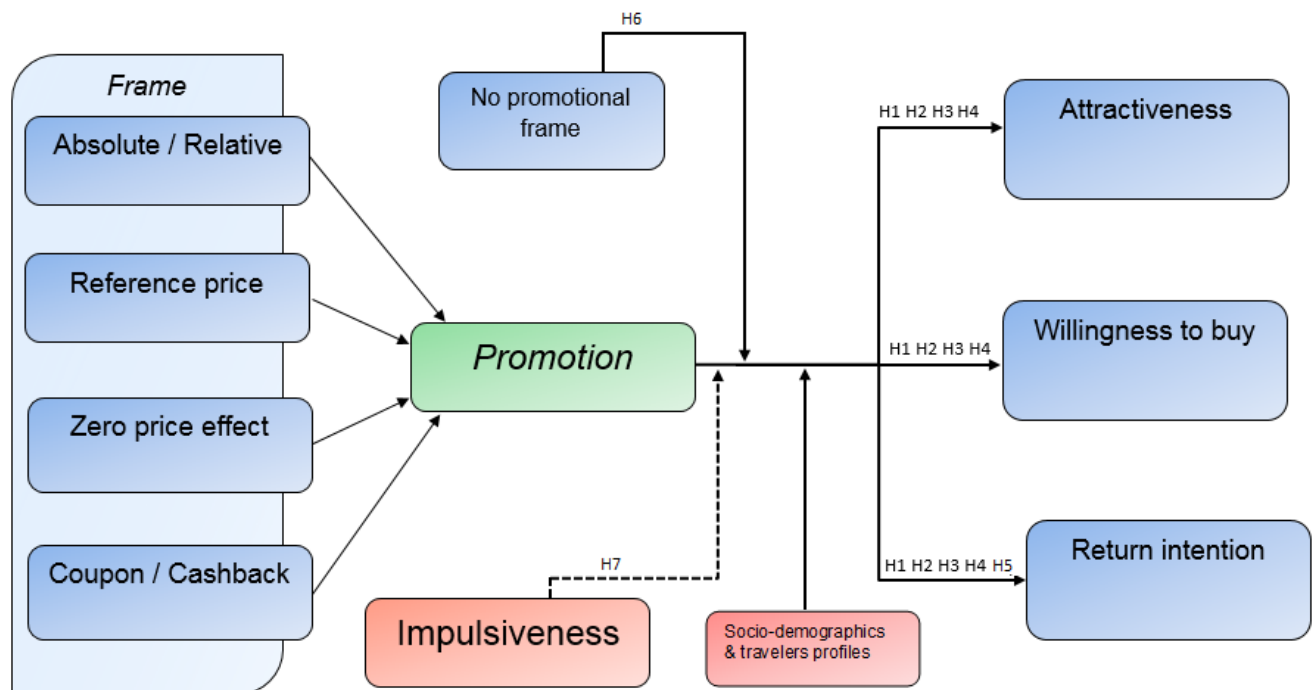


Figure 3.1 Conceptual framework

Table 3.1 Hypothesis

Variable	Hypothesis	Hypothesis
Relative and absolute price frame	H1	<i>Relative-price-framed promotions at NS retailers lead to higher promotion effectiveness than promotions framed in absolute terms.</i>
Reference price frame	H2	<i>Showing the regular price as a reference in a promotion leads to higher promotion effectiveness than a promotion not framed with a reference price.</i>
Zero-Price effect	H3	<i>The zero-price effect leaves consumers to evaluate promotions with a free product as higher than promotions without a free product which results in higher promotion effectiveness.</i>
Product bundles	H4	<i>The combination-deal will score higher on promotion effectiveness than the multi-buy deal.</i>
Couponing	H5	<i>Coupon promotions lead consumers to higher return intention than other discount promotions.</i>
Control condition	H6	<i>Offering a product without a promotion frame leads to lower promotion effectiveness than products offered with a promotional frame.</i>
Impulsiveness as a moderator	H7	Consumers with high level of impulsiveness will evaluate the promotion frames better than consumers with low level of impulsiveness.

4. METHODOLOGY

This chapter describes how the different promotion frames are going to be tested amongst the consumer panel of the market research institute GfK. This chapter includes information on the sample and the research design. Furthermore, brief elaboration on the approach and survey itself is included.

4.1 Sample and procedure

The focus of this research was to find out to what extent zero-price framing increases promotion effectiveness and how this relates to other ways of framing at the NS retail market. This particular market has been addressed by using the consumer panel of the market research institute GfK. This consumer panel consists of 100.000 respondents. Besides a minimum age of 15 no particular demographic characteristics were needed for this study. The group of respondents is representative for the Dutch train travelers based on gender, age and traveler profiles.

To find valid results on consumer behavior at NS retailers, only train travelers who visited a NS retailer in the past three months were selected. In order to select these people from the panel, a screening questionnaire has been sent out to 99.536 panel members. From all these people, 2994 indicated that they had been at a NS station in the past three months. These respondents were then selected for the main questionnaire. The main questionnaire was closed after 2080 respondents filled out all the questions. Both in the screening and in the main questionnaire the respondents were approached via GfK procedures. This means that the respondents received a message via e-mail that they were able to participate in a research in exchange for a payment. It concerned an online questionnaire that could be filled in via computer, laptop, tablet and smartphone. Internal software of GfK was used to program the questionnaire.

The screening questionnaire consisted of three questions that together gave insights into the past consumer behavior of travelers at NS stations. The screening questionnaire started with an introduction explaining what the questions and research were about. This introduction was followed by the question “how often did you visit an NS train station in the past three months” (number of times per week/month). Subsequently, the purpose of the trip was asked to get insights into the traveler profiles. The respondent could choose the following purposes. From home to school/university (student traveler), from home to work (commuter), business appointment (business traveler), recreational purposes (recreational traveler)

and other purposes (e.g. people who have picked someone up at the train station without intention to travel). People who answered that they had been to an NS train station in the past three months were redirected to the next questions concerning their purchase behavior. In this part, the respondents were asked to indicate what they had bought (something to drink, something to eat or something to drink and eat) at which NS retailer in the past three months¹. The logos of the retailers were visualized in order to help the respondents answering the question (multiple answers were possible). For a detailed list and the complete questionnaire see appendix 1.

The 2994 respondents selected from the screening questionnaire were asked to participate in the main questionnaire. From these 2994 respondent's 2080 filled out the main questionnaire. The main questionnaire consisted of a larger set of questions that were related to a broader research on NS and public transport conducted by GfK. The main questionnaire started with a brief introduction explaining that the main questionnaire was a continuation on the questions filled out in the screening questionnaire. The questions for this research were added after the questions for the broader research. The questions for this research started with a brief introduction that asked the consumers to imagine that they would visit a NS retailer again to buy his/her favorite drink. Additionally, they were informed that their favorite drink was €2,- and their favorite snack €1,-. This was done to generalize the price value of the products in dispute among all respondents. After this introduction, a promotional frame was visualized. Together, this introduction and promotional frame formed the scenario. The respondents were asked to evaluate the scenario by answering the questions about attractiveness, willingness to buy and return intention. After these questions, the respondents were exposed to nine statements that together measured the impulsivity of the respondent. The socio-demographics age and gender were not asked in the questionnaire since these variables were already available from the consumer panel. See appendix 1 for the complete questionnaire.

¹ AH to go, Enoki, Smullers, Julia's, Kiosk, Hema, de Broodzaak, RailCatering, Burger King, Starbucks

4.2 Between-subjects design

In order to test each scenario a between-group design was adopted for this study. This design was chosen to avoid possible fatigue of the respondents participating in the questionnaire. Each group was exposed randomly to one promotional frame (scenario). The 9 groups needed for all scenarios were composed by a random selection from the total amount of 2080 respondents selected from the screening. Table 4.1 indicates the number of respondents per group and associated scenario.

Table 4.1 Group design

Group	Condition	N
1	Scenario 1: Price discount (Relative frame)	230
2	Scenario 2: Price Discount (Absolute frame)	232
3	Scenario 3: Price discount (Reference frame)	232
4	Scenario 4: Multi-buy (Non-zero price)	232
5	Scenario 5: Multi-buy (Zero-price)	231
6	Scenario 6: Combination – Deal (Non-zero price)	231
7	Scenario 7: Combination – Deal (Zero-price)	231
8	Scenario 8: Coupon	231
9	Scenario 9: Control condition	230

4.3 Measures

The questionnaire included questions regarding promotion effectiveness and impulsivity of the consumer. The effectiveness of the promotion was measured by three sets of questions. First, attractiveness was measured using four different 7-point scales that focused on goodness of the deal (1=bad deal and 7=good deal), value of the deal (1=worthless and 7=valuable), overall attractiveness of the deal (1=unattractive and 7=attractive) and the pain or pleasure the deal provoked (1=painful and 7=pleasurable). Secondly, four different 7-point scales were added to measure likelihood to buy (1=highly unlikely and 7=highly likely), probability to buy (1=highly improbable and 7=highly probable), certainty to buy (1=highly uncertain and 7=highly certain) and chance of using the promotion in the scenario (1=no chance at all and 7=very good chance). The third measure of promotion effectiveness was return intention. Return intention was measured by three 7-point scales (1=very small chance and 7=very big chance) indicating to what extent the respondent would return to use the offer again, keep on using the offer in the future,

and if the respondent would recommend the offer to friends, family and colleague's. The impulsivity was then measured by giving nine statements that assess impulsive purchasing behavior. Respondents were asked with each statement to give an answer by means of a 5-point Likert scale (1=totally disagree and 5=totally agree). Table 7 demonstrates all questions with corresponding scales per variable under investigation and the sources used.

Table 7 Overview of the measurement items

Variable	Items	Source(s)
Effectiveness	<i>Imagine you are at a NS retailer and you see the following offer (scenario). This offer is....</i>	(Inman et al., 1997; Zellermyer & Zellermyer, 2015)
Attractiveness	1= a bad deal and 7= a good deal 1= worthless and 7= valuable 1= unattractive and 7= attractive <i>This amount I have to pay for this offer is...</i> 1= painful and 7= pleasurable	
Effectiveness	<i>Imagine you are at a NS retailer and you see the following offer (scenario).</i>	(Chandran & Morwitz, 2005)
Willingness to buy	<i>How likely are you to buy the product on offer? (1 = highly unlikely and 7 = highly likely)</i> <i>How probable is it that you will purchase the product on offer? (1 = highly improbable and 7 = highly probable)</i> <i>How certain is it that you will purchase this product? (1= highly uncertain and 7 = highly certain)</i> <i>What chance is there that you will buy this product? (1 = no chance at all and 7 = very good chance)</i>	
Effectiveness	<i>Imagine you are at a NS retailer and you see the following offer (scenario).</i>	(Hayes, 2008; Shimp & Kavas, 1984)
Return intention	<i>What is the chance that you will use this offer again at your next visit of a NS station? (1=very small chance and 7=very big chance)</i>	

	<i>All things considered, what are the chances that you will keep on using this offer at a NS station? (1=very small chance and 7=very big chance)</i>	
	<i>What is the chance that you will recommend this offer to your friends/family/colleagues? (1=very small chance and 7=very big chance)</i>	
	<i>To what extent do you agree with the following statements? (1=totally disagree and 5=totally disagree)</i>	(Rook & Fisher, 1995)
Impulsiveness	<ol style="list-style-type: none"> 1. <i>I often buy things spontaneously.</i> 2. <i>"Just do it" describes the way I buy things.</i> 3. <i>I often buy things without thinking.</i> 4. <i>"I see it, I buy it" describes me.</i> 5. <i>"Buy now, think about it later" describes me.</i> 6. <i>Sometimes I feel like buying things on the spur-of-the-moment.</i> 7. <i>I buy things according to how I feel at the moment</i> 8. <i>I carefully plan most of my purchases.</i> 9. <i>Sometimes I am a bit reckless about what I buy.</i> 	

4.4 Analysis

The data will be analyzed using IBM SPSS Statistics 21. All the analyses and results will be included in Chapter 5 which starts with preparation of the data by using factor analysis and reliability checks. After this, the data and sample will be described. In this part, several tests have been conducted to test for equal sample distribution over the different groups. In the next section a comparison of the promotion frames has been made by assessing the mean differences with an ANOVA and post hoc procedure. The influence of impulsiveness has been measured by using an ANCOVA and mean score comparison on high and low levels of impulsiveness for attractiveness, willingness to buy and return intention. Impulsiveness has also been analyzed in combination with the different travel profiles in order to find extra potential insights. Finally, the other factors (gender, age, education and traveler profiles) are examined for possible interesting findings. These analyses were done using ANCOVA's.

