



# **The moderating role of digital coupon vehicles and expiration dates on purchase intent**

Dissertation by

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## **ABSTRACT**

**Title:** The moderating role of digital coupon vehicles and expiration dates on purchase intent

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Marketing has become one of the main tools for retailers' success. Among their marketing strategies, promotions have been proven to increase purchase intent and, thus, to boost sales. However, times are changing in a fast manner due to technological advances. Hence, the digital world is becoming more advanced and consumers are getting more and more interested in obtaining product's information and promotions online. Owing to that, and to the fact that the retailing world is full of competition, retailers need to adjust their strategies to guarantee they remain afloat.

Therefore, the purpose of this dissertation is to study the effect of different couponing promotions on consumers' purchase intent. The study will be focused on Laundry Detergents and Ice Creams and both monetary and non-monetary coupon promotions will be studied.

The dissertation methodology was derived from both secondary and primary data; being that the first is composed by renowned journals' findings and the second is resulting from an online survey.

Results obtained through the data do indicate that there is a dependency of purchase intent on coupon promotions. This relationship is also verified to be moderated by the effect of the different digital coupons studied – mobile phones and email coupons – and by the length of coupons' expirations dates.

## SUMÁRIO

**Título:** O efeito moderador de diferentes veículos e datas de validade de cupões digitais na intenção de compra

**Autora:** Sofia Valença Enes Gonçalves

Um dos fatores que tem influenciado o sucesso dos retalhistas é o marketing. De entre as estratégias de marketing, as promoções têm vindo a demonstrar a sua influência positiva na intenção de compra o que aumenta as vendas.

No entanto, devido a avanços tecnológicos, o mundo está a sofrer alterações. De facto, o mundo digital está a tornar-se mais avançado e os consumidores estão cada vez mais interessados em obter informação de produtos e promoções online. Devido a essas alterações, e ao facto de o universo do retalho ser bastante competitivo, os retalhistas têm que alterar as suas estratégias para se manterem competitivos.

Por esse motivo, o propósito deste estudo é o de estudar o efeito de diferentes cupões na intenção de compra dos consumidores. O foco deste estudo é em Detergentes da Roupa e Gelados sendo que promoções monetárias e não monetárias serão estudadas.

A metodologia deste estudo deriva da recolha de dados secundários e primários; sendo que os dados secundários são compostos por conclusões de jornais de renome e os dados primários advêm de um questionário distribuído online.

Os resultados provenientes dos dados recolhidos indicam que existe uma relação de dependência entre a intenção de compra e os cupões. Esta relação é também moderada pelo efeito dos diferentes cupões digitais estudados – por telemóvel e por email – e pela data de validade dos cupões.

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## **GLOSSARY**

BOGOF – Buy one, Get one free

INE – Instituto Nacional de Estadística

IQR – Interquartile Range

LE – Long Expiration

SE – Short Expiration

SPSS – Statistical Package for the Social Sciences

## CHAPTER 1: INTRODUCTION

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### 1.1 Background

Consumer packaged goods, whether from branded labels or private labels, have long been part of a consumer's daily consumption. However, when it comes to the digital world, consumer goods are still developing their way in. Therefore, it is of broad interest to study the interaction of consumers' purchase intention with products, not only depending on promotional strategies but also on how this relation is affected by different digital strategies.

Having in consideration the marketing mix elements and that these are tools created to stimulate sales and purchase intention (Venkatesan & Farris, 2012), promotions are one of the focus points to study. In fact, Raghubir (1998) has inferred that a higher promotion - provided by a coupon, for example - will lead to a higher purchase intent by the consumers. Although purchase intentions do not directly mean that sales will occur, it has been studied that promotions increase purchase intention and do lead to increasing market sales (Heilman, Nakamoto, & Rao, 2002).

Since promotions can be used in several digital coupon formats – email based or smartphone based, for example - it is of interest to see if its impact is larger with one type of coupon than the other in terms of consumer purchase intention.

Coupons have long been a promotional method used by retailers, not only to promote their own brands but also manufacturers' brands, being that they represent a significant proportion of the sales volume for consumer packaged goods (Raghubir, 1998). They can be presented to the customer in various forms being that in this dissertation there is going to be a focus on digital coupons. The reason for this is because couponing strategies are still not very used in Portugal and because digital coupons are an interesting variable to study in order to infer if they will be well accepted in the Portuguese market.

Monetary coupons are those that offer a percentage or a monetary value off the retail price, whereas non-monetary coupons can be, for example, those of "Buy one, Get one free" (Raghubir, 2004). In addition to that, coupons can have different life spans, being that it is of interest to study how that variation can affect consumers' purchase intentions.

There are several studies related to the subjects of coupons and of purchase intention however, fewer analyse the impact of electronic/digital coupons. Some authors that have studied this new

coupon format refer that electronic/digital coupons are more beneficial than traditional coupons (mailed-in, journals, ...) since they require less effort for consumers' usage (Chiou-Wei & Inman, 2008).

The purpose of this dissertation is, thus, to study the impact that promotions can have on consumers' purchase intention and whether this impact is affected by using different digital coupons. As promotions can be of several types, this dissertation will focus on the effect generated by monetary and non-monetary coupons and how this is moderated by the length of the expiration date of coupons and by the different types of digital coupons – in particular mobile phone and email coupons. Taking this into consideration, the dissertation will contribute to the current literature according to the ever changing retailing environment of today.

## **1.2 Problem Statement**

The purpose of this research is to contribute to the current literature on the subject of purchase intention for different promotional coupons and how this is affected by the use of digital coupons, in particular the effects of different couponing characteristics. Coupons are a broad variable to study on its all, so to use it as an independent variable, this dissertation will only focus on the effect of monetary versus non-monetary coupons; this effect will be studied for coupons' expiration dates and different digital coupon vehicles and how these moderate the effect of the independent variable on purchase intention.

This study aims to answer the following research questions:

*RQ1: What is the impact of Coupons on consumers' purchase intention?*

*RQ1a: What is the impact of Monetary Coupons on consumers' purchase intention?*

*RQ1b: What is the impact of Non-Monetary Coupons on consumers' purchase intention?*

*RQ2: What is the moderating impact of Different Digital Coupons in the relationship between Coupons and Purchase Intention?*

*RQ3: What is the moderating impact of Coupons' Expiration Dates in the relationship between Coupons and Purchase Intention?*

## **1.3 Relevance**

Digital coupons are part of a new era of promotional strategies being that traditional coupons are better known by consumers – such as in-mailed, on-packs, free standing inserts, among others. Though, digital coupons are gaining enough relevance to be studied in depth since, overall, Internet purchases are increasing. This new method of shopping brings many additional

benefits to consumers, among them time-saving, more information available and easy access (Young Kim & Kim, 2004).

In fact, as it will be further developed in the following chapter, Portuguese consumers are becoming keen of technology; thus, it is important to study whether digital coupons will have a positive impact on purchase intention according to different coupons' characteristics. Couponing is still an underdeveloped promotional strategy in Portugal; though, digital coupons can change that and increase retailers' coupon promotions for Portuguese consumers.

There are many studies related to couponing as a promotional strategy; however, these existing papers do not focus, in-depth, in the impact that coupons have on purchase intentions, especially when it comes to expiration dates. In addition to that, there is a lack of information on how one digital coupon effect on purchase intention is different or similar to another digital coupon effect on purchase intention when both are considered.

This dissertation will contribute to the existing literature with findings on how monetary and non-monetary coupons and how the effect of coupons' expiration dates and different digital coupon formats impact consumers' purchase intention.

#### **1.4 Research Methods**

With regards to the study at hand, data collection is a fundamental aspect to consider.

Firstly, secondary data was collected for a supporting role to the study. Several studies were analysed in order to construct the literature review and to fundament the research questions that are subsequently answered. This data is necessary to provide insights that are accepted in the marketing field and the succeeding research will complement and add on to it.

Secondly, primary data was collected in the form of a survey. For this specific study, a survey permits the collection of data among the consumers for which the hypothesis were created. This leads, in turn, to data that is suitable to analyse, to interpret the research questions and hypotheses created and to infer results that are relevant to the subjects of purchase intentions and couponing.

#### **1.5 Dissertation Outline**

The following chapter focuses on the literature review that will provide the basis for the study. This chapter is essential to provide relevant information on the variables studied and to help fundament the hypotheses.

The third chapter presents the methodology; this is necessary to present the methods used to analyse the hypotheses. In this chapter the constructs of the survey are also presented as well as the statistical tests used.

The fourth chapter is constituted by the data collection of the survey and the consequent analysis of the results obtained from the data.

Lastly, the final chapter is mainly composed by conclusions and limitations and possible forms of improvement for future studies on the subject.

## CHAPTER 2: LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

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The aim of this chapter is to provide support for the research at hand by taking in consideration studies that are already accepted in the field of marketing.

By using theoretical contributions of experts in the field and supporting the dissertation with results obtained in academic articles, it will be possible to make conclusions on the subject.

The Literature Review will be divided into four different parts being the first one related to consumer purchase intention, in particular of consumer packaged goods. A subsequent topic will provide insights on the subject of monetary and non-monetary coupons. The two latter topics to be developed are related to coupons characteristics, specifically different digital coupon vehicles, and coupons' expiration dates.

### 2.1 Purchase Intention

Consumer purchase intentions are determined not only by price considerations – which is a cost for the consumer - but also by the benefits the products in question provide to the consumer by purchasing them (Baker, Donthu, & Kumar, 2016).

Purchase intentions can change throughout a consumer's life and one of the motives for these changes has been discovered to be the application of sales promotions on the products at hand. Researchers have found that sales promotions can produce mixed effects on purchase intentions; some have concluded that these are positive (Venkatesan & Farris, 2012) - thus increasing purchase intent -, others have found it to have negative effects (Ailawadi et al., 2009) - by reducing sales and augmenting sensitivity to prices -, while others have observed both positive short-term effects and negative long-term effects (Martín-Herrán et al., 2010).

Whichever the type of promotion being used by a retailer, Neslin, Henderson & Quelch (1985) have suggested that it will speed up purchases, whether by increasing the purchased quantities or by accelerating the timing of the purchases; when dealing with the particular case of coupons, only changes in quantities purchased are observed. Raghurir (1998) is an advocate of promotions as she infers that higher price promotions, caused by coupons or other promotional strategies, lead to higher benefits and a higher likelihood of purchase. However, if considering that a higher promotion is connected to a higher price perception, consumers' purchase intent might decrease, undercutting the benefit of coupons and discounts (Raghurir, 1998).

Furthermore, as technology is advancing, a consumer's path to purchasing products is also changing; consumers are spending less time to complete the purchase and they are the ones

seeking for information (online) rather than waiting for it to be shown to them (Batra & Keller, 2016). Due to that, retailers need to alter the way they present their products and respective promotions so that they can increase consumers' purchase intentions. Batra & Keller (2016) mention that retailers can still use massive communication to reach all prospective consumers, but they can also use target communication to reach consumers through their preferences; this can be done by targeted and customized e-coupons, for example.

Accordingly to a Portuguese database, PORDATA, the Portuguese population relation with technological advances is becoming stronger. As of 2016 74.1% of households had Internet connection access at home and 99.1% of people between 16 and 24 years old, 97.2% between 25 and 34 years old and 88.8% between 35 and 44 years old used the Internet. Moreover, 80.7% of the population had national mobile network traffic in 2015 which is a massive increase compared to the 6.6% who had it in 1997.

In a subsequent chapter, insights related to the different digital coupons - which have recently arisen in retailing environments - will be provided since they can be a discriminating factor for consumers' purchase intent. Using technology and the Internet as an aid is a concept supported by Young Kim & Kim (2004) who have concluded that shopping online brings advantages to consumers since consumers have a wider array of products to choose from, and they save time and money by doing smarter purchases and by doing the same shopping as before in a more convenient way.

To that end, it is interesting to delve into factors that affect purchase intention and to make conclusions on the impact that those factors might generate.

## **2.2 Monetary and Non-Monetary Coupons**

Promotions are a key feature of management strategies for retailers when deciding their pricing as they have to account for manufacturers' pull decisions – which comprise couponing, advertising, among others – that are targeted directly at consumers (Ailawadi et al., 2009; Martín-Herrán et al., 2010). Promotions are a marketing strategy often used by retailers to elevate the purchasing habits of consumers (Lee & Tsai, 2014). Promotions can be of several forms, being that the one retailers use the most is in the format of price promotions. When products are promoted, some researchers have found that sales increase by a great deal (Ailawadi et al., 2009). Among the plethora of price promotions, coupons, direct discounts, free samples, and many others can be found.

