

Fabrício Cruz da Rosa

ANTESCEDENTS AND CONSEQUENTS OF THE ANCHORING EFFECT: PRIVATE LABEL vs KNOWN BRAND CONTEXT

Masters Degree Dissertation July 2017



Universidade de Coimbra

Fabricio Cruz da Rosa

Antecedents and Consequents of the Anchoring Effect: Private Label vs Known Brand Context

Master Thesis in Marketing, presented at the Economics Faculty of the University of Coimbra in order to obtain a Master Degree

Supervisor: Professor Arnaldo Coelho

Coimbra, 2017

· U

Universidade de Coimbra





José nasceu no interior
Sem nada foi à capital
José batalhou
José amou
José dirigiu
José aprendeu
José ensinou

José não estudou

José não fez mestrado

José não viajou

José não conheceu a Europa

José não enriqueceu com dinheiro,

Quem me dera ser José.

ACKNOWLEDGEMENTS

Um beijo para minha mãe, um beijo para o meu pai, e outro especialmente para você que me ajudou muito neste trabalho de dissertação.

ABSTRACT

Consumers are not able to process all the information from the environment to make their decisions. Therefore, in uncertain situations, people follow up judgment heuristics to simplify their decisions. The purpose of this work is to measure the Anchoring Heuristic, proposed by the authors Tversky and Kahneman (1974), in the context of Known Brands and Private Labels prices. In other words, the Known Brand price working as an anchor for the consumer estimation of the Private Label price. Furthermore, to identify the antecedents, such as Brand Equity and Consumer Behavior, and the consequents, such as Purchase Intention and Switching Intention, of this Anchoring Process. The statistical tool used in order to achieve this goal was a Structural Equation Modeling, with a sample of 192 individuals from Portugal and 220 individuals from the United States of America. The results show that the Brand Equity, in an indirect manner, and the Consumer Behavior, in a direct manner, affect the estimation price task. Moreover, the Anchoring Effect generates more willingness to accept the Known Brand. These findings allow Private Labels managers to understand the consumer's perception towards their brands, such as the uncertainty towards the Private Labels compared to the Known Brands. This dissertation contributes to understand that the consumer, in uncertainty situations, usually resorts to judgmental heuristics to solve their problems, and that there are antecedents and consequents variables able to influence this process.

Key Words: Anchoring Effect, Brand Equity, Consumer Behavior, Purchase Intention, Switching Intention.



RESUMO

Os consumidores não estão aptos para processar toda a informação que recebem para tomar decisões. Logo, em situações de incerteza, as pessoas seguem heurísticas de julgamento para simplificar as suas decisões. O propósito deste trabalho é medir a Heurística da Ancoragem, proposta pelos autores Tversky and Kahneman (1974), num contexto de preços de marcas conhecidas e de marcas brancas. Ou seja, o preço da Marca Conhecida trabalhando como ancora para a estimação de preço da Marca Branca. Assim como, identificar antecedentes, como Brand Equity e Consumer Behavior, e consequentes, como Purchase Intention e Switching Intention, deste processo de ancoragem. O modelo estatístico utilizado foi o das equações estruturais, com uma amostra de 192 Portugueses e 220 Americanos. Os resultados demonstraram que o Brand Equity, de forma indireta, e o Consumer Behavior, de forma direta, geram efeitos na tarefa de estimação de preços. Este trabalho de investigação também conclui que o Efeito de Ancoragem gera uma tendência em aceitar a marca conhecida. Os resultados deste trabalho permitem que os gestores de marcas brancas compreendam as percepções dos consumidores acerca das suas marcas, como a incerteza sobre a marca branca na comparação com marcas conhecidas. Esta dissertação contribui com o entendimento que o consumidor, em situações de incerteza, recorre a heurísticas de julgamento para resolver os seus problemas, e que existem variáveis antecedentes e consequentes capazes de influenciar este processo.

Palavras Chave: Efeito de Ancoragem, Equidade de Marca, Comportamento do Consumidor, Intenção de Compra, Intenção de Troca.

FEUC FACULDADE DE ECONOMIA UNIVERSIDADE DE COIMBRA

CONTENTS

ACKN	IOWLEDGEMENTS	i
ABST	RACT	ii
RESU	MO	iv
1.	INTRODUCTION	1
1.1	Contextualization	1
1.2	Importance and Applications	2
1.3	Research Problem and Objectives	2
1.4	Framework	3
2.	LITERATURE REVISION	5
2.1	Anchoring	5
2.2	Antecedents of anchoring	7
2.	2.1 Brand Equity	7
2.	2.2 Consumer Behavior	9
2.3	Consequents of anchoring	10
2.	3.1 Purchase Intention	10
2.	3.2 Switch Intention	11
2.4	Conclusion	12
3.	CONCEPTUAL FRAMEWORK	13
3.1	Choice of Variables	13
3.2	Hypotheses Formulation	15
3.	2.1 Brand Equity x Consumer Behavior	16



• FE

	3.2.1.1 Price Sensibility	16
	3.2.1.1.1 Loyalty	16
	3.2.1.1.2 Perceived Quality	17
	3.2.1.1.3 Brand Awareness	18
	3.2.1.2 Hedonistic Behavior	18
	3.2.1.2.1 Loyalty	19
	3.2.1.2.2 Perceived Quality	19
	3.2.1.2.3 Brand Awareness	20
	3.1.3 Consumer Behavior x Anchoring Effect	20
	3.1.4 Anchoring Effect x Purchase Intention and Switching Intention	21
4.	METHODOLOGY	25
4	1.1 Sample and Data Collection	26
4	1.2 Measurement of Variables	27
	4.2.1 Antecedents and Consequents Variables Operationalization	28
	4.2.1.1 Price Sensibility	28
	4.2.1.2 Hedonistic Behavior	28
	4.2.1.3 Loyalty	30
	4.2.1.4 Brand Awareness	30
	4.2.1.5 Perceived Quality	31
	4.2.1.6 Purchase Intention	31
	4.2.1.7 Switching Intention	32
	4.2.2 Anchoring Effect Operationalization	33



FE

4.3 Product's Choice and Calibration Group	37
4.3.1 The Dove Choice	38
4.3.2 Portuguese Calibration Group	39
4.3.3 American Calibration Group	40
4.4 Questionnaire Elaboration	42
4.5 Sample Characterization	45
4.6 Factorial Analysis	51
4.6.1 Exploratory Factorial Analysis (EFA)	51
4.6.2 Confirmatory Factor Analysis (CFA)	55
4.6.2.1 The goodness-of-fit of the measurement model in their set	56
4.6.2.2 Measurement Model Analysis	59
4.6.2.2.1 Individual – item reliability	59
4.6.2.2.2 Composite Reliability – CR	61
4.6.2.2.3 Average Variance Extracted – AVE	61
4.6.2.3 Discriminant Validity	62
4.7 Conclusion	64
5. RESULTS	65
5.1 Introduction	65
5.2 Hypotheses Test	65
5.3 Indirect, Direct and Total Effects	70
5.4 Miscellaneous	73
5.4.3 Difference in Samples	73



•

	5.4.2 Difference between Brand Equities	76
	5.4.3 Anchoring Calculations	77
5	5.5 Discussion of Results	79
	5.5.1 Relationship between the Brand Equity and Consumer Behavior	79
	5.5.1.1 Known Brand BE and Consumer Behavior	79
	5.5.1.2 Private Label BE and Consumer Behavior	81
	5.5.2 Relationship between the Consumer Behavior and Anchoring	82
	5.5.3 Relationship between the Anchoring and Consequents	83
5	5.6 Conclusion	84
6.	CONCLUSION	85
6	5.1 Theoretical Contributions	86
6	5.2 Practical Contributions	87
6	5.3 Limitations and Futures Lines of Research	87
7.	REFERENCES	90
8.	ATTACHEMENTS	97
o	2.1 OHESTIONINAIDE	97



FEUC FACULDADE DE ECONOMIA UNIVERSIDADE DE COIMBRA

FIGURES

Figure 1 - Conceptual Framework	15
Figure 2 - Illustration of the Hypothesis	22
Figure 3 - Portuguese Calibration Group Task	39
Figure 4 - American Calibration Group Task	41
Figure 5 - Measurement Model	58
Figure 6 - SFM	67



• FE

FEUC FACULDADE DE ECONOMIA UNIVERSIDADE DE COIMBRA

TABLES

Table 1 - Resume of Hypothesis	23
Table 2 - Price Sensibility Scale	28
Table 3 - Hedonistic Behavior Scale	29
Table 4 - Loyalty Scale	30
Table 5 - Brand Awareness Scale	30
Table 6 - Perceived Quality Scale	31
Table 7 - Purchase Intention Scale	32
Table 8 - Switching Intention Scale	33
Table 9 - Anchoring Index Construction	
Table 10 - Questionnaire Objectives	42
Table 11 - Questionnaire Blocks	44
Table 12 - Portuguese Sample X American Sample	45
Table 13 - Sample Profile: Gender (PT)	Table 14 - Sample Profile: Gender (USA)
Table 15 - Sample Profile: Age (PT)	Table 16 - Sample Profile: Age (USA)
Table 17 - Sample Profile: Household (PT)	Table 18 - Sample Profile: Household (USA)
Table 19 - Sample Profile: Marital Status (USA)	Table 20 - Sample Profile: Marital Status (PT)
Table 21 - Sample Profile: Profession (PT)	Table 22 - Sample Profile: Profession (USA)
Table 23 - Private Label Consumption (PT)	Table 24 - Private Label Consumption (USA)



C

Table 25 - KMO Interpretation
Table 26 - Cronbach's Alpha Interpretation
Table 27 - Final Constitution of the Variables
Table 28 - Parameters for the Adjustment of the Measurement Model 56
Table 29 - Goodness-of-fit Results
Table 30 - SRW Values
Table 31 - CFA Results
Table 32 - Discriminant Validity Results
Table 33 - SEM Goodness-of-fit
Table 34 - Hypothesis Analysis
Table 35 - Anchoring: Direct, Indirect and Total Effects
Table 36 - Switching Intention: Direct, Indirect and Total Effects
Table 37 - Purchase Intention: Direct, Indirect and Total Effects
Table 38 - "T" Test between American and Portuguese Sample
Table 39 - American vs Portuguese Hypotheses Analysis
Table 40- Difference between Brand Equities
Table 41 - Anchor Index Distribuition



• FEU

FEUC FACULDADE DE ECONOMIA UNIVERSIDADE DE COIMBRA

GRAPHICS

Graphic 1 - Sample Profile: Gender Comparison	. 46
Graphic 2 - Sample Profile: Age Comparison	. 47
Graphic 3 - Sample Profile: Household Comparison	. 48
Graphic 4 - Sample Profile: Marital Status Comparison	. 49
Granhic 5 - Sample Profile: Professional Comparison	50

1. INTRODUCTION

1.1 Contextualization

Every day thousands of consumers go to supermarkets with the purpose to buy something for themselves and leave, as simple as that. However, during this apparently simple task, one of the most difficult things happen: they have to decide between the Known Brand and the Private Label.