5. RESULTS

This chapter presents and explains the results of the study that has been conducted. First, the preparation of the dataset is described. After this, descriptive statistics concerning age, gender, education levels and traveler profiles will be explained. This is followed by a mean comparison and analysis of variance with post hoc procedure on the different promotion frames. Finally, the other influencing factors including impulsiveness, traveler profiles, and socio-demographics are being analyzed by using ANCOVA analysis to find additional results.

5.1 Preparation of the data

This section contains a preparation of the dataset by using a reliability test and factor analysis on the constructs of attractiveness, willingness to buy, intention to return and impulsiveness. First, a brief explanation concerning corrections and missing values in the dataset is provided.

Correction of the dataset and missing values

In total 2944 respondents were asked to fill in the main questionnaire. 2080 respondents filled in the questionnaire completely. After this, the questionnaire was closed. The questionnaire was programmed in a way that only completed questionnaires were adopted in the dataset. Because of this, no missing values were found in the dataset. Furthermore, the questions that were needed for this research did not include any options that could lead to missing values such as, open questions or “no-answer” categories.

Reliability check and factor analysis

The scales that measure attractiveness, willingness to buy, return intention and impulsiveness were investigated using a reliability check and factor analysis. The reliability check was conducted by means of the Cronbach's Alpha (α). Cronbach's Alpha (α) is a measure for internal consistency, which means that it checks whether the used scales consistently reflect the constructs that they should measure. According to Field (2009) the Cronbach's Alpha (α) should be higher than .6 to assume appropriate reliability. Besides a reliability check, it is important to check the observed variables with a factor analysis. Factor analysis is used to investigate the observed variables in terms of a smaller collection of similar response patterns that are associated with latent variables (variables that cannot be measured directly). Kaiser-Meyer-Olking (KMO) tests how suitable the data is for factor analysis. The outcome of the KMO test gives an

indication of sample adequacy and will also be reported. KMO values should be above the acceptable limit of .5 for an adequate sample (Field, 2009).

A factor analysis with oblique rotation was conducted on the four items of attractiveness. Kaiser-Meyer Olkin (KMO) showed an adequate value of .842 which is above the acceptable limit of .5. Furthermore all individual items on the scale for attractiveness showed KMO values above .5. An initial analysis was ran to obtain eigenvalues for each component in the data. One component had eigenvalues over Kaiser's criterion of one and in combination explained 80,31% of the variance. The scree plot showed inflections that would justify retaining one component. The items on attractiveness had a high reliability with a Cronbach's alpha of .921 which is higher than the acceptable limit of .6 (Field, 2009).

Another factor analysis was conducted on the four items of the construct willingness to buy. Adequate measures were shown with a KMO of .888. Individual items on the scale also showed KMO values above .5. The initial analysis showed 1 eigenvalue that exceeded Kaiser's criterion of 1 and in combination explained 93.21% of the variance. The scree plot showed a similar inflection that justified retaining one component. The items on willingness to buy had a high reliability with a Cronbach's alpha of .976 which exceeds the acceptable limit of .6 (Field, 2009).

The factor analysis on the three items of return intention showed a good adequate measure with a KMO of .744. Again individual KMO's exceeded the limit of .5. According to the initial analysis that was conducted, one component should be retained. This eigenvalue exceeded Kaiser's criterion of 1 and in combination showed 84.19% of the variance. The scree plot showed inflections that would justify retaining one component. The items on return intention had a high reliability with a Cronbach's alpha of .905. Thus, again the acceptable limit of .6 was exceeded (Field, 2009).

A final reliability and factor analysis were conducted on the 9 items of impulsiveness. The test of reliability showed a Cronbach's alpha of .789 based on all items of the scale. It was decided to remove one item on the scale to increase the Cronbach's alpha to .865. The factor analysis on the 8 items of impulsiveness showed a good adequate measure with a KMO of .909 and individual KMO measures above .5. An initial analysis was ran to obtain eigenvalues for each component in the data. One component had eigenvalues over Kaiser's criterion of 1 and in combination explained 49.18% of the variance. The scree plot showed inflections that would justify retaining one component (Field, 2009). Table 5.1 shows a

summary of the reliability measures and KMO values obtained from the reliability checks and factor analysis done on all constructs measured in this research.

Table 5.1 Reliability measures and KMO values

Items	Cronbach's Alpha (α)	KMO	Number of questions
Attractiveness	0.921	0.842	4
Willingness to buy	0.976	0.888	4
Intention to return	0.905	0.744	3
Impulsiveness	0.865	0.909	8

5.2 Descriptive statistics and correlations

This section describes the sociodemographic and traveler profiles of the sample. Per condition the distributions of gender, age, education and traveler profiles are described. After this, correlation analyses were conducted to test for statistical relationships between the constructs attractiveness, willingness to buy and return intention.

In every condition more males than females filled in the questionnaire which is shown in Table 5.2. An analysis was carried out in order to test whether the 2080 respondents were randomly assigned to the promotion frames. The chi-square test showed that gender ($X^2 = 2.721$, $p > .05$) did not significantly differ between the nine promotion frames. This tells us that gender is divided equally over the promotion frames.

Table 5.2 Gender distribution accross promotion frames

Promotion frames	Male	Female	Total (N)
Relative frame	53.9%	46.1%	230
Absolute frame	52.6%	47.4%	232
Reference frame	54.7%	45.3%	232
Non-zero price frame (multi-buy)	56.5%	43.5%	232
Zero-price frame (multi-buy)	53.7%	46.3%	231
Non-zero price frame (combi-deal)	58.4%	41.6%	231
Zero-price frame (combi-deal)	57.1%	42.9%	231
Coupon frame	53.7%	46.3%	231

Control condition	55.2%	44.8%	230
TOTAL	55.1%	44.9%	2080

The variable age has been divided into four categories, namely, 15-34, 35-49, 50-64 and 65+ years old. Table 5.3 shows that lower age categories have substantially more respondents than high age categories. In order to find out whether age is equally distributed over the different promotion frames, another chi-square test was performed. Randomization seems to be successful regarding the outcome of the chi-square test ($\chi^2 = 16.729$, $p > .05$).

Table 5.3 Age distribution across promotion frames

Promotion frames	15-34	35-49	50-64	65+	Total (N)
Relative frame	48.3%	22.2%	18.7%	10.9%	230
Absolute frame	47.0%	21.1%	22.4%	9.5%	232
Reference frame	44.0%	25.4%	22.4%	8.2%	232
Non-zero price frame (multi-buy)	48.3%	23.3%	18.5%	9.9%	232
Zero-price frame (multi-buy)	51.9%	18.2%	19.0%	10.8%	231
Non-zero price frame (combi-deal)	53.7%	19.0%	17.7%	9.5%	231
Zero-price frame (combi-deal)	45.5%	26.4%	20.8%	7.4%	231
Coupon frame	49.8%	24.2%	16.5%	9.5%	231
Control condition	51.3%	21.7%	17.8%	9.1%	230
TOTAL	48.8%	22.4%	19.3%	9.4%	2080

Another socio-demographic variable that has been measured is education. Seven categories were asked, namely, 1) “Geen onderwijs/ basisonderwijs/ cursus inburgering/ cursus Nederlandse taal”, 2) “LBO/ VBO/ VMBO (kader- en beroepsgerichte leerweg)/ MBO 1 (assistentenopleiding)”, 3) “MAVO, HAVO of VWO (eerste drie jaar)/ ULO/ MULO/ VMBO (theoretische of gemengde leerweg)/ voortgezet speciaal onderwijs”, 4) “MBO 2, 3, 4 (basisberoeps-, vak-, middenkader- of specialistenopleiding) of MBO oude structuur (vóór 1998)”, 5) “HAVO of VWO (overgegaan naar de 4e klas) / HBS / MMS”, 6) “HBO propedeuse of WO propedeuse / HBO (behalve HBO-master) / WO-kandidaats of WO-bachelor”, 7) “WO-doctoraal of WO-master of HBO-master/ postdoctoraal onderwijs”. These categories have been reduced to a categorization of “low educated” (1, 2 and 3), “middle educated” (4 and 5) and “high educated” (6

and 7). Table 5.4 gives an overview of the distribution of educational level on the different promotion frames. As can be seen, people with higher education participated more in the questionnaire. Again the chi-square test was performed and equal distribution over the promotion frames was confirmed. This tells us that educational level is equally divided over the different promotion frames ($X^2 = 24.020$, $p > .05$).

Table 5.4 Education level distribution across promotion frames

Promotion frames	Low educational level	Middle educational level	High educational level	Total (N)
Relative frame	17.0%	33.0%	50.0%	230
Absolute frame	12.5%	38.8%	48.7%	232
Reference frame	7.3%	36.6%	56.0%	232
Non-zero price frame (multi-buy)	15.5%	33.6%	50.9%	232
Zero-price frame (multi-buy)	13.4%	40.3%	46.3%	231
Non-zero price frame (combi-deal)	10.4%	31.2%	58.4%	231
Zero-price frame (combi-deal)	13.9%	32.9%	53.2%	231
Coupon frame	13.0%	32.9%	54.1%	231
Control condition	9.0%	37.4%	53.5%	230
TOTAL	(N) 259	(N) 732	(N) 1089	2080

Besides the previously described socio-demographics Table 5.5 indicates the distribution of the traveler profiles in the different promotion frames. The Chi-square test that has been performed shows that traveler profiles are equally divided over the nine promotion frames ($X^2 = 24.020$, $p > .05$).

Table 5.5 Traveler profiles distribution across promotion frames

Promotion frames	Student	Commuter	Business	Recreational	Visitor	Total (N)
Relative frame	20.9%	19.6%	16.5%	18.3%	24.8%	230
Absolute frame	17.7%	17.7%	20.7%	21.1%	22.8%	232
Reference frame	17.2%	19.0%	22.0%	22.8%	19.0%	232
Non-zero price frame (multi-buy)	17.7%	21.6%	20.3%	20.7%	19.8%	232
Zero-price frame (multi-buy)	20.3%	19.9%	17.7%	20.3%	21.6%	231
Non-zero price frame (combi-deal)	18.2%	21.2%	24.7%	19.5%	16.5%	231
Zero-price frame (combi-deal)	17.3%	22.1%	22.9%	19.9%	17.7%	231
Coupon frame	19.9%	19.5%	19.9%	17.7%	22.9%	231
Control condition	25.2%	19.6%	17.0%	22.6%	15.7%	230
TOTAL	(N) 403	(N) 416	(N) 420	(N) 423	(N) 418	2080

Correlations between attractiveness, willingness to buy and return intention

Correlation analyses were conducted to check for the relationships between the different constructs. Pearson's r was used to assess the relationships between attractiveness, willingness to buy and return intention (Field, 2009). Overall there were strong, and positive correlations between attractiveness, willingness to buy and return intention. There was a positive correlation between attractiveness and willingness to buy ($r = 0.780$, $n = 2080$, $p = 0.000$), and return intention ($r = 0.707$, $n = 2080$, $p = 0.000$). Also positive correlations were found between willingness to buy and return intention ($r = 0.885$, $n = 2080$, $p = 0.000$). This means that, for example, increases in the attractiveness of the promotions was correlated with increases in willingness to buy. Table 5.6 shows the results of the analysis.

Table 5.6 Correlations between the constructs (attractiveness, willingness to buy and return intention)

	Attractiveness	Willingness to buy	Return intention
Attractiveness	1	.780**	.707**
Willingness to buy		1	.885**
Intention to return			1

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

5.3 Comparison of promotion frames

This section discusses the one-way between-subjects ANOVA with Games-Howell post hoc test that was conducted in order to compare the means of attractiveness, willingness to buy and intention to return on the different promotion frames. These analyses were conducted to test the hypotheses that focus on the different promotion frames (hypotheses 1 to 5).