Coupons are a promotional strategy that can improve a consumer's experience with a retailing purchase (Ailawadi et al., 2009). If reaching every consumer, coupons are considered part of a second degree price discrimination that leads to a lower price experience (Anderson & Song, 2004). Indeed, coupons provide consumers the ability of saving money and provide information on new or less known products (Raghubir, 2004; Venkatesan & Farris, 2012). Therefore, as these aforementioned researchers found, coupons lead to redemption and exposure effects on consumers whichever format the coupon is framed into.

Coupon framing is related to how the promotion is advertised to the consumer, whether in terms of prices, coupon format, competitors' prices or additional information (Ailawadi et al., 2009); and all of these variables have been shown to affect consumers' purchase intentions. Having that in consideration, this dissertation will study the impact of two coupon formats – being a **monetary** or a **non-monetary coupon**.

Monetary coupons can be presented as a percentage-off coupon - which presents the discount rate - or as a cents-off coupon - which presents the monetary value of the discount -, meaning that the amount paid for the product will decrease in monetary values (Raghubir, 1998). Non-monetary coupons can be presented to the consumer in several formats. Two examples of non-monetary coupons are the “Buy one, Get one free” (BOGOF) offer which allows the consumer to obtain a discount of the same monetary value as the product being bought – which will be studied in this dissertation - and a co-promotion which consists on offering one product when the consumer buys another (Raghubir, 2004).

BOGOF coupons - also known as bonus packs - presence in the retailing market is increasing as consumers perceive them as a preferable option to price reduction coupons when both are presented in percentual terms (Chen et al., 2012). This is due to the fact that consumers perceive bonus packs as a gain – since they have the perception that the quantity purchased increases for the same price -, while perceiving monetary coupons as a reduction in value losses.

To that end, some researchers have inferred that non-monetary coupons are more effective than monetary promotions. Also, when considering mobile coupons (m-coupons), there is no visible difference between percentage-off and monetary value-off coupons but both have a shorter impact than BOGOF discounts (Danaher et al., 2015). When it comes to monetary coupons, some authors mention that discount promotions are more effective than offering a coupon for a bundle purchase (Diamond, 1992) and others mention that retailers see the benefit coupons create on consumers, as the demand for the couponed products increases, especially on the short term (Lee & Tsai, 2014). Chen et al. (2012) support this by mentioning that monetary coupons are preferred when related to both high priced and unknown products, whereas BOGOF

coupons are preferred when related to inexpensive products. Albeit, Lee & Tsai (2014) mention the negative effect of monetary coupons because they can lead to smaller price perceptions and thus decrease demand. A research article (Meyer-Waarden, 2008) refutes this idea by mentioning that the effect of email coupons can stimulate consumers to increase their purchasing habits by lowering prices. Furthermore, monetary coupons are also mentioned to be more effective the larger the face value of the discounted value (Chiou-Wei & Inman, 2008); though there is still much to be researched on the subject.

In accordance to the aforementioned topics, discussions defending and criticising the possible benefit of coupons on purchase intentions are persistent. Inman et al. (2009) have generalized that, as coupons increase time and effort spent by consumers, this will lead to an increased purchase intent. Adding to that, evidence has shown that the effects on purchase intention when monetary coupons are used can be different from those when freebies - such as BOGOF coupons – are used (Banerjee & Yancey, 2010). As seen above, both monetary and non-monetary coupons are associated to having effects on purchase intent. For this reason, one of the goals of this dissertation is to study what is the impact that they originate on consumers' purchase intention, whether positive or negative, which type of coupon has a stronger effect and whether the type of digital coupon affects these results. From these suppositions, the following hypotheses are developed:

***H1: Coupons have a positive impact on consumers' purchase intent.***

***H1a: Monetary coupons have a stronger impact on consumers' purchase intent than non-monetary coupons.***

### **2.3 Digital Coupons**

Until recently, consumers only had the chance to use traditional coupons – for example, mailed-in or free standing inserts -; however, the technological world has been advancing rapidly and consumers are spending more time and money on digital consumption. Therefore, retailers started to invest more on digital communication and digital coupons to better reach consumers (Zubcsek et al., 2017). These coupons are considered to have more benefits than the previous ones since they can be more easily retrieved and redeemed, they are more easily found and stored and are less expensive for retailers to produce (Chiou-Wei & Inman, 2008; Danaher et al., 2015). Even though electronic coupons are seen as having these benefits they are similar to traditional coupons in many variables; both share the same type of offers – for example, both

can be presented as a percentage discount or as a “Buy one, Get one free” offer -, both can have the same face value and the same expiration dates (Danaher et al., 2015).

It would be possible to perform a study that includes both types of coupons, the digital and the physical ones. However, this dissertation will not study the impact of the latter on purchase intent because of several reasons. For once, as seen in 2.1, Portugal is starting to change its relation with technology, so there is space for the introduction of more digital coupons in the market. Following that, it is of common knowledge that digital coupons are cheaper for retailers so the likelihood of them being willing to increase the usage of those is expected to be higher. In addition to that, a benefit that digital coupons have, that is lacking in physical coupons, is the possibility to personalize the coupon, and therefore to better target the consumer and his needs and preferences. Hence, it is of more interest to see how purchase intent varies with this new type of coupons. The dissertation will have its focus on two different digital coupons – **email** and **mobile phone coupons** -; thus, they need to be defined to further analyse if the impact on purchase intention varies among them. Even though every coupon follows the same process of delivery to consumer, redemption and clearing (Banerjee & Yancey, 2010), each has its own particular way of following the process.

Mobile coupons, or m-coupons, are those that a consumer receives on his smartphone and they can be personalized to consumers’ preferences, momentary needs and even to the consumer’s current location (Khajehzadeh et al., 2015). Retailers can also target people by sending promotional emails – email coupons -, being that these will also have a stronger impact on purchase intent if personalized to the consumers’ tastes (Batra & Keller, 2016). As consumers carry mobile phones everywhere it is easier for retailers to track their location and the stores they are visiting; by that they can instantly send personalized text messages with coupons for stores nearby that are of the consumer’s interest to increase the purchase intention and ultimately induce the purchase. The same is not as easily done by email coupons because, in case of consumers not using data when shopping, they will not be able to view a new couponing offer in that exact time and will not take advantage of it in the moment it would be most preferable. So it is understandable if the effect of these different digital coupons on purchase intention is distinct.

This chapter relates to the previous ones since it has been studied that purchase intention can vary due to different promotional offers. Yet, there is a lack of information regarding how the

effect of coupons alter the purchase intention among the different digital coupon vehicles available. From that, the following hypotheses arises:

***H2: The type of coupon vehicle moderates the relationship between coupons and purchase intent.***

***H2a: Mobile coupons have a stronger impact than email coupons on consumers' purchase intent.***

## **2.4 Coupons' Expiration Dates**

Coupons are a fairly common field of study since, as mentioned before, they are an essential part of retailers' promotional strategies. In the previous chapter, one appealing feature of coupons was presented – mobile and email coupons. Nonetheless, there is a second feature (Chiou-Wei & Inman, 2008) worthy of being studied in this dissertation, one that does not contain a vast array of research – **expiration dates**. A coupon's expiration date is the duration of the coupon's life; this is, it presents to the consumer the time span for which he can take advantage of the coupon's promotional offer (Krishna & Zhang, 1999). This means that expiration dates limit the amount of coupons redeemed since they stop them from having unlimited time usage.

Inman & Mcalister (1994) have observed that the number of coupons distributed to consumers has suffered a tremendous increase. So, in order for retailers to limit the financial liability of coupon redemption, the use of expiration dates also had to suffer an increase. They have inferred that the redemption of coupons and therefore, the purchase intention of consumers, increases as expiration dates approach which is also backed up by Mela, Jedidi & Bowman (1998) who have identified that coupons are more likely to be redeemed right after the coupon is advertised to consumers and by Danaher et al. (2015) who have observed both effects (right after the advertisement of the promotions and right before its expiration date is reached). Mela, Jedidi, & Bowman (1998) have also acknowledged that consumers tend to stockpile on a product when it is being promoted even when there is no need to purchase it and tend to wait on following promotions to repurchase them; this is in favour with the abovementioned argument and, when presented in a coupon format, consumers will immediately redeem it. Besides that, there is evidence that short expiration dates will lead to faster sales while long expiration dates will increase total sales (Krishna & Zhang, 1999); though, it is still not well defined yet what to consider as a short and as a long expiration date.

The aforementioned ideas can be related to the regret of not acting upon the availability of the coupon (Zeelenberg & Pieters, 1982). This is also supported by the view that expiration dates impose a limitation on consumers leading them to consider the negative effects of not using the

coupon (Ramanathan & Dhar, 2010). Hence, consumers tend to shorten the time between purchases, not only due to the lack of knowledge of following coupon campaigns, but also due to the implicit expiration date (Venkatesan & Farris, 2012). Although all these constructs are in favour that expiration dates lead to a positive effect on purchase intent, Neslin, Henderson & Quelch (1985) concluded that coupons do not affect purchasing timings if they only expire long in the future.

When it comes to digital coupons, Danaher et al., (2015) have referred that m-coupons expiration dates should be shorter than traditional coupons', since a longer expiration date will lead to lower a redemption rate – and consequently lower purchase intentions. They have also noticed that the redemption of these coupons tends to vary between two minutes and sixteen hours; so, it is advisable by them that m-coupons expire before a day passes by. Another set of authors (Inman & Mcalister, 1994) has studied the impact of expiration dates using data from a four week period to a yearlong period; thus, it is not agreed on what to consider as a short expiration date and as a long expiration date. With this collection of information, the dissertation will only define what short and long expiration dates are after surveying consumers. These studies will be supportive to decide upon which options to present to respondents however, these mentioned suggestions are not guaranteed to be the ones elected by respondents.

With a similar objective as the one mentioned in 2.3, the dissertation's aim is to understand the moderating impact of expiration dates on consumers' purchase intention and whether this has different impacts on monetary and non-monetary couponing strategies. The junction of information available related to expiration dates and information of purchase intention lead to the following hypotheses:

***H3: The length of expiration date – short versus long - moderates the relationship between coupons and purchase intent.***

***H3a: Short length expiring date coupons have a stronger impact than long length expiring date coupons on consumers' purchase intent.***

***H4: Coupon vehicles have a stronger moderating impact than expiring dates on the relationship between coupons and purchase intent.***

The conceptual model presented below is a representation of this dissertation's purpose of study. It displays the existing relation between the variables mentioned along the chapter; how

purchase intent is affected by monetary and non-monetary coupons and whether this effect is moderated by the digital coupon vehicles or by the coupons' expiration dates.

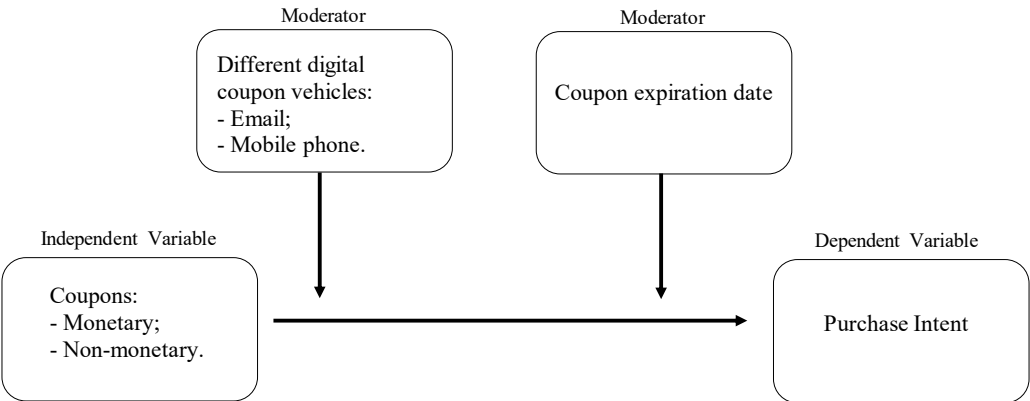


Figure 1: Conceptual Model

## **CHAPTER 3: METHODOLOGY**

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The purpose of this chapter is to present the methodology that is used to test the assumptions made and used to explain the results obtained. As a new study, it is important to combine the obtained results of several authors and to perform new research in order to analyze the research questions posed. Therefore, this chapter represents an essential step to later accept or refute the hypotheses formulated in Chapter 2.