It is known that price is one of the most influential indicators for this task (Crompton, 2016). However, how much do we consider the price of the Known Brand to adjust our estimative about the Private Label price. In other words, how much does the Known Brand price can influence the Private Label price for the consumer?

Unfortunately, the human being is not able to have and process all information to solve uncertainty situations. Therefore, according to Tversky e Kahneman (1974) we use some heuristics and biases to solve this kind of problem. Those heuristics are a mechanism that help us to simplify the decision process, and one of this heuristics is known as Anchoring.

The Anchoring Effect is a judgment where we consider an anchor point to do estimations. That is, different start point make us change our estimative, because they are biases to the anchor.

However, in a supermarket context, with a growing supply of private labels that can compete with known brands, which factors are able to influence this price estimation? What can be a starting point capable to bias our estimations? Moreover, do these estimations allow us to switch our preferences and purchase intentions?

According to Lamey (2007), the private labels have a significant increase of market share. These products, in some categories, have more market share than the known brand (Dick *et al*, 1995).



Therefore, this dissertation is contextualized in an environment with the difference of prices between Private Labels and Known Brands and the process of estimation of those prices and products perceptions.

1.2 Importance and Applications

According to the literature, Anchoring is a concept that is easily found in every type of research. Researchers can all observe this effect, but they broadly disagree about the cause. (Jung, Perfecto, & Nelson, 2016).

Therefore, in order to fill this gap, this dissertation hopes to contribute to the literature by presenting that the anchor effect may have some antecedents and consequents motivated by Brand Factors, Consumer Behavior, Purchase and Switching Intention. Moreover, the findings of this job might show an applicability to the private label prices policies and a better comprehension about the private label and the effect of their prices on consumers estimates.

1.3 Research Problem and Objectives

Considering a known brand as "anchor", this dissertation going to measure the Anchoring Effect between this known brand and the private label. Moreover, starting from this point, we can develop the research problem at one principal statement: What is the Brand Equity and Consumer Behavior influence at the estimation price task, and how can the Anchoring Effect influence the Switching Intention and the Consumers Purchase intention?

In order to achieve the best way to answer this exposed problematic, principal objectives and secondary objectives will be established:



- The main objective of this research is one mathematical effort, is the construction of one methodology able to measure the anchor effect between the private label and the know brand. It uses the known brand as an anchor to the private label price estimations of the consumers.
- Besides that, this dissertation has some secondary objectives as well. First, we would like to understand the background around this Anchor Effect. More specifically to know about the influence of the Brand Equity Factors (loyalty, brand awareness, perceived quality) of the Private Label and the Known Brand, and the influence of the Consumer Dimension factors (price sensibility and hedonistic behavior) as antecedents of the Anchoring Effect. In addition to that, another secondary objective is to identify, as consequence, the Purchase Intention and the Switching Intention after the anchoring process.

1.4 Framework

Not as complex as the Empire States Building construction, but not as simple as the Lego© game. Alternatively, not as complex as Quentin Tarantino's Films, but not too simple as the three Matrix Movies chapters, this dissertation is going to be built in six sections clearly divided in specific subjects.

First of all, this first chapter explores the introduction of the theme. The theme will be put into context, and the importance for it to be researched will be shown. Besides that, the investigation problem and the objectives to be developed are presented in this premiere framework.

The second chapter is the literature review. There, the concept of Anchor Effect, the main subject of this dissertation, is going to be greatly reviewed. Likewise, the other concepts designed as variables in the context of this research have their own review attention, such as the Brand Equity Factors (Loyalty, Brand Awareness and Perceived Quality), Consumer



Behavior Factors (Hedonistic Behavior and Price Sensibility), Purchase Intention and Switching Intention.

At the third chapter the conceptual framework is going to be presented. First, the choice of variables will be discussed, and after that, the theoretical foundation of the hypotheses are going to be presented one by one. Therefore, in this part of the dissertation, the hypotheses are formulated.

The fourth chapter is the methodological time. In that part, we show the sample and data collection. The operationalization of each variable of the study will be exposed. This information will help in the construction of the questionnaire and, after that, the statistical analysis ending with the confirmatory factorial analysis.

During the fifth chapter, we are going to present and discuss the results of the work. We will test the hypotheses, presents the indirect effects, and summarize the main outcomes of the dissertation.

In the end, on the sixth chapter, the contributions of the dissertation, in a theoretical and in a practical way, will be presented, as well as, the limitations and suggestions for future lines of research.

2. LITERATURE REVISION

From this point, we are going to have the theoretical support for this dissertation. To better understand and increase knowledge about the theme, a literature review about Periodical Journals, Books and other types of publication are going to be presented. The first effort is to explain the concept of Anchoring Effect, and after that, to perceive the other variables of this study, the antecedents and consequents.

2.1 Anchoring

When the consumer is not in a situation of certainty, he uses heuristics principles to solve his problems. This heuristics principles are general rules that we admit with the aim to simplify our decision process. These principles reduce our efforts about some complex tasks with statistical evaluation of uncertain events. (Tversky & Kahneman, 1974).

Tversky & Kahneman wrote about this idea of heuristics and biases in a paper published at the Science Magazine in 1974. In that work, they exposed the hypothesis that these judgmental heuristics are subjective evaluations of likelihood on uncertain judgments. They exposed the fact that these judgments may induce us a bias in the moment we have to predict values. Three kinds of heuristics are showed in this paper; the Representativeness heuristic, the Availability heuristic and the Adjustment and Anchoring heuristic.

This judgmental heuristic called Adjustment and Anchoring suggests that the individuals usually anchor their estimative in a start point. In other words, "different start points yield different estimates, which are biased toward the initial values" (Tversky & Kahneman, 1974. *page* 1128).

The anchoring effect creates a remarkable influence on human judgment. These effects are exceptionally strong and can be performed in simple studies. In the field of psychology, anchoring is a very robust and easily replicated conclusion (Mussweiler, Englich, & Strack, 2004).

The conclusion that the anchoring effect is robust can be proved through several studies previously conducted.

Anchoring occurs even when the anchor value is clearly non-informative, for example, if the anchor is randomly selected, as in the initial studies presented by Tversky & Kahneman, 1974. In this study, the anchor was a starting point provided through a "Wheel of fortune", which generated random anchors.

The effect also occurs when the starting point presented is implausible. For example, in the study of (Fritz Strack & Mussweiler, 1997), people were asked to estimate the age of Mahatma Gandhi. The anchor was 140 years old, and even though it was a very old age, this starting point influenced the participant's estimates.

It has also been proved that the motivation of the participants does not interfere in the generation of the effect, even with awards (Wilson, Houston, & Etling, 1996). The experience of experimental subjects also did not affect the anchoring effect, in an experiment performed with judges, where the same anchor when describing a sentence (Englich, Mussweiler, & Strack, 2006) influenced experienced jurists and law students. Finally, studies prove that anchorage is also present after long periods. Even after a week of exposure to the anchor, its effect was still evident in Mussweiler's studies, 2004. That is, "anchoring is an exceptionally robust phenomenon that is difficult to avoid." (Mussweiler et al., 2004. *page* 186).

In addition to robust, the anchoring effect is extremely relevant. It is an explanatory concept used to explain a wide variety of judgment phenomena, such as; (Northcraft & Neale, 1987), probability estimation (Plous, 1989), estimation of lotteries and games (Chapman & Johnson, 1994) and negotiation (Galinsky & Mussweiler, 2001). According to these authors, in the area of consumer behavior, for example, consumers can detect the anchoring phenomenon with a price announcement being an anchor in the product evaluation.

Here it is important to note that the notion of anchoring describes the direction of observed influences. On this, the author Strack (1992) states that anchoring is a descriptive, not an explanatory concept. The anchorage does not go beyond terms of assimilation and contrast. Therefore, it is to note that this dissertation would like to understand the reasons that are capable to generate some influence in this consumer type of assimilation called anchoring.

2.2 Antecedents of anchoring

2.2.1 Brand Equity

At this point, we realized that the heuristics are a simplification of estimations problems in uncertain tasks, right? Yes. Moreover, we notice that the anchor is a way to solve these tasks having a start point that help us to do our estimations in a comfortable way. However, at the supermarket scenario we have a lot of other stimuli, for example, Brand Factors and competitive environment.