5.3.1 One-way ANOVA

A one-way between-subjects ANOVA was conducted to compare the mean scores of attractiveness, willingness to buy and return intention on the promotion frames. Table 5.7 shows the results of this one-way between-subjects ANOVA. It can be concluded that there were significant differences between the groups on attractiveness of the promotion frames at the $p < 0.05$ level ($F(8, 2071) = 42.659, p < .05$). Besides, there were also significant differences between the groups on willingness to buy looking at the different promotion frames at $p < 0.05$ ($F(8, 2071) = 29.788, p < .05$). Return intention also showed significant difference on the promotion frames at $p < 0.05$ ($F(8, 2071) = 18.380, p < .05$). The descriptive statistics associated with the constructs attractiveness, willingness to buy and return intention across the frames are reported in Table 5.8. The mean scores indicate how the frames were evaluated based on the constructs.

Table 5.7 One-Way ANOVA on attractiveness, willingness to buy and return intention across promotion frames

		Sum of squares	df	Mean Square	F	Sig.
Attractiveness	Between groups	504.143	8	63.018	42.659	.000
	Within groups	3059.376	2071	1.477		
	Total	3563.519	2079			
Willingness to buy	Between groups	534.812	8	66.852	29.788	.000
	Within groups	4647.837	2071	2.244		
	Total	5182.650	2079			
Return intention	Between groups	356.826	8	44.603	18.380	.000
	Within groups	5025.838	2071	2.427		
	Total	5382.663	2079			

Table 5.8 Mean scores on attractiveness, willingness to buy and return intention for each promotion frame

Frame	Attractiveness		Willingness to buy		Return intention	
	Mean	Sd.	Mean	Sd.	Mean	Sd.
Relative frame	5.751	1.114	5.078	1.421	4.817	1.489
Absolute frame	5.624	1.110	5.003	1.452	4.704	1.520
Reference frame	5.890	0.982	5.338	1.222	5.017	1.294
Non-zero price (multi-buy)	5.371	1.153	4.508	1.596	4.342	1.654
Zero-price (multi-buy)	4.354	1.665	3.651	1.805	3.616	1.775
Non-zero price (combi-deal)	5.284	1.162	4.447	1.598	4.212	1.623
Zero-price (combi-deal)	5.259	1.179	4.584	1.389	4.351	1.482
Coupon	4.706	1.435	4.189	1.614	4.072	1.651
Control condition	5.835	0.981	5.159	1.298	4.780	1.483

* Sd. = standard deviation

The mean scores that can be read from Table 5.8 are also visualized in the line chart in Figure 5.1. Each line counts for attractiveness, willingness to buy or return intention. From this chart, it can be concluded that, based on mean scores, the reference price promotion and control condition score higher on each construct than the other promotions. Furthermore, it can be seen the multi-buy (two of the same products) promotions are evaluated the worst on each construct compared to the other promotions.

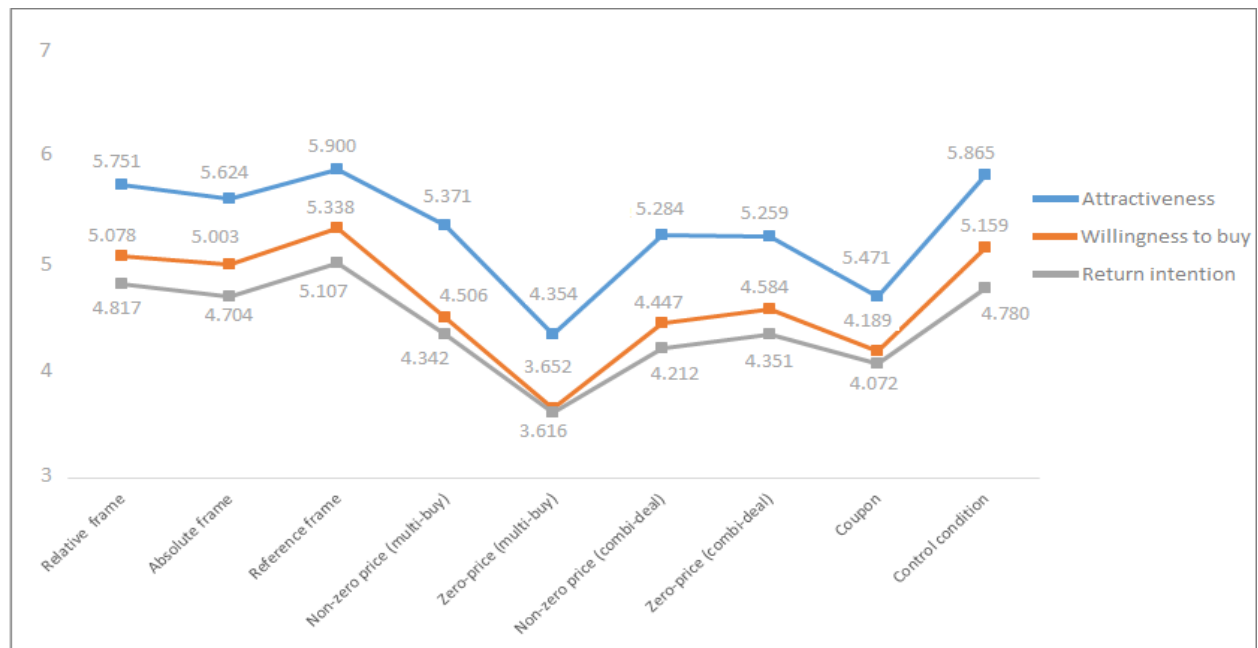


Figure 5.1 Mean scores on attractiveness, willingness to buy and return intention for the promotion frames

Coupon promotions are also evaluated worse on each construct compared to most of the other promotions. The combination deals are evaluated slightly better than the multi-buy deals.

5.3.2 ANOVA post-hoc analysis

With previous analyses statistically significant differences between the frames and constructs have been found. By conducting a post-hoc analysis a pairwise comparison was conducted in order to compare all different combinations of promotion frames and the constructs measured in this research. Before conducting the post-hoc analysis it is important to check for homogeneity of variance in order to find out which exact post-hoc analysis is needed to be executed (Field, 2009). The homogeneity of variance was violated ($p < 0.05$), as assessed by Levene's Test of Homogeneity of Variance for attractiveness ($p = .000$), willingness to buy ($p = .000$), and intention to return ($p = .000$). According to Field (2009) the Welch F test the best test in case of non-homogeneity of variances. Based on Welch's F tests there was statistical significant difference in attractiveness, willingness to buy and intention to return between the promotion frames. Attractiveness $F(8, 861.855) = 34.547, p = .000$, Willingness to buy $F(8, 862.203) = 28.100, p = .000$ and Intention to return $F(8, 862.447) = 17.955, p = .000$. The results are also shown in Table 5.9.

Table 5.9 Robust test of equality of means

	Test	Statistic	df1	df2	Sig.
Attractiveness	Welch	34.547	8	861.855	.000
Willingness to buy	Welch	28.100	8	862.203	.000
Return intention	Welch	17.955	8	862.447	.000

Since the assumption of homogeneity of variances was violated based on Levene's test, the Games-Howell post-hoc test was conducted to compare all possible combinations between the different promotion frames. According to Field (2009) the Games-Howell test is the right test to use when assumptions of homogeneity of variance are violated. Tables 5.10, 5.11 and 5.12 show the significant mean differences as assessed by Games-Howell post-hoc test.

Table 5.10 Multiple comparison based on mean difference (attractiveness)

ATTRACTIVENESS	Relative frame	Absolute frame	Reference frame	Non-zero price (multi-buy)	Zero-price (multi-buy)	Non-zero price (combi-deal)	Zero-price (combi-deal)	Coupon	Control condition
Relative frame <i>50% korting</i>	-								
Absolute frame <i>€1 korting</i>	-0.127	-							
Reference frame <i>Van €2 voor €2</i>	0.139	0.266	-						
Non-zero price (multi-buy) <i>2 voor €2</i>	-0.380	-0.253	-0.519	-					
Zero-price (multi-buy) <i>2e gratis</i>	-1.397	-1.270	-1.536	-1.017	-				
Non-zero price (combi-deal) <i>Drankje + tussendoortje €2</i>	-0.468	-0.340	-0.607	-0.087	0.930	-			
Zero-price (combi-deal) <i>Tussendoortje gratis</i>	-0.492	-0.365	-0.631	-0.112	0.905	-0.025	-		
Coupon <i>€1 terug volgende aankoop</i>	-1.045	-0.918	-1.184	-0.665	0.352	-0.578	-.553	-	
Control condition <i>Kost €1</i>	0.084	0.211	-0.055	0.464	1.481	0.551	.576	1.129	-

Mean differences indicated **bold** show significance at $p < .05$

Table 5.10 shows the following results. The relative price frame scored higher on attractiveness than the absolute price frame. This result was not significant though. The reference price frames scored higher on attractiveness compared to every other promotion. All mean differences were significant except for the relative, absolute and control condition frame. The multi-buy (zero-price) scored lower on attractiveness compared to all other promotions (all negative mean differences were significant except for the coupon price frame). The multi-buy (non-zero price) scored significantly lower than the relative frame, absolute frame, reference frame, and control condition. It scored significantly higher than the multi-buy (zero-price) and the coupon frame. The combination deal (non-zero price) scored only significantly higher than the multi-buy (zero price) and the coupon deal. The combination deal (zero-price) only scored significantly higher than the multi-buy (zero-price) and coupon frame. The coupon deal scored

significantly lower than all other promotion frames except for the multi-buy (zero-price). This result was not significant though. The control condition scored significantly higher than both multi-buy deals, both combination deals and the coupon frame.

Table 5.11 Multiple comparison based on mean difference (willingness to buy)

WILLINGNESS TO BUY	Relative frame	Absolute frame	Reference frame	Non-zero price (multi-buy)	Zero-price (multi-buy)	Non-zero price (combi-deal)	Zero-price (combi-deal)	Coupon	Control condition
Relative frame <i>50% korting</i>	-								
Absolute frame <i>€1 korting</i>	-0.075	-							
Reference frame <i>Van €2 voor €2</i>	0.260	0.335	-						
Non-zero price (multi-buy) <i>2 voor €2</i>	-0.571	-0.496	-0.831	-					
Zero-price (multi-buy) <i>2e gratis</i>	-1.427	-1.352	-1.687	-0.856	-				
Non-zero price (combi-deal) <i>Drankje + tussendoortje €2</i>	-0.631	-0.556	-0.891	-0.061	0.795	-			
Zero-price (combi-deal) <i>Tussendoortje gratis</i>	-0.494	-0.419	-0.754	0.077	0.933	0.137	-		
Coupon <i>€1 terug volgende aankoop</i>	-0.889	-0.814	-1.149	-0.318	0.538	-0.258	-0.395	-	
Control condition <i>Kost €1</i>	0.080	0.155	-0.180	0.651	1.507	0.712	0.574	0.969	-

Mean differences indicated **bold** show significance at $p < .05$

Table 5.11 shows the following results. The relative price frame scored higher on willingness to buy than the absolute price frame. This result was not significant and very small though. The reference price frames scored higher on willingness to buy compared to every other promotion. All mean differences were significant except for the relative, absolute and control condition frame. The multi-buy (zero-price) scored lower on willingness to buy compared to all other promotions (all negative mean differences were significant). The multi-buy (zero-price) scores significantly lower than the relative frame, absolute frame, reference frame, and control condition. It scored significantly higher than the multi-buy (zero-price). The combination deal (non-zero price) scored only significantly higher than the multi-buy (zero price). The combination deal (zero-price) only scored significantly higher than the multi-buy (zero-price). The coupon

deal scored significantly lower than the relative, absolute and reference frame. The coupon deal scored significantly higher than the multi-buy (zero-price). The control condition scored significantly higher than both multi-buy deals, both combination deals and the coupon frame.