### **3.1 Research Approach**

Having in consideration that the purpose of this dissertation is to study the effect of monetary and non-monetary coupons on purchase intent, with two different variables moderating this relation, descriptive research was executed as a first step. For that to happen, secondary data was collected. This was carried out through the collection of data from top journals and statistical websites on the subjects of purchase intent, monetary and non-monetary coupons, digital coupon vehicles and coupons' expiration dates; this was mainly presented in the Literature Review chapter (Mark Saunders, Lewis, & Thornhill, 2008). Secondly, in order to obtain new and concrete information on the subject at hand, explanatory research was executed. This was done in order to analyze the relationships between the variables mentioned in Chapter 2 and it was possible to perform through the collection of primary data. In the specific case of this dissertation, data was collected through quantitative research, in the form of an online survey. The survey was designed in Qualtrics, being that its target respondents were users of email and/or smartphones; the data collected was later transposed to SPSS to reach results and make conclusions on the variables' relations.

The methodology will, overall, allow the drawing of results concerning the effect of coupons on consumers' purchase intent.

### **3.2 Secondary Data**

Secondary data is mostly present in the Literature Review, being that it gathers a collection of studies and their consequent results and conclusions, all formulated by renowned authors. Indeed, it is composed by data that was previously used for other studies but that can be reused for new hypotheses and research question testing (Hox & Boeije, 2005). This data was included in the dissertation to understand what had already been discovered in the areas of couponing and its consequent effects on purchase intent.

Accordingly to Portuguese statistics, it was possible to identify the target population for the study. Since the majority of the population owns a smartphone and Internet connection (as mentioned in the Literature Review), it is important to not focus on only one specific subset of the population. In fact, this can be confirmed by Instituto Nacional de Estatística (INE) which has calculated that in 2016 72% of the Portuguese population (from the ages of 16 to 74) had accessed the Internet, outside their homes, via a portable device and 67.7% via a smartphone, and that 74.1% of Portuguese families had home Internet access.

Furthermore, the Literature Review supplied the necessary information to define both the dependent and the independent variables – purchase intent and coupons, respectively – and the moderators, in order for the survey questions to be formulated accordingly.

The collection of several articles also allowed to make the decision on which product categories to include in the survey. The choice of including a hedonic product category – a category that is associated with pleasure (Khan & Dhar, 2010) -, was very straightforward as these type of products induce impulse buying when they are seen or thought of (Inman et al., 2009). Having that in consideration, a dessert product was a good candidate. Several authors (Banerjee & Yancey, 2010; Chandon et al., 2000; Inman et al., 2009; Khan & Dhar, 2010; Kivetz & Zheng, 2017) mention the presence of hedonic feelings in cakes, chocolates, ice creams and many others. For this dissertation **ice creams** were chosen since this type of product is associated with feelings of pleasure and satisfaction and because it is sold both in supermarkets and in specific ice cream shops whether in malls or in outdoor areas. Even though Portugal is not one of the top 5 European countries consuming ice cream, the overall consumption of ice cream is increasing – a 4.2% market volume growth was experienced in 2016 (Marketline, 2017). The second product category chosen is related to utilitarian products. Since these are bought due to usage needs rather than pleasure (Khan & Dhar, 2010; Schulze, Schöler, & Skiera, 2014), Simonson (2005) believes that presenting offers, even customized ones, will not change consumers' purchase habits in an effective way. Therefore it is important to analyze this category; the **laundry detergent** category was chosen since, in general, household cleaning supplies are mentioned as being utilitarian (Chandon et al., 2000; Chen et al., 2016; Inman et al., 2009; Kronrod & Danziger, 2013). This product can also be worthy studying as it is the number one product in the household cleaning category, in Portugal – representing 43% of household cleaning sales and 70% of clothes cleaning sales in 2013 - for supermarkets, hypermarkets and traditional markets (AC Nielsen, 2013).

A group of authors has identified differences among the two types of categories; consumers are more eager in receiving free gifts resulting of a hedonic purchase - whether they know which

gift is offered or not –, which increases purchase intent, than of a cognitive (utilitarian) purchase (Laran & Tsiros, 2013). On one hand, Chandon et al., (2000) have found that monetary promotions do indeed lead to a higher purchase intent for utilitarian products than for hedonic products. This is also supported by the fact that non-monetary promotions lead to higher benefits for hedonic products – such as entertainment and value expression – and that monetary promotions have higher benefits for utilitarian products – such as savings and convenience. On the other hand it has been discussed that hedonic purchases have a higher benefit resulting from price promotions since these purchases are not as easily justifiable (Kivetz & Zheng, 2017). Hence, it is interesting to test whether the effect of coupons will be the same for both categories or if diverging results are attained.

### **3.3 Primary Data**

For this dissertation to be relevant, primary data had to be collected. Primary data is helpful when performing a study as it allows for the collection of information on the specific topic being studied (Hox & Boeije, 2005). As mentioned above, this was done through the execution of an online survey that addressed the variables to be studied and thus that allowed to connect them and study their relations since quantitative research is a valid technique to test cause-and-effect relationships (White, 2003).

The choice of having an online survey was made since it was the most plausible method to obtain the amount of answers necessary in a short period of time and without monetary resources. In addition to that, there is the benefit of respondents not feeling pressured to answer with a bias as the survey is completely anonymous and confidential.

Previous to the execution of the survey, the product categories to be studied had to be defined, as mentioned in 3.2. It was decided that the survey questions would only address product categories rather than specific brand categories. This decision was based on the fact that some respondents might not be familiar with a specific brand or might not purchase it whether it had a coupon available or not. Having only a product category being inquired about, respondents would be able to associate the category to their favorite brand when answering the questions. Some authors have also only questioned respondents about product categories so it is a supported technic worthy of using (Ailawadi et al., 2009; Chen et al., 2012).

#### **3.3.1 Data Collection**

In order to collect relevant data, the abovementioned survey had to be answered by a significant portion of the population; indeed, 1349 valid responses were collected so that, with a 95%

confidence interval, the answers could be properly analyzed. To begin with, the survey had an eliminatory question - by asking consumers whether they are users of either email or smartphones, it was possible to direct to the end of the survey those who are not and avoid invalid answers.

To have a representative sample of the population, this dissertation's survey was based on cluster sampling; this means that the survey was sent to consumers through social media, reaching members of various clusters. The benefits of this type of non-random sampling are that it is easier to collect a significant sample and, if reaching different clusters, an accurate representation of the population can still be obtained and sampling errors can still be controlled (Creswell, 2009). However, this type of sampling can contain biases as only random sampling does not have a bias (White, 2003). In addition to having a non-probability sampling technique, by having a model with two categories to study, a significant sample was required for the answers to be representative of each category.

### ***3.3.2 Research Design***

The survey, which can be seen in **Appendix 1**, was based on both product categories and it also had four versions, two for each category (one for non-monetary promotions and one for monetary promotions). The questions were the exact same ones however, accordingly to which product each respondent consumed, each category was presented, and the type of promotion was randomly assigned. If they did not consume either of them they would be directed to the end of the survey; if they consume only one of the products they would answer to a version of that product; and if they consume both, the 4 versions would be randomized by Qualtrics. The survey is divided into **6** parts: one to understand consumer's overall purchase intent when facing promoted products, two related to monetary couponing promotions, two related to non-monetary coupon promotions and one demographic. The blocks of questions related to couponing promotions were also be divided into questions related to the moderators in order to study the effect of those. All questions were formulated based on the constructs provided through the Literature Review; this allowed for questions whose reliability and validity cannot be doubted of.

As secondary data was not sufficient to provide the needed information for the dissertation, the survey was an essential tool in producing details on the studied subjects. This can be seen in the case of the moderator "Expiration date"; since the literature presented opposing ideas on what is considered to be a short and a long expiration date, it was decided that this definition

would be provided by the survey. Questions on what respondents think to be a short and a long expiration date were included in the questionnaire – using multiple choice questions with choices derived from the literature – being that the resulting expiration dates would be the means of the responses obtained. Though this questions were customized to the topic, some constructs were used in order to execute other questions in the survey; these can be seen in **Figure 2**.

In order to facilitate the respondents’ answers, the survey was mainly based on multiple choice questions, and Likert scale questions – being all 5 point scales as recommended by Ailawadi et al., (2001). This was also beneficial for the analysis of the answers since they were more objective than open questions would be.

At the end of the survey, some demographic questions were made in order to analyze whether the data obtained was representative of a well dispersed sample.

Measurement Model		
Construct	Literature for Scale Items	N of Items
Price Consciousness	Ailawadi et al., 2001	3
Quality Consciousness	Ailawadi et al., 2001	3
Attitude towards promotional offer	Chen et al., 2012	5
	Raghubir, 1998	3

Figure 2: Literature for the Execution of Constructs

### 3.3.3 Data Analysis

Concerning the acceptance or rejection of each of the hypothesis posed on Chapter 2, and responses to the research questions posed on Chapter 1, statistical tests were done. Upon the decision to use SPSS to run the data collected with the survey, a specific statistical test was assigned to each hypothesis and a 95% confidence interval was used to test these hypotheses.

The first step of the data analysis consisted on verifying if the data collected followed a normal distribution; in case it did not, a standardization of the data was required. This is a fundamental verification since normality is required to use tests such as t-tests and linear regressions.

To test the first hypothesis, related to the positive impact of coupons on purchase intent, a **linear regression** was used being that the variables were recoded in order to include the four couponing versions in one analysis. To test H1a, a hypothesis that assumes the relationship between the two formats of the independent variables – monetary and non-monetary coupons - and the dependent variable – purchase intent –, an **ANOVA** was used. This type of test can be used to infer if an independent variable has a stronger impact than the other independent variable on the dependent variable.

Having in consideration that the second and third hypotheses are related to moderators and are constructed in a similar manner, the same type of tests was applicable in both cases. In order to do this analysis, a **linear regression** was executed for each moderator. So, for digital coupons vehicles, one linear regression was done for mobile coupons and for email coupons; for expiration dates, a linear regression was done for short and another for long expiration dates. For each moderator, the variable that had a higher beta would be the one with the higher impact on the relationship of coupons and consumers' purchase intention. A **paired sample t-test** was also used in order to complement the analysis by comparing the means of each moderator's variables and infer if they are equal or different.

The last hypothesis compares both moderators and which has a stronger impact on purchase intent; for that, a **linear regression** was done using both moderators as independent variables and purchase intent as a dependent variable; the coefficients obtained are the values to be considered when concluding on which has a stronger impact.

## CHAPTER 4: RESULTS AND DISCUSSION

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### 4.1 Results

#### 4.1.1 Survey Sample Characterization

This subtopic of the dissertation will, very briefly, describe the sample population in terms of demographic characteristics.

The survey was answered by 2053 people; however, only 1349 respondents provided valid answers as the others did not complete the survey. The results are composed by answers of 385 men and 959 women, being that they are mainly located in the 18-24 year old range – 73.61% - and the 25-34 year old range – 14.01%. The survey also provided information regarding the respondents' current occupations - the majority are students (more than a thousand) and workers - and income levels – the greater part earns less than 500€ per month. Another variable that is interesting to analyse is the usage of technological devices, since it was mentioned in previous chapters that its usage is increasing in Portugal. 86.31% of respondents use both smartphones and email accounts, while 8.56% and 4.51% use only smartphones or email accounts, respectively. The percentage of consumers not using any is very small – 0.62%. This information is presented in more detail in **Appendix 2**.

As mentioned in 3.3.2, the question on what to consider as a short and as a long expiration date for digital coupons was to be answered by the survey. Respondents were thus presented with a few options to select from, being that these were the same for each of the expiration dates' questions. From their answers, it is possible to conclude that a short expiration date is considered to be varying from one day to one week – 60.79% of the respondents were keen on this result. For a long expiration date, the results were more disperse as 43.63% of the respondents chose the period of one to four weeks while 47.2% of them were leaning towards an expiration date larger than 4 weeks; this can further be seen in **Appendix 3**.

#### 4.1.2 Reliability Measures

In order to test if the constructs of the survey were reliable, the Cronbach Alpha was executed; its results can be observed below in **Figure 3**. This test indicates how items are related to each other as a group; therefore, it was used for the questions related to the constructs. All four sets of questions relative to how respondents evaluate promotional offers have a Cronbach Alpha superior to 0.7 which indicates that the constructs have a relatively high internal consistency; in some cases, a Cronbach Alpha superior to 0.6 is also accepted (Malhotra, 2010). The Price

Consciousness construct, as well as the Quality Consciousness construct, also present a Cronbach Alpha superior to 0.7. Therefore, it has been proven that all constructs are reliable.