The Brand Equity is a value that help the consumers in their interpretation and information process (Aaker, 1992). This added value increases the confidence of the end user, and it may decrease the uncertain process. Aaker (1998) introduced four dimensions of Brand Equity, which are; Loyalty, Brand Awareness, Perceived Quality and Brand Association. This concept also makes clear the difference at the consumer perception when he compare two products, one with brand and other "without" brand. We can attribute this difference at the brands name and it shows the massive markets investment that increase the Brand Equity. In sum, we can say, according to Kotler & Keller (2006), that the Brand Equity is a product add value because of the strength of his brand.

The authors Yoo & Donthu (2001) introduced one multi-dimensional scale of Brand Equity based at the four dimensions purposed by Aaker (1998). In this scale, the variables



Brand Awareness and Brand Association are presented as one variable only. Moreover, this multi-dimensional scale will be used in this dissertation with the three dimensions: Loyalty, Perceived Quality and Brand Awareness.

- Loyalty

The loyalty represents a strong compromise with the Brand. The loyal client is capable to do recommendations independent of outside influences. The relationship between the consumer and the brand is close and the intention to switch to others brands it is smaller.

Those statements are a consensus between the main authors when the subject is Loyalty. Keller (2003) states that the level of Loyalty is related positively with the goodness of the relationship between the consumer and the Brand. The clients with good relation with the Brand use to be in contact with their products and willing to share feelings with other clients.

Yoo, Donthu e Lee (2000) highlight the repurchase commitment of the loyalty client independent of the influences of the environment. In this case, we can say that you are blinded by love, you are not going to switch to other brands and the purchase of the favorite brand is a routine. The level of the willing to pay is related positively with the Loyalty.

- Brand Awareness

According to Keller (2003) three are the advantages of the Brand Awareness at the consumer's decision-making process: the learning advantages, the choice advantages and the consideration advantages. The more the level of proximity of the client with the brand, the more the knowledge and familiarity with the products. Therefore, associations are easier to be created and it is an added value to the Brand.

- Perceived Quality

The client's perception of the quality of the product is the base to understand the concept of Perceived Quality. That association is central to the Brand Value, is one of the

principal dimension of the Brand Equity. Aaker (1998) states that exist one association between the Perceived Quality and the price. In this case, the premium price can be associate with high quality.

2.2.2 Consumer Behavior

The Brand Equity adds value both for the company and for the consumer (Aaker, 1998). Our end user use to make his decisions in an irrational way, making associations with his previous knowledge about the brand. Moreover, this behavior may influence the way he perceives the anchor that is presented to him.

The Consumer Behavior has many dependent variables, as many as cultural, sociological and individual (Lindon *et al*, 2009).

In individual variables, we have perception as a fundamental variable at the Consumer Behavior. It is a type of process where the information is selected, organized and interpreted (Lindon *et al*, 2009).

When we talk about supermarket variables, the determinants of consumer behavior are variables such as Price Sensibility, Hedonistic Behavior and Brand Identification. (Sousa, 2015). Moreover, some of these variables will be used at this dissertation with the goal to discover their relationship with the anchoring price that the Known Brand may influence at the perception of the Private Label.

The consumer usually chooses the Private Label in a rational shop, whenever price is a huge decisive factor. The other situation happens whenever the Known Brand has a big emotional involvement with the consumer. In this case, the hedonistic behavior and brand identification can lead to a more pleasant shopping experience (Hyman M., Kopf D., 2010). Therefore, taking into account the price such as decisive factor, and the emotional versus



rational behavior, this dissertation is going to have the Price Sensibility and the Hedonistic Behavior such as dimensions of the Consumer Behavior.

- Price Sensibility

The Price Sensibility is a variable related to behavior. Different consumers have different price sensibility. Psychological and socio-cultural factors can influence this difference of consumers with more precaution with their money (Sinha & Batra, 1999).

The authors Dodds & Monroe (1985) state that the level of sensibility depends on the product and the risks involved at the purchase. Moreover, the price sensibility is a bias that has different intensity according to different individuals (Tai & Tam, 1997).

Hedonistic Behavior

The Hedonistic Behavior is a Consumer Behavior that is associated with experience and emotional levels of the purchase to the consumer. Generally, the hedonism is related with fun, pleasure and ludic behavior. The connection between the product and consumer is less functional and more emotive (Hwang, 2011).

2.3 Consequents of anchoring

2.3.1 Purchase Intention

The Purchase Intention is a concept related with the willingness to buy a product according to a previous knowledge or involvement with the Brand. It means that the end user's background will possibly influence his future choices.

The literature suggests that there are many kinds of behavior and factors that generate some influence at the purchase intention (Mehrabian, A., & Russell, 1974). Amongst them,

whether the consumer goes shopping alone or accompanied (Medeiros & Cruz, 2006), (Chen, 2007). Alternatively, the fact that the perceived value influences the Purchase Intention (Bou-Llusar *et al*, 2001). In this case, the more is the perceived value of the end user, the more is the likelihood to repeat the purchase, in other words, the more is his Purchase Intention.

2.3.2 Switch Intention

Switch intention is a phenomenal explained by many models. However, each model with this variable has a different specification. For example, we can study the intention to switch the email service (Kim, Shin, & Geun, 2006), the switch intention toward the payment on line content (Li, 2014) or yet try to understand the factors that influence the attitude to product switching from conventional food to organic food (Irianto, 2015).

The observation here is a large range of possibilities to understand the intention to switch. Orbiting around services, to online context and different kinds of products. Thereby, we can measure that each model depends on the relevant object of the research and the aims to be achieved. Thus, there is no model able to explain the Switch Intention in all cases (Irianto, 2015).

The diversity of Switch Intention models exists because of the big variety of objects and methods used in a research study (Keaveney, 1995). In the particular case of this work, the objects used are equal products presented by both a recognized brand and a private label. Therefore, trying to understand the reasons and influences to switching intention toward these products, and how can the estimation prices (anchoring) be an inconvenient aspect for the switching process, is an important debate to increase the diversity of Switch Intention models.

A high perception of products attributes may affect the consumer's intention to switch. We can think about the higher is the perceptions of difference between the product's attributes, the higher is the willingness to switch and the probability to switch to the alternative product (Herr, P. M, Kardes, F. R, and Kim, 1991; Rimal, A. P. and Fletcher, 2000). With this



proposition it is notorious, then, that the difference of attributes perception cause some effect at the switch intention. As we already know, there is a large range of possibilities to understand the switching intention. In this work, we can realize that the difference between the perceptions of brands products and private label products may affect the intention to switch.

2.4 Conclusion

This chapter allowed us to better understand the concepts of this work. Here, through this literary research, we have discovered details and information that are going to make the basis for the next steps of the dissertation. Moreover, the next movement is to use this knowledge in order to develop the hypotheses and the conceptual framework. It is important to remember that the literature revision never ends, this effort will continue during all chapters that follow.

3. CONCEPTUAL FRAMEWORK

The end of the theory and the beginning of the practice! Not that extreme, actually. Both theory and practice have to walk side by side until the end. Nevertheless, now, we are going to start to mix them in a huge blender where we expect to obtain the best juice ever. In addition, in order to do that, we will follow Gil (2002) when he introduces that in order to confront the theories and the reality, it is necessary to design one conceptual research model.

3.1 Choice of Variables

After the literature revision, we focused on building a model where those discussed variables could fit each other in order to solve the propositions of our objectives. Considering that, we have the objective of explaining the background of the estimations prices tasks involving Private Label and Known Brand. In addition, for these antecedents, we have, first, the Consumer Behavior Dimensions.

The demand in the Consumer Behavior Dimensions is looking for variables capable to represent rationality and emotions. That is because we are working with a heuristic that exists in uncertainty tasks. The anchoring is a simplification of the decision process, and we can solve that in a different way, being rational or not. Therefore, the first variable to choose in the Consumer Behavior Dimension is the Price Sensibility. Assuming that our task is to estimate prices, and that the price is an important factor in a rational purchase, the Price Sensibility is a good variable to be tested as a representative of rationality. Besides that, at the emotional side, we are going to have the Hedonistic Behavior. Those variables are the antecedents of Anchoring at the model. In addition, to corroborate with this choice, the authors Hyman M., Kopf D., (2010), state that the consumer is willing to pay for Known Brands with

• U FEUC FACULDADE DE ECONOMIA UNIVERSIDADE DE COIMBRA

emotional connections and hedonistic behaviors, and, on the other hand, willing to pay for private labels in a rational purchases, with price as an important factor.

Ok, now we have to consider one very important aspect in this Anchoring background. We are working with the price estimation between Private Label and Known Brand. So, the added value of these different brands have to be taken into account. In addition, as a representative of added value, we can remember the Brand Equity. As researched in the literature review, Aaker (1992) states that the Brand Equity is a value that helps the consumer's interpretation and information process. Therefore, we must understand how can this concept influence the consumer's behavior before the anchoring process. In other words, how is the construction of the consumer behavior towards these different brands before the estimation task. According to Yoo & Donthu (2001) model, three are the factors of the Brand Equity, the Loyalty, the Perceived Quality and the Brand Awareness. So, the first part of the design model is going to be to confront these factors of Brand Equity with the two chosen dimensions of the consumer behavior. In addition, the Consumer Behavior factors will work as mediators of the relation between the Brand Equity and the Anchoring Effect.

Here we have the Anchoring Background variables chosen and built. Now, we have to focus our efforts at the right side of the conceptual framework. We have to understand the Anchoring Effect influences in a Private Label *versus* Known Brand context. Taking in consideration the objectives of the study and the literature revision, as consequence of the anchoring effect, we would like to discover the influence of this estimation at the Purchase Intention and the Switching Intention of the consumer.

Thus, those are the variables chosen as antecedents and consequences of the Anchoring Process. Therefore, with this definition, the conceptual framework is built to be seen below.

