
# The effect of anchoring in product bundles

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## ABSTRACT

**Title:** The effect of anchoring in product bundles

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**Key words:** Anchoring effect; product bundle; evaluation; order; decision making process.

The anchoring effect can be defined as the first piece of information decision makers have access to, which will influence the future choices they make. Despite the extensive literature on this issue covering a wide range of fields, little research has been done regarding the effect of anchoring in product bundles' evaluation. Given so, the aim of this research is focused on investigating if the order of presentation of the most expensive item results in different perceptions of the overall bundle evaluation. As an extra analysis, it is intended to know if demographic variables namely age, gender and level of education have an impact on the previously stated relation. According to the results, the anchoring effect, predicted in most literature, could not be replicated in this study. However, studies show that individuals with high levels of product familiarity are less influenced by anchors. Given the high levels of product familiarity of the sample of this study, the author believes that was the reason for the lack of effect of the anchoring phenomenon. Indeed there are features that can weaken the some presumably vigorous anchoring effect which is why it is crucial for sales' people and organizations in general to have a clear understanding of how the anchoring effect plays in consumers' decision making process and the way individuals evaluate their offers.

## RESUMO

**Título:** O efeito da ancoragem em pacotes de produto

**Autor:** Marta Teixeira Frazão Gomes

**Palavras-chave:** Efeito da ancoragem; pacotes de produtos; avaliação; ordem; processo de tomada de decisão.

O efeito da ancoragem pode ser definido como a primeira fonte de informação a que consumidores têm acesso e que influenciará as suas futuras escolhas. Apesar da extensa literatura sobre esta questão que abrange uma ampla gama de áreas de estudo, poucas pesquisas foram feitas sobre o efeito da ancoragem na avaliação dos pacotes de produtos. Posto isto, o objetivo deste estudo centra-se em testar se a ordem de apresentação do item mais caro, considerado também o mais importante, resulta em diferentes avaliações dos pacotes de produtos. Como uma análise extra, pretende-se saber se as variáveis demográficas nomeadamente, idade, género e o nível de educação, têm um impacto na relação anteriormente mencionada. De acordo com os resultados, o efeito de ancoragem, previsto na maioria da literatura, não foi replicado neste estudo. No entanto, estudos mostram que, indivíduos com altos níveis de familiaridade com o produto são menos influenciados pelo efeito da ancoragem. Dado os altos níveis de familiaridade do produto que a amostra deste estudo apresenta, o autor acredita que esse foi o motivo pela falta de influência do efeito da ancoragem. Na verdade, existem características que podem enfraquecer o presumivelmente vigoroso efeito da ancoragem e por essa razão é crucial que as pessoas e as organizações de vendas em geral tenham uma compreensão clara do papel do efeito de ancoragem no processo de tomada de decisão dos consumidores e como estes avaliam as ofertas em seu redor.

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# CHAPTER 1 – INTRODUCTION

## 1.1 Topic Presentation and Problem Statement

The decision making process and the behaviors inherent to those decisions are subjects of broad and current interest in the consumer behavior area. Particularly, a significant amount of research has been focused on understanding the processes by which consumers arrive at some type of decision, usually a purchase (Hoyer, 1984). People drive their lives based on the choices they make, from the moment they wake up until they go to bed. Given this, it is crucial to address one of the mental processes underlying one's decisions – the anchoring phenomenon.

The anchoring effect can be defined as the first piece of information decision makers have access to, which will influence, as an "anchor", the future choices they make (Furnham & Boo, 2011). When consumers are facing a situation where they have to make some kind of comparison, like in a purchase, they use this reference as a support – as an anchor – to simplify one's decision making process and to convince themselves that they are doing a great deal. By having an anchor, the order of the items exposed will affect the reference-point in consumers' minds and how they will evaluate the subsequent items, which determine the likelihood of success of a product or even of an entire business.

The anchoring effect has been demonstrated over an extensive array of decisional tasks, in diverse groups and in different situations, namely in general knowledge (Strack & Mussweiler, 1997) (Mussweiler & Englich, 2005) and in probability estimates (Blankenship, Wegener, Petty, Detweiler-Bedell, & Macy, 2008). However, there are still fields of study in which the effect of this heuristics phenomenon is not well known, namely the influence of the anchoring effect on consumers' evaluations of products.

Only few research papers focused on the role of the anchoring effect on consumers' overall evaluation of product bundles - the practice of selling multiple products together (Stremersch & J. Tellis, 2002). From Anderson (1981) the Information Integration Theory demonstrates how consumers evaluate bundled products align with an averaging model, through which component ratings are balanced or averaged into an overall evaluation (Gaeth, Levin, Chakraborty, & Levin, 1991). Also, it was demonstrated how buyers evaluate product bundles using an anchoring and

adjustment model, showing that consumers tend to anchor on the most important item in a bundle and adjust their evaluations by taking into account less important items (Yadav, 1994). Particularly, little research has been done on how consumers evaluate product bundles given the different orders in which the individual products are presented, and it should be a priority for future research in this area (Yadav, 1994).

Given so, the focus of this thesis strives to understand the effect of the anchoring phenomenon in consumers' overall evaluation of product bundles. Academic papers have not explored specifically how the order of the most expensive product affects consumers' overall rating of the product bundle. Therefore, this thesis aims to develop literature on this subject, which it is considered to be in the best interests of product managers and marketers.

### 1.2 Aim and Scope

The general purpose of this dissertation is to determine the impact of the anchoring effect in consumers' overall evaluation of product bundles. Specifically, this research investigates how the order in which the most expensive product is presented affects the overall evaluation of a product bundle.

As a result, the subsequent research questions are addressed:

**R.Q 1***: To what extent the order of presentation of the most expensive product affects the overall evaluation of a product bundle?*

**RQ 2:** *Concerning product bundles, what type of people are more susceptible to the anchoring effect?*

### 1.3 Research methods

This thesis adopts a descriptive approach given that its main objective focused on filling the gaps and to expand understating about the anchoring effect on product bundles. But also, in an exploratory perspective, it is intended to obtain new insights concerning the impact of demographic variables on the relationship previously stated. Furthermore, all concepts involved are initially investigated and defined based on secondary data from existing literature. Later on, quantitative

primary data is obtained through the means of an online survey, in which 383 participants evaluate one of the two product bundles presented having into account the different order of presentation of the items composing the bundle. As a result, the research questions inherent to this study are explored with resource to the statistical analysis of the questionnaire's dataset.

### 1.4 Academic and Managerial Relevance

This research should contribute to the field of Behavioral Economics by providing insights about the anchoring phenomenon in the context of bundle evaluation. Exploring this issue will not only enrich researchers' knowledge of how consumers respond to the order of product presentation in a product bundle, but also provide relevant insights concerning which type of people might be more influenced by anchoring effects. These findings can be crucial to marketers in developing effective marketing strategies for product bundles and optimizing managerial decisions concerning product management.

### 1.5 Dissertation outline

This thesis is organized as follows. It starts by reviewing existing literature about the anchoring effect and consumers' decision making process, followed by product bundling and how consumers evaluate this last strategy. A link between the anchoring phenomenon and consumers' overall evaluation of product bundles is also provided. Next, the methodology used for data collection and analysis is presented in detail. Furthermore, the main results and findings from these analyses are stated. Lastly, a summary of the conclusion, limitations of the present research and recommendations for future research are given.