Reliability Statistics			
Construct	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
Price Consciousness	,743	,750	3
Quality Consciousness	,715	,716	3
Attitude towards promotional offer – Laundry Detergent Non-Monetary	,890	,898	7
Attitude towards promotional offer – Laundry Detergent Monetary	,926	,928	7
Attitude towards promotional offer – Ice Cream Non-Monetary	,886	,890	7
Attitude towards promotional offer – Ice Cream Monetary	,892	,895	7

Figure 3: Constructs' Cronbach Alpha

Another important step to take before beginning the hypothesis testing is to confirm whether the variables are normalized. The variables on which the normalization had to be confirmed are the ones related to the expiration dates, those related to willingness to purchase the product and the questions on promotions and respective moderators. Since the data collected was derived from a large sample and the variables tend to be normal - the mean and median values are similar and the histogram and normality plots follow a normal distribution – the central limit theorem will be assumed and the data will be used to analyse the hypothesis.

The potential presence of outliers on the dataset was also carefully analysed as its presence can affect results through data skewness and lead to incorrect conclusions; this type of testing was done for the same variables as the normality tests. For the variables that contained outliers – here being considered those with an IQR larger than 3.0 -, outliers were removed to ensure the data had no extreme and skewed cases.

## 4.2 Hypothesis Testing

Excluding questions related to price and quality consciousness, expiration dates and demographic questions, the survey results can be divided into the two types of products chosen, utilitarian – more specifically laundry detergent – and hedonic – ice cream. Therefore, the analysis of the hypotheses can be divided into those and will be presented in an identical format.

### 4.2.1 Utilitarian Products' Promotions

In order to analyse both types of promotions and the corresponding moderating effects on these promotions each respondent was assigned to only monetary or non-monetary coupon questions. To analyse the first hypothesis a linear regression was executed, being that both monetary and

non-monetary promotions were recoded to be analysed together. Having as a dependent variable the question related to willingness to purchase and as an independent variable the question related to not buying a product if a coupon was not available it was possible to test the interaction presented in **H1**. With a Sig. = 0.000, the resulting linear regression coefficient for the independent variable – 0.117 - enabled the reaching of the conclusion that digital coupons do indeed have a positive effect on the consumers’ purchase intent (**Appendix 4.1**). As the results are valid for a 99% confidence interval it can be assumed that H1 is accepted.

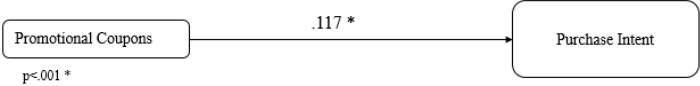


Figure 4: Hypothesis 1

Following the analysis of H1, **H1a** had to be interpreted. For this to happen, as a first step, monetary and non-monetary variables had to be recoded into one variable as to compare the effect they have on purchase intent. The Levene’s test, which assumes that variables with a Sig.  $\geq 0.05$  have equal variances and that variables with a Sig.  $< 0.05$  do not have equal variances and that their values are significantly different from one another, was executed (Saunders, Lewis, & Thornhill, 2009). It led to the conclusion that the variances are homogeneous between the two groups of monetary and non-monetary promotions since Sig. = 0.390. In addition to that, the ANOVA’s test significance inferred that there is no statistically significant difference between the two variables, as Sig. = 0.944 (larger than 0.05). As of that, H1a cannot be accepted for utilitarian products – it cannot be assumed that monetary coupons have a stronger impact on purchase intent than non-monetary coupons. These results can be observed in **Appendix 4.2**.

After analyzing the previous Hypotheses it is possible to make inferences related to the moderators. Firstly, for **H2** the intention is to make inferences on the impact created by coupon vehicles on the relationship between coupons and consumers’ purchase intent, which can be seen in further detail in **Appendix 4.3**. In order to do this, the questions on the type of coupon vehicles were aggregated – after confirming with a Cronbach Alpha that this was possible – and a linear regression was done. Cronbach’s Alpha results for non-monetary and monetary couponing promotions are 0.696 and 0.773 respectively; therefore, there is sufficient internal consistency to advance to a linear regression in both cases. For both cases, the linear regression fails to achieve a significant level – Sig. = 0.541 for non-monetary data and Sig. = 0.111 for

monetary data. Hence, results cannot be taken from this test and H2 assumptions cannot be proven for utilitarian product promotions.

**H2a** allowed to further analyse the coupon vehicle moderator effect – whether it is via mobile phone or via email – and to understand if there is significance aside from the results obtained in H2. So, the testing for this hypothesis consisted of a paired sample t-test and of a linear regression for each of the vehicles to infer which had a higher impact. Firstly, it was possible to observe that the means of the two types of coupon vehicles do differ for both monetary and non-monetary promotions. This was observed through the paired sample t-test for which the null hypothesis, which is accepted when Sig. >0.05, says that the means of the groups being compared do not differ from one another. Since the Sig = 0.000 it can be concluded that they differ. Coupons sent via mobile phone also have a higher impact in both cases since they have a higher mean for both – 3.71 versus 3.38 for non-monetary coupons and 3.68 versus 3.40 for monetary coupons (**Appendix 4.4**). When executing a linear regression where purchase intention is the dependent variable and both moderators the independent variables it was possible to compare their coefficients to see which produced a higher impact. For non-monetary coupons, it was verifiable with a Sig. = 0.007, that mobile coupons produce a positive impact on purchase intent in contrary to email coupons and in a higher absolute value - mobile phone coefficient equal to 0.155 and email coefficient equal to -0.052. Though, the email coefficient significance is equal to 0.250 so it is not possible to accept the results explained previously. For monetary coupons, with a Sig. = 0.000, the same results were obtained but for different coefficient values – 0.284 for mobile coupons and -0.103 for email coupons. With this, it is possible to accept H2a for monetary coupons.

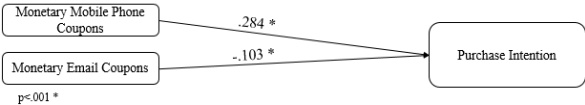


Figure 5: Hypothesis 2a

The logic used to test **H3** was the same as for H2 being that the only change is the moderator being studied. Thus, the statistical tests used evaluate the impact generated by both short and long expiration dates on the relationship between coupons and consumers’ purchase intent. To obtain input on the correlation of the moderator questions, the Spearman rho was executed. This indicated that there is a significant correlation (Sig. = 0.000) for both non-monetary and monetary couponing promotions. However, these correlation are considered small (-0.210 and -0.224 for non-monetary and monetary coupons, respectively). The negative correlation coefficient indicates that the two moderating questions are negatively correlated, so a

respondent that likes a short expiration date dislikes a long expiration date (**Appendix 4.5**). When combining the two variables that compose the moderator “Expiration date”, two linear regression were executed, one for non-monetary and another for monetary coupons. Unfortunately, the linear regressions were not statistically significant – Sig. = 0.374 for non-monetary coupons and Sig. = 0.405 for monetary coupons. As of that, conclusions on H3 cannot be taken for utilitarian products.

For **H3a** the tests used are the same as for H2a. Through the paired sample t-test, it is possible to observe that with a Sig. of 0.000, the means of short expirations (SE) and long expirations (LE) differ and that those of SE are higher than those of LE for both non-monetary and monetary coupons. In respect to that, for non-monetary coupons, the means are 3.23 for SE and 2.58 for LE and for monetary coupons these are 3.30 for SE and 2.50 for LE coupons (**Appendix 4.6**). With the linear regression for non-monetary coupons, a Sig. = 0.000 was attained so the coefficients were worthy of being observed. These, 0.256 for SE and 0.012 for LE, show that short expiration coupons produce a higher impact on consumers’ purchase intent. However, as the LE coefficient has a Sig. = 0.775 H3a cannot be accepted for non-monetary coupons. For monetary coupons, with the same Sig. level, and different coefficients levels – 0.308 for SE and 0.026 for LE – the same conclusion (short expiration coupons produce a larger impact than long expiration date coupons) can be further analysed. Though for SE the coefficient’s Sig. = 0.000, for LE the coefficient’s significance is 0.554; so it is not possible to affirm that H3a is accepted for utilitarian monetary coupons.

Lastly, **H4** is related to both moderators and explains which moderator has a higher impact on the relationship between coupon promotions and purchase intent. The previous hypotheses have analysed the impact each moderator has; though, to explain the aforementioned impact this hypothesis will combine both moderators into one linear regression for each coupon type (**Appendix 4.7**). The tests executed to non-monetary and monetary utilitarian coupons are not statistically significant – Sig. = 0.542 and Sig. = 0.205, respectively. Therefore the linear regression coefficients cannot be considered significant. Though, if they were, accordingly to the linear regressions, the coupon vehicle moderator would create a positive impact while expiration date moderator would create a negative impact (0.038 versus -0.054 for non-monetary coupons and 0.092 versus -0.046 for monetary coupons). Nonetheless, this cannot be assumed with the significances obtained.

### 4.2.2 Hedonic Products' Promotions

This subchapter is going to be displayed with the same logic as 4.2.1 since it is related to exactly the same hypotheses as the previous one with the exception that the product in question is hedonic rather than utilitarian. As derived by the literature both types of products will generate different results. Thus, the hypothesis testing for this product will conclude whether that is verifiable or not.

As of the first hypothesis, **H1**, the same results as of utilitarian products were verified. There is a positive impact created by coupons on consumers' purchase intent – **Appendix 5.1** – with a Sig. = 0.000. Though, it can be observed that the independent's variable coefficient for hedonic products is smaller than for utilitarian products – 0.108 - so it is possible to conclude that, for a 99% confidence interval, utilitarian product coupons have a larger impact that hedonic product coupons on purchase intent.

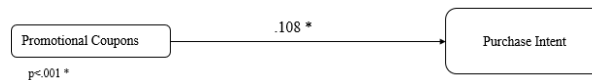


Figure 6: Hypothesis 1

Similarly to the previous chapter, an ANOVA was executed to test **H1a** for hedonic products, which is presented in **Appendix 5.2**. The Levene's test indicated, once again, that the variances of monetary and non-monetary promotions are homogeneous, as Sig. = 0.788. For these products the ANOVA's significance, which is 0.000, indicates that there exists a statistically significant difference between the two types of promotions. As there is a significant result a Univariate test was executed to further assess the results. Though there is significance, the Eta-Square value observed is small (0.016) so the effects on purchase intent created by the promotions are not very different. In sum, though very small, monetary coupons do have a stronger impact than non-monetary coupons on consumers' purchase intent and H1a is accepted.

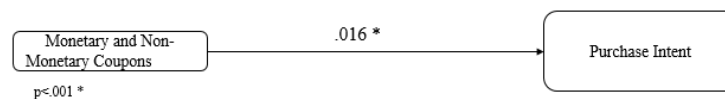


Figure 7: Hypothesis 1a

When considering **H2**, the same logic of confirming the internal consistency before moving forward to the linear regression was executed for the coupon vehicle moderator. Cronbach's Alpha results are 0.758 and 0.764 for non-monetary and monetary coupons respectively so it is possible to do a linear regression for each couponing promotion. Opposing to what was seen for utilitarian products, here the linear regressions are statistically significant – Sig. = 0.000 for

both non-monetary and monetary cases (**Appendix 5.3**). Having a positive coefficient for the independent variable (0.142 and 0.180, for non-monetary and monetary coupon vehicles respectively), it can be confirmed that the moderator plays a role in the relationship between coupons and consumers' purchase intent.

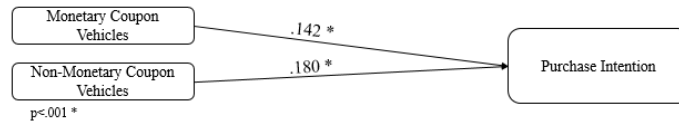


Figure 8: Hypothesis 2

For **H2a**, as of utilitarian products' tests, it was possible to observe that the means of the two types of coupon vehicles do differ for both monetary and non-monetary promotions. This can be observed in **Appendix 5.4** as the Sig. value is 0.000 – indicator of differing group means - as well as the fact that coupons sent via mobile phone have higher means – 3.71 and 3.72 - than those sent via email – 3.36 and 3.38 - for non-monetary and monetary coupons respectively. The linear regression computed also indicated, through the coefficients, that with an ANOVA's Sig. equal to 0.000, non-monetary mobile phone coupons have a larger impact than non-monetary email coupons on purchase intention – with coefficients of 0.231 versus 0.019. The same is verified for monetary coupons as mobile phones present a coefficient of 0.249 and email coupons one of 0.040, with the ANOVA's Sig. = 0.000 as well. Despite those results, the coefficients significances had to be observed and, as of utilitarian coupons, the coefficients significances did not lead to the acceptance of H2a. For both non-monetary and monetary coupons the email coupon coefficient significance was not comprised in the needed range - Sig. = 0.664 and Sig. = 0.384, respectively.