Brand Equity Known Brand Perceived Quality Consumer **Behavior** Loyalty **Switch Intention** Brand Awareness Anchoring **Brand Equity Private Label** Perceived Quality Purchase Intention Loyalty Brand **Awareness**

Figure 1 - Conceptual Framework

3.2 Hypotheses Formulation

After building the conceptual framework, here the effort is going to be to introduce the relations between those variables. First, we will present the relations between the Brand Equity factors (of the Known Brand and of the Private Label) and the Consumer Dimensions Factors. After that, we will present the hypotheses of Consumer Behavior dimensions, such as Price Sensibility, and Hedonistic Behavior, such as antecedents of the Anchoring effect. Moreover, in the end, the consequences of the Anchoring Effect, known as the Purchase Intention and Switch Intention, are going to have the discussion about their hypotheses too.

3.2.1 Brand Equity x Consumer Behavior

As previously referenced, Aaker (1998) states that the Brand Equity adds value to both the company and the consumer. Therefore, here we can observe that the Consumer Behavior may depend on the exposition and relation with these Brands Factors. Foremost, the following statements are about the relation between the Consumer Dimension Price Sensibility and the Brand Equity Factors (Known Brand and Private Label). After that, the hypotheses are going to be formulated with the Consumer Dimension Hedonistic Behavior and the Brand Equity factors as well.

3.2.1.1 Price Sensibility

The consumer dimension Price Sensibility displays a consumer that is more prudent and even shy when opening his wallet. In addition, we also know that there is a relationship between price and Brand Equity. The price can be associated to benefits that the Brand brings up to the consumer perception (Yoo, Boonghee; Donthu, Naveen; Lee, 2000). With higher prices, the consumer can make better associations than lower prices. Thus, in an uncertainty environment, the higher the price, the higher is the added value of the brand for the consumer perception.

With the presentation of these statements, the following hypotheses are proposed according to the Brand Equity dimensions.

3.2.1.1.1 Loyalty

Both at the relationships goals and at the shopping environment, loyalty is going to be a factor that blinds us to alternatives. As a Brand Equity dimension, we can understand loyalty



as a compromise between the consumer and the Brand. This relation will not be disturbed; this is independent of outsider influences (Kotler & Keller, 2009). According to Aaker (2007), the higher the loyalty; the lower the probability to be vulnerable to price changes. Then, here we can suggest the hypothesis that the higher the loyalty with the brand, the lower going to be the sensibility with the price. Because you are blinded by love.

H1a: The level of Known Brand Loyalty is related negatively to the Price Sensibility.

H1b: The level of Private Label Loyalty is related negatively to the Price Sensibility.

3.2.1.1.2 Perceived Quality

The Perceived Quality is a factor that influences the Consumer Behavior towards the Brand (Sousa, 2015). We can understand this concept as the client's perception of the quality of the product brand. According to Zeithaml (1988), the consumers may utilize a variety of stimuli to evaluate the Perceived Quality. As seen above, the price may be considered one of these stimuli, because the higher the price, the better the association with the added value of the product brand. Therefore, with this argumentation, we can explore the fact that the higher the price of the product, the higher the Perceived Quality of the brand. We can note here that Price Sensibility follows a direct relation with the Perceived Quality, so:

H2a: The level of Known Brand Perceived Quality is related positively to the Price Sensibility.

H2b: The level of Private Label Perceived Quality is related positively to the Price Sensibility.

3.2.1.1.3 Brand Awareness

In this moment, we are going to follow the lead of the argumentation to the last point. Continuing the logic about the direct manner of the price influence, in other words: the higher the price, the higher the added value of the brand for the consumer perception. We will add at this time the notion that the Brand Awareness is, according to Keller (2003), a tool capable to make the client easily create associations and satisfactory knowledge such as added value toward to the brand. As seen before, the price is able to create this kind of association as well, mainly with the price sensitive individuals, which are consumers substantially influenced by the prices. Therefore, both the price and the Brand Awareness create associations toward the add value of the brand. Moreover, the price sensitive individual may follow this relation in a positive way. Here we have another hypothesis to be tested:

H3a: The level of Known Brand Awareness is related positively to the Price Sensibility.

H3b: The level of Private Label Brand Awareness is related positively to the Price Sensibility.

3.2.1.2 Hedonistic Behavior

The hedonistic behavior of the consumer is strongly related with emotional involvement that the brand brings to the public (Hwang, 2011). The hedonistic value is subjective, ludic and adds more pleasure to the shopping experience (Darden & Griffin, 2004).

Here we can note that this consumer behavior dimension is more emotional, while the Price Sensibility is more rational. With the objective to do the parallel between those kinds of dimensions, we are going to build the other hypotheses crossing the Brand Equity Factors.

3.2.1.2.1 Loyalty

The loyalty brings one huge emotional load. As we saw, this factor can blind us to alternatives. Therefore, both the hedonistic behavior and loyalty have more affection and sentimental feelings towards them. The relation between them may follow one direct way, as the hypothesis presented below.

H4a: The level of Known Brand Loyalty is related positively to Hedonistic Behavior.

H4b: The level of Private Label Loyalty is related positively to Hedonistic Behavior.

3.2.1.2.2 Perceived Quality

On the other hand, we can consider that the perceived quality is one Brand Equity factor that has lower emotional appeal than the other ones. Here we know that the general quality of the Brand is evaluated within a variety of stimuli. Moreover, this rational approach mismatches the general idea of the Hedonistic Behavior with subjective appreciation. This allowed us to test the follow hypotheses.

H5a: The level of Known Brand Perceived Quality is related negatively to the Hedonistic Behavior.

H5b: The level of Private Label Perceived Quality is related negatively to the Hedonistic Behavior.

3.2.1.2.3 Brand Awareness

Here we can follow the statements of the Loyalty relation with the Hedonistic Behavior. In the Brand Awareness factor, the client adds value towards the Brand through his previous associations. Those previous associations may involve pleasure and experience that this brand can offer. Therefore, the Brand Awareness is going to be able to generate one increase of hedonistic behavior towards the brand, here is the hypothesis:

H6a: The level of Known Brand Awareness is related positively to the Hedonistic Behavior.

H6b: The level of Private Label Brand Awareness is related positively to the Hedonistic Behavior.

3.1.3 Consumer Behavior x Anchoring Effect

Here we have one more opportunity to develop some hypotheses, working with the Consumer Behavior dimensions as antecedents of the Anchoring Effect. As we know, the literature shows us that the Anchor Effect may appear in uncertainty tasks. Nevertheless, what Consumer Behavior dimension may affect more the Anchoring, the Price Sensibility or the Hedonistic Behavior? We may consider both, but in different ways.

In the first way, we can think about the Price Sensibility being more rational than the Hedonistic Behavior, as seen in the hypotheses developments above. As pointed before, the price-sensitive consumer has more attention to his wallet. This consumer is going to have attitudes that are more rational at the estimation price tasks, instead of follow the concept of heuristics presented at the literature revision, that is, the more uncertain is the task, the higher is the bias and heuristics participating in the process. In other words, the higher is the price

sensibility, the lower is the task uncertainty. The consumer is sensible to the price; he used to know about that, he would not consider the heuristic to solve the estimation task. Here we have one indirectly proportional relationship between those variables:

H7: The level of Price Sensibility is related negatively to the Anchoring Effect.

On the other hand, the Hedonistic Behavior presents us a more emotional and ludic behavior. The anchor effect works with subjective evaluations of likelihood on uncertain judgments. And the literature showed us, through the authors Darden & Griffin (2004), that the Hedonistic Behavior is subjective, and adds more value to shopping experiences. Therefore, here we can say that the more the hedonistic behavior, the more the heuristic is going to be used on estimation tasks in uncertainty situations.

H8: The level of Hedonistic Behavior is related positively to the Anchoring Effect.

3.1.4 Anchoring Effect x Purchase Intention and Switching Intention

It is to notice, in these cases, that the more the brand knowledge and admiration, the more the consumer is willing to pay for the product. This study is evaluating how much do the end users anchor their price perception of Private Labels having the Known Brand as an anchor. So, if some individual strongly uses the Known Brand price to estimate the Private Label, that means he does not have enough knowledge about other factors, such as quality, for example, to do his estimative. In addition, the literature suggests, that one that has no knowledge or admiration for the brands may not be willing to pay for the product. In other words, the more one individual anchors his perception to the Known Brand to estimate the Private Label price, the more the purchase intention increases in this case. The Anchoring is one heuristic that makes us adapt our estimates through known things, running away from the unknown. Therefore, the anchoring tends to lead us to the Known Brand.

H9: The level of Anchoring Effect is related positively to the Known Brand Purchase Intention.

H10: The level of Anchoring Effect is related negatively to the intention to switch the Known Brand for the Private Label.

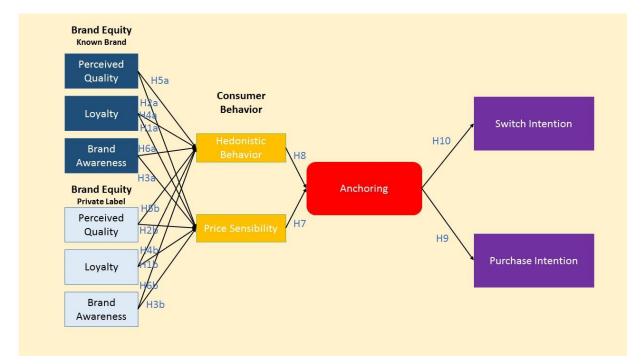


Figure 2 - Illustration of the Hypothesis

Table 1 - Resume of Hypothesis

H1a: The level of Known Brand Loyalty is related negatively to the Price Sensibility.

H1b:The level of Private Label Loyalty is related negatively to the Price Sensibility.