Table 5.12 Multiple comparison based on mean difference (return intention)

INTENTION TO RETURN	Relative frame	Absolute frame	Reference frame	Non-zero price (multi-buy)	Zero-price (multi-buy)	Non-zero price (combi-deal)	Zero-price (combi-deal)	Coupon	Control condition
Relative frame <i>50% korting</i>	-								
Absolute frame <i>€1 korting</i>	-0.113	-							
Reference frame <i>Van €2 voor €2</i>	0.200	0.313	-						
Non-zero price (multi-buy) <i>2 voor €2</i>	-0.475	-0.362	-0.675	-					
Zero-price (multi-buy) <i>2e gratis</i>	-1.201	-1.088	-1.401	-0.726	-				
Non-zero price (combi-deal) <i>Drankje + tussendoortje €2</i>	-0.605	-0.492	-0.805	-0.130	0.596	-			
Zero-price (combi-deal) <i>Tussendoortje gratis</i>	-0.467	-0.353	-0.667	0.009	0.734	0.139	-		
Coupon <i>€1 terug volgende aankoop</i>	-0.745	-0.632	-0.945	-0.270	0.456	-0.140	-0.278	-	
Control condition <i>Kost €1</i>	-0.038	0.076	-0.238	0.438	1.164	0.568	0.429	0.708	-

* Mean differences indicated **bold** show significance at $p < .05$

The relative price frame scored higher on return intention than the absolute price frame. This result was not significant though. The reference price frames scored higher on return intention compared to every other promotion. All mean differences were significant except for the relative frame, absolute frame, and control condition. The multi-buy (zero-price) scored lower on return intention compared to all other promotions (except for the coupon frame were all mean difference scores significant). The multi-buy (non-zero price) scored significantly lower than the relative frame and reference frame. It scored significantly higher than the multi-buy (zero-price). The combination deal (non-zero price) scored only significantly higher than the multi-buy (zero price). The combination deal (zero price) only scored

significantly higher than the multi-buy (zero-price). The coupon deal scored significantly lower than the relative, absolute and reference frame. The control condition scored significantly higher than the zero price multi-buy, the non-zero price combination deal and the coupon frame.

5.4 Impulsiveness as a moderator

In the following section analyses of variances were performed in order to see if there was a moderation (interaction) effect between impulsiveness and evaluation of the promotions. It was expected that higher levels of impulsiveness would lead to higher evaluation of promotion frames than no promotion frame, the control condition (hypothesis 7).

5.4.1 Analysis of covariance

An ANCOVA was performed with attractiveness, willingness to buy and return intention as dependent variables, the different promotion frames as independent variables and impulsiveness as a covariate. Running the ANCOVA gave results of significant main effects of impulsiveness on attractiveness such that high impulsiveness led to higher scores on attractiveness ($F(1, 2062) = 68.962, p < .05, \eta^2 = 0.030$). Also a significant interaction effect was found between impulsiveness and promotions on attractiveness ($F(8, 2062) = 2.267, p < .05, \eta^2 = 0.009$). Looking at the positive and significant coefficients provided by the ANCOVA it could be assumed that increase in impulsiveness led to higher scores on attractiveness for each condition except for the reference price condition (see appendix 3).

Also for willingness to buy significant main effects of impulsiveness were found such that higher impulsiveness led to higher scores on willingness to buy ($F(1, 2062) = 232.262, p < .05, \eta^2 = 0.101$). A significant interaction effect between impulsiveness and the promotions on willingness to buy was also found ($F(8, 2062) = 2.031, p < .05, \eta^2 = 0.008$). In the case of willingness to buy all coefficients were significant and positive and so it could be assumed that higher levels of impulsiveness led to higher scores on willingness to buy for all of the promotion frames (see appendix 3).

Finally, a main effect of impulsiveness on return intention indicated that higher levels of impulsiveness led to higher intention to return ($F(1, 2062) = 235.708, p < .05, \eta^2 = 0.103$). No interaction effect between impulsiveness and the promotions on intention to return was found ($F(8, 2062) = 1.673, p > .05, \eta^2 = 0.006$) (see appendix 3).

5.4.2 Mean scores comparison on high and low impulsiveness

In order to check the mean scores of impulsiveness for each condition individually, a median split procedure was conducted. The independent variable impulsiveness was divided into the two groups *high impulsiveness* for levels above 2.75 and *low impulsiveness* for the level 2.75 and less. By using this median split procedure, 56.2% of all respondents scored low on impulsiveness, 43.8% of all the respondents scored high on impulsiveness. With this procedure the mean scores of high and low impulsiveness on each promotion separately were obtained. Based on these mean scores, bar charts were constructed to compare evaluation of the separate promotion frames based on high and low impulsiveness. As the previous ANCOVA predicted, almost all of the promotion frames were evaluated higher when high scores of impulsiveness were present.

Impulsiveness and attractiveness of the promotions

Figure 5.2 shows the mean scores on willingness to buy, and mean difference between high and low impulsiveness. The reference frame was the only condition that showed a contradicting result compared to the other promotion frames. In case of the reference price it could be seen that people with low impulsiveness evaluated the reference price higher than people with high impulsiveness (see Figure 5.2). Furthermore, the absolute frame, multi-buy (zero-price), coupon frame, and both combination deals showed higher mean differences between high and low impulsiveness than the control condition that was included as “no promotion frame”.

Impulsiveness and willingness to buy of the promotions

The same bar chart was made for the construct willingness to buy. By looking at Figure 5.3, it can be seen that, based on the mean scores, respondents were more willing to buy the promotion when high levels of impulsiveness were present. Focusing on the formulated hypothesis it can be seen that the absolute frame, multibuy (zero-price) and both combination deals showed higher mean difference between the levels of impulsiveness than the control condition.

Impulsiveness and return intention for each promotion

The mean scores on return intention showed that higher impulsiveness led to higher intention to return for all promotion frames. Only the absolute frame and the combination deal (non-zero price) showed higher mean difference between high and low impulsiveness than the mean difference of the control condition. These findings can also be found in the bar-chart in Figure 5.4.

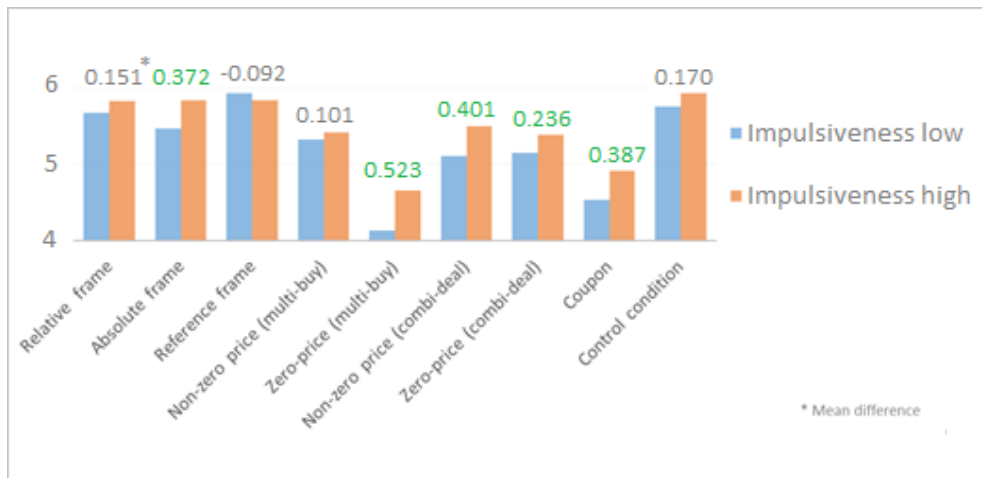


Figure 5.2 High and low levels of impulsiveness on promotion attractiveness

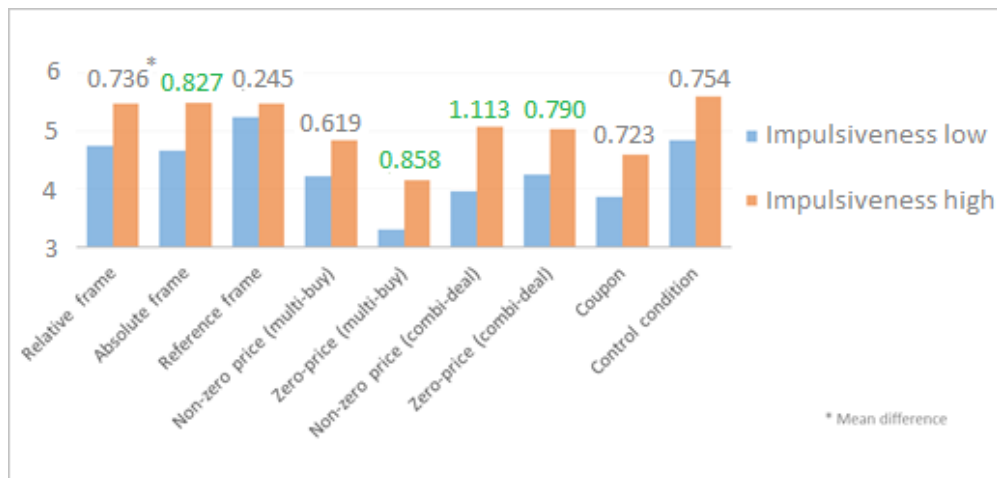


Figure 5.3 High and low levels of impulsiveness on promotion willingness to buy

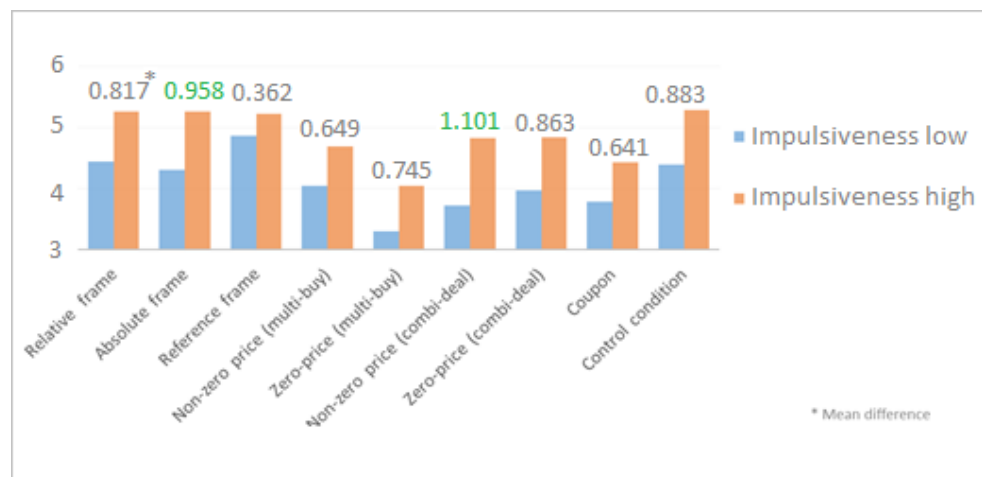


Figure 5.4 High and low levels of impulsiveness on promotion return intention

5.4.4 Traveler profiles and impulsiveness

A main result that has been found in previous analyses on impulsiveness indicates that higher levels of impulsiveness led to a higher evaluation of (almost) all promotion frames. A one-way ANOVA was performed in order to check how impulsiveness differed between the different traveler profiles that have been selected for this research.

A significant difference was found between the traveler profiles as determined by one-way ANOVA ($F(4, 2075) = 6.210, p < 0.05$). Before conducting the post-hoc analysis equal variances were checked with Levene's Test of Homogeneity of Variance. Levene's test showed that equal variances could be assumed ($p > 0.05$). Based on Field (2009), the Tukey post-hoc test was the best test for this case. Post-Hoc comparisons using the Tukey HSD test indicated that the mean scores on impulsiveness for students were significantly higher than for commuters, recreational travelers and visitors at the .05 level of significance. All other comparisons were not significant. Figure 5.5 shows the graph indicating impulsiveness level based on mean scores for each traveler profile (see appendix 4).

Considering that students scored significantly higher on impulsiveness than commuters, recreational travelers and visitors, an analysis on a possible interaction effect between impulsiveness and traveler profiles on promotion evaluation was conducted. Analyses of covariance showed that no significant interaction effects existed between impulsiveness and the traveler profiles on the attractiveness, willingness to buy or return intention scores of the different promotions. This means that, despite the students scored higher on impulsiveness than most of the other traveler profiles, they do not evaluated the promotions significantly higher than the other traveler profiles (see appendix 5).