Equally to what was done with utilitarian products, **H3** for hedonic products' tests line of thought consisted of a linear regression with the expiration date moderator. The correlation tests for this promotions indicated that the moderator variables are not significantly correlated, neither for non-monetary nor for monetary coupons (Sig. = 0.474 and Sig. = 0.268, respectively). As a result of that, executing a linear regression that comprises both variables into one would not be correct (**Appendix 5.5**). Subsequently, hypothesis H3 cannot be accepted.

Likewise **H3a** for utilitarian products, paired sample t-tests and linear regressions were used to infer about the acceptance or rejection of the hypothesis. The paired sample t-tests showed that, for a Sig. = 0.000, the SE means are higher than the LE means for both non-monetary and monetary coupons. These are respectively, 3.09 and 3.08 for SE and 2.55 and 2.52 for LE. As

these means differ, the linear regressions were executed to make inferences on which produced a higher impact on the relationship between coupons and consumers' purchase intent. For non-monetary coupons, with a Sig. = 0.000, SE coupons have a coefficient of 0.222 while LE coupons have one of 0.067. So short expirations produce a larger impact. For monetary coupons, with the same Sig. level, it is observed that SE also produce a larger impact than LE and with a contrary effect – SE coefficient is equal to 0.327 whereas the LE coefficient is -0.115. The resulting linear regressions allowed the acceptance of H3a for hedonic products. For non-monetary coupons this is only possible for a confidence interval of 99% as LE have a coefficient significance equal to 0.088. (Appendix 5.6).

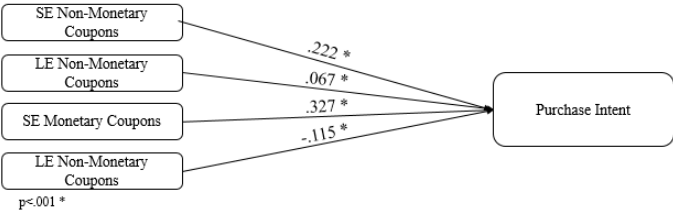


Figure 9: Hypothesis 3a

Last but not least, H4 for hedonic products was analysed. Contrarily to what happened to utilitarian products, this hypothesis' linear regressions are statistically significant and conclusions can be taken from it – Sig. = 0.000 for both non-monetary and monetary coupons (Appendix 5.7). With a 90% confidence interval it can be concluded that, for non-monetary coupons, the coupon vehicle moderator has a higher impact than the expiration date moderator – with a coefficient of 0.145 versus one of 0.070, respectively. For monetary coupons, with a 95% confidence interval it is seen that the coupon vehicle moderator has a positive impact – coefficient equal to 0.170 – and the expiration date moderator has a negative impact – coefficient equal to -0.104. In addition to that, coupon vehicles have a higher impact in absolute value. Both these results lead to the acceptance of H4 for hedonic products.

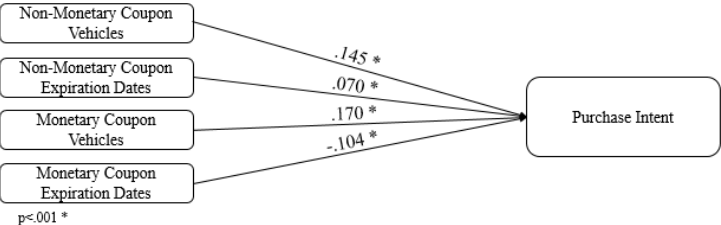


Figure 10: Hypothesis 4

## CHAPTER 5: CONCLUSIONS AND LIMITATIONS

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The purpose of this dissertation was to study how different couponing promotions affected consumers' purchase intent. Its goal was to find whether the effect on purchase intent varied across monetary and non-monetary coupon promotions and how different variables impacted the relationship between them.

Hence, the dissertation based itself on two couponing offers, each being offered to two different types of products – one hedonic and one utilitarian. This study began with a profound research on broad subjects such as purchase intention, coupons – both monetary and non-monetary – and on more specific subjects such as digital coupons – focusing on mobile phone and email coupons – and coupons' expiration dates, which provided the needed fundamentals to formulate research questions and hypotheses. In order to analyse those research questions and hypotheses, primary data was collected in the format of a survey which allowed the comprehension of the population's point of view on those promotions being that each respondent viewed solely one promotion.

### 5.1 Main Findings and Conclusions

#### *5.1.1 What is the impact of Coupons on consumers' Purchase Intention?*

In order to answer the research question posed above, the first hypotheses were analysed. These are related to the effect coupons have on purchase intent and whether this effect is different among different coupons – in this case among monetary and non-monetary coupons.

The dataset analysis permitted to conclude that coupons do, indeed, have a positive effect on purchase intention, thus accepting H1. This is observed not only for utilitarian products but also for hedonic products. These results are in accordance to what mentioned authors in the literature, such as Venkatesan & Farris (2012) and Raghurir (1998), argue.

When it comes to the differences that might be observed when comparing monetary and non-monetary coupons' effects on purchase intention, H1a results provided the answer. These were inconclusive for utilitarian products as both the ANOVA and the Levene's significance tests presented non-significant results. However, for hedonic products conclusions on the strength of those impacts can be taken; tests indicated that monetary coupons do indeed create more impact than non-monetary coupons, as predicted by Chen et al., (2012), by Chiou-Wei & Inman, (2008) and by Kivetz & Zheng, (2017). Ergo, these results go against the ideas that monetary coupons have a shorter impact than non-monetary coupons (Danaher, Smith,

Ranasinghe, & Danaher, 2015) and that monetary coupons portray a negative image since they depreciate consumers' price perceptions (Lee & Tsai, 2014).

### ***5.1.2 What is the moderator impact of Different Digital Coupons in the relationship between Coupons and Purchase Intention?***

As the digital world advances, there is a need from retailers to study how consumers react to new technological ways of purchasing products to guarantee their success. Digital coupons are becoming a trend in promotional offers and this research question aims to understand what is the best format retailers can present their digital coupons. The literature review chapter indicates how mobile coupons can be more easily personalized to consumers' tastes and current locations (Khajehzadeh et al., 2015) which lead to the hypothesis assumption that mobile coupons have a stronger impact than email coupons. The hypothesis testing permitted to confirm that assumption for monetary utilitarian products.

Having these results in consideration, it is advisable for retailers to focus their digital promotions on mobile coupons as these will generate a higher purchase intent independently of the product and of the coupon type presented to the consumer.

### ***5.1.3 What is the moderator impact of Coupons' Expirations Date in the relationship between Coupons and Purchase Intention?***

Being coupons' expiration dates an underexplored theme of couponing promotions, this research question aim was to explore how consumers react to different expiring ranges and how that can help retailers improve their expiration strategies. Many authors are in favour of coupons having small expirations as it has been observed that consumers increase their purchases when seeing the expiration date approaching and since long expiration dates lead to smaller redemption rates (Danaher et al., 2015; Mela, Jedidi, & Bowman, 1998). This lead to the hypothesis that coupons with short expiration dates generate a higher impact on purchase intention. In conformity to what these authors believed, it is observed that short expiration dates produce higher linear regression coefficients than long expiration dates. This is verifiable for hedonic products being that monetary coupons present higher coefficients than non-monetary coupons. Therefore, it is advisable for retailers to opt for short expiration coupons – which is considered by consumers to be coupons in the range of a day and a week – and preferably in the form of monetary coupons.

#### ***5.1.4 Comparison between Different Digital Coupons' and Coupons' Expirations Date's Moderators***

Besides studying the effect that is imposed by each of the moderators in separate, it is interesting to understand which of them has a leading impact when using both to influence consumers' purchase intent. Even though for utilitarian products conclusions could not be taken regarding this interaction of moderators, hedonic coupons provided information that can be used in a promotional context. It has been observed that, indeed, the coupon vehicle moderator is the one expressing a higher effect and that expiration date moderators can even lead to negative effects on purchase intent. With this in mind, retailers should mainly focus on the vehicle being used to promote their products.

### **5.2 Academic Relevance**

This dissertation is important for academia since there is a lack of research on the topic of digital couponing. Since this is a fairly new promotional offer, the amount of top journals related to it are insignificant comparing to, for example, free-standing insert promotions' research articles. Research on the topics of purchase intent and on monetary and non-monetary promotions is very developed as well as research on the relation among them. However, these researches are not related to the effect of neither of the moderators studied in the present dissertation.

The digital world is evolving at a high speed, so it is important to collect data on what consumers value the most, whether email or mobile phone couponing promotions. This dissertation tried to tackle that issue as well as the issue of expiration dates which are also very forgotten by researchers.

Concluding, this dissertation is composed by an array of data that fills in the gaps on what affects consumers' purchase intention for both monetary and non-monetary coupons and for both hedonic and utilitarian products.

### **5.3 Limitations and Further Research**

As many other research studies, this dissertation faced some difficulties; despite that, it is possible to confirm the validity of some of the results obtained.

One of the major limitations that the dissertation had to face was related to the collection of data through the survey. Firstly, a significant portion of respondents was directed to the end of the survey as they did not fill the necessary requirements which decreased the amount of responses to couponing questions. Secondly, the majority of the respondents were students in an age range that is considerably young thus making the results biased to that age range. Adding

to this, since there were four different versions, the amount of respondents assigned to each was significantly smaller than the totality of responses collected. To overcome these difficulties, a larger sample is recommended as it not only increases the amount of answers from different age groups but also increases the responses on each category making the data even more reliable. The lack of responses for each version also lead to poorer results than would have been obtained with larger samples. Indeed, many results did not comply with the statistical significance requirements and that consequence could have been overcome with a larger sample.

Another problem that can be mentioned is the fact that only two products were analysed. Even though they represented utilitarian and hedonic categories, respondents can have diverging opinions on different utilitarian and different hedonic products. Further research could be executed with the same survey or the same line of thought but with different products to conclude whether the results are the same or if they differ among each category. Supporting the mentioned suggestion, in future research a pre survey to see for which products categories consumers use or intend to use coupons could be done.

Moreover, the survey was delivered to respondents through an electronic format; though it decreases the chances of bias due to anonymity, this could lead to a different kind of biased answers as it is not possible to control for the respondents focus level. Future research could be based on an in-person survey to override this problem.

There is also the possibility of using different promotional values to test the effect on purchase intent; in this research both monetary and non-monetary promotions had a 50% discount value. It would be interesting to see if consumers responded differently to promotions if these corresponded to smaller discounts.

In sum, this study can be further analysed and replicated with some minor, though at the same time, major differences.

## CHAPTER 6: REFERENCE LIST

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## CHAPTER 7: APPENDICES

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### Appendix 1: Qualtrics Online Survey

The Survey was launched both in Portuguese and in English so that respondents could select the language they were the most comfortable with. The survey consists of six blocks being that each respondent answered only to three; they all answered to the Introduction and the Demographic blocks but the remaining four blocks - Laundry Detergent Non-Monetary, Laundry Detergent Monetary, Ice Cream Non-Monetary and Ice Cream Monetary - were randomly assigned accordingly to consumers' consumption and with an equal weight.

#### 1. Introduction Block

Thank you very much for participating in this survey. This is part of a study for a Católica Lisbon Master Thesis on the field of Strategic Marketing. Your participation will be essential for its execution and every answer will be confidential. The estimated time of the questionnaire is 5 minutes.

Thank you very much. Sofia Enes

**Q1:** From the following please select the one(s) you own:

- A smartphone
- An email account
- Both
- None

*(If "None" is selected, the respondent is directed to the end of the survey.)*

**Q2:** On a scale of 1 to 5, classify your level of agreement with the following statements:

*(1: Strongly disagree, 2: Disagree, 3: Neither agree nor disagree, 4: Agree, 5: Strongly agree)*

- I compare prices of a few brands before I choose one.
- I find myself checking prices even for small items.
- It is important for me to get the best price for the products I buy.
- I will not give up high quality for a lower price.
- I always buy the best.
- It is important for me to buy high-quality products.

**Q3:** Have you ever used a coupon?

- Yes
- No

*(If "No" is selected, the respondent is directed to the end of the survey.)*

**Q4:** Having this in mind, how often do you use coupons?

- Never
- Less than once per month
- Once per month
- Two to three times a month
- More than three times a month

A coupon's expiration date is the limited period of time for which the coupon can be redeemed.