H2a: The level of Known Brand Perceived Quality is related positively to the Price Sensibility.

H2b:The level of Private Label Perceived Quality is related positively to the Price Sensibility.

H3a: The level of Known Brand Awareness is related positively to the Price Sensibility.

H3b: The level of Private Label Brand Awareness is related positively to the Price Sensibility.

H4a: The level of Known Brand Loyalty is related positively to Hedonistic Behavior.

H4b: The level of Private Label Loyalty is related positively to Hedonistic Behavior.

H5a: The level of Known Brand Perceived Quality is related negatively to the Hedonistic Behavior.

H5b: The level of Private Label Perceived Quality is related negatively to the Hedonistic Behavior.

H6a: The level of Known Brand Awareness is related positively to the Hedonistic Behavior.

H6b: The level of Private Label Brand Awareness is related positively to the Hedonistic Behavior.

H7: The level of Price Sensibility is related negatively to the Anchoring Effect.

H8: The level of Hedonistic Behavior is related positively to the Anchoring Effect.

H9: The level of Anchoring Effect is related positively to the Known Brand Purchase Intention.

• U FEUC FACULDADE DE ECONOMIA UNIVERSIDADE DE COIMBRA

H10: The level of Anchoring Effect is related negatively to the intention to switch the Known Brand for the Private Label.

4. METHODOLOGY

Ok, so, we have the theme of the dissertation. We did a huge effort presenting the literature revision, which contributed to the construction of the conceptual framework. Now, it is time to begin, *isn't it*? Yes, from here we are going to present all the methodological procedures used to reach the objectives.

Note that the literature regarding Anchoring and Adjustments Heuristics, as well as the Anchoring Effect and the Anchoring Index (measurement methodology later presented in this chapter) always works with a Quantitative Analysis. Therefore, so as not to go against the usual framework, this dissertation will use this methodology as well.

The Quantitative Analyses is able to use standardized instruments in order to measure opinions and attitudes of those interviewed (Marconi & Lakatos, 2007). The Quantitative Methodology also allowed the possibility to test the previous hypotheses and the chance to do comparisons per scales researched in the progress of this chapter. In sum, taking into consideration the basic assumptions of a Quantitative Analyses, this topic is divided as follow.

Primarily, the sample and the data collection method are presented. After explaining the methods used to acquire the sample, the variable concepts are converted into workable variables, with the definition of the scales and the variables operationalization. Once the operationalization is known, we are going to present the calibration group and the product choice for this dissertation. Therefore, our data collection instrument is ready to be built and the questionnaire is showed.

In the end, with the data collected by the questionnaire, the statistical analyses are presented. First with the sampling characterization and then with the factorial analysis, exploratory and confirmatory.

.

4.1 Sample and Data Collection

It's a problem that all social scientists face. You have a brilliant idea for a study. You have the experimental design all worked out, and your university's review board has approved it. But you still have to recruit hundreds of people as subjects for the experiment. (Bohannon, 2011. *page 1*).

However, thanks *God* (or whatever we believe in), all problems have a solution. Especially with the online trends we have now-a-days. Collecting data online is a methodology widely used by the social sciences. So, the data collection methodology used to achieve the North American sample in this work had the help of the Amazon Mechanical Turk.

The Amazon Mechanical Turk (MTurk) is an internet-based labor market that has been widely used for behavioral experimental research (Paolacci, Chandler, & Ipeirotis, 2010). It is an online environment where researchers (requesters) are able to find workers (respondents) to develop their papers. The existence of online labor markets as the MTurk allowed a quick, easy and cheap distribution and collection of a reasonable amount of data (Rand, 2012).

The other big advantage of using the Amazon MTurk is the fact that the respondents are usually more focused research subjects. The typical approach to collect respondents in the social science is to practice the tasks with university undergraduate students. The difference is that the MTurk respondents are paid to generate usable data and the program automatically eliminates the spammers. (Bohannon, 2011).

The collecting data using the MTurk system was really worth it. In only one week (the first June week of 2017) the questionnaire stayed online, two hundred twenty (220) American workers answered successfully.

In a different way from the American sample, to achieve the Portuguese sample we did not used the MTurk system simply because there are not Portuguese workers at this platform yet. Therefore, the solution was to appeal to the link distribution via Facebook. In

addition, we distributed the printed questionnaire randomly in the university. This required more time, thus the questionnaire was exposed between May and June of 2017 and we were able to collect 192 respondents. The questionnaire was given to a sample of convenience. This non-probabilistic sampling technic looks for one sample with convenient elements. The convenience sampling is the kind of sampling that consumes less time and less budget, the sampling unities are accessible, easy to measure and cooperative (Malhotra, 2010).

In the end, to do both questionnaires, for the Portuguese sample and for the American sample, the Google Docs platform was the key to success. This platform allowed the researcher, entirely for free, to work with documents submitted and collected in an automatic way, and save the data for a long period of time.

4.2 Measurement of Variables

From here, we need to figure out how to measure our variables. After the literature revision, the antecedents and consequents variables of our conceptual framework will be measured by one *likert* scale of seven points, where the first point is "Totally Disagree", the fourth point is "Neither Agree or Disagree" and the seventh point is "Totally Agree".

The *likert* scale of seven points was chosen because of its simplicity to measure and work the data. This scale allowed us to evaluate the level of agreement of our respondents through the points.

As with most of the literature revision of this dissertation, the original scales were in English. As seen before, our researched public is North American and Portuguese. Therefore, to reach the Portuguese public, we adapted the items of the variables translating all questions.

The first task is to present the items and authors of the Brand Equity variables, the Consumer Behavior variables, the Purchase Intention variable and the Switch Intention variable, which means our antecedents and consequents.

After that, the attempt is to figure out, with a deeper literature revision, the way to measure the Anchoring Variable.

4.2.1 Antecedents and Consequents Variables Operationalization

4.2.1.1 Price Sensibility

To measure the Price Sensibility, the scales proposed by the authors Lall & Bell (2003), Ayala Neslin (2005), Demoulin e Zidda (2006) e Mueller (2007) were adapted from the dissertation of the author Almeida (2014), and used in this dissertation as follows:

Variable **Construction (EN) Construction (PT)** Reference **Item** SP1 In the moment to do No momento de fazer shopping, I really pay compras, presto attention at the prices. bastante atenção aos Lall & Bell (2003), preços. Ayala Neslin (2005), SP2 Tenho por hábito Price I use to compare the Demoulin e Zidda different prices of comparar os preços de Sensibility (2006) e Mueller different Brands várias marcas. (2007).SP3 I like to buy products Gosto de comprar in promotion produtos que estão em promoção.

Table 2 - Price Sensibility Scale

4.2.1.2 Hedonistic Behavior

In order to operationalize the Hedonistic Behavioral variable, the items used were adopted from the publication of the authors Darden & Griffin (2004). However, that publication worked in a shopping trip environment. Therefore, for the context and purpose of this dissertation, the word "trip" was removed from the items, as well the conjugation of the verb in the past. The adapted scale follows:



FEUC

FEUC FACULDADE DE ECONOMIA
UNIVERSIDADE DE COIMBRA

Table 3 - Hedonistic Behavior Scale

Variable	Item	Construction (EN)	Construction (PT)	Reference
	CH1	I really enjoy go to shopping.	Sinto verdadeira alegria quando vou às compras.	
	CH2	Compared to other things I could have done, the time spent shopping is truly enjoyable.	Em comparação com outras coisas que poderia ter feito, o tempo gasto nas compras é realmente agradável.	
	СНЗ	During the shopping time, I fell the excitement of the hunt.	Durante as minhas idas às compras sinto a emoção da procura.	
	СН4	I use to fell that go shopping is like an escape.	Sinto que ir às compras é como uma distração	
	CH5	I enjoy to be immerse in exciting new products.	Eu gosto de estar no meio de produtos novos e excitantes	
Hedonistic	СН6	I enjoy shopping for its own sake, not just for the items I may purchase	Ir as compras é bom em si, mesmo que não compre nada	Darden &
Behavior	СН7	I continue to shop, not because I have to, but because I like to.	Eu vou às compras não porque preciso, mas porque gosto.	Griffin (2004)
	CH8	I like to go shop because I fell myself able to act on the "spur of the moment."	Eu gosto de ir às compras porque isso permite-me agir de acordo com os meus impulsos.	
	СН9	While shopping, I am able to forget my problems.	Quando faço compras esqueço os meus problemas.	
	CH10	While shopping, I use to fell a sense of adventure.	Fazer compras é como viver uma aventura.	
	CH11	Shopping trips are a very nice time out.	Ir às compras é umas das saídas que eu gosto.	
	CH12	I use to fell really lucky while I am Shopping	Sinto-me "sortudo (a) " quando vou às compras.	
	CH13	I am able to do a lot of fantasizing during my shopping time.	Farto-me de fantasiar quando vou às compras.	

4.2.1.3 Loyalty

The scale used to measure this variable counts three items, which were adopted from the publication of the authors Yoo, Donthu, Lee (2000). The adaptation of this work follows:

Table 4 - Loyalty Scale

Variable	Item	Construction (EN)	Construction (PT)	Reference
		Eu considero-me leal a		
		to this Brand.	esta marca.	
	L2 This Brand would be my Esta marca é a minha		Esta marca é a minha	Vac Donthu a
Loyalty first		first choice.	primeira opção.	Yoo, Donthu e Lee (2000)
	L3	I will not buy other brands if	Eu não compro outra	Lee (2000)
		this one is not available at	marca se esta não estiver	
		the store.	disponível.	