# CHAPTER 2 – LITERATURE REVIEW

The purpose of the literature review is to provide an empirical evidence on the subjects concerning to the main research questions and study purpose. The topics were addressed and explored by using previous research papers along with a summary of theoretical frameworks from various academic journals. It starts on a literature review about the anchoring effect and product bundling. Furthermore, a link between this heuristics phenomenon and bundle evaluation is explored. In order to better understand the former relationship, a deep analysis on consumer decision making process is provided along with which factors play a role in consumers' overall evaluation of product bundles.

## 2.1 Anchoring effect

The anchoring-and-adjustment heuristics was first brought by Kahneman and Tversky (1974). The authors proved that people make inadequate adjustments to come up with a final estimation grounded on an initially anchor value. Consider the price of a car: according to the anchoring-and-adjustment theory, people will begin at a certain anchor value (e.g 8000€) followed by a series of adjustments. For each adjustment, the potential buyer will then choose to whether or not continue adjusting until he reaches a final decision. However, insufficient adjustment is not enough to explain the anchoring phenomenon as a whole. In fact, this process can only be verified in situations in which the anchor is more extreme than the limit-value for the interval of possible answers (Strack & Mussweiler, 1997).

Given that, it is important to mention the two main factors playing a role in the anchoring process. The same authors propose one mechanism: selective accessibility. Specifically, it is suggested that people tend to focus on information that is consistent with the anchor – thereby supporting rather than refuting the anchor value (Strack & Mussweiler, 1997). Succeeding this tendency of argument, confirmatory search is the second phenomenon (Chapman & Johnson, 1994). Selective accesibility and confirmatory search are aligned with the present view of the anchoring process – confirmatory hypothesis testing (Chapman & Johnson, 1999; Mussweiler & Strack, 1999, 2001b; Strack & Mussweiler, 1997; Wegener et al., 2010).

Moreover, extensive research has been done concerning the anchoring effect and its other theories - Numeric and magnitude priming; the attitudinal perspective of anchoring; the scale distortion theory of anchoring. Particularly, a recent perspective on anchoring based on an attitudinal perspective is considered the third wave of research on anchoring effects, after the anchoring-adjustment theory and the selective accessibility model (Epley & Gilovich, 2010).

Whereas the first two waves of research account for an increasing anchoring effect with a higher anchor extremity within the range of plausible answers, the attitudinal approach explains the findings beyond the interval of reasonable anchors. It claims that when values are too extreme, individuals make counterarguments to question its validity, which leads to less attitude change (Wegener, Petty, Detweiler-Bedell, & Jarvis, 2001). This new area of research proposes to emphasize the vigorous influence of the anchoring effect given the fact that no single mechanism can fully explain this phenomena. However, regardless of the differences in the theories above mentioned all of them share the proposition that the anchor is a source of information that influences judgments (Turner & Schley, 2016).

Anchor values in daily life come in different ways. Individuals may not be aware of the possible selling price of their own house but may know the selling price of the house next door. People do not know the closing value of tomorrow's stock market, but do know today's closing value. And people may not know when they are likely to complete an important project, but know when they plan to complete it. In fact, in many judgments people have to make in their everyday life without a proper initial knowledge, starting points are a convenient way to reach a final decision. Now that anchoring research is being applied increasingly more to consumer domains, it is crucial to understand its actual impact on costumers' choice (Epley & Gilovich, 2010).

## 2.2 Product bundling

Given the omnipresence of bundles in the marketplace, it is not surprising that bundling has been receiving substantial attention in the marketing literature (Harris, 2006). According to Stremersch & J. Tellis, (2002) product bundling is the combination for sale of two or more separate products in one package, at any given price. The authors outlined separate products as products for which separate markets exist, due to the fact that some buyers buy or may want to buy the products separately. The strategy of bundling more than one product at a single price has been a commonly used approach by retailers, manufacturers and service providers to bring goods to the market (Gaeth et al., 1991; M. D. Johnson, Herrmann, & Bauer, 1999).

Furthermore, two main distinctions should be made between price bundling and product bundling. Price bundling consists of several packages of the same basic item that are bundled together and sold at a single price (M. D. Johnson et al., 1999) (Soman & Gourville, 2001). On the other hand, the bundling of different products satisfying different needs that are sold into one package at a single price is often referred as "multi-product bundling". Examples of multi-product bundles range from the traditional fast food menu, to a cosmetic bundle or to an auto dealer who offers a travel trailer "free" with the purchase of a luxury car (Gaeth et al., 1991). Additionally, two main forms of bundled-products can be differentiated: pure and mixed (Adams & Yellen, 1976). Pure bundling is a type of bundling in which the individual components that make up the bundle can only be sold as a whole and not separately. Mixed bundle is a strategy in which products are sold as a whole but also separately (Stremersch & J. Tellis, 2002). For this thesis, mixed multi-product bundles are going to be used to test the research purpose at hand.

Moreover, existing research concerning product bundling has focused on the prospect that bundling might lead consumers to buy extra items, phenomenon which is often referred to as transfer of consumer surplus (Adams & Yellen, 1976). While this occurrence helps to explain how bundling impacts consumer behavior, it has significant limitations. The transfer of surplus does not explain why consumers buy bundles in which products are available both separately and together. This theory only applies when bundles are presented without the option of buying the individual items and it does not address the reason of why buyers might prefer to buy the individual products rather than separately (Harris, 2006).

### 2.2.1 Product bundle evaluation

Anchoring is a judgmental heuristic which influences buyers' decision making process. Therefore, a variety of aspects may have an impact on how bundle components are processed (Suri & Monroe, 1999), affecting the way consumers evaluate product bundles (Chakravarti, Krish, Paul, & Srivastava, 2002). Before making a decision, consumers go through an evaluation phase taking into account several factors. Given so, it is important to understand how consumers evaluate product bundles before reaching a decision.

Past research on how consumers evaluate a bundle of items began with the additivity assumption which stated that the overall utility of a bundle equals the sum of the bundle products' individual utilities (Adams & Yellen, 1976). However, the assumptions of this theory did not hold and they were later removed. Other theoretical frameworks present the process of evaluating product bundles as an adaptation of Anderson's (1981, 1982) Information Integration Theory. It is assumed that consumers form separate subjective evaluations (along whatever factors they are considering) of both the main product and the remaining ones. They then incorporate these individual product evaluations to form an overall evaluation of the bundle (Gaeth et al., 1991).

Furthermore, an extensive marketing literature has examined the optimal bundling (Bakos & Brynjolfsson, 1999), and consumers' evaluation of bundles but mainly applied to the firms' pricing and promotion of bundles (Prasad, Venkatesh, & Mahajan, 2015) (Kamins, Folkes, & Fedorikhin, 2009) (Balachander, Ghosh, & Stock, 2010) (Wang, Sun, & Keh, 2013) (Myung, McCool, & Feinstein, 2008). Also, the most commonly explored questions concerning product bundling, from a consumer viewpoint, relates to how specific products in a bundle influence the overall value of the deal (Simonin & Ruth, 1995), the way buyers incorporate information regarding bundle components (Janiszewski & Cunha Jr, 2004) and how they react to changes of products' prices (Soman & Gourville, 2001).

In what relates to the anchoring phenomenon, Yadav (1994) demonstrated that consumers' overall evaluations of a bundle is done in a way that people anchor their evaluations based on the item with the most perceived importance in the bundle and therefore they adjust up or down for further items (Harris, 2006). Once again, it is evident the existence of a gap in the marketing literature concerning how the specific order of the most expensive product affects consumers' overall rating of a product bundle.