**Q5:** When considering a coupon sent via text message or email, what do you think a short expiration date should be?

- Less than 16 hours
- Between 16 hours and 24 hours
- Between a day and a week
- Between one and four weeks
- More than four weeks

**Q6:** When considering a coupon sent via text message or email, what do you think a long expiration date should be?

- Less than 16 hours
- Between 16 hours and 24 hours
- Between a day and a week
- Between one and four weeks
- More than four weeks

**Q7:** From the following products please select the one(s) you consume:

- Ice cream
- Laundry detergent
- Both

- None

*(If “None” is selected, the respondent is directed to the end of the survey. If “Ice cream” is selected, the respondent is directed to the Ice Cream Block. If “Laundry detergent” is selected, the respondent is directed to the Laundry Detergent Block. If “Both” is selected, the respondent is randomly assigned to either the Ice Cream or the Laundry Detergent Block. )*

## **2. Laundry Detergent Non-Monetary Block**

Imagine the following situation:

You receive a coupon from a laundry detergent brand saying "Buy one laundry detergent and get a second one for free". Please evaluate the statements related to each question.

**Q8:** How do you evaluate the offer?

*(This question is in the format of a five-point matrix table.)*

- Bad / Good
- Unattractive / Attractive
- Not beneficial / Beneficial
- Unfavorable / Favorable
- I do not like it / I like it
- Low value for money / High value for money
- Worthless / Worthwhile

**Q9:** What is your willingness to purchase the product?

- Definitely would buy the product
- Probably would buy the product
- Might buy the product
- Probably would not buy the product
- Definitely would not buy the product

**Q10:** What is your level of agreement with the following question?

*(1: Strongly disagree, 2: Disagree, 3: Neither agree nor disagree, 4: Agree, 5: Strongly agree)*

- I would not buy a laundry detergent if the coupon was not available.
- I will use this coupon if sent via text message.
- I will use this coupon if sent via email.
- I rather receive the coupon in the format of a text message than of an email.

- I will be more likely to use the coupon if sent via text message than via email.
- I will use the coupon as fast as I can.
- I will wait until the end of the promotional period to use it.
- I will be more likely to use this coupon if available for only one day than for up to four weeks.

### 3. Laundry Detergent Monetary Block

Imagine the following situation:

You receive a coupon from a laundry detergent brand saying "Use this 50% discount coupon to buy one laundry detergent". Please evaluate the statements related to each question.

**Q11:** How do you evaluate the offer?

*(This question is in the format of a five-point matrix table.)*

- Bad / Good
- Unattractive / Attractive
- Not beneficial / Beneficial
- Unfavorable / Favorable
- I do not like it / I like it
- Low value for money / High value for money
- Worthless / Worthwhile

**Q12:** What is your willingness to purchase the product?

- Definitely would buy the product
- Probably would buy the product
- Might buy the product
- Probably would not buy the product
- Definitely would not buy the product

**Q13:** What is your level of agreement with the following question?

*(1: Strongly disagree, 2: Disagree, 3: Neither agree nor disagree, 4: Agree, 5: Strongly agree)*

- I would not buy a laundry detergent if the coupon was not available.
- I will use this coupon if sent via text message.
- I will use this coupon if sent via email.
- I rather receive the coupon in the format of a text message than of an email.

- I will be more likely to use the coupon if sent via text message than via email.
- I will use the coupon as fast as I can.
- I will wait until the end of the promotional period to use it.
- I will be more likely to use this coupon if available for only one day than for up to four weeks.

#### **4. Ice Cream Non-Monetary Block**

*(The questions are the same as the ones from the Laundry Detergent Non-Monetary Block, with Ice Cream instead of Laundry Detergent.)*

#### **5. Ice Cream Monetary Block**

*(The questions are the same as the ones from the Laundry Detergent Monetary Block, with Ice Cream instead of Laundry Detergent.)*

#### **6. Demographics Block**

**Q20:** What is your gender?

- Male
- Female
- I rather not mention.

**Q21:** What is your age?

- < 18 years old
- 18-24 years old
- 25-34 years old
- 35-50 years old
- > 50 years old
- I rather not mention.

**Q22:** Are you Portuguese?

- Yes
- No
- I rather not mention.

**Q23:** What is your current occupation?

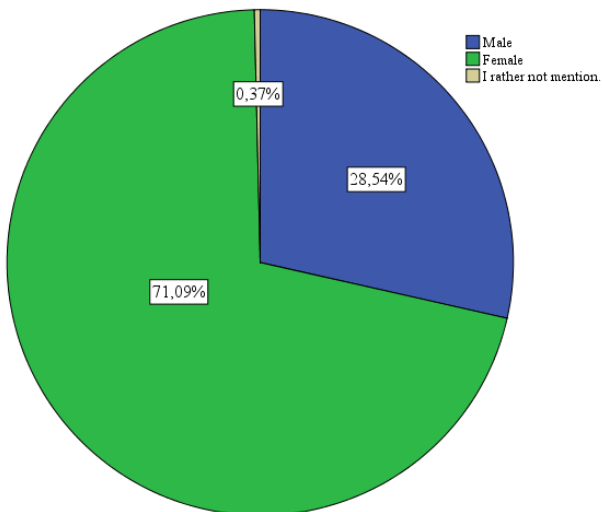
- Student
- Worker
- Unemployed
- Retired
- I rather not mention.

**Q24:** What is your monthly income?

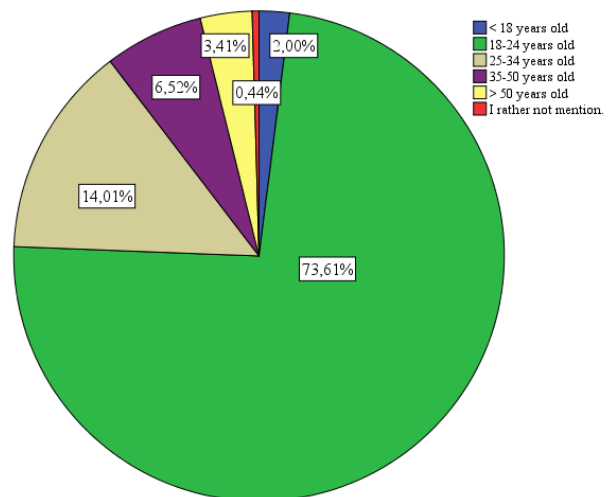
- < 500€
- 500-1000€
- 1001-1500€
- 1501-2000€
- > 2000€
- I rather not mention.

## Appendix 2: Demographics Analysis

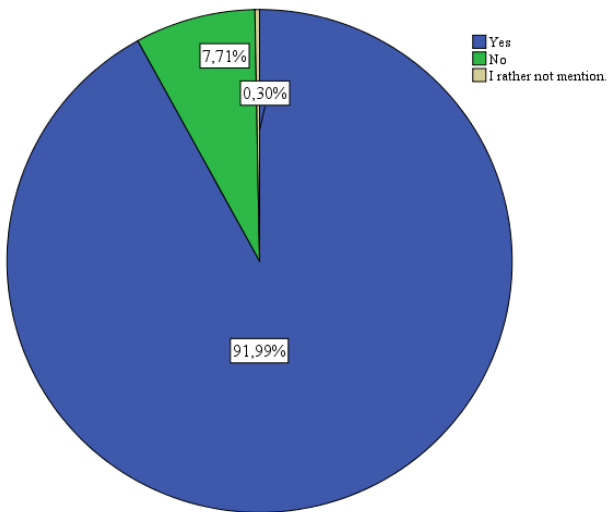
2.1: What is your gender?



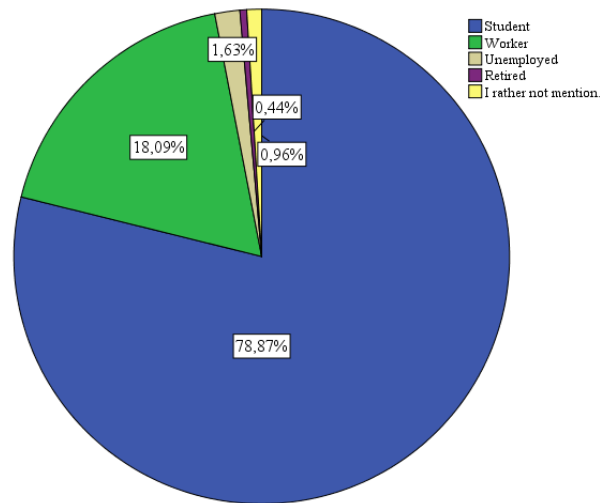
2.2: What is your age?



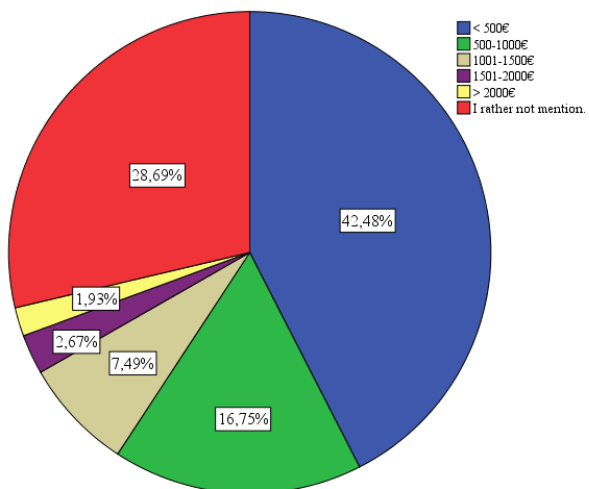
2.3: Are you Portuguese?



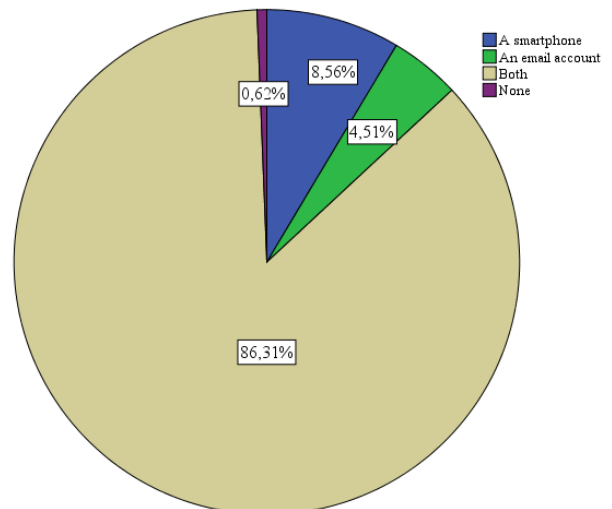
2.4: What is your current occupation?



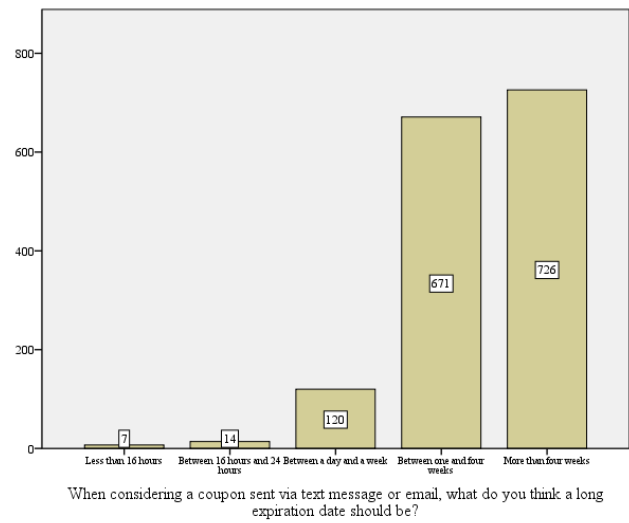
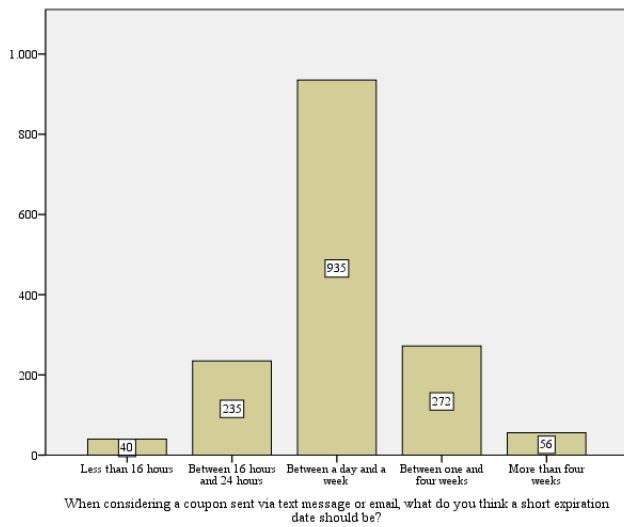
2.5: What is your monthly income?