4.2.1.4 Brand Awareness

As the variable above, the Brand Awareness scale, as well as the Brand Equity Dimension were adapted from the same paper of the authors Yoo, Donthu e Lee (2000), adapted as follows:

Table 5 - Brand Awareness Scale

Variable	Item	Construction (EN)	Construction (PT)	Reference
	BA1	I know what this Brand looks like.	Eu sei como é esta marca.	
	BA2	I can recognize this Brand among other competing brands.	Eu posso identificar esta marca entre outras marcas concorrentes.	
	BA3	I can aware of this Brand.	Eu tenho conhecimento desta marca.	
Brand Awareness	BA4	Some characteristics of this Brand come to my mind quickly.	Algumas caraterísticas desta marca vêm à minha mente rapidamente.	Yoo, Donthu e Lee (2000)
	BA5	I have facility in imagining this Brand in my mind.	Eu tenho facilidade em imaginar esta marca na minha mente.	
	BA6	I can recall the symbol or logo of this Brand.	Eu posso lembrar-me do símbolo ou logo desta marca.	

4.2.1.5 Perceived Quality

In the end of the Brand Equity effort scales there are six items of the authors Yoo, Donthu e Lee (2000) to adapt the Perceived Quality scale as follows:

Table 6 - Perceived Quality Scale

Variable	Item	Construction (EN)	Construction (PT)	Reference
	QA1 QA2	This Brand is of high quality.	Esta marca é de alta qualidade.	
		The likely quality of this Brand is extremely high.	A qualidade provável desta marca é extremamente alta.	
Perceived	QA3	The likelihood that Brand would be functional is very high.	A probabilidade desta marca ser funcional é muito alta.	Yoo, Donthu e
Quality	QA4 The likelihood that Brand	The likelihood that Brand to be reliable is very high.	A probabilidade desta marca ser confiável é muito alta.	Lee (2000)
			Esta marca deve ser de muito boa qualidade.	
	QA6	This Brand appears to be of very good quality.	Esta marca parece ser de boa qualidade.	

4.2.1.6 Purchase Intention

The Purchase Intention scale was adapted from the article of the authors Barbara Carroll e Aaron Ahuvia (2006). This referenced paper works with the concept of Brand Loyalty representing one routinely purchased product. As an outcome of the brand love, the variable in this work reflects the desirable consumer behavior. "We define brand loyalty as



conative loyalty (Oliver, 1999), or the degree to which the consumer is committed to repurchase of the brand." (Ahuvia, 2006. *page* 82). Therefore, taking in consideration this commitment to purchase, for this dissertation, the adapted Purchase Intention scale follows:

Table 7 - Purchase Intention Scale

Variable	Item	Construction (EN)	Construction (PT)	Reference	
	IC1	This is the only brand of this product that I will buy.	Deste tipo de produtos, eu só compro esta marca.		
D 1	IC2	When I go shopping, I do not even notice competing brands.	Quando vou fazer compras, nem reparo nas marcas concorrentes.	Barbara Carroll	
Purchase Intention	IC3	If my store is out of this brand, I will postpone buying or go to another store.	Se a loja que estou não tem essa marca, vou adiar a compra ou vou a outra loja.	e Aaron Ahuvia (2006).	
	IC4	I will "do without" rather than buy another brand.	Prefiro passar sem o produto do que comprar outras marcas.		

4.2.1.7 Switching Intention

The Switching Intention operationalization was adapted from two publications, Kim et al. (2006) and Irianto (2015). The first author developed the scale that was also used by Irianto (2015), the difference is that the last one included one future context in the items, the "In the near future", which were used in this dissertation as well. The adapted scale follows:

Table 8 - Switching Intention Scale

Variable	Item	Construction (EN)	Construction (PT)	Reference
	SI1	In the near future, I admit switch the <i>Product X</i> of the <i>Brand Y</i> to one <i>Product X</i> similar of the <i>Brand Z</i> .	Num futuro próximo, eu admito vir a trocar um <i>Produto X</i> da <i>Marca Y</i> por um <i>Produto X</i> similar da <i>Marca Z</i>	
Switch Intention	SI2	In the near future, the chance that I switch the <i>Product X</i> of the <i>Brand Y</i> to one <i>Product X</i> similar of the <i>Brand Z</i> is high.	Num futuro próximo, a chance de eu trocar um <i>Produto X</i> da <i>Marca Y</i> por um <i>Produto X</i> similar da <i>Marca Z</i> é alta	Kim et al. (2006) Irianto, (2015)
	SI3	In the near future, I am seriously thinking about switch one <i>Product X</i> of the <i>Brand Y</i> to one <i>Product X</i> similar of the <i>Brand Z</i> .	Num futuro próximo, eu estou a pensar seriamente em trocar um <i>Produto X</i> da <i>Marca Y</i> por um <i>Produto X</i> similar da <i>Marca Z</i>	

4.2.2 Anchoring Effect Operationalization

This variable is measured very differently. As previously stated in the introduction, this is the main objective of this work, to operationalize one measurable way to correlate the Anchoring Effect with the other variables. Which means, one methodological proposal able to measure the anchoring between the Private Label and the Known Brand. In order to achieve that, it will be presented one revision of the Anchoring concept, including the methodology called Anchoring Index (AI). From this discussion, the aim is to construct one calculation formula able to measure the Anchoring Index between the products and for each individual.

Tversky and Kahneman (1974) introduced a model for two-stage estimation studies. First, participants are asked whether the value to be estimated was higher or lower than an anchor exposed. Then an amount was estimated. Therefore, the results show that the estimated absolute value was biased for the initial anchor.

In 1995, Jacowitz and Kahneman developed a new method for quantitative studies of the Anchoring Effect when estimating the values. Different of the two-stage model, this method presents a parameter for the measurement of the anchoring effect, the "Anchoring Index". According to the authors, this anchoring index (AI) works as a "yardstick" capable of measuring the anchoring effect. This yardstick is used as a descriptive statistic, which promotes a faster interpretation of the Anchoring Effect. The original procedure to obtain the AI value (that is for measuring an anchor) requires three groups taken from a population.

A first group, called the calibration group, estimates the values of a particular object of study without mentioning anchors. Within the distribution of the estimates of this group, a low anchor (15°) and a high anchor (85°) are selected.

As anchors, selected from the distribution of the calibration group estimates, they serve as the basis (anchors) for fixed values of the other two groups, which are; Experimental Group submitted to the high anchor and Experimental Group submitted to the low anchor.

Therefore, the measurement of the Anchoring Effects is calculated with the following parameters:

$$AI = \frac{Xa - Xb}{A85^{\circ} - B15^{\circ}}$$

Jacowitz & Kahneman (1995)

Where:

AI = Anchoring Index

Xa = Median of the estimates of the Experimental Group exposed to High Anchor.

Xb = Median of the estimates of the Experimental Group exposed to Low Anchors.

A85°= 85th percentile of the distribution of Calibration Group estimative. (High Anchor)

 $B15^{\circ}=15^{\circ}$ percentile of the distribution of Calibration Group estimative. (Low Anchors)

The interpretation of the AI value can be described as follows:

0 = no anchor effect.

1 = the median estimates of the anchored subjects coincide with the anchors exposed¹.

0 < AI < 1 = the medians of the estimates of the anchored groups moved AI % towards the anchor in relation to the medians of the calibration group.

Note that this methodology is designed to measure the Anchoring Index of one object only. In this mathematical effort, only one object is presented to the calibration group and to the experimental groups, where the first group provides estimated values that serve as anchors for measuring the estimative of the other two groups on the same object.

However, the objective of this work is to measure the Anchoring Index between different objects. The job will be to measure the Anchoring Effect between the Private Label product and the Known Brand product. That is, the value of the Known Brand product will serve as an anchor for the price estimates of the Private Label product.

Note also, that the previously methodology presented involves the calculation of Anchoring Index from both calibration and experimental groups. However, this work will require an individual anchor calculation. That is, the same individual will be exposed to both the low anchor and the high anchor, different to the methodology presented, where an independent experimental group for the high anchor exists and also another independent group for the low anchor.

This method of Individual Anchoring Index was similarly performed in a mathematical effort of Bezzera & Leone (2013). In this proposed methodology, each person, rather than a measurement from the means of experimental groups, has measured the anchoring indices in an individual way.

-

¹ Higher values are also possible.



First, the Known Brand product, without mentioning the price anchor, will be presented to a calibration group and the value of the product will be estimated. Thus, within the distribution of the estimates of this group, a low anchor (15°) and a high anchor (85°) will be selected, which will serve as the basis for the experimental individuals.

The experimental individual will be exposed, first to the Low Anchor value of the Known Brand product and will be asked to estimate the value of the Private Label product. After answering the entire questionnaire, the same experimental individual will be exposed to the High anchor value of the notorious Brand product and will be asked to estimate the value of the Private Label product.

Then the calculation of the Individual Anchoring Index of the Private Label product in relation to the Known Brand product will be as follows:

$$AII_{mb} = \underline{X_{p^1,85^\circ} - X_{p^1,15^\circ}}$$

$$85^{\circ}_{p^2} - 15^{\circ}_{p^2}$$

Where:

AIImb = Individual anchoring index of the Private Label product in relation to the Known Brand product.

Xp¹,85°_= Price estimative of the Private Label product of the Experimental Individual exposed to the High Anchor of the Known Brand product.

 $Xp^1,15^\circ$ = Price estimative of the Private Label product of the Experimental Individual exposed to the Low Anchor of the Known Brand product.

85°p²= 85th percentile of the distribution of Calibration Group estimative of the Known Brand product. (High Anchor)

15°p²= 15th percentile of the distribution of Calibration Group estimative of the Known Brand product. (Low Anchor)

The interpretation of the AII value can be described as follow:

- 0 = no anchor effect.
- 1 = the median estimates of the anchored individual coincide with the anchors exposed.
- 0 < AII < 1 = the estimate of the anchored individual moved AII % towards the anchor in relation to the medians of the calibration group.