## 2.3 Consumer Decision Making Process

Consumer decision making process is considered one of the most studied aspects of consumer behavior (Puto, 1987). The old view of consumer decision making states that consumers, as rational beings, are deliberate and consistent in the choices they make (Skouras, Avlonitis, & Indounas, 2005). Nowadays it is recognized that consumers make different choices when facing the same alternatives because the relative importance that they place in each alternative differs among individuals (Train, 1993). Given so, it is important to understand how consumers make their purchasing decisions and which factors are taken into account in this process.

### 2.3.1 Consumers' choice architecture

Although it might be easier to think that choices can be presented in an "unbiased" way, the reality is much different. Choice architecture refers to the variety of ways of presenting a choice to the decision-maker. This theory defends that a final choice depends upon how the options are presented (Leonard, 2008). Given so, choices may be influenced by several aspects namely by changing the order of presentation of the alternatives, the order of attributes, and the selection of a few design options. The core idea underlying this principle is that the way a choice is present will have an impact on the buyers' decision (E. J. Johnson et al., 2012), which is aligned with the anchoring concept. Furthermore, when structuring the choice task there are five main dimensions to be considered:

- Number of alternatives

In spite of the existing research exploring the effects of the number of alternatives on consumers' decision making (Scheibehenne, Greifeneder, & Todd, 2010) the problem of pairing different purposes makes it difficult to suggest a single recommendation concerning the ideal number of alternatives to present. However some guidelines should be taken into account namely the choice of the fewest number of options that will boost tradeoffs among conflicting values and yet not seem too overwhelming to the decision maker. Another alternative is by beginning with a limited choice set, while providing the chance of considering more options (E. J. Johnson et al., 2012).

- Technology and decision aids

The choices consumers make have been increasingly dictated by technology through the use of automatic personalization to replicate one's preferences (Hauser, Urban, Liberali, & Braun, 2009). This new technological trend is likely to grow in upcoming years as tech devices become more unified with our daily life. Furthermore, research has shown that decision aids namely product recommendation systems can be very useful to buyers by helping them to optimize search efforts while presenting products that better fit their preferences (Häubl & Trifts, 2000). This improvement in online decision making process is due to architectural features such as having other products that are presented along with the recommended alternative (Cooke, 2002).

- Defaults

Defaults are settings aiming to help decision makers who do not take actively their choices (C. L. Brown & Krishna, 2004). It is one of the most popular tools used by choice architects given the ability of guiding choice, while at the same time ensuring freedom of choice. However, consumers may see defaults as a way to influence their decision which can result in a phenomenon called "marketplace metacognition" in which decision makers preserve their autonomy and freedom of choice (E. J. Johnson et al., 2012).

- Choice over time

A substantial amount of the choices consumers have to deal with bring consequences that develop over long periods of time, which affects their final decisions in three ways (E. J. Johnson et al., 2012). First, buyers have the tendency to favor positive outcomes in first place, which leads them to discount future events. Second, individuals might avoid future outcomes with the fear of facing uncertainty, leading to not consider suitable second-best alternatives (Shu, 2008). Finally, people tend to misjudge their perceptions about the future and think they will achieve more than they actually will (Soman et al., 2005).

- How task structure affects the search process

The way a decision task is structured has mainly two implications. Not only influences the way decisions makers choose between the available options, but also how they analyze them. In an attempt to narrow their set of choices, consumers distinct between relevant information from the one which is to be ignored. This individual differences lead to different choice outcomes and therefore distinct tools of choice architecture are required.

### 2.3.2 Individual differences

Numerous factors, including demographics and prior product class experience, have been explored in order to assess individual differences in consumers' responses to a given set of information (Moore & Lehmann, 1980). Particularly, contingent effects on decision-making process, emphasizing the role of individual differences (Punj & Stewart, 1983), influence consumers in their decisions. When making a purchasing decision, consumers take into account the relative value of the available alternatives, based on a reference point. Given so, factors such as the order in which the products are presented may influence these value judgements which is of considerable interest to researchers who study the purchasing decision processes.

References points are indeed a key element in determining the outcome of a judgment - either positive or negative - and the decision frame – the standpoint through which a buyer looks at the options in a decision context (Puto, 1987). Moreover, past research concluded that individual choice changes relative to the nature of the decision context. Particularly, perceptual factors such as the changes in the values of the decision alternatives (e.g. context effects) are postulated to impact the decision maker's judgment and therefore, the outcome of the decision process (Abdul-Muhmin, 1999).

### 2.3.3 Product recommendation

Due to the fact that consumers cannot process all the available information when making a purchasing decision, they use several decision heuristics in information-processing tasks (Duhan, Johnson, Wilcox, & Harrell, 1997). These decision heuristics are basic decision-making

approaches or rules of thumb that makes decision processes more efficient (Bettman, Johnson, & Payne, 1990).

Recommendation-based heuristics can be defined as a way in which the decision maker obtains recommendations for the purpose of reducing the amount of information that must be taken into account when making a decision (Olshavsky & Granbois, 1979), providing an opportunity for creating a wider background for analyzing consumer decision processes. Research concerning the use and influence of product recommendations on consumers has typically been focused on personal influence or word-of-mouth (WOM) research (Senecal & Nantel, 2004). Recommendation sources are considered primarily as information sources, that can be distinguish in the following typology: (1) Impersonal Advocate (e.g., mass media), (2) Impersonal Independent (e.g., Consumer Reports), (3) Personal Advocate (e.g., sales clerks), and (4) Personal Independent (e.g., friends). For this study, the last source of product recommendation – personal independent – is going to be tested.

Furthermore, recommendation sources can be characterized according to the closeness of the relationship between the decision maker and the recommendation source, or the "tie strength" (J. J. Brown & Reingen, 1987). The tie strength of a relationship can be verified if the source is someone who knows the decision maker personally, namely a friend. The main advantage of strong-tie recommendation sources is that they can evaluate the decision maker and the product alternatives while providing information that matches the decision maker's preferences (J. J. Brown & Reingen, 1987). One of the dimensions verified in order to assess product evaluation relies in fact on product recommendation to friends, constituting a major part of one's reference groups. A reference group is a person or group of people that significantly influences an individual's behavior. This former concept recognizes that individuals often orient themselves to other social groups in determining their behavior and evaluations. Marketers have generally accepted the reference group construct as being crucial in some dimensions of consumer decision making (Bearden & Etzel, 1982).

Moreover, as previously stated, according to the Information Integration Theory, the overall evaluation of a product bundle takes into account consumers' separate subjective evaluations of the main product and the remaining ones composing the bundle. Also, according to the anchoring theory, the first product to appear works as a reference point for a further evaluation. Given so, if

the most important product appears first it would work as a reference point which in turn would lead to a more positive product evaluation. Since product recommendation is one way to measure consumers' product satisfaction the following hypothesis are stated:

*H1.1: If the most expensive product is the first item to show up, respondents will tend to recommend the overall product bundle to a friend.*

*H1.1a: When the burger is the first item to show up, respondents will tend to recommend the product bundle to a friend.*

*H1.1b: When the perfume is the first item to show up, respondents will tend to recommend the product bundle to a friend.*

### 2.3.4 Price and WTP

Product bundling usually involves the sale of two or more products at a discount – price bundling - as a clear example of the use of comparative price advertising. This last strategy attempts to communicate the regular price along with the lower selling price in order to provide buyers with a positive frame of reference, to enhance consumers' perceptions of value (Kaicker, Bearden, & Manning, 1995). When comparing pure and mixed bundles, past research shows that consumers perceive a pure bundle as providing more value for the dollar than a mixed bundle. This finding was supported by the fact that consumers tend to use individual component prices for a mixed bundle as their reference price when evaluating a pure bundle that includes the same products (Yadav & Monroe, 1993).