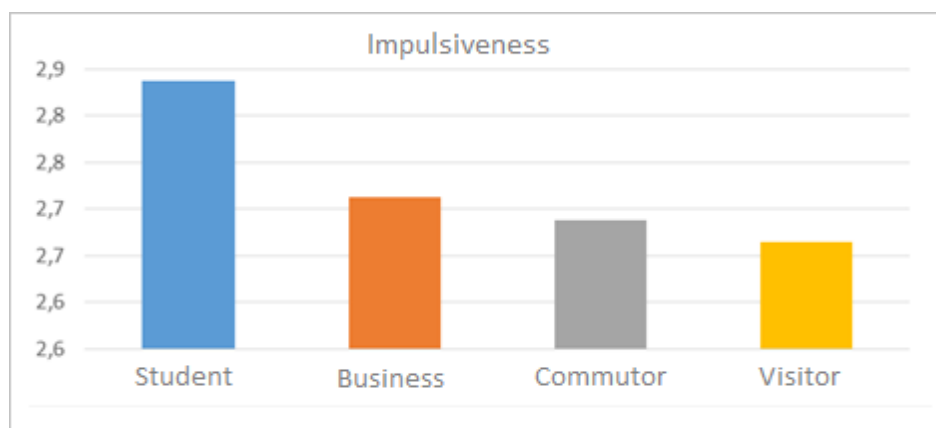


Figure 5.5 Level of impulsiveness of traveler profiles

5.4.5 Age and impulsiveness

Since students are, in general, younger than most of the other traveler profiles, age might have been an important factor that determined the scores on impulsiveness. A one-way ANOVA was conducted to check for possible age effects on impulsiveness. The results showed significant differences between the different age categories (15-35, 35-49, 50-64, 65+) and impulsiveness ($F(3, 2076) = 14.849, p < 0.05, \eta^2 = 0.021$). Before conducting the post-hoc analysis, equal variances were checked with Levene's Test for Homogeneity of Variance. Levene's test showed that equal variances could not be assumed ($p < 0.05$). According to Field (2009), the Games-Howell test is the right test to use when assumptions of homogeneity of variance are violated. Post-Hoc comparisons indicated that means scores on impulsiveness were significantly higher for the age categories 15-34 and 35-49 than for the 50-64 and 65+ age groups at the .05 level of significance (see appendix 6). Figure 5.6 below shows the mean scores per age category.

In order to test what the effects of age was on the impulsiveness scores main and interaction effects were tested by using ANCOVA with age as covariate. In contrast to the traveler profiles, did age showed main and interaction effects between impulsiveness and the evaluation of the promotion frames. There was a significant main effect of age, on promotion attractiveness ($F(1, 2068) = 6.460, p < .05, \eta p^2 = 0.003$), willingness to buy ($F(1, 2068) = 3.953, p < .05, \eta p^2 = 0.002$), and return intention ($F(1, 2068) = 5.544, p < .05, \eta p^2 = 0.003$). Besides these main-effects, also interaction effects between impulsiveness and the attractiveness ($F(1, 2068) = 8.446, p < .05, \eta p^2 = 0.004$), willingness to buy ($F(1, 2068) = 4.354, p < .05, \eta p^2 = 0.002$), and return intention ($F(1, 2068) = 5.916, p < .05, \eta p^2 = 0.003$) of the promotion frames, when controlling for age, were found. Regarding previous findings on impulsiveness and age it can be concluded that higher aged people (above 50) scored lower on impulsiveness and evaluated the promotion frames lower than younger aged people (below 50). This is confirmed by an interacting effect of age between impulsiveness and promotion evaluation.

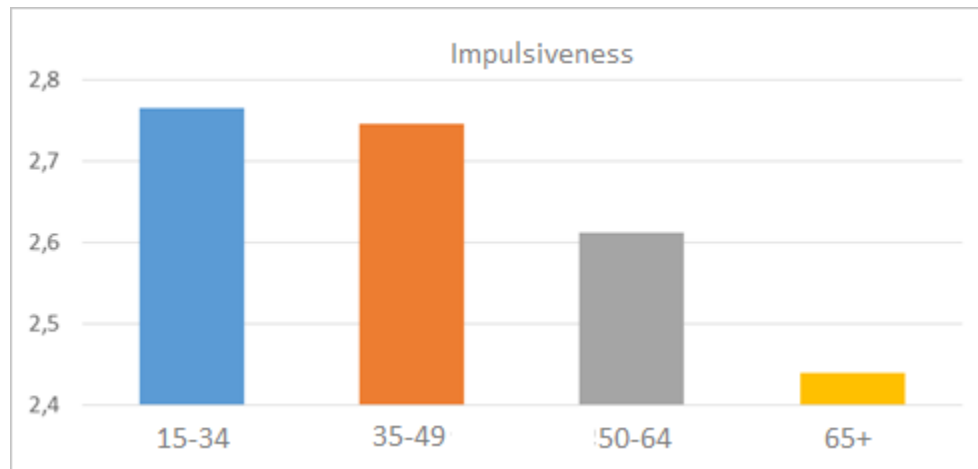


Figure 5.6 Level of impulsiveness of traveler profiles

5.5 Other influencing factors

This section describes some additional analyses that were ran in order to check if sociodemographic factors had noteworthy effects that could lead to interesting insights for NS and perhaps further research on this topic. Section 5.4.5 already showed that lower-aged people scored significantly higher on promotion than higher-aged people. ANCOVA's did not show any significant effects between gender and attractiveness, willingness to buy or return intention of the promotion frames. Significant effects between education and promotion frames attractiveness, willingness to buy and return intention were found and will be discussed next.

The covariate education showed that main effects were statistically significant at the .05 significance level for attractiveness, willingness to buy and return intention. The analysis showed that in most cases higher educated people significantly evaluated the promotions as less attractive than lower educated people ($F(1, 2035) = 4.617, p < .05, \eta^2 = 0.002$). Higher educated people were also significantly less willing to buy promotions than lower educated ($F(1, 2035) = 24.323, p < .05, \eta^2 = 0.000$) (except for the absolute price frame). Both high educated people and middle educated people showed significant lower intention to return to promotions than lower educated people ($F(1, 2035) = 45.599, p < .05, \eta^2 = 0.022$) for high educated people, and ($F(1, 2035) = 6.060, p < .05, \eta^2 = 0.003$) for low educated people). In the case of education, interaction effects were found which indicated that education itself is not enough to explain the effect on the dependent variables. Significant interactions were found between education and the different price promotions on the level of attractiveness ($F(8, 2035) = 2.850, p < .05, \eta^2 = 0.011$).

for middle educated and, ($F(8, 2035) = 4.680, p < .05, \eta^2 = 0.018$) for higher educated). Also significant interaction effects were found between high education, the promotion frames and willingness to buy ($F(8, 2035) = 2.696, p < .05, \eta^2 = 0.01$) and intention to return ($F(8, 2035) = 1.994, p < .05, \eta^2 = 0.008$). Figure 5.7, 5.8 and 5.9 shows mean scores on attractiveness, willingness to buy and return intention by looking at education levels for each promotion frame. In case of most promotions it seems that higher educated scored lower on attractiveness, willingness to buy and return intention.

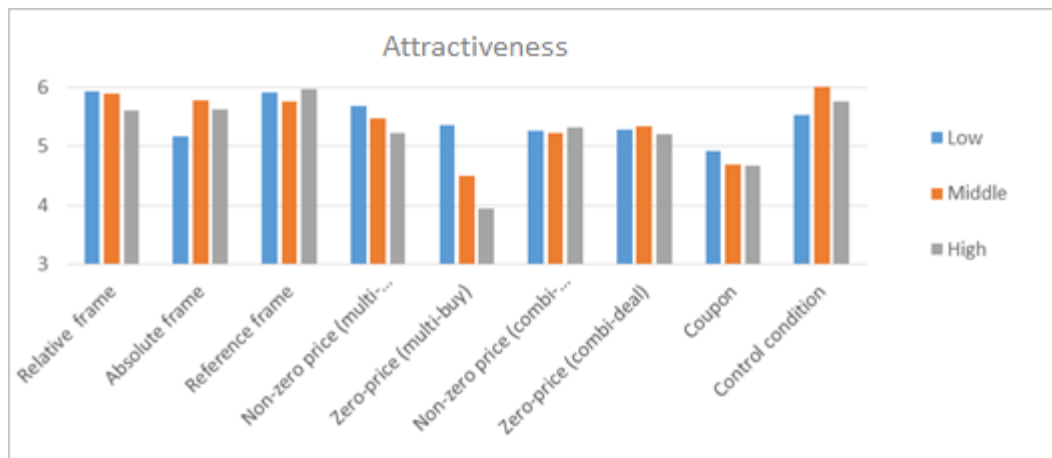


Figure 5.7 Mean attractiveness by education level and by promotion frame



Figure 5.8 Mean willingness to buy by education level and by promotion frame

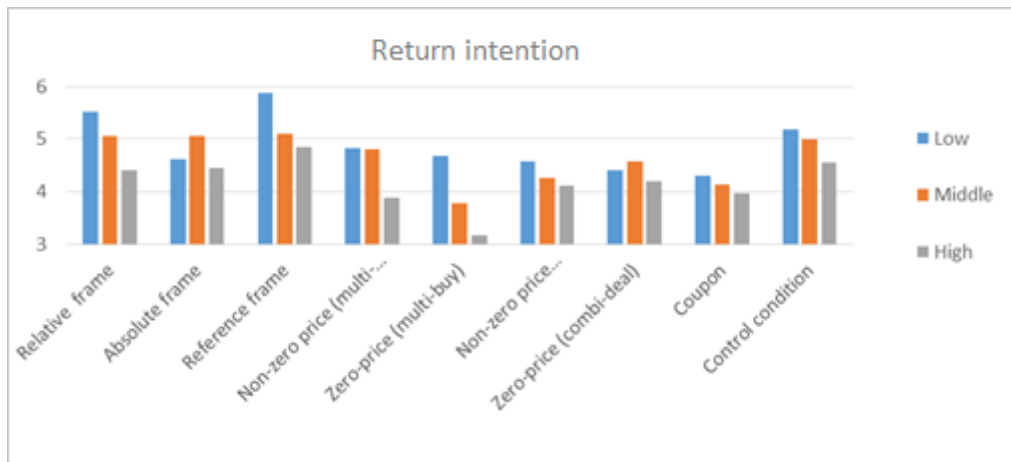


Figure 5.9 Mean return intention by education level and by promotion frame

Table 5.13 demonstrates the rejected and (partly) accepted hypothesis based on the results of the data analysis. The hypothesis will be further discussed in chapter 6.

Table 5.13 Overview of the rejected and (partly) accepted hypotheses

Hypothesis	Rejected / Accepted
H1: Relative-price-framed promotions at NS retailers lead to higher promotion effectiveness than promotions framed in absolute terms.	<i>Rejected</i>
H2: Showing the regular price as a reference in a promotion leads to higher promotion effectiveness than a promotion not framed with a reference price.	<i>Partially accepted</i>
H3: The zero-price effect leaves consumers to evaluate promotions with a free product as higher than promotions without a free product which results in higher promotion effectiveness.	<i>Rejected</i>
H4: The combination-deal will score higher on promotion effectiveness than the multi-buy deal.	<i>Accepted</i>
H5: Coupon promotions lead consumers to higher return intention than other discount promotions.	<i>Rejected</i>
H6: Offering a product without a price frame leads to lower promotion effectiveness than products offered with a promotional price frame.	<i>Rejected</i>
H7: Consumers with high level of impulsiveness will evaluate the promotion frames better than consumers with low level of impulsiveness.	<i>Accepted</i>

6. DISCUSSION

In the growing out-of-home consumption market NS retail is an important player with a deficiency in knowledge concerning “transumer” behavior, especially towards promotions. The objective of this study was to assess to what extent promotion framing increases attractiveness, willingness to buy and return intention towards drinks and snacks. Therefore, a scenario study was conducted on Dutch train travelers using different promotion frames and a control condition (suggesting that there was no promotion used at all). All these promotions had the same amount of discount and product value so that all different frames could be compared with each other on an equal basis. Furthermore, impulsivity was measured as a possible moderator in the behavior of train travelers. The results did not match the expectations that all promotion frames increased promotion effectiveness. The assumption that some promotion frames did score significantly higher on effectiveness than others were met though. Impulsivity also had a noticeable effect on promotion evaluation. Deeper insights on the promotion frames and impulsiveness will be discussed according to the hypotheses. The accepted and partly accepted hypothesis will be discussed first, afterwards the rejected hypothesis will be discussed.