In sum, here the methodological proposal will be the adaptation of the Anchoring Index method presented by Jacowitz & Kahneman (1995). This methodology enables us to measure the size effect of the anchoring, and the adaptation of this scale is measured as follow:

Variable **Construction (EN) Construction (PT)** Reference Item Above, has been presented Acima foi apresentado o the *Product X* of the valor do *Produto X* da *Marca* Jacowitz *Brand Y* as *Z* dolars. What Y como Z euros. Qual a sua and Anchoring is your best estimate price **A**1 melhor estimativa de preço Kahneman Effect for the *Product X* of your para uma unidade do *Produto* (1995)preferred Private Label? X da sua Marca Branca de Preferência?

Table 9 - Anchoring Index Construction

4.3 Product's Choice and Calibration Group

There we go. The scales were presented, so we are almost ready to build our research instrument known as questionnaire. Nevertheless, one thing is missing. One no, two. To construct one viable questionnaire, we need anchors' prices and one product with different brands. So, let us look for it.

4.3.1 The Dove Choice

According to the purpose of this dissertation, we need to measure the estimation of price between the Known Brand and the Private Label Products. However, which product of which Brands are we going to use to present to our sample? This choice had to be made carefully. We need a Brand Known by the American sample and the Portuguese Sample, as well a product available in different Private Labels. Note that the kind of product is not a huge concern, whether it is a durable product or a product with involvement or not, the purpose of this job is to confront two kinds of Brands, the most known ones and the Private Labels.

Therefore, from a worldwide known range of Brands, we chose Dove as the object of our study. This brand has a range of products easy to find at the Private Labels and it is very known by the public in general. In addition, the product chosen was the Body Wash, a Dove Product with many Private Label's offers.

For the American sample, after one online market research, we could find the exactly the same product of Dove, the Body Wash Deep Moisture 24 Fl Oz, in three different Supermarket Channels; the Walmart (with the Private Label called *Equate*), the Target (with the Private Label called *Up & Up*) and the CVS (with the Private Label Called *Beauty 360*).

In addition, for the Portuguese sample, in an in person market research, we could find the same product as Dove Body Wash as well. The Private Labels here were the *Continente*, the *Mini Preço* and the *Pingo Doce*. It is important to select the most similar product as possible. In order to do so we have exactly the same size products, 24 Fl OZ for the American Sample and 750 ml for the Portuguese Sample.

Now, one of the most challenging tasks is upon us, the calibration group. According to the literature, to build the anchors we need one group without anchoring references to provide us the Low Anchor and the High Anchor. So, to address this challenge, we are presenting the task to estimate the Known Brand Price without other price references, to one

sample equal or bigger than thirty persons ($N \ge 30$), assuming this way one normal distribution.

4.3.2 Portuguese Calibration Group

First, let us discuss the Portuguese calibration group methodology and results. It was a spring sunny day and the researcher asked 34 people in a public square the following statement:

Portuguese Statement: The DOVE Brand has at their line of products the Body Wash 750 ml. This product is also sold in Private Labels' supermarkets, Body Wash 750 ml. Based on the range of products presented in the figure below, what is your best estimated price for the DOVE Body Wash 750 ml (euros)?



Figure 3 - Portuguese Calibration Group Task

The results were:

With a sample of thirty four respondents (N=34), the distribution of the price estimative has a median of 5,09 euros (μ = 5,09 €), the 15° percentile as 3 euros (15°p = 3,00 €) and the 85° percentile as 6,52 euros (85°p = 6,52 €). Therefore, here we have calculated the low anchor and the high anchor to be presented to our experimental Portuguese group.

4.3.3 American Calibration Group

On the other hand, to collect the answers of the American calibration group sample, we used the Amazon Mechanical Turk. We did the same statement as with the Portuguese group, but in an American context, in order to be able to calculate the low and the high anchor for our experimental group. The statement follows:

American Statement: The DOVE Brand has at their line of products the Body Wash Deep Moisture 24 Fl Oz. This product is also sold in Private Labels's supermarkets, Body Wash Deep Moisture 24 Fl Oz. Based on the range of products presented in the figure below, what is your best estimate price for the DOVE Body Wash Deep Moisture 24 Fl Oz (U.S Dollar)?

CCUATE:

DEEP
MOISTURE
Body Wash Private Label

Body Wash
Dove

Figure 4 - American Calibration Group Task

The results were:

With a sample of thirty two respondents (N=32), the distribution of the price estimative has a median of 4,62 dollars (μ = \$ 4,62), the 15° percentile as 3,99 dollars (15°p = \$ 3,99) and the 85° percentile as 6,95 dollars (85°p = \$ 6,95). Therefore, we calculated the low anchor and the high anchor to be presented to our experimental American group as well.

All these "homework" finished: the definition of the sample, the way the variables were measured, the product's choice and the calibrations groups, we are finally able to construct our measuring instrument, known as questionnaire.

4.4 Questionnaire Elaboration

The questionnaire is one of the most important parts of this dissertation's research process. This instrument is the key to the contact between the researcher and the respondents, it is the link between the questions and answers. It is very important to observe that inside of the questionnaires' blocks are included the objectives of the research, are included all *blood*, *toil*, *tears and sweat* ² of one incredible bibliographical journey through good workable metrics.

Therefore, in order to make those huge efforts worth it, some aspects have to be considered. It is necessary to have each question exposed to each individual in the same way, in order to have comparable answers (Ghiglione, R; Matalon, 2002). One of the biggest challenges here is the tradeoff between the size and the necessary information. (Lakatos, E. M., & Marconi, 2003) wrote that the questionnaire must not to be too extensive to be boring, neither too short to get no information.

According to Malhotra (2005), the questionnaire has to consider three specific objectives:

Table 10 - Questionnaire Objectives

First, it must translate the information needed in a set of questions.

Second, it must be motivating and encourage the respondent to become involved in the interview.

Third, minimize response error.

Campo (2013)

² CHURCHILL, Winston (1940): British Prime Minister possession speech, House of Commons. Word War Context; "I say to the House as I said to ministers who have joined this government, I have nothing to offer but <u>blood, toil, tears and sweat</u>. We have before us an ordeal of the most grievous kind. We have before us many, many months of struggle and suffering."

• U C • FEUC FACULDADE DE ECONOMIA UNIVERSIDADE DE COIMBRA

With those theories in mind, the instrument to collect the data has to be built. The questionnaire has 64 questions, divided in 6 blocks, and begins with a short explanation about the study and instructions to the respondents.

The first block of the questionnaire is about the Private Label estimation task with the low anchor price of the Brand exposition. After that, at the second block, the participant has to answer questions about their Consumer Behavior. The third block is about the Dove Brand, with Brand Equity factors, Purchase Intention and the Intention to Switch the Dove Brand for the Private Label of preference.

From this point forward, the next two blocks are similar to the first one and the third one. However, with two differences: in addition to the low anchor, we are going to have the high anchor price at the estimation task in the fourth block. In addition, rather than the Dove context, the context is the Private Label at the fifth block. Finally, the last block is the sociodemographic questions. Below is exposed a table with the questionnaire distribution. The full version of the inquiry is an attachment of this work.



• FEUC

FEUC FACULDADE DE ECONOMIA UNIVERSIDADE DE COIMBRA

Table 11 - Questionnaire Blocks			
Block 1	Favorite Private Label	1 question	
Estimation Task (low anchor)	Estimation Task (Low Anchor Exposition)	1 Question	
Block 2	Price Sensibility	3 Questions	
Consumer Behavior	Hedonic Behavior	13 Questions	
	Loyalty	3 Questions	
Block 3	Brand Awareness	6 Questions	
Known Brand Questions	Perceived Quality	6 Questions	
-	Purchase Intention	4 Questions	
-	Switch Intention (Brand to Private Label)	3 Questions	
Block 4	Favorite Private Label	1 Question	
Estimation Task (high anchor)	Estimation Task (High Anchor Exposition)	1 Question	
	Loyalty	3 Questions	
Block 5	Brand Awareness	6 Questions	
Private Label Questions	Perceived Quality	6 Questions	
Block 6	Gender, Age, Household, Marital Status,	7 Questions	
Socio-demographic Questions	Profession, Level of Education, Rent	/ Questions	

4.5 Sample Characterization

In order to recognize the socio-demographic characteristics of the sample, this section will describe the frequency of gender, age, household, marital status and the profession of the respondents. Moreover, in the end is described the frequency of each Private Label's consuming habits.

First, the place of residence of the respondents initially divides our sample: USA or Portugal. The next task is to compare these populations in order to achieve a better description of our public.

Table 12 - Portuguese Sample X American Sample

	Absolute	Relative
Portuguese	192	46,6%
American	220	53,4%
Total	412	100%

Our sample is predominantly American, with 53,4% respondents versus 46,6% Portuguese. As we already described in the previous chapter, the Amazon *MTurk* platform can be much more effective in collecting respondents than the traditional methodology of snowball distribution of questionnaires.

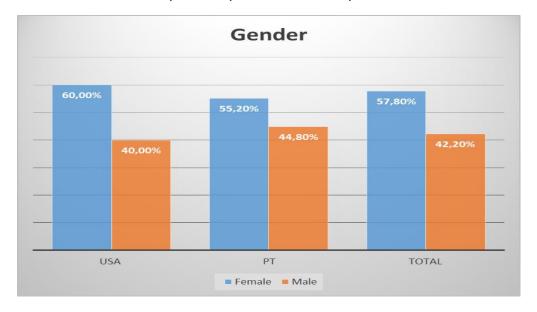
Table 13 - Sample Profile: Gender (PT)

	Absolute	Relative
	Frequency	Frequency
Female	106	55,2%
Male	86	44,8%
Total	192	100%

Table 14 - Sample Profile: Gender (USA)

	Absolute	Relative
	Frequency	Frequency
Female	132	60%
Male	88	40%
Total	220	100%

Graphic 1 - Sample Profile: Gender Comparison



Concerning gender classification, we can clearly see a predominance of the female population. Both samples have this characteristic. However, the American sample has a bigger proportion of female respondents, 60%, while the Portuguese has 55,2% of female participants. Combining the two samples together, the 412 respondents can be divided in 57,8% female and 42,2% male.