Moreover, research has shown that a bundle perceived attractiveness can change if there is an equal price reduction to the product bundle as a whole, to one of the individual items composing the bundle or if the price reduction is distributed among the individual bundle items (M. D. Johnson et al., 1999) (Heath, Chatterjee, & France, 1995) (Kaicker et al., 1995). Additionally, past studies have proven that consumers are significantly price sensitive in a bundle offer (Janiszewski & Cunha Jr, 2004) and their evaluation vary substantially depending on which item is considered to be price

leader (Agarwal & Chatterjee, 2003). This evaluation can be tested in terms of consumers' willingness to pay for the bundle. WTP is the maximum amount of money a consumer is willing to spend for a product And the value that the costumer allocates to a consumption or usage experience in monetary units (Homburg, Koschate, & Hoyer, 2005).

Given so, according to the anchoring theory, if the product considered to be the price leader - which is usually also considered the most relevant one - appears first, it would work as a reference point which would influence consumers' willingness to pay. Given that, the following hypothesis are presented:

*H1.2: If the most expensive product is the first item to show up, consumers will have a higher willingness to pay for the overall product bundle.*

*H1.2a: When the burger (price leader) is the first item to show up, consumers will have a higher willingness to pay for the overall product bundle.*

*H1.2b: When the perfume (price leader) is the first item to show up, consumers will have a higher willingness to pay for the overall for the overall product bundle.*

### 2.3.5 Variety of products in a product bundle

Manufacturers and retailers recognize the advantage of bundling multiple items into a single bundle to simplify consumers' purchases (Simonson, 1999). Given that, an important decision relies on the fact whether non-variety or variety-bundles should be offered (Wang et al., 2013). The underlying reason for buyers to seek variety in a package is to avoid the satiation that arises from the repeated consumption of a product (McAlister & Pessemier, 1982) which in turn leads consumers to bear less-preferred items in a bundle (Ratner, Kahn, & Kahneman, 1999). In fact, the moderating effect of the overall consumer preference's evaluation mode for variety seeking is determined by the concern for satiation (Wang et al., 2013). Furthermore, another studies have shown that variety seeking is more prominent for products with hedonic attributes than non-hedonic attributes (Inman, 2001). However, past research concluded that variety-seeking is usually

dependent on the context (Wang et al., 2013). Namely, the consumption circumstance (Ratner & Kahn, 2002) like public versus private, and a positive buyer mood (Kahn & Isen, 1993) have an impact in individuals' wishes for variety.

### 2.3.6 Utilities and disutilities of bundling

The perceived value consumers might have of a bundle can be influenced by utilities or disutilities created by the act of bundling, meaning that bundles as objects may convey costs or benefits for buyers over and above the sum of their parts. This will impact the conditions under which consumers will prefer to buy products in a bundle as opposed to separately. On one hand, the bundling strategy can be a way of reducing compatibility risk and to lower search or assembly effort. On the other hand, bundling strategy can imply a reduced freedom of choice and heightened risk of waste (Harris, 2006). Given so, the identification and addition of the ideal set of items in a bundle is a key factor for manufacturers and retailers. From the consumers' perspective, individuals evaluate bundles consisting of functionally-related products in a different way than they evaluate bundles consisting of functionally-unrelated products (Gaeth et al., 1991). Hence, consumers might perceive a bundle that has complementary attributes as more satisfactory than a bundle that is composed of functionally-unrelated attributes (Herrmann, Huber, & Higie Coulter, 1997).

### 2.3.7 Bundle complexity

Previous research has studied the way buyers assimilate information about the products within bundles. Complex bundles, particularly the ones with a lot of items or with items which are substantially different from each other (Agarwal & Chatterjee, 2003) might constitute a challenge for consumers when evaluating the product bundle. Particularly, from a strategic viewpoint, the more items are included in a bundle, the more challenging it is for the competition to imitate the bundle. However, it is important to reflect on how many bundle items consumers are able to process and value in their decision making process. Research suggests that individuals assimilate information about a set of attributes until it reaches their cognitive capacity which then decreases their willingness to engage with the product bundle (Herrmann et al., 1997). Given so, to overcome this difficulty, people may use heuristic processing strategies to better integrate the information,

such as an anchoring and adjustment strategy (Harris, 2006). Yadav (1994) proved that the biasing effects resulting from insufficient adjustments were more robust for three-item bundles than for two-item bundles.

### 2.3.8 Level of familiarity

The notion of prior knowledge, which has been extensively research, can be defined in terms of level of experience and familiarity the consumer has with a product (Park, Mothersbaugh, & Feick, 1994) (Rao & Monroe, 1988). Prior knowledge is known to be positively related to the capacity of processing new information and the efficiency with which information is processed, impacting individuals' accuracy of choice (Brucks, 1985) (Jacoby, Szybillo, & Busato-Schach, 1977). Namely, consumers who are less familiar with a certain product may dispose of more time evaluating the attributes in order to develop a standard for choice than consumers who are more knowledgeable regarding the same product. Likewise, consumers with previous knowledge and familiarity might tend to use this standards earlier in the decision making process, as oppose to consumers who don't share the same insights (Bettman & Park, 1980).

Given the different levels of knowledge and familiarity consumers have, one may use different types of information and heuristics at different stages of a choice that allows them to optimize the decision at hand (Wright, 1975). Moreover, due to the fact that the anchoring effect has been observed in a wide range of situations and contexts, it is important to understand how people might overcome the biasing influence of his phenomenon. Given so, it is reasonable to assume that the anchoring effect might be moderated by one's level of knowledge and familiarity with the product (Smith, Windschitl, & Bruchmann, 2013).

Extensive research show that more familiar consumers concerning the target item tend to be less influence by the anchoring effect (Wilson, Houston, Etling, & Brekke, 1996) (Mussweiler & Strack, 2000) (Blankenship et al., 2008). In spite of other authors' convictions that knowledge levels do not moderate the anchoring effect, Smith et. al (2013) argue that there are three robust conceptual rationales concerning the way anchoring effects are weakened in the case of high-knowledge people. First, individuals who are more familiar/knowledgeable are more likely to ignore the anchor since they already know what answer to give. Second, the number of possible

responses that people will consider reasonable is probably to be higher among high-knowledge than low-knowledge individuals in the sense that the low-knowledge individual is more biased in gathering information that is consistent with the anchor provided than the high-knowledge one.

Finally, Mussweiler, Strack, and Pfeiffer (2000) proved that, since high-knowledge people concerning a target have more information, it is expected that one would be more likely to provide with anchor-inconsistent information comparing with the person with little or no knowledge. Indeed, individuals who are very familiar with a great deal of knowledge can be less influenced by anchor in comparison with the ones not so familiar their low-knowledge counterparts.

# CHAPTER 3 – METHODOLOGY AND DATA COLLECTION

This chapter exhibits the methodology used in this study which presents in detail the research approach, the techniques that will be employed to collect the required data and to test the hypotheses.

## 3.1 – Research Method

### 3.1.1 – Research Approach

This thesis strives to understand the impact of the anchoring phenomenon in product bundling. In other words, to test if the order of presentation of the most expensive product has an impact on consumers' overall bundle evaluation. To do so, all concepts involved are initially investigated and defined, grounded on secondary data coming from existing literature, adopting a descriptive research approach. In order to answer the research objective at hand and the subsequent hypothesis, primary data was collected by the means of quantitative methods, through an online questionnaire.