According to the ANOVA with post-hoc analysis, hypothesis 2 (*Showing the regular price as a reference in a promotion leads to higher promotion effectiveness than a promotion not framed with a reference price*) has been partially accepted. Looking at the mean scores of the reference promotion frame, it scored higher than every other promotion frame and control condition on all three measurement variables (attractiveness, willingness to buy and return intention). This is also demonstrated by Figure 5.1. The reference promotion frame scored only significantly higher than the multi-buy frames, combination-deal frames, and coupon-frame. This was the case on all three measurement variables. These results are in line with the findings of Krishna et al. (2002), Grewal et al. (1996) and Blair & Landon (1981) who have found that reference pricing leads to higher promotion evaluation. Although the reference promotion frame scored higher than the relative frame, absolute frame, and control condition frame, these results were not significant (see Table 5.9, 5.10 and 5.11). For this reason, the hypothesis has not been accepted for all comparisons, and so it has been concluded that the reference promotion frame only leads to higher promotion effectiveness when comparing to the multi-buy deals, combination-deals and coupon deal at NS retailers. The small differences in assumptions might be due to several dissimilarities between this study and the other studies. Some dissimilarities, for example, are that the other studies used different

products with higher price values in their experiment. Some of the other studies also used larger differences between the reference price and discounted price, this made the promotion frame perhaps more effective than it was in this study. Also Krishna et al. (2002), Grewal et al. (1996) and Blair & Landon (1981) did not compare the reference price with all the promotions frames that were used in this study. Furthermore, this study was conducted on train travelers who were asked to imagine that they bought the promotion at a train station. The difference in respondents and context might have caused some differences in outcomes as well.

ANOVA with post-hoc analysis showed that hypothesis 4 (*The combination-deal will score higher on promotion effectiveness than the multi-buy deal*) has been accepted. The results of this study on the different product bundles were in line with the findings of Varadarajan (1986), Estalami (1999) and Kim (2009) who propose that, due to higher consumer satisfaction and the law of diminishing marginal utility (saturation effect), product bundles with complementary products (in this study the combination-deal) may lead to higher promotion effectiveness than product bundles with two exact same products (in this study the multi-buy deal). Figure 5.1 shows that, based on mean scores, the combination-deals scored considerably higher than the multi-buy deals on all three measurement variables. Furthermore, the ANOVA post-hoc analysis showed that for each measurement variable the combination deals scored significantly higher than the multi-buy deals. Therefore the assumption has been met that promotions offering two complementary products will be evaluated higher than promotions offering two exact same products.

Results also showed that hypothesis 7 (*consumers with high level of impulsiveness will evaluate the promotion frames better than consumers with low levels of impulsiveness*) could be accepted. Section 5.4 includes the ANCOVA with impulsiveness as a covariate. This analysis showed that for each measurement variable there were significant positive main and interaction effects between impulsiveness and the promotion frames. A two-way median split (high and low) in impulsiveness showed confirmatory findings that for each promotion frame (except for the reference frame in combination with attractiveness) high impulsivity led to higher evaluation scores on the measurement variables. Figures 5.2, 5.3, 5.4 show these differences in separate graphs for each measurement variable and promotion frame. These findings are in line with the literature on impulsiveness in combination with promotions. Shiv & Fredorikhin (1999) and Martinez & Montaner (2006) found that deal proneness is positively related with

consumers impulsiveness. This study confirmed these findings by showing that consumers with a high level of impulsiveness also evaluated the promotions better on each measurement variable. Besides that, it has been found that impulsiveness led to higher promotion evaluation in this study and that age can be considered as a moderating variable between impulsiveness and promotion evaluation. Higher age demonstrated significant lower impulsiveness and significant lower promotion evaluation.

In contrast with the previous hypothesis that has been accepted or partially accepted, hypothesis 1 (*Relative-price-framed promotions at NS retailers lead to higher promotion effectiveness than promotions framed in absolute terms*) has been rejected. Studies by Kahneman & Tversky (1984), Grewal and Marmorstein (1994) and Hardesty & Bearden (2003) confirm that consumers make purchase decisions in a relative way. This has also been confirmed by other researchers who investigated this relative way of thinking in the area of promotion decision making. Chen et al. (1998) and Heath et al. (1995), for example, found that higher valued products are recommended to be promoted in absolute (€) terms and low valued products in relative terms (%). Furthermore, it has been found that higher discounts (e.g. 40%) should also be promoted in relative terms (%) (McKechnie et al., 2012). Whereas these studies found significant different effects on framing in relative vs. absolute ways, this study did not find any significant differences between framing promotions in relative (in this study 50% discount) or absolute terms (in this study €1,- discount). In other words, it does make significant difference whether drinks at NS retail are promoted in relative (%) or absolute (€) terms. The difference between this and the other studies may be due to dissimilarities in the experiments conducted. This study, for example, solely focused on one product type whereas the other experiments focused on products with different values to confirm the diminishing sensitivity character of consumers. Results may have been different when higher valued products were compared to lower valued products in this study. Although the discount given in this study could be perceived as high (50%), relative framing was not evaluated higher. This might be due the fact that in this study fairly straightforward discounts were offered (€1 and 50% on €2). These discounts probably did not demand a lot of cognitive resources to process the promotion information. For this reason respondents might have answered in more rational ways in contrast to the other experiments.

Hypothesis 3 (*The zero-price effect leaves consumers to evaluate promotions with a free product as higher than promotions without a free product which results in higher promotion effectiveness*) has been rejected. ANOVA with post-hoc analysis showed that the mean scores for the promotions including

the zero-price (drink or snack for free) scored significantly lower on attractiveness, willingness to buy and return intention than almost all other promotion frames. Only the combination-deal with zero-price scored significantly higher than the multi-buy with zero-price. Even when comparing the combination-deals (zero and non-zero price) with each other, the assumption that offering something for free leads to higher promotion effectiveness could not be confirmed. This was also the case for the zero-price effect within the two multi-buy promotions. From these insights, it can be concluded that the zero-price effect at NS retailers does not hold and contradicts with the previously found substantial effects shown in studies on this topic. Ariely & Shampanier (2007), for example, showed that consumers behave irrational towards 'free' products and feel attracted to zero-pricing due to positive affect provoked by free products. The reason for the differences in consumer behaviour between this study and the other studies done on the zero-price effect might be caused by the context in which the zero-price was offered in this study. The zero-price in our study consisted of a free additional product which might not have been interesting for the train traveller at all. Perhaps the train traveller found the free element interesting but simply did not want an extra bottle of soft-drink or an extra candy-bar while traveling by train. However, this reason does not explain why the zero-price did not score significantly higher than the non-zero price within the two-product bundle promotions. The reason for this result might be that the respondents were not actually exposed to the free product. One of the core explanations of the zero-price effect is the affect heuristic that allows consumers to evaluate quickly and efficiently in relation to certain stimuli. In case the actual free product was there, the stimuli might have been that the consumer could actually see and touch the free product that he or she could take along. In the other studies including the experiment by Ariely & Shampanier (2007), this was different because here the potential stimuli (an actual free product) was there to see, touch and take home. If the latter study presented a real free product the respondents might have switched to more affective behavior.

Hypothesis 5 (*Coupon promotions lead consumers to higher return intention than other discount promotions*) has been rejected. By conducting an ANCOVA with post-hoc procedure it has been found that coupons did not score significantly higher on return intention than the other promotion frames. This finding was not in line with the literature and prior studies done on couponing. Blattberg & Neslin (1990) showed that a coupon could be seen as a reward or gain that reinforces the consumer to come back. Chakraborty & Cole (2006) found that lowering the effort to redeem the coupon led to higher chances of return. The assumption that train travelers often depart and arrive close to the same retail outlets did

probably not lower the effort enough to make the coupon frame more interesting to return. Furthermore, the difference in findings between this study and the other studies could perhaps be accounted for the fact that the redeemable amount was too low in order to make redeeming beneficial for the consumer.

Previous sections explained that decision framing leads consumers to make decisions that are influenced by the way a choice is formulated. Presenting promotional price offers in various ways while keeping the benefits and costs constant can also be seen as decision framing. Besides the 8 promotional frames included in this study, also a control condition was added that was characterized as a non-promotional frame (favorite drink for €1). This control condition was included to test hypothesis 6 (*Offering a product without a promotion frame leads to lower promotion effectiveness than products offered with a promotional frame*). Looking at the mean scores of the control condition (Figure 5.1) it can be seen that the control condition scored considerably higher than all other promotions except for the reference frame. Furthermore, ANOVA post-hoc analysis confirmed that the control condition scored significantly higher on the three measurement variables (attractiveness, willingness to buy and return intention) than the majority of the promotion frames. From these findings, the aforementioned hypothesis has been rejected and therefore it is possible that conducting promotions at NS retail might not pay off in general. On the other hand, it is also possible that the respondents perceived the control condition also as a promotion if they used the regular price, that was mentioned prior to the scenario itself, as a reference. If this was the case, the control condition can also be perceived as a reference promotion frame.

Strengths and Limitations

This study has strengths and limitations that should be acknowledged. This is the first study known that conducted an academic research in consumer behavior towards promotions in the NS retail market. Therewith, a very specific market has been approached that is distinctive from other retail markets, such as, supermarkets and other retailers in ordinary shop environments. Furthermore, it is also the first study that compares 8 different promotion frames. Other studies focused merely on comparing just two or three promotion frames. Another strength is the large sample size that has been used for the questionnaire. Nevertheless, this study has also some limitations to account for. Despite the large sample size it did not include all possible train travelers that visit NS stations. It seems that in 2012 18% of the NS travelers were aged 4-17 years (Hagen & Exel, 2012). Regarding that this number probably did not increase or decrease

very much in the past years, a considerable group has been left out in this research since only 15+ aged people were included here. Furthermore, although the results provide useful and valid insights, it may not represent the exact same behavior from the respondents as when they, for example, feel time pressure or have spare time at the train station in real life. Another limitation might be that no realistic scenarios were used for the promotional frames. More realistic scenario's may have caused higher validity in choice behavior. An actual real-life zero-priced product, for example, probably would have caused more affective behavior than it did now in a virtual context. Another limitation was the probability that respondents perceived the control condition as a reference price since the regular price (€2) was mentioned before the scenario was presented. Mentioning the regular price was mandatory to generalize the same price value and so the same discounts among all respondents. This limitation could have been resolved by selecting the respondents beforehand based on the reference price they already had in their minds. This would have led to a considerably smaller sample size though. Another way to deal with this limitation is to perform an observational study where the promotions are presented in real-life situations to the respondents. The control condition can then be compared to the other promotion frames. Unfortunately it will cost much more time and effort to test all promotions in comparison to this study. Finally, in this study impulsivity is measured as a usual tendency for consumers to buy spontaneously, unreflectively, immediately and kinetically. It may be that some respondents act more or less impulsive when they shop at certain retail markets. As cited earlier, an actual train station might lead consumers to more impulsive behavior due to, for example, time issues.

7. CONCLUSION

7.1 Conclusion

Various promotional frames showed different effectiveness scores in the NS retail market. In fact, analysis of variance showed that the reference promotion frame (was.. now..) has significantly led to the highest effectiveness and the zero-priced multi-buy (buy one get one free) to the lowest. The coupon promotion frame (get €1 back on your next purchase) was evaluated as second worst followed by the combination-deals (combination of a drink and a snack). The relative (50% off) and absolute (€1 off) promotions were evaluated approximately equivalent but just below the reference promotion frame. The zero-price effect, tested by incorporating a free element in the multi-buy and combination-deal, was in both cases evaluated significantly worse than the same promotion without the zero-price effect. These findings showed that

“transumers” cognitive judgments, and thus behaviors may not be influenced positively by each promotional frame that has been tested in this research. Regarding the evaluations of the different promotional frames, it can be concluded that transumers especially show reference dependent preference. This indicates that transumers rather react to a promotion including a referent price (in this case the regular price) than other promotional frames.