2.6: Ownership of smartphones/email accounts



### Appendix 3: Expiration dates distributions



### Appendix 4: Utilitarian Products' Hypotheses Testing

#### Appendix 4.1: Hypothesis 1

Model Summary <sup>b</sup>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.161 <sup>a</sup>	0.026	0.024	0.71200
a. Predictors: (Constant), HIU_wouldnot				
b. Dependent Variable: HIU_willingness				

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	8.013	1	8.013	15.806	.000 <sup>b</sup>
	Residual	300.619	593	0.507		
	Total	308.632	594			
a. Dependent Variable: HIU_willingness						
b. Predictors: (Constant), HIU_wouldnot						

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std Error	Beta		
1	(Constant)	3.379	0.100		33.772	0.000
	HIU_wouldnot	0.117	0.029	0.161	3.976	0.000
a. Dependent Variable: HIU_willingness						

#### Appendix 4.2: Hypothesis 1a

Test of Homogeneity of Variances			
HIU_willingness			
Levene Statistic	df1	df2	Sig.
0.740	1	593	0.390

ANOVA					
H1U_willingness					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	0.003	1	0.003	0.005	0.944
Within Groups	308.629	593	0.520		
Total	308.632	594			

### Appendix 4.3: Hypothesis 2

Reliability Statistics		
	Cronbach's Alpha	N Items
Non-Monetary	0.696	2
Monetary	0.773	2

#### Non-Monetary:

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	0.182	1	0.182	0.375	0.541 <sup>b</sup>
	Residual	143.902	296	0.486		
	Total	144.084	297			
a. Dependent Variable: H2aUnon\$ willingness						
b. Predictors: (Constant), H2Unon\$ vehicle						

#### Monetary:

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.410	1	1.410	2.549	0.111 <sup>b</sup>
	Residual	163.136	295	0.553		
	Total	164.545	296			
a. Dependent Variable: H2aU\$ willingness						
b. Predictors: (Constant), H2U\$ vehicle						

### Appendix 4.4: Hypothesis 2a

Paired Sample Statistics						
		Mean	N	Std. Deviation	Std. Error Mean	
Non-Monetary Pair	What is your level of agreement with the following question? - I will use this coupon if sent via text message.	3.71	298	0.952	0.055	
	What is your level of agreement with the following question? - I will use this coupon if sent via email.	3.38	298	1.044	0.060	
Monetary Pair	What is your level of agreement with the following question? - I will use this coupon if sent via text message.	3.68	297	0.098	0.057	
	What is your level of agreement with the following question? - I will use this coupon if sent via email.	3.40	297	1.032	0.060	

Paired Samples Test									
					95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig (2-tailed)
Non-Monetary Pair	What is your level of agreement with the following question? – I will use this coupon if sent via text message. - What is your level of agreement with the following question? – I will use this coupon if sent via email.	0.336	0.965	0.056	0.226	0.446	6.004	297	0.000
Monetary Pair	What is your level of agreement with the following question? – I will use this coupon if sent via text message. - What is your level of agreement with the following question? – I will use this coupon if sent via email.	0.297	0.866	0.050	0.181	0.378	5.564	296	0.000

### Non-Monetary:

Model Summary <sup>b</sup>					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0.182 <sup>a</sup>	0.033	0.027	0.68714	0.367
a. Predictors: (Constant), What is your level of agreement with the following question? - I will use this coupon if sent via email. What is your level of agreement with the following question? - I will use this coupon if sent via text message.					
b. Dependent Variable: H2aUnon\$_willingness					

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig
1	Regression	4.798	2	2.399	5.081	0.007 <sup>b</sup>
	Residual	139.286	295	0.472		
	Total	144.084	297			
a. Dependent Variable: H2aUnon\$_willingness						
b. Predictors: (Constant), What is your level of agreement with the following question? - I will use this coupon if sent via email. What is your level of agreement with the following question? - I will use this coupon if sent via text message.						

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.362	0.169		19.859	0.000
	What is your level of agreement with the following question? - I will use this coupon if sent via text message.	0.155	0.050	0.212	3.127	0.002

	What is your level of agreement with the following question? - I will use this coupon if sent via email.	-0.052	0.045	-0.078	-1.152	0.250
a. Dependent Variable: H2aUnon\$_willingness						

**Monetary:**

Paired Samples Test									
				95% Confidence Interval of the Difference					
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig (2-tailed)
Pair 1	What is your level of agreement with the following question? – I will use this coupon if sent via text message. - What is your level of agreement with the following question? – I will use this coupon if sent via email.	0.297	0.866	0.050	0.181	0.378	5.564	296	.000

Model Summary <sup>b</sup>					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0.304 <sup>a</sup>	0.092	0.086	0.71271	0.452
a. Predictors: (Constant), What is your level of agreement with the following question? - I will use this coupon if sent via email. What is your level of agreement with the following question? - I will use this coupon if sent via text message.					
b. Dependent Variable: H2aU\$_willingness					

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig
1	Regression	15.206	2	7.603	14.968	.000 <sup>b</sup>
	Residual	149.339	294	.508		
	Total	164.545	296			
a. Dependent Variable: H2aU\$_willingness						
b. Predictors: (Constant), What is your level of agreement with the following question? - I will use this coupon if sent via email. What is your level of agreement with the following question? - I will use this coupon if sent via text message.						

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.063	.169		18.176	.000
	What is your level of agreement with the following question? - I will use this coupon if sent via text message.	.284	.054	.373	5.212	.000

What is your level of agreement with the following question? - I will use this coupon if sent via email.	-103	.052	-.143	-1.996	.047
a. Dependent Variable: H2aU\$_willingness					

### Appendix 4.5: Hypothesis 3

Correlations				
			I will use the coupon as fast as I can.	I will wait until the end of the promotional period to use it.
Spearman's rho – Non-Monetary	I will use the coupon as fast as I can.	Correlation Coefficient	1.000	-0.210**
		Sig. (2-tailed)		0.000
		N	298	298
	I will wait until the end of the promotional period to use it.	Correlation Coefficient	-0.210**	1.000
		Sig. (2-tailed)	0.000	
		N	298	298
Spearman's rho - Monetary	I will use the coupon as fast as I can.	Correlation Coefficient	1.000	-0.224**
		Sig. (2-tailed)		0.000
		N	297	297
	I will wait until the end of the promotional period to use it.	Correlation Coefficient	-0.224**	1.000
		Sig. (2-tailed)	0.000	
		N	297	297

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

### Non-Monetary:

ANOVA <sup>a</sup>						
	Model	Sum of Squares	df	Mean Square	F	Sig
1	Regression	0.385	1	0.385	0.794	0.374 <sup>b</sup>
	Residual	143.699	296	0.485		
	Total	144,084	297			
a. Dependent Variable: H3Unon\$_willingness						
b. Predictors: (Constant), H3Unon\$_exp						

### Monetary:

ANOVA <sup>a</sup>						
	Model	Sum of Squares	df	Mean Square	F	Sig
1	Regression	0.387	1	0.387	0.695	0.405 <sup>b</sup>
	Residual	164.159	295	0.556		
	Total	164.545	296			
a. Dependent Variable: H3U\$_willingness						
b. Predictors: (Constant), H3U\$_exp						

### Appendix 4.6: Hypothesis 3a

Paired Sample Statistics						
		Mean	N	Std. Deviation	Std. Error Mean	

Non-Monetary Pair	What is your level of agreement with the following question? - I will use the coupon as fast as I can.	3.23	298	.951	.055
	What is your level of agreement with the following question? - I will wait until the end of the promotional period to use it.	2.58	298	.892	.052
Monetary Pair	What is your level of agreement with the following question? - I will use the coupon as fast as I can.	3.30	297	.949	.055
	What is your level of agreement with the following question? - I will wait until the end of the promotional period to use it.	2.50	297	.923	.054

Paired Samples Test									
				95% Confidence Interval of the Difference					
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig (2-tailed)
Non-Monetary Pair	What is your level of agreement with the following question? - I will use the coupon as fast as I can. - What is your level of agreement with the following question? - I will wait until the end of the promotional period to use it.	.644	1.424	.082	.482	.807	7.810	297	.000
Monetary Pair	What is your level of agreement with the following question? - I will use the coupon as fast as I can. - What is your level of agreement with the following question? - I will wait until the end of the promotional period to use it.	.798	1.454	.084	.632	.964	9.457	296	.000

### Non-Monetary:

Model Summary <sup>b</sup>					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.347 <sup>a</sup>	.120	.115	.65542	.539
a. Predictors: (Constant), What is your level of agreement with the following question? - I will wait until the end of the promotional period to use it., What is your level of agreement with the following question? - I will use the coupon as fast as I can.					
b. Dependent Variable: H3aUnon\$ willingness					

ANOVA <sup>a</sup>						
Model	Sum of Squares	df	Mean Square	F	Sig	
1	Regression	17.360	2	8.680	20.206	.000 <sup>b</sup>
	Residual	126.724	295	.430		
	Total	144.084	297			

a. Dependent Variable: H3aUnon\$\_willingness

b. Predictors: (Constant), What is your level of agreement with the following question? - I will wait until the end of the promotional period to use it., What is your level of agreement with the following question? - I will use the coupon as fast as I can.

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.902	.193		15.072	.000
	What is your level of agreement with the following question? - I will use the coupon as fast as I can.	.256	.041	.350	6.286	.000
	What is your level of agreement with the following question? - I will wait until the end of the promotional period to use it.	.012	.043	.016	.286	.775

a. Dependent Variable: H3aUnon\$\_willingness

### Monetary:

Model Summary <sup>b</sup>					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.386 <sup>a</sup>	.149	.143	.69007	.578

a. Predictors: (Constant), What is your level of agreement with the following question? - I will wait until the end of the promotional period to use it., What is your level of agreement with the following question? - I will use the coupon as fast as I can.

b. Dependent Variable: H3aU\$\_willingness

ANOVA <sup>a</sup>						
Model	Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	24.545	2	12.272	25.772	.000 <sup>b</sup>
	Residual	140.001	294	.476		
	Total	164.545	296			

a. Dependent Variable: H3aU\$\_willingness

b. Predictors: (Constant), What is your level of agreement with the following question? - I will wait until the end of the promotional period to use it., What is your level of agreement with the following question? - I will use the coupon as fast as I can.

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.676	.202		13.241	.000
	What is your level of agreement with the following question? - I will use the coupon as fast as I can.	.308	.043	.392	7.123	.000
	What is your level of agreement with the following question? - I will wait until the end of the promotional period to use it.	.026	.044	.033	.592	.554

a. Dependent Variable: H3aU\$ \_willingness

### Appendix 4.7: Hypothesis 4

#### Non-Monetary:

ANOVA <sup>a</sup>						
Model	Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	0.597	2	0.299	0.614	,542 <sup>b</sup>
	Residual	143.487	295	0.486		
	Total	144,084	297			
a. Dependent Variable: H2aUnon\$ _willingness						
b. Predictors: (Constant), H3Unon\$ _exp, H2Unon\$ _vehicle						

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.784	0.176		21.509	0.000
	H2Unon\$ _vehicle	0.026	0.039	0.038	0.660	0.510
	H3Unon\$ _exp	-0.042	0.045	-0.054	-0.924	0.356
a. Dependent Variable: H2aUnon\$ _willingness						

#### Monetary:

ANOVA <sup>a</sup>						
Model	Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	1.765	2	0.883	1.594	0.205 <sup>b</sup>
	Residual	162.780	294	0.554		
	Total	164.545	296			
a. Dependent Variable: H2aU\$ _willingness						
b. Predictors: (Constant), H3U\$ _exp, H2U\$ _vehicle						

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.626	0.192		18.933	0.000
	H2U\$ _vehicle	0.066	0.042	0.092	1.578	0.116
	H3U\$ _exp	-0.038	0.047	-0.046	-0.801	0.424
a. Dependent Variable: H2aU\$ _willingness						

### Appendix 5: Hedonic Products' Hypotheses Testing

#### Appendix 5.1: Hypothesis 1

Model Summary <sup>b</sup>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.159 <sup>a</sup>	0.025	0.024	0.70922
a. Predictors: (Constant), H1H _wouldnot				
b. Dependent Variable: H1H _willingness				