Furthermore, in an exploratory perspective, to expand the scope of this research and by using the information collected from the survey, it is intended to know, within product bundles, what type of people are more susceptible to the anchoring effects, making up the second research question.

## 3.2 - Online Questionnaire

In order to gather quantitative data, a questionnaire was created in the online survey software Qualtrics. The decision to choose an online survey relies on the fact that this method is easy to distribute and can reach a considerable amount of people with no administrative costs while being less time-consuming, comparing with other commonly used research methods (Evans & Mathur, 2005).

Concerning Qualtrics, this software offers innumerous advantages such as the variety of questions suggested, the creation of blocks which allows for a better survey structure and the possibility to randomly assign the order of the questions. For distribution purposes, it provides a link that can be easily shared in the chosen channels. Also, for further data collection and analysis, the results can

be automatically transferred to Microsoft Excel and to SPSS Statistics. However, the use of an online survey for data collection also implies some disadvantages.

Privacy and security issues concerning personal data are usually expressed by respondents (Evans & Mathur, 2005). In order to overcome this problem, in the survey's introduction it is stated that all shared information is going to be used for study purposes only. In this way, respondents have the perception that this questionnaire has in consideration respondent-friendly privacy policies (Graeff & Harmon, 2002). Due to the fact that online questionnaires are self-administered, if the answering instructions are not clear to the respondents there might be a high drop-out rate (Evans & Mathur, 2005). For that reason, the design of the survey was kept short and simple.

Also, before its launch, a pre-test with 10 participants was conducted in order to assess if questions were easy to understand and ordered in a proper and logical way, if they deliver the intended information in a non-biased manner, and also to evaluate the survey in terms of structure, wording and visuals (Gaddis, 1998). Following the feedback provided during the pre-test phase, the online survey was conducted in two languages – English and Portuguese – to guarantee every respondent was able to fully understand all the concepts.

The data was collected for eight days and was distributed via social media websites – Facebook and Linkedin – and also via email. Respondents took on average two minutes to complete the questionnaire.

### 3.2.1 – Questionnaire design

The only paper relating the anchoring phenomenon with product bundle evaluation was written by Yadav (1994). In the survey used for this experiment, the majority of respondents examined the most important item first, followed by the remaining items. This thesis can provide more reliable results by addressing how consumers evaluate a bundle taking into account every order that the most important item can take while presenting the bundle.

Also, the paper mentioned above only tests its assumptions on students. The sample used in the current research will cover not only students but the population in general which can deliver less biased results. Besides, this study will include price-related information under the assumption that the most important item would be the most expensive one, whereas the former study did not present

any kind of price-related information. The individual bundle products presented in this experiment are also different.

Furthermore, the current experiment will include a food bundle and a cosmetic bundle while controlling other factors. For simplification reasons, a letter was assigned to each item composing the bundle. Given so, for the burger bundle, *A* represents the *burger*, *B* represents *fries* and *C* represents the *drink*. Concerning the cosmetic bundle, *A* stands for the *perfume*, *B* the *body lotion* and *C* the *deodorant*. The intent of this experimental study is not to compare the anchoring effect of one product bundle against the other, but to replicate the results on both.

It is important to keep in mind that the focus of this investigation is not to test the brand anchoring effect but only the order of the most expensive product. For this reason, no brands will be presented. Also, it is assumed that the most important item for each bundle is the burger and the perfume, respectively which will be the most expensive products and the remaining two items constituting the bundle will be given the same price for simplification reasons.

In order to randomly assign each product bundle to a respondent, Qualtrics enables to activate block randomization and select an evenly randomization, meaning that approximately 50% of the respondents should get the food bundle and the other 50% should get the cosmetic bundle. Additionally, in order to control the random variation of the bundle items, a Latin Square Design was used for this experiment. By using this experimental design all possible combinations concerning product presentation for the two bundles can be tested multiple times.

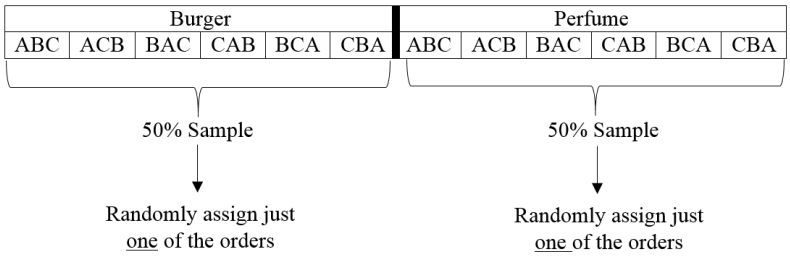



*Figure 1 – Latin Square Design*

The online questionnaire was structured in four parts. In the first part, respondents were given an introduction to the main topic – anchoring effect in product bundles - and the main purpose of the study. In this part, it was highlighted that the answers to the survey were anonymous and the information collected was going to be used for study purposes only.

In the second part, the concept of product bundling was explained to the participants, in order to avoid any misunderstandings. Afterwards, respondents were presented with the products composing the product bundle with their respective price. It is important to emphasize that each product was presented separately so that respondents were well aware of the order of presentation.

In the third part of the online survey, succeeding the presentation of the individual items, participants were asked to what extent they were familiar with the product bundle. Next, respondents were asked if they ever purchase this product bundle. Furthermore, individuals were questioned regarding their willingness to pay for this product bundle as a measure to assess individuals' evaluation. Following this question, individuals were asked to what extent they agreed with the actual bundle price. Finally in order to assess consumers' perceived attractiveness of the product bundle, it was asked if they would recommend the product bundle to a friend.

Lastly, a demographics section was introduced in order to complete the profile of the participants, for further sample characterization and to allow an analysis concerning what type of people are more prone to the anchoring effects.