When looking at the promotional frames from a more general perspective, another conclusion can be drawn. The promotional frames can be classified into two broad categories, namely promotions where only one product was offered, and promotions where more than one products were offered. From this perspective, it can be concluded that single-product promotions (in this study the absolute, relative and reference promotion frames) were evaluated as more effective than promotions offering more than one product (in this study the multi-buys and combination-deals). Couponing in the form of a cashback at the next visit did not pay off at all, it did not even led to significantly higher return intention among the train travelers. In any case, it is also important to take into account the results of the control condition (drink for €1). The control condition scored significantly higher than most other promotions (except for the reference price). Taking this result into account, it can be concluded that, beside the reference promotion frame, promotions in general may not be effective at all for NS retailers. However, the control condition could have possibly been perceived as a reference promotion frame in itself because the regular price was presented prior to the condition. If this was the case, the control condition might have been considered as a reference price promotion. On these terms, it can be confirmed that the reference price is the most effective promotion frame.

Additionally, main and interaction effects from socio-demographics, traveler profiles, and impulsivity levels were tested by using ANCOVA. Impulsiveness played an important part in promotion evaluation at NS retailers. It was found that train travelers with higher levels of impulsiveness also evaluated the promotion frames higher. Additionally, age can be considered as a moderating variable between impulsiveness and promotion evaluation. Travelers at higher age demonstrated significantly lower impulsiveness and significantly lower promotion evaluation. Furthermore, only significant effects were found on education. Lower educated train travelers evaluated the promotional frames higher than middle or higher educated train travelers. No significant effects were found between traveler profiles

(students, business travelers, recreational travelers, commuters, and visitors) and promotion frames evaluations.

7.2 Recommendations and further research

The research that has been undertaken for this thesis has highlighted a number of topics that contributed to the following recommendations for NS retailers. Single product promotions have been evaluated the highest regarding attractiveness, willingness to buy and return intention. In particular, the reference promotion price seemed to be the best promotion for NS retailers to implement in their marketing and promotion strategy. Promotions with more than one product are recommended to be avoided, even when one of the products are offered for “free”. Retention programs in the form of coupon or cashback do not seem to be an efficacious promotion strategy to increase intention to return and should, therefore, be performed differently or omitted from the promotion strategy. Higher impulsiveness does lead to higher promotion evaluation and age plays an important role in this. Higher age is associated with less impulsiveness and less attractiveness, willing to buy or willingness to return to the retail outlet. Triggering the impulsiveness of the train travelers with more promotions and other feasible marketing strategies might increase the sales for NS retailers. Furthermore, it might be beneficial to focus the marketing on products that are purchased more generally by younger travelers.

Besides, the recommendations described in the previous section further research on several topics may also be beneficial for NS Retail. This research included a questionnaire based on different scenarios that gave insights into which promotional frames were effective and which were not. However, it would be interesting for NS retailers to study how train travelers react to the effective promotional frames in real-life situations where, for example, the occurrence of time pressure and spare time does really take place. According to Vaus (2001), real-life situations can, for example, be researched by conducting (longitudinal) observation studies. The insights from this research could then be used as a basis for setting up an observational study with real promotions and real products. Measures of sales data could then indicate whether, for example, the reference promotion frame has been most successful. In addition, the control condition could then be tested without mentioning the regular price, and so the comparison with the reference promotion frame would be more valid than it was in this study. As mentioned before, promotion effectiveness is also influenced by several other factors such as promotion placement, display usage, visualization effects, the influence of the shop assistant and so on (Yeshin,

2006). Therefore, it is also recommended to research these situational factors in the context of promotions at NS retailers. Furthermore, this study was exclusively focused on just one type of product, namely, one's favorite drinks. Future research on promotion framing at NS retailers might also consider to include other products than only one's favorite drinks. Perhaps, some promotion frames will be more effective in combination with food products such as sandwiches or candy-bars. Finally, further research on impulsiveness is also suggested for NS retailers. Post-measurements on buying behavior might indicate more accurately which travelers are more impulse driven and in what exact situation. This might lead to useful insights for sales and promotion strategies to increase impulse buying behavior and thus, probably, promotion usage. Furthermore, since it seemed that impulsiveness is influenced by age, further research on impulsiveness might be useful to gain insights into how impulsiveness can be triggered.

The research that has been undertaken in this study has also highlighted a number of topics focusing on promotional framing, prospect theory, and corresponding value function. All the promotion frames used in this research can be linked to the fundamentals of prospect theory. It seems that not all fundamentals are operative in the market that has been examined in this study. Future research can therefore focus on similar promotional frames in different environments, on different products and on other type of consumers. Absolute and relative price frames, for example, could be applied on different products with varying product values to test the relative way of thinking of consumers. The zero-price effect is apparently not successful at NS retailers. Other retail environments might deal with different factors that make it interesting to research the zero-price effect as well. Especially markets where stockpiling behavior is more common, such as supermarkets, might offer interesting research opportunities. Besides, future research on zero-pricing should take the affect heuristic into account by giving the respondents the opportunity to actually see and feel the free product (Mazar et al., 2015). actually, this might be interesting to do for all promotion frames that has been conducted in this study. Another example is the coupon promotion frame. This frame seemed to be ineffective at NS retailers. Further research on how to increase the benefit of coupon-like promotions might be a promising topic for this environment, but also other retail environments. Finally, research in how to increase impulsive behavior may provide useful and interesting results.

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9. Appendices

Appendix 1. Questionnaire

PART A of the questionnaire (vragen m.b.t. afstudeerproject Jan Willem)

Base: all respondents

Introduction

De volgende vragen gaan over het kopen van uw favoriete drankje (frisdrank, koffie, thee, etc) t.w.v €2,- en uw favoriete tussendoortje (candybar, granenreep, koek, etc.) t.w.v. €1,-.

Stel, uw favoriete drankje t.w.v. €2,- wordt aangeboden bij een van de verkooppunten op een NS station dat u wel eens bezoekt. We zijn benieuwd wat u van het volgende aanbod vindt.

<insert Text A based on S_Scenario_A>

[scripter: randomly assign one item of variable S_Scenario_A]

	Type of promotion	Way of framing	Tekst A
S_Scenario_A=1	Price discount	Relative framing (1)	Uw favoriete drankje met 50% korting
S_Scenario_A=2	Price discount	Absolute framing (2)	Uw favoriete drankje met €1,- korting
S_Scenario_A=3	Price discount	Reference framing (3)	Uw favoriete drankje van €2,- voor €1,-
S_Scenario_A=4	Multibuy	Multibuy non-zero price (4)	2 van uw favoriete drankjes, samen voor €2,-
S_Scenario_A=5	Multibuy	Multibuy zero price (5)	Bij aankoop van uw favoriete drankje krijgt u de tweede gratis
S_Scenario_A=6	Combination-deal	Combination-deal non zero price framing (6)	Uw favoriete drankje + een tussendoortje (candybar, granenreep, koek, etc.), samen voor €2,-
S_Scenario_A=7	Combination-deal	Combination-deal zero price framing (7)	Bij aankoop van uw favoriete drankje ontvangt u een tussendoortje (candybar, granenreep, koek, etc.) gratis

S_Scenario_A=8	Coupon/cashback	Coupon/cashback framing (8)	Koop uw favoriete drankje en ontvang €1,- terug bij uw volgende aankoop
S_Scenario_A=9	Controlled condition	Controlled condition (9)	Koop uw favoriete drankje voor €1,-

Base: all respondents

(Attractiveness)

[scripter: randomize A01a, A01b and A01c]

A01a [s]

Stel, u bevindt zich op een NS station en u ziet het volgende aanbod.

Geef aan wat u van dit aanbod vindt.

<insert Text A based on S_Scenario_A>

Dit aanbod is...

	1	2	3	4	5	6	7	
...een slechte deal	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	...een goede deal

SCRIPTER: Do not show codes 1-7

Base: all respondents

(Attractiveness)

A01b [s]

Stel, u bevindt zich op een NS station en u ziet het volgende aanbod.

Geef aan wat u van dit aanbod vindt.

<insert Text A based on S_Scenario_A>

Dit aanbod is...

	1	2	3	4	5	6	7	
... waardeloos	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	... waardevol

SCRIPTER: Do not show codes 1-7

Base: all respondents

(Attractiveness)

A01c [s]

Stel, u bevindt zich op een NS station en u ziet het volgende aanbod.

Geef aan wat u van dit aanbod vindt.

<insert Text A based on S_Scenario_A>

Dit aanbod is...

	1	2	3	4	5	6	7	
... onaantrekkelijk	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	... aantrekkelijk

SCRIPTER: Do not show codes 1-7

Base: all respondents

(Attractiveness)

A01d [s]

Stel, u bevindt zich op een NS station en u ziet het volgende aanbod.

Geef aan wat u van dit aanbod vindt.

<insert Text A based on S_Scenario_A>

Het bedrag dat ik voor dit product moet betalen voelt als:

	1	2	3	4	5	6	7	
... pijnlijk	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	... plezierig

SCRIPTER: Do not show codes 1-7

Base: all respondents

Willingness to buy

[scripter: randomize A02a, A02b, A02c and A02d]

A02a [s]

Stel, u bevindt zich op een NS station en u ziet het volgende aanbod.

<insert Text A based on S_Scenario_A>

Hoe waarschijnlijk is het dat u dit koopt?

	1	2	3	4	5	6	7	
Hoogst onwaarschijnlijk	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Hoogst waarschijnlijk

SCRIPTER: Do not show codes 1-7

A02b [s]

Stel, u bevindt zich op een NS station en u ziet het volgende aanbod.

<insert Text A based on S_Scenario_A>

Hoe aannemelijk is het dat u dit koopt?

	1	2	3	4	5	6	7	
Hoogst onaannemelijk	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Hoogst aannemelijk

SCRIPTER: Do not show codes 1-7

A02c [s]

Stel, u bevindt zich op een NS station een u ziet het volgende aanbod.

<insert Text A based on S_Scenario_A>

Hoe zeker is het dat dit koopt?

	1	2	3	4	5	6	7	
Hoogst onzeker	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Hoogst zeker

SCRIPTER: Do not show codes 1-7

A02d [s]

Stel, u bevindt zich op een NS station en u ziet het volgende aanbod.

<insert Text A based on S_Scenario_A>

Wat is de kans dat u dit koopt?

	1	2	3	4	5	6	7	
Helemaal geen kans	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Hele grote kans

SCRIPTER: Do not show codes 1-7

Base: all respondents

Retention

[scripter: randomize A03a, A03b, A03c and A03d]

A03a [s]

Wat is de kans dat u bij een volgend bezoek aan een NS station terugkeert om gebruik te maken van dit aanbod?

<insert Text A based on S_Scenario_A>

	1	2	3	4	5	6	7	
Hele kleine kans	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Hele grote kans

SCRIPTER: Show codes 1-10

Base: all respondents

Retention

A03b [s]

Alles bij elkaar genomen, wat is de kans dat u in de toekomst op een NS station gebruik blijft maken van dit aanbod?

<insert Text A based on S_Scenario_A>

	1	2	3	4	5	6	7	
Helemaal geen kans	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Hele grote kans

SCRIPTER: Show codes 1-10

A03c [s]

Wat is de kans dat dit aanbod welke welke wordt aangeboden op een NS station aanbeveelt bij uw vrienden/familie/collega's?

<insert Text A based on S_Scenario_A>

	1	2	3	4	5	6	7	
Helemaal geen kans	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Hele grote kans

SCRIPTER: Show codes 1-10

A04 [single per row]

In welke mate bent u het eens of oneens met de volgende stellingen?

Columns:

1. Helemaal mee oneens
2. Mee oneens
3. Niet mee eens, niet mee oneens
4. Mee eens
5. Helemaal mee eens

Rows [Rolling grid, Random]

1. Ik koop vaak dingen spontaan.
2. "Gewoon doen" beschrijft de manier waarop ik dingen koop.
3. Ik koop vaak dingen zonder na te denken.
4. "Zien is kopen" beschrijft mij.
5. "Nu kopen, later erover nadenken" beschrijft mij.
6. Soms heb ik zin om dingen in een opwelling te kopen.
7. Ik koop dingen op basis van hoe ik mij op dat moment voel.
8. Ik plan de meeste van mijn aankopen zorgvuldig.
9. Soms ben ik een beetje roekeloos wat betreft mijn aankopen.