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig
1	Regression	9.832	1	9.832	19.547	.000 <sup>b</sup>
	Residual	380.258	756	0.503		
	Total	390.090	757			
a. Dependent Variable: H1H_willingness						
b. Predictors: (Constant), H1H_wouldnot						

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig
		B	Std Error	Beta		
1	(Constant)	3.294	0.079		41.881	0.000
	H1H_wouldnot	0.108	0.025	0.159	4.421	0.000
a. Dependent Variable: H1H_willingness						

### Appendix 5.2: Hypothesis 1a

Test of Homogeneity of Variances			
H1H_willingness			
Levene Statistic	df1	df2	Sig.
0.073	1	756	0,788

ANOVA					
H1H_willingness					
	Sum of Squares	df	Mean Square	F	Sig
Between Groups	6.374	1	6.374	12.559	0.000
Within Groups	383.715	756	0.508		
Total	390.090	757			

Tests of Between-Subjects Effects						
Dependent Variable: H1H_willingness						
Source	Type III Sum of Squares	df	Mean Square	F	Sig	Partial Eta Squared
Correlated Model	6.374 <sup>a</sup>	1	6.374	12.559	0.000	0.016
Intercept	9944.976	1	9944.976	19593.689	0.000	0.963
H1aH_wouldnot	6.374	1	6.374	12.559	0.000	0.016
Error	383.715	756	0.508			
Total	10338.000	758				
Corrected Total	390.090	757				
a. R Squared = 0.016 (Adjusted R Squared = .015)						

### Appendix 5.3: Hypothesis 2

Reliability Statistics		
	Cronbach's Alpha	N Items
Non-Monetary	0.758	2
Monetary	0.764	2

#### Non-Monetary:

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate

1	0.206 <sup>a</sup>	0.042	0.040	0.68157
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a. Predictors: (Constant), H2Hnon\$ \_vehicle

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7.700	1	7.700	16.576	0.000 <sup>b</sup>
	Residual	174.199	375	0.465		
	Total	181.899	376			

a. Dependent Variable: H2aHnon\$ willingness

b. Predictors: (Constant), H2Hnon\$ \_vehicle

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.054	0.122		24.979	0.000
	H2Hnon\$ _vehicle	0.142	0.035	0.206	4.071	0.000

a. Dependent Variable: H2aHnon\$ willingness

### Monetary:

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.239 <sup>a</sup>	0.057	0.055	0.70858

a. Predictors: (Constant), H2H\$ \_vehicle

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	11.526	1	11.526	22.955	0.000 <sup>b</sup>
	Residual	190.291	379	0.502		
	Total	201.816	380			

a. Dependent Variable: H2aH\$ willingness

b. Predictors: (Constant), H2H\$ \_vehicle

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.107	0.132		23.598	0.000
	H2H\$ _vehicle	0.180	0.037	0.239	4.791	0.000

a. Dependent Variable: H2aH\$ willingness

### Appendix 5.4: Hypothesis 2a

Paired Sample Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Non-Monetary Pair	What is your level of agreement with the following question? - I will use this coupon if sent via text message.	3.71	377	0.873	0.045
	What is your level of agreement with the following question? - I will use this coupon if sent via email.	3.36	377	1.010	0.052

Monetary Pair	What is your level of agreement with the following question? - I will use this coupon if sent via text message.	3.72	381	0.873	0.045
	What is your level of agreement with the following question? - I will use this coupon if sent via email.	3.38	381	0.970	0.050

Paired Samples Test									
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig (2-tailed)
					Lower	Upper			
Non-Monetary Pair	What is your level of agreement with the following question? – I will use this coupon if sent via text message. - What is your level of agreement with the following question? – I will use this coupon if sent via email.	0.342	0.833	0.043	0.258	0.427	7.976	376	0.000
Monetary Pair	What is your level of agreement with the following question? – I will use this coupon if sent via text message. - What is your level of agreement with the following question? – I will use this coupon if sent via email.	0.339	0.807	0.041	0.257	0.420	8.192	380	0.000

**Non-Monetary:**

Model Summary <sup>b</sup>					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.307 <sup>a</sup>	.094	.089	.66372	.420
a. Predictors: (Constant), What is your level of agreement with the following question? - I will use this coupon if sent via email, What is your level of agreement with the following question? - I will use this coupon if sent via text message.					
b. Dependent Variable: H2aHnon\$_willingness					

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig
1	Regression	17.141	2	8.571	19.455	.000 <sup>b</sup>
	Residual	164.758	374	.441		
	Total	181.899	376			
a. Dependent Variable: H2aHnon\$_willingness						
b. Predictors: (Constant), What is your level of agreement with the following question? - I will use this coupon if sent via email, What is your level of agreement with the following question? - I will use this coupon if sent via text message.						

Coefficients <sup>a</sup>				
Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.

		B	Std. Error	Beta		
1	(Constant)	2.613	.152		17.132	.000
	What is your level of agreement with the following question? - I will use this coupon if sent via text message.	.231	.050	.289	4.629	.000
	What is your level of agreement with the following question? - I will use this coupon if sent via email.	.019	.043	.027	.435	.664

a. Dependent Variable: H2aHnon\$ willingness

### Monetary:

Model Summary <sup>b</sup>					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.334 <sup>a</sup>	.112	.107	.68869	.454

a. Predictors: (Constant), What is your level of agreement with the following question? - I will use this coupon if sent via email, What is your level of agreement with the following question? - I will use this coupon if sent via text message.

b. Dependent Variable: H2aH\$ willingness

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	22.532	2	11.266	23.753	.000 <sup>b</sup>
	Residual	179.284	378	.474		
	Total	201.816	380			

a. Dependent Variable: H2aH\$ willingness

b. Predictors: (Constant), What is your level of agreement with the following question? - I will use this coupon if sent via email, What is your level of agreement with the following question? - I will use this coupon if sent via text message.

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.652	.159		16.673	.000
	What is your level of agreement with the following question? - I will use this coupon if sent via text message.	.249	.052	.298	4.817	.000
	What is your level of agreement with the following question? - I will use this coupon if sent via email.	.040	.046	.054	.871	.384

a. Dependent Variable: H2aH\$ willingness

**Appendix 5.5: Hypothesis 3**

Correlations				
			I will use the coupon as fast as I can.	I will wait until the end of the promotional period to use it.
Spearman's rho – Non-Monetary	I will use the coupon as fast as I can.	Correlation Coefficient	1.000	-0.037
		Sig. (2-tailed)		0.474
		N	377	377
	I will wait until the end of the promotional period to use it.	Correlation Coefficient	-0.037	1.000
		Sig. (2-tailed)	0.474	
		N	377	377
Spearman's rho - Monetary	I will use the coupon as fast as I can.	Correlation Coefficient	1.000	-0.057
		Sig. (2-tailed)		0.268
		N	381	381
	I will wait until the end of the promotional period to use it.	Correlation Coefficient	-0.057	1.000
		Sig. (2-tailed)	0.268	
		N	381	381

**Appendix 5.6: Hypothesis 3a**

Paired Sample Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Non-Monetary Pair	What is your level of agreement with the following question? - I will use the coupon as fast as I can.	3.09	377	.881	.045
	What is your level of agreement with the following question? - I will wait until the end of the promotional period to use it.	2.55	377	.883	.045
Monetary Pair	What is your level of agreement with the following question? - I will use the coupon as fast as I can.	3.08	381	.900	.046
	What is your level of agreement with the following question? - I will wait until the end of the promotional period to use it.	2.52	381	.851	.044

Paired Samples Test									
					95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig (2-tailed)
Non-Monetary Pair	What is your level of agreement with the following question? - I will use the coupon as fast as I can. - What is your level of agreement with the following question? - I will wait until the end of the promotional period to use it.	.538	1.261	.065	.411	.666	8.292	376	.000

Monetary Pair	What is your level of agreement with the following question? - I will use the coupon as fast as I can. - What is your level of agreement with the following question? - I will wait until the end of the promotional period to use it.	.556	1.255	.064	.430	.683	8.658	380	.000
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**Non-Monetary:**

Model Summary <sup>b</sup>					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.292 <sup>a</sup>	.085	.081	.66694	.473
a. Predictors: (Constant), What is your level of agreement with the following question? - I will wait until the end of the promotional period to use it., What is your level of agreement with the following question? - I will use the coupon as fast as I can.					
b. Dependent Variable: H3aHnon\$_willingness					

ANOVA <sup>a</sup>						
Model	Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	15.541	2	7.770	17.469	.000 <sup>b</sup>
	Residual	166.358	374	.445		
	Total	181.899	376			
a. Dependent Variable: H3aHnon\$_willingness						
b. Predictors: (Constant), What is your level of agreement with the following question? - I will wait until the end of the promotional period to use it., What is your level of agreement with the following question? - I will use the coupon as fast as I can.						

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.675	.161		16.569	.000
	What is your level of agreement with the following question? - I will use the coupon as fast as I can.	.222	.039	.282	5.692	.000
	What is your level of agreement with the following question? - I will wait until the end of the promotional period to use it.	.067	.039	.085	1.711	.088
a. Dependent Variable: H3aHnon\$_willingness						

**Monetary:**

Model Summary <sup>b</sup>					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson

1	.429 <sup>a</sup>	.184	.180	.66000	.516
a. Predictors: (Constant), What is your level of agreement with the following question? - I will wait until the end of the promotional period to use it., What is your level of agreement with the following question? - I will use the coupon as fast as I can.					
b. Dependent Variable: H3aH\$_willingness					

ANOVA <sup>a</sup>						
Model	Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	37.161	2	18.580	42.655	.000 <sup>b</sup>
	Residual	164.655	378	.436		
	Total	201.816	380			
a. Dependent Variable: H3aH\$_willingness						
b. Predictors: (Constant), What is your level of agreement with the following question? - I will wait until the end of the promotional period to use it., What is your level of agreement with the following question? - I will use the coupon as fast as I can.						

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.995	.159		18.844	.000
	What is your level of agreement with the following question? - I will use the coupon as fast as I can.	.327	.038	.404	8.696	.000
	What is your level of agreement with the following question? - I will wait until the end of the promotional period to use it.	-.115	.040	-.134	-2.882	.004
a. Dependent Variable: H3aH\$_willingness						

**Appendix 5.7: Hypothesis 4  
Non-Monetary:**

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.224 <sup>a</sup>	0.050	0.045	0.68966
a. Predictors: (Constant), H3Hnon\$_exp, H2Hnon\$_vehicle				

ANOVA <sup>a</sup>						
Model	Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	9.134	2	4.567	9.887	0.000 <sup>b</sup>
	Residual	172.765	374	0.462		
	Total	181.899	376			
a. Dependent Variable: H2aHnon\$_willingness						
b. Predictors: (Constant), H3Hnon\$_exp, H2Hnon\$_vehicle						

Coefficients <sup>a</sup>				
Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.

		<b>B</b>	<b>Std. Error</b>	<b>Beta</b>		
1	(Constant)	2.865	0.162		17.670	0.000
	H2Hnon\$ vehicle	0.145	0.035	0.210	4.163	0.000
	H3Hnon\$ exp	0.070	0.040	0.089	1.762	0.079
a. Dependent Variable: H2aHnon\$ willingness						

**Monetary:**

<b>Model Summary</b>				
<b>Model</b>	<b>R</b>	<b>R Square</b>	<b>Adjusted R Square</b>	<b>Std. Error of the Estimate</b>
1	0.268 <sup>a</sup>	0.072	0.067	0.70402
a. Predictors: (Constant), H3H\$ exp, H2H\$ vehicle				

<b>ANOVA<sup>a</sup></b>						
<b>Model</b>	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig</b>	
1	Regression	14.465	2	7.233	14.592	0.000 <sup>b</sup>
	Residual	187.351	378	0.496		
	Total	201.816	380			
a. Dependent Variable: H2aH\$ willingness						
b. Predictors: (Constant), H3H\$ exp, H2H\$ vehicle						

<b>Coefficients<sup>a</sup></b>						
<b>Model</b>		<b>Unstandardized Coefficients</b>		<b>Standardized Coefficients</b>	<b>t</b>	<b>Sig.</b>
		<b>B</b>	<b>Std. Error</b>	<b>Beta</b>		
1	(Constant)	3.401	0.178		19.113	0.000
	H2H\$ vehicle	0.170	0.037	0.227	4.547	0.000
	H3H\$ exp	-0.104	0.043	-0.121	-2.435	0.015
a. Dependent Variable: H2aH\$ willingness						