# CHAPTER 4 – RESULTS AND ANALYSIS

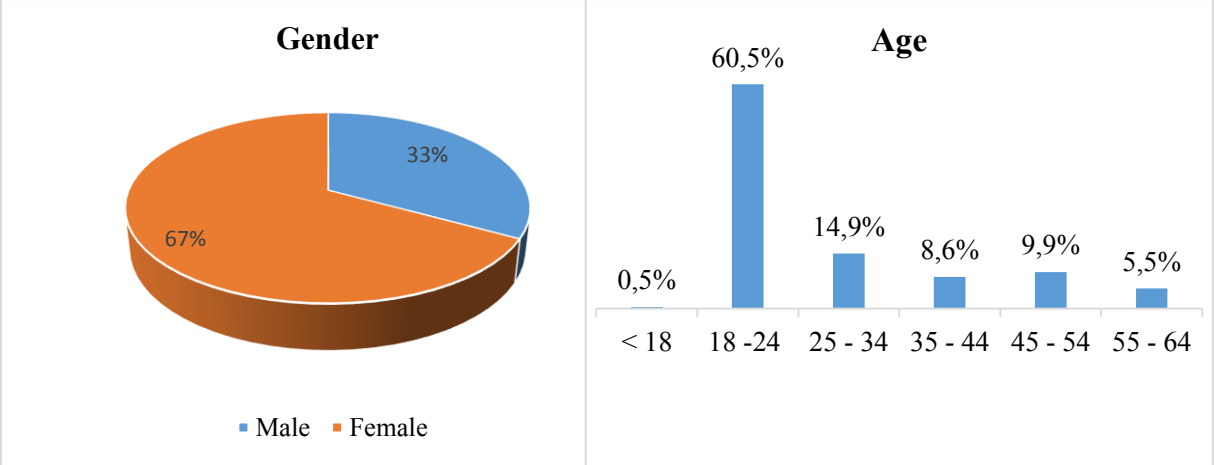
## 4.1 - Preliminary analysis

### i. Data collection and data cleaning

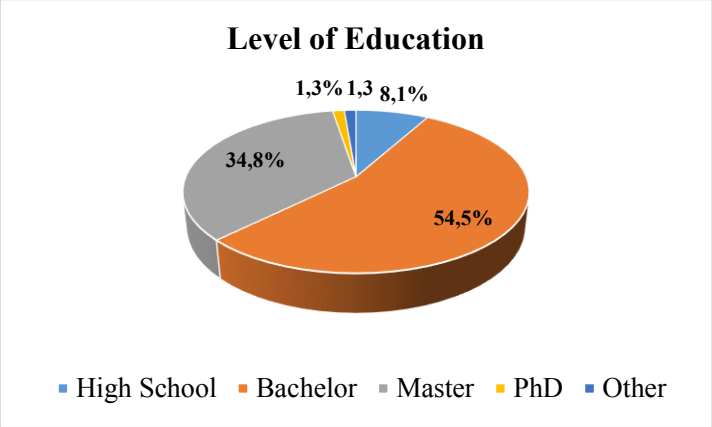
During the time the questionnaire was online, 428 participants started it. However, 383 participants fully completed the online survey. From these, 199 respondents were exposed to the food bundle and 183 respondents were exposed to cosmetic bundle.

### ii. Sample characterization

In terms of demographic results, the sample of the current study is composed by 32,90% of males and 67,10% of female respondents. Concerning age, the majority of participants are young adults between 18-24 years old (60,6%), followed by individuals between 25-34 years old (14,9%) and between 45-54 years old (9,9%). Respondents between 35-44 years old (8,6%), 55-64 years old (5,5%) and under 18 years old (0,5%) were the minority sample. Furthermore, Portuguese people were the majority (78,8%), followed by people from other countries (11,7%) and Germans (8,4%).




Regarding education level, the sample consists mainly of participants who possess a bachelor's degree (55%) and a master's degree (35%). As far as occupation is concerned, 45% of respondents are full-time students and 33% are working in a full-time regime. The rest of individuals are either working-students (18%) or working in a part-time regime (5%).




When questioned to what extent participants were familiar with this type of product bundles, on a scale from *1 – Non Familiar at all* to *5 – Extremely familiar*, 87% consider themselves to be very/extremely familiar with the food bundle and 85% of respondents claim to be very/extremely familiar with the cosmetic bundle (*See table 1*). In relation to whether participants had ever purchase this type of product bundle *(1 – Yes; 0 – No)*, 93% of respondents claim to have bought the food bundle and 71% of individuals said they have bought the cosmetic bundle (*See table 2*).

*Table 1 – Level of Familiarity with the product bundle*

| | N | Mean | St. Deviation |
|---|---|---|---|
| Burger | 199 | 4,44 | 0,902 |
| Perfume | 183 | 4,45 | 0,947 |

*Table 2 – Previous Purchase of product bundle*

| | N | Mean | St. Deviation |
|---|---|---|---|
| Burger | 199 | 0,93 | 0,256 |
| Perfume | 183 | 0,71 | 0,454 |

Moreover, this section will provide a main analysis on how product bundles' overall evaluation (willingness to recommend and willingness to pay) is influenced by order in which the most expensive item of each bundle is presented. Furthermore, as an extra analysis, it is intended to know if the order of product presentation, having into account age, gender and level of education, has an impact on the willingness to recommend and on the willingness to pay for the product bundles. It is important to emphasize that the variable "*order*" which has into account the three different orders the most expensive product can take, meaning that *1* represents the item in first place, *2* in second place and *3* in third place, was converted into a dummy for the further analyses.

### 4.2 - Main analysis

***RQ 1:*** *To what extent the order of presentation of the most expensive product affects the overall evaluation of a product bundle (willingness to recommend and willingness to pay)?*

> *H1.1: If the most expensive product is the first item to show up, respondents will tend to recommend the product bundle to a friend.*

Furthermore, to test the relationship between respondents' intentions to recommend the product with the order of the most expensive item, a One-Way ANOVA was conducted.. Given so, according to the results, since the p-values for the different orders were not statistically significant for both the burger ($p_{B\_Order(1)}$ = 0,212, $p_{B\_Order(2)}$ = 0,561) and the perfume ($p_{P\_Order(1)}$ = 0,325, $p_{P\_Order(2)}$ = 0,423), the order of product presentation does not have an impact on consumers' intentions to recommend the bundle *(Table 3 - Appendix).*

> *H1.2: If the most expensive product is the first item to show up, respondents will have a higher willingness to pay for the product bundle.*

Moreover, the second hypothesis was examined by means of a linear regression analysis. Again, no significant effect was found between consumers' willingness to pay and the order in which the burger is presented *(F(2,196)=0,004, p=0,996)*. Similarly, the order in which the perfume is presented does not have an influence on consumers' willingness to pay *(F(2,180)=0,549, p=0,579) (Table 4 - Appendix)*.

### 4.3 - Exploratory analyses

*Gender*

With the purpose of testing the effect of gender and the order of the most expensive item on the intentions to recommend the product bundle, a logistic regression was used. Since the interaction term between the product order and gender is not statistically significant, it is possible to infer that for both female and male, the order in which the burger ($p_{B\_Gender*Order(1)} = 0,897$, $p_{B\_Gender*Order(2)} = 0,698$) and the perfume ($p_{P\_Gender*Order(1)} = 0,938$, $p_{P\_Gender*Order(2)} = 0,460$) is presented does not influence respondents' intentions to recommend *(See Table 5 – Appendix)*.

Furthermore, by means of a multiple linear regression analysis, it was possible to infer that gender and order did not have a statistical significant relation meaning that the order of the most expensive item does not influence respondents' willingness to pay, neither for the food bundle ($p_{B\_Gender*Order(1)} = 0,867$, $p_{B\_Gender*Order(2)} = 0,266$) nor the cosmetic bundle ($p_{P\_Gender*Order(1)} = 0,341$, $p_{P\_Gender*Order(2)} = 0,938$) *(See Table 6 – Appendix).*

*Age*

According to the results of the logistic regression analysis, a non-statistically significance was found when testing the effect of age and order of product presentation on participants' intentions to recommend the burger bundle ($p_{B\_Age*Order(1)} = 0,122$, $p_{B\_Age*Order(2)} = 0,482$) and the cosmetic bundle ($p_{P\_Age*Order(1)} = 0,140$, $p_{P\_Age*Order(2)} = 0,550$) *(See Table 7 – Appendix).*

Similarly, by means of a multiple linear regression analysis, results showed that the age of respondents and the order in which both the burger was presented ($p_{B\_Age*Order(1)} = 0,213$, $p_{B\_Age*Order(2)} = 0,223$) and the perfume ($p_{P\_Age*Order(1)} = 0,242$, $p_{P\_Age*Order(2)} = 0,899$) do not impact one's willingness to pay for both product bundles *(See Table 8 – Appendix)*.