Appendix 2. Factor loadings

Items	Component 1
Attractiveness	
...een slechte deal	.915
...waardeloos	.903
...onaantrekkelijk	.923
...pijnlijk	.853
% of variance	80.83
α	.92

Items	Component 1
Willingness to buy	
Hoogst onwaarschijnlijk	.969
Hoogst onaannemelijk	.967
Hoogst onzeker	.963
Helemaal geen kans	.963
% of variance	93.21
α	.98

Items	Component 1
Return intention	
Hele kleine kans	.932
Helemaal geen kans	.925
Helemaal geen kans	.895
% of variance	84.19

α	.91
----------	-----

Items	Component 1
Impulsiveness	
Ik koop vaak dingen spontaan.	.800
“Gewoon doen” beschrijft de manier waarop ik dingen koop.	.609
Ik koop vaak dingen zonder na te denken.	.820
“Zien is kopen” beschrijft mij.	.730
“Nu kopen, later erover nadenken” beschrijft mij.	.779
Soms heb ik zin om dingen in een opwelling te kopen.	.641
Ik koop dingen op basis van hoe ik mij op dat moment voel.	.589
Soms ben ik een beetje roekeloos wat betreft mijn aankopen.	.777
% of variance	84.19
α	.87

Appendix 3. Impulsiveness as a moderator

Parameter Estimates							
Dependent Variable: attractivenessMEANS							
Parameter	B	Std. Error	t	Sig.	95% Confidence Interval		Partial Eta Squared
					Lower Bound	Upper Bound	
Intercept	5,228	,309	16,918	,000	4,622	5,834	,122
[ex3=1]	-,501	,446	-1,123	,262	-1,376	,374	,001
[ex3=2]	-,607	,430	-1,414	,158	-1,450	,235	,001
[ex3=3]	,610	,443	1,376	,169	-,259	1,479	,001
[ex3=4]	-,162	,437	-,371	,711	-1,019	,695	,000
[ex3=5]	-2,256	,423	-5,335	,000	-3,085	-1,427	,014
[ex3=6]	-1,290	,442	-2,921	,004	-2,157	-,424	,004
[ex3=7]	-,876	,453	-1,935	,053	-1,764	,012	,002
[ex3=8]	-1,402	,444	-3,158	,002	-2,273	-,531	,005
[ex3=9]	0 ^a	.	.	.	.	.	.
[ex3=1] * impulsivenessMEANS	,377	,115	3,281	,001	,152	,602	,005
[ex3=2] * impulsivenessMEANS	,376	,108	3,485	,001	,164	,587	,006
[ex3=3] * impulsivenessMEANS	,019	,114	,170	,865	-,204	,243	,000
[ex3=4] * impulsivenessMEANS	,112	,110	1,018	,309	-,103	,327	,001
[ex3=5] * impulsivenessMEANS	,523	,105	4,975	,000	,317	,728	,012
[ex3=6] * impulsivenessMEANS	,503	,114	4,402	,000	,279	,727	,009
[ex3=7] * impulsivenessMEANS	,333	,118	2,821	,005	,102	,565	,004
[ex3=8] * impulsivenessMEANS	,325	,114	2,848	,004	,101	,549	,004
[ex3=9] * impulsivenessMEANS	,222	,110	2,031	,042	,008	,437	,002
impulsivenessMEANS	0 ^a	.	.	.	.	.	.

a. This parameter is set to zero because it is redundant.

Parameter Estimates

Dependent Variable: willingnesstobuyMEANS

Parameter	B	Std. Error	t	Sig.	95% Confidence Interval		Partial Eta Squared
					Lower Bound	Upper Bound	
Intercept	3,430	,367	9,337	,000	2,710	4,151	,041
[ex3=1]	-,449	,530	-,847	,397	-1,490	,591	,000
[ex3=2]	-,257	,511	-,504	,615	-1,259	,744	,000
[ex3=3]	1,004	,527	1,906	,057	-,029	2,037	,002
[ex3=4]	-,238	,520	-,458	,647	-1,257	,781	,000
[ex3=5]	-1,876	,503	-3,732	,000	-2,862	-,890	,007
[ex3=6]	-1,684	,525	-3,207	,001	-2,714	-,654	,005
[ex3=7]	-,825	,538	-1,532	,126	-1,880	,231	,001
[ex3=8]	-1,000	,528	-1,896	,058	-2,035	,035	,002
[ex3=9]	0 ^a	.	.	.	.	.	.
[ex3=1] *	,771	,136	5,652	,000	,504	1,039	,015
impulsivenessMEANS							
[ex3=2] *	,685	,128	5,348	,000	,434	,936	,014
impulsivenessMEANS							
[ex3=3] *	,334	,135	2,472	,014	,069	,600	,003
impulsivenessMEANS							
[ex3=4] *	,482	,130	3,698	,000	,226	,738	,007
impulsivenessMEANS							
[ex3=5] *	,793	,125	6,353	,000	,548	1,038	,019
impulsivenessMEANS							
[ex3=6] *	1,009	,136	7,430	,000	,743	1,276	,026
impulsivenessMEANS							
[ex3=7] *	,727	,140	5,176	,000	,452	1,003	,013
impulsivenessMEANS							
[ex3=8] *	,651	,136	4,792	,000	,384	,917	,011
impulsivenessMEANS							
[ex3=9] *	,633	,130	4,865	,000	,378	,889	,011
impulsivenessMEANS							
impulsivenessMEANS	0 ^a	.	.	.	.	.	.

a. This parameter is set to zero because it is redundant.

Parameter Estimates

Dependent Variable: returnintentionMEANS

Parameter	B	Std. Error	t	Sig.	95% Confidence Interval		Partial Eta Squared
					Lower Bound	Upper Bound	
Intercept	2,745	,382	7,186	,000	1,996	3,494	,024
[ex3=1]	-,212	,552	-,384	,701	-1,294	,870	,000
[ex3=2]	-,002	,531	-,003	,997	-1,043	1,039	,000
[ex3=3]	1,262	,548	2,303	,021	,187	2,336	,003
[ex3=4]	,131	,540	,242	,809	-,929	1,191	,000
[ex3=5]	-1,147	,523	-2,195	,028	-2,172	-,122	,002
[ex3=6]	-1,220	,546	-2,234	,026	-2,291	-,149	,002
[ex3=7]	-,474	,560	-,846	,397	-1,572	,624	,000
[ex3=8]	-,329	,549	-,600	,549	-1,405	,747	,000
[ex3=9]	0 ^a	.	.	.	.	.	.
[ex3=1] *	,840	,142	5,921	,000	,562	1,118	,017
impulsivenessMEANS							
[ex3=2] *	,734	,133	5,511	,000	,473	,995	,015
impulsivenessMEANS							
[ex3=3] *	,374	,141	2,657	,008	,098	,650	,003
impulsivenessMEANS							
[ex3=4] *	,537	,136	3,965	,000	,272	,803	,008
impulsivenessMEANS							
[ex3=5] *	,763	,130	5,880	,000	,509	1,018	,016
impulsivenessMEANS							
[ex3=6] *	1,004	,141	7,110	,000	,727	1,281	,024
impulsivenessMEANS							
[ex3=7] *	,764	,146	5,232	,000	,478	1,051	,013
impulsivenessMEANS							
[ex3=8] *	,613	,141	4,338	,000	,336	,889	,009
impulsivenessMEANS							
[ex3=9] *	,746	,135	5,509	,000	,480	1,011	,015
impulsivenessMEANS							
impulsivenessMEANS	0 ^a	.	.	.	.	.	.

a. This parameter is set to zero because it is redundant.

Appendix 4. Multiple comparisons table on traveler profile and impulsiveness

Dependent variable impulsivenessMEAN

	Profiel (I)	Profiel (J)	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Tukey HSD	Student	Zakelijk	,12344	,04878	,084	-,0097	,2566
		Forens	,14874*	,04890	,020	,0152	,2822
		Recreatief	,23370*	,04870	,000	,1007	,3667
		Bezoeker	,17177*	,04884	,004	,0384	,3051
	Forens	Student	-,14874*	,04890	,020	-,2822	-,0152
		Zakelijk	-,02529	,04839	,985	-,1574	,1068
		Recreatief	,08496	,04831	,398	-,0469	,2169
		Bezoeker	,02303	,04845	,990	-,1093	,1553
	Zakelijk	Student	-,12344	,04878	,084	-,2566	,0097
		Forens	,02529	,04839	,985	-,1068	,1574
		Recreatief	,11026	,04819	,149	-,0213	,2418
		Bezoeker	,04832	,04834	,856	-,0836	,1803
	Sociaal recreatief	Student	-,23370*	,04870	,000	-,3667	-,1007
		Zakelijk	-,11026	,04819	,149	-,2418	,0213
		Forens	-,08496	,04831	,398	-,2169	,0469
		Bezoeker	-,06194	,04825	,701	-,1937	,0698
	Bezoeker	Student	-,17177*	,04884	,004	-,3051	-,0384
		Zakelijk	-,04832	,04834	,856	-,1803	,0836
		Forens	-,02303	,04845	,990	-,1553	,1093
		Recreatief	,06194	,04825	,701	-,0698	,1937

*The mean difference is significant at the 0.05 level.

Appendix 5. Analysis of covariance on impulsiveness and traveler profiles

Tests of Between-Subjects Effects

Dependent Variable: attractivenessMEANS

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	615,448 ^a	11	55,950	39,247	,000
Intercept	526,337	1	526,337	369,212	,000
ex3	494,066	8	61,758	43,322	,000
impulsivenessMEANS	5,862	1	5,862	4,112	,043
stk475769	2,161	1	2,161	1,516	,218
impulsivenessMEANS * stk475769	4,824	1	4,824	3,384	,066
Error	2948,071	2068	1,426		
Total	62905,875	2080			
Corrected Total	3563,519	2079			

a. R Squared = ,173 (Adjusted R Squared = ,168)

Tests of Between-Subjects Effects

Dependent Variable: willingnessstobuyMEANS

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	1005,959 ^a	11	91,451	45,280	,000
Intercept	207,592	1	207,592	102,785	,000
ex3	513,989	8	64,249	31,811	,000
impulsivenessMEANS	69,480	1	69,480	34,402	,000
stk475769	,703	1	,703	,348	,555
impulsivenessMEANS * stk475769	1,319	1	1,319	,653	,419
Error	4176,691	2068	2,020		
Total	50390,250	2080			
Corrected Total	5182,650	2079			

a. R Squared = ,194 (Adjusted R Squared = ,190)

Tests of Between-Subjects Effects

Dependent Variable: returnintentionMEANS

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	874,632 ^a	11	79,512	36,475	,000
Intercept	193,511	1	193,511	88,771	,000
ex3	339,150	8	42,394	19,448	,000
impulsivenessMEANS	66,629	1	66,629	30,565	,000
stk475769	3,606	1	3,606	1,654	,199
impulsivenessMEANS * stk475769	3,076	1	3,076	1,411	,235
Error	4508,032	2068	2,180		
Total	46287,556	2080			
Corrected Total	5382,663	2079			

a. R Squared = ,162 (Adjusted R Squared = ,158)

Appendix 6. Analysis of covariance on impulsiveness and age

Multiple Comparisons						
Dependent Variable: impulsivenessMEANS						
	(I) Leeftijd	(J) Leeftijd	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval Lower Bound Upper Bound
Games-Howell	15-34 jr	35-49 jr	,01976	,03952	,959	-,0820 ,1215
		50-64 jr	,15277*	,04055	,001	,0484 ,2572
		65+ jr	,32498*	,04868	,000	,1992 ,4507
	35-49 jr	15-34 jr	-,01976	,03952	,959	-,1215 ,0820
		50-64 jr	,13301*	,04681	,024	,0125 ,2535
		65+ jr	,30522*	,05400	,000	,1659 ,4445
	50-64 jr	15-34 jr	-,15277*	,04055	,001	-,2572 -,0484
		35-49 jr	-,13301*	,04681	,024	-,2535 -,0125
		65+ jr	,17222*	,05476	,010	,0310 ,3135
	65+ jr	15-34 jr	-,32498*	,04868	,000	-,4507 -,1992
		35-49 jr	-,30522*	,05400	,000	-,4445 -,1659
		50-64 jr	-,17222*	,05476	,010	-,3135 -,0310

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