*Education level*

Interestingly, concerning the food bundle, results from a logistic regression analysis indicate a statistical significance in respondents' level of education when the burger appears in second place ($p_{B\_Education*Order(2)} = 0{,}020$). As a result, people with a higher level of education seem to recommend less frequently the product bundle to a friend when the burger appears in second place, comparing to when the burger appears in third ($B_{B\_Education*Order(2)} = -1{,}409$) *(See Table 9 – Appendix)*. Concerning the cosmetic bundle, for individuals with different levels of education, the order in which the perfume appears does not seem have an effect on respondents' likelihood to recommend.

Through a multiple linear regression analysis, results show that individuals with a higher level of education will be willing to pay less for the product bundle when the burger appears in second place, comparing to when the burger appears in last ($B_{B\_Education*Order(2)} = -0{,}645$) *(See Table 10 – Appendix)*. Also here, the level of education and the order in which the most expensive item appears do not have an impact on respondents' willingness to pay for the bundle.

# CHAPTER 5 – CONCLUSION

The final chapter aims to present the findings from the previous section and its potential implications for both academic and managerial fields. In addition, the limitations of this study will be pointed out as well as recommendations for future research.

## 5.1 – Conclusion

In order to answer the first research question it was hypothesized that, according to the anchoring theory, respondents would evaluate more positively the product bundle if the most expensive item – the one perceived as being the most important - composing the bundle appeared in first place. Moreover, the overall evaluation of the product bundles was assessed by having into account two features: product bundle recommendation and respondents' willingness to pay for the bundle.

According to the results, the order of the most expensive item, for both bundles, does not produce an effect on individuals' intentions to recommend the bundle neither on their willingness to pay. Furthermore, with the purpose of extending the current study beyond its main research objective, an extra-analysis was done by assessing if the order of the most expensive item has an effect on the overall evaluation of the product bundle, taking into account the effects of gender, age and level of education. Results show that, for both product bundles, the moderating effects of gender and age on the order of presentation of the most expensive item do not produce a significant effect on the overall evaluation of both product bundles.

Thus, given the results, it was not possible to replicate the phenomenon of the anchoring effect, predicted in most of the literature review. Indeed, the anchoring effect has been considered a robust phenomenon covering an extensive array of decisional tasks, with diverse groups and in distinct settings.

However, there are certain features which can weaken the so presumably vigorous anchoring effect. Particularly, in decision making, it was found that knowledgeable people are less influenced by anchors (Wilson et al., 1996). A smaller anchoring effect was produced by those with a high level of expertise about an answer. Individuals with high expertise have greater knowledge, more experience and less uncertainty in making significant choices, which in turn provides less power to the anchors (Englich & Soder, 2009). In fact, 87% of respondents who got the food bundle claim

to have a very high level of familiarity concerning it and 83% of respondents said to be very familiar regarding the cosmetic bundle, which could explain, according to the literature, the inexistence of the anchoring effect on the current study. Furthermore, given the high levels of familiarity present in the sample, it is reasonable to presume that, if an individual knows a priori what he/she would be willing to pay or whether he/she would recommend a related bundle, then the anchor would be ignored (Smith et al., 2013). Accordingly, all the findings discussed until now can be replicated for both product bundles.

Nevertheless, a very intriguing discovery was found. For the food bundle, the influence of the order in which the burger appears in the overall product bundle evaluation - intention to recommend and willingness to pay - moderated by the level of education, produced a statistically significant relation, as opposed to the cosmetic bundle. According to the results, individuals with a higher level of education seem to recommend less frequently and to have a smaller willingness to pay for the product bundle when the burger appears in second place, comparing to when the burger appears in last. Surprisingly, the order in which the burger would appear in first place did not have an effect on the overall bundle evaluation, contradicting the principle of the anchoring phenomenon. For the cosmetic bundle, the order of product presentation moderated by the level of education did not have an impact on respondents' intentions to recommend nor their willingness to pay.

Indeed, the conclusions of this thesis both confirm and contradict previous findings of researchers which clearly demonstrates how this subject can be a source of new academic knowledge and how much there is still to investigate.

### 5.2 – Academic and Managerial Implications

Since the strategy of bundling products for a unique price often leads to higher profits and greater efficiency than selling the products separately, it is essential for marketers and product managers to understand if the order of product presentation has indeed some influence in the way consumers' evaluation the overall product bundle. It is crucial that sales' people and organizations in general have a clear understanding of how the anchoring effect plays in consumers' decision making process and the way individuals evaluate their offers.

Strong anchoring effects have been found in several important fields, so it is likely that knowledge mediations, such as the one presented in this thesis, can contribute in decreasing the predisposition to anchoring effects in applied settings. However, as stated earlier, there are results in the available literature that disbelief the idea that anchoring effects are decreased by knowledge levels. However, as demonstrated by this thesis and other relevant papers mentioned above, the extent to which an individual possesses high knowledge levels concerning a target can indeed weaken anchoring effects. Furthermore, the outcomes of this thesis can lead researchers to establish methods that may well reduce the biasing influence of anchors. Also, it contributes with additional knowledge concerning the effect of anchoring in consumers' evaluation of product bundles.

### 5.3 - Limitations and Future Research

Even though this thesis provides significant academic and managerial insights concerning the anchoring effect on product bundles, like in any other study, limitations should be addressed.

Firstly, the questionnaire was distributed mostly via social media platforms such as Facebook and LinkedIn, making it hard to assess under what conditions respondents were answering the survey (degree of concentration, time factor, etc). Given this, the level of environmental control concerning the circumstances participants were exposed to while conducting the survey is rather low.

Secondly, the sample is not as varied as one could expect. The majority of respondents were female (67%) and Portuguese (79%). Moreover, the number of participants assigned to each order of each product bundle – around 70 – is not very high, which is why having a bigger and more diversified sample should make the results more reliable and significant.

Thirdly, this thesis studied two product categories – a food bundle and a cosmetic bundle. Richer insights could be accomplished when testing several product categories and different types of products namely investigating the impact of anchoring effect on product bundles with low and high involvement goods.

Fourthly, it is important to mention that the relationship between knowledge and anchoring effects is intricate, since different degrees of knowledge can have different effects on the extent to which individuals are influenced by anchors. Depending on the type of knowledge being considered, investigators can now make more accurate predictions concerning the role of knowledge in anchoring papers. (Smith & Windschitl, 2015).

Finally, no papers were found discussing the impact of demographic variables, particularly the influence of education, on anchoring effects making this an interesting subject for further research.

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**APPENDIX**

**Online Questionnaire**

*First of all, thank you for participating in my survey!*

*I'm currently conducting research for my master's thesis, in the area of consumer behavior. More specifically, I am trying to understand the impact of the anchoring effect in product bundles.This survey consists of 10 questions and it will take approximately 2 minutes to complete. Please keep in mind that all information gathered is confidential and will be used for study purposes only.*

*If you have any doubts please do not hesitate to contact me: martatfg95@gmail.com*

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*You are about to see a product bundle with 3 products.*

*Please be reminded that a product bundle is a pack of several items that are sold as one, at a cheaper price than if the items were sold separately.*

*Given so, consider the following products:*

*Burger – 5,50€*

*Fries – 1,50€*

*Drink – 1,50€*

*Or:*

*Perfume – 39,50€*


*Body lotion - 14,50€*

*Deodorant – 14,50€*

**How familiar are you with this product bundle?**

- Extremely familiar
- Very familiar
- Moderately familiar
- Slightly familiar
- Not familiar at all

**Did you ever purchase this type product bundle?**

- Yes
- No

**How much would you be willing to pay for this food bundle?**

- 4 – 4.99 €
- 5 – 5.99 €
- 6 - 6.99 €
- 7 – 7.99 €
- 8 – 8.50 €

*Or:*

**How much would you be willing to pay for this cosmetic bundle?**

- *45 – 49.99 €*
- *50 – 54.99 €*
- *55 – 59.99 €*
- *60 – 64.99 €*
- *65 – 68.50€*

*Knowing the real price of the product bundle is 7.90€*

**To what extent do you agree with the real price of the food bundle (7.90€)?**

- Strongly agree
- Somewhat agree
- Neither agree or disagree
- Somewhat disagree
- Strongly disagree

*Or:*

*Knowing the real price of the product bundle is 59.99€*

**To what extent do you agree with the real price of the cosmetic bundle (59.99€)?**

- Strongly agree
- Somewhat agree
- Neither agree or disagree
- Somewhat disagree
- Strongly disagree

**Would you recommend this food bundle to a friend?**

Yes

No

*Thank you for your helpful insights! Now I would like to know a little bit about you*

**What is your gender?**

- Male
- Female

**How old are you?**

- Under 18
- 18 – 24
- 25 – 34
- 35 – 44
- 45 – 54
- 55 – 64
- 65 or older

**Where are you from?**

- Portugal
- Spain
- France
- Germany
- Other

**What is your educational level?**

- High School degree
- Bachelor's degree
- Master's degree
- PhD's degree
- Other

**Which of the following best describes your current occupation?**

- Employed full time
- Employed part time
- Full time student
- Working student
- Retired
- Disabled

*Table 3: Effect of order on willingness to recommend*

| | | B | Wald | Sig. | Exp(B) |
|---|---|---|---|---|---|
| **Burger**[a] | **B_Order(1)** | -0,477 | 1,555 | 0,212 | 0,621 |
| | **B_Order(2)** | 0,209 | 0,383 | 0,561 | 1,233 |
| | **Constant** | -0,602 | 5,389 | 0,020 | 0,548 |
| **Perfume**[b] | **P_Order(1)** | 0,357 | 0,969 | 0,325 | 1,429 |
| | **P_Order(2)** | 0,290 | 0,641 | 0,423 | 1,336 |
| | **Constant** | -0,223 | 0,775 | 0,379 | 0,800 |

a. Variable entered on step 1: B_Order

b. Varible entered on step 1: P_Order

*Table 4: Effect of order on willingness to pay*

| | **Burger** | | **Perfume** | |
|---|---|---|---|---|
| Dependent variables | Mean | SD | Mean | SD |
| Order1 | 2,33 | 0,975 | 1,93 | 1,0,87 |
| Order2 | 2,31 | 1,062 | 1,75 | 0,876 |
| Order3 | 2,32 | 0,986 | 1,90 | 1,118 |

*Table 5: Effect of order and gender on willingness to recommend*

| | | B | Wald | Sig. | Exp(B) |
|---|---|---|---|---|---|
| **Burger[a]** | **B_Gender*Order (1)** | -0,110 | 0,017 | 0,897 | 0,896 |
| | **B_Gender*Order (2)** | 0,288 | 0,151 | 0,698 | 1,333 |
| | **Constant** | -0,754 | 3,091 | 0,079 | 0,471 |
| **Perfume[b]** | **P_Gender*Order(1)** | -0,065 | 0,006 | 0,938 | 0,938 |
| | **P_Gender*Order(2)** | -0,618 | 0,546 | 0,460 | 0,539 |
| | **Constant** | -0875 | 2,705 | 0,1 | 0,417 |

a. Variable entered on step 1: B_Gender*Order

b. Varible entered on step 1: P_Gender*Order

*Table 6: Effect of order and gender on willingness to pay*

| | | Standardized Coefficients B | t | Sig. |
|---|---|---|---|---|
| **Burger[a]** | **B_Gender*Order (1)** | 0,028 | 0,168 | 0,867 |
| | **B_Gender*Order (2)** | 0,155 | 1,117 | 0,266 |
| | **Constant** | | 12,255 | 0,000 |
| **Perfume[b]** | **P_Gender*Order(1)** | 0,156 | 0,955 | 0,341 |
| | **P_Gender*Order(2)** | 0,013 | 0,078 | 0,938 |
| | **Constant** | | 7,282 | 0,000 |

a. Variable entered on step 1: B_Gender*Order

b. Varible entered on step 1: P_Gender*Order

*Table 7: Effect of order and age on willingness to recommend*

| | | B | Wald | Sig. | Exp(B) |
|---|---|---|---|---|---|
| **Burger[a]** | **B_Age*Order (1)** | -0,705 | 2,391 | 0,122 | 0.494 |
| | **B_Age*Order (2)** | 0,203 | 0,494 | 0.482 | 1,225 |
| | **Constant** | -0,436 | 0,462 | 0,497 | 0,647 |
| **Perfume[b]** | **P_Age*Order(1)** | 0,427 | 2,183 | 0,140 | 1,532 |
| | **P_Age*Order(2)** | 0,181 | 0,358 | 0,550 | 1,199 |
| | **Constant** | 0,637 | 0,985 | 0,321 | 1,891 |

a. Variable entered on step 1: B_Age*Order

b. Varible entered on step 1: P_Age*Order

*Table 8: Effect of order and age on willingness to pay*

| | | Standardized Coefficients B | t | Sig. |
|---|---|---|---|---|
| **Burger[a]** | **B_Age*Order (1)** | -0,262 | -1,249 | 0,213 |
| | **B_Age*Order (2)** | 0,261 | 1,222 | 0,223 |
| | **Constant** | | 8,817 | 0,000 |
| **Perfume[b]** | **P_Age*Order(1)** | 0,252 | 1,175 | 0,242 |
| | **P_Age*Order(2)** | -0,027 | -0,127 | 0,899 |
| | **Constant** | | 6,653 | 0,000 |

a. Variable entered on step 1: B_Gender*Order

b. Varible entered on step 1: P_Gender*Order

*Table 9: Effect of order and education on willingness to recommend*

| | | B | Wald | Sig. | Exp(B) |
|---|---|---|---|---|---|
| **Burger[a]** | **B_Education*Order (1)** | -0,760 | 1,541 | 0,215 | 0,467 |
| | **B_Education*Order (2)** | -1,409 | 5,409 | 0,020 | 0,244 |
| | **Constant** | -1,597 | 2,052 | 0,152 | 0,203 |
| **Perfume[b]** | **P_Education*Order(1)** | -0,288 | 0,309 | 0,579 | 0,750 |
| | **P_Education*Order(2)** | -0,308 | 0,354 | 0,552 | 0,735 |
| | **Constant** | -0,191 | 0,052 | 0,820 | 0,826 |

a. Variable entered on step 1: B_Education*Order

b. Varible entered on step 1: P_Education*Order

*Table 10: Effect of order and education on willingness to pay*

| | | Standardized Coefficients B | t | Sig. |
|---|---|---|---|---|
| **Burger[a]** | **B_Education*Order (1)** | -0,245 | -0,766 | 0,445 |
| | **B_Education*Order (2)** | 0,645 | -2,102 | 0,037 |
| | **Constant** | | 3,573 | 0,000 |
| **Perfume[b]** | **P_Education*Order(1)** | 0,129 | 0,426 | 0,670 |
| | **P_Education*Order(2)** | 0,288 | 0,951 | 0,343 |
| | **Constant** | | 5,610 | 0,000 |

a. Variable entered on step 1: B_Education*Order

b. Varible entered on step 1: P_Education*Order