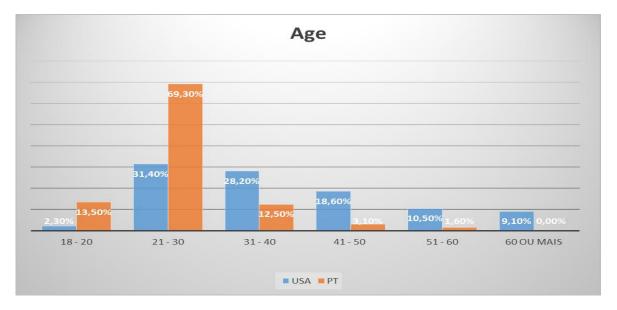
Table 15 - Sample Profile: Age (PT)

	Absolute	Relative
18 - 20	26	13,5%
21 - 30	133	69,3%
31 - 40	24	12,5%
41 - 50	6	3,1%
51 - 60	3	1,6%
60 or more	0,0	0,0%
Total	192	100

Table 16 - Sample Profile: Age (USA)

	Absolute	Relative
18 - 20	5	2,3%
21 - 30	69	31,4%
31 - 40	62	28,2%
41 - 50	41	18,6%
51 - 60	23	10,5%
60 or more	20,0	9,1%
Total	220	100%

Graphic 2 - Sample Profile: Age Comparison



Discussing the age of the sample, the major group is the one between the 21 and 30 years. As for the Portuguese sample, the size of this group is notorious. Almost 70% of the participants are included in this age group. However, some differences begin to appear in this segment. The USA sample, despite having a higher concentration between the 21 - 30 years as well, demonstrates a more equal distribution of age participants than the Portuguese sample, where we can find a higher density of younger participants.

Table 17 - Sample Profile: Household (PT)

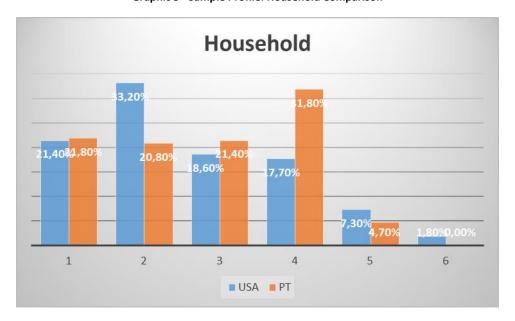
	Absolute	Relative
_1	42	21,8%
2	39	20,8%
3	41	21,4%
4	61	31,8%
5	9	4,7%
6	0	0%
Total	192	100%

Table 18 - Sample Profile: Household (USA)

	Absolute	Relative
1	47	21,4%
2	73	33,2%
3	41	18,6%
4	39	17,7%
5	16	7,3%
6	4	1,8%
Total	220	100%



Graphic 3 - Sample Profile: Household Comparison



Regarding the number of people in the household, our samples present some aspects to analyze. The Portuguese sample has a concentration of respondents living with four people, 31,8%, and 21,4% living with three people, which means more than half of the sample, 53,3%. The USA sample demonstrates more people living only with another person or alone. The sum of these two categories is 54,6%, demonstrating that more than half of the sample in this situation.

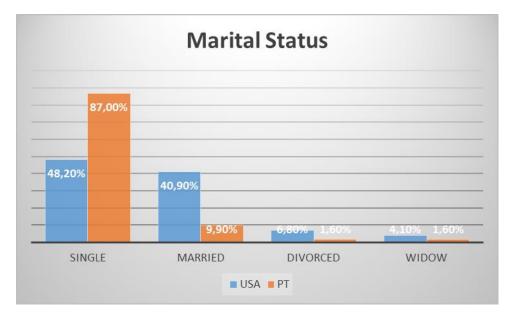
Table 19 - Sample Profile: Marital Status (USA)

	Absolute	Relative
Single	106	48,2%
Married	90	40,9%
Divorced	15	6,8%
Widowed	9	4,1%
Total	220	100%

Table 20 - Sample Profile: Marital Status (PT)

	Absolute	Relative
Single	167	87,0%
Married	19	9,9%
Divorced	3	1,6%
Widowed	3	1,6%
Total	192	100%

Graphic 4 - Sample Profile: Marital Status Comparison



Analyzing the marital status of our participants is clear that the huge concentration of single people in the Portuguese sample, 87%. At the same time, the American sample has the highest concentration at this category, but not with the same density. This sample has a more proportional distribution between single and married status, with 48,2% at the first one and 40,9% at the second one.

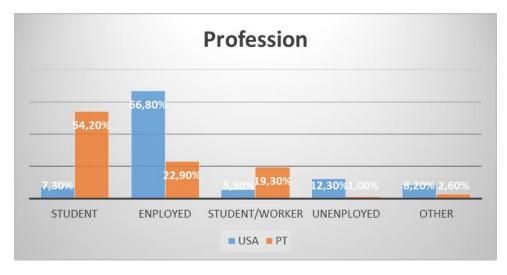
Table 21 - Sample Profile: Profession (PT)

Table 22 - Sample Profile: Profession (USA)

7,3% 66,8% 5,5% 12,3% 8,2%

	Absolute	Relative		Absolute	Relative
Student	104	54,2%	Student	16	7,3
Employed	44	22,9%	Employed	147	66,8
Student/Worker	37	19,3%	Student/Worker	12	5,5
Unemployed	2	1,0%	Unemployed	27	12,3
Other	5	2,6%	Other	18	8,2
Total	192	100%	Total	220	100%

Graphic 5 - Sample Profile: Professional Comparison



The professional profile of the sample is dominated by students in the Portuguese case, with 66,8%, and in the case of the American respondents the employed workers represent 54,2% of the sample. There is also a significant difference in the unemployed category between those samples. While the Portuguese have only 1% in this category, the American participants chose this option in 12,3% of the cases.

Table 23 - Private Label Consumption (PT)

Table 24 - Private Label Consumption (USA)

	Absolute	Relative
Continente	82	42,7%
Dia (Mini-Preço)	8	4,2%
Outro	44	22,9%
Pingo Doce	58	30,2%
Total	192	100%

	Absolute	Relative
CVS	27	12,3%
Other	25	11,4%
Target (up & up)	67	30,5%
Walmart (Equate)	101	45,9%
Total	220	100%

In terms of Private Label's consumption, we have two big winners in both samples. In the American side, we can note a clear choice for the *Walmart (Equate)* with 45,9% of the respondents. Within the Portuguese sample, this supremacy is huge as well, with the *Continente* as first in line on 42,7% of the choices. However, the main difference in both

samples is the "other" case. While the lower choice of the Americans is this option, the Portuguese used to go more to this "other" supermarket, and disregard the *Dia* (*Mini-Preço*).

In sum, in this sample characterization, we have a lot of information to be processed. These tables demonstrate that the American respondents represent a group of older people, who usually live mostly alone or in couples, instead of with a bigger family as the Portuguese sample. In addition, as consequence of that, the Portuguese younger sample demonstrates more single people and students too.

4.6 Factorial Analysis

In order to reduce the size of the items of the variables, this section intends to transform the variables in unitary factors, indicating which means were used to test the measures of sampling adequacy for each variable. This transformation must have the lowest loss of information possible. The task is to resume the data and at the same time to describe it in smaller concepts.

4.6.1 Exploratory Factorial Analysis (EFA)

The statistic methodology used here is the KaiserMeyer-Olkin (KMO) and Bartlett's test of sphericity. The Bartlett's test of sphericity allowed us to confront the hypothesis of the equality of the variance in the sample. Therefore, the test makes the evaluation of the correlation in a data matrix. The objective is to compare the observed correlation matrix to an identity matrix (Damásio, 2012). The null hypothesis here is that the matrix data is an identity matrix. In this case the variables are not perfectly correlated, they are orthogonal and cannot be extracted of the matrix. Therefore, only one factor is not enough. Besides that, the

alternative hypothesis presents a favorable matrix with significant correlation between at least one of the variables. In conclusion, according to Damásio (2012) with a significance value under 0,05, we are able to reject the null hypothesis and to represent a favorable matrix of statistical significant.

The KMO methodology can verify if the data can be factored, that is, if the sample is suited for one Factorial Analysis. It is a number calculated from the proportion between the total correlation and the partial correlation of the variables to be factored. This statistic presents numbers ranging from 0 to 1. If the sum of the partial correlations ends up being bigger in relation to the sum of the total correlation, the factorial analysis is poor and the KMO is going to be next to 0. Nevertheless, if both partial and total correlations are nearby each other, we have one reliable factor, and the KMO number is going to be next to 1. Therefore, according to Field (2005), the KMO values can be interpreted as:

Table 25 - KMO Interpretation

KMO Values	Interpretation
0.00 to 0.49	Unacceptable Values
0.5 to 0.69	Mediocre Values
0.70 to 0.79	God Values
0.8 to 0.9	Great Values
0.90 to 1.00	Excellent Values

FIELD (2005)

At this point, with the KMO and Bartllet's test, we are able to verify if the data matrix can be factored. However, we also have to test the reliability of the factorial structure.

For this purpose, this work uses the Cronbach's Alpha methodology. This methodology can measure the correlation between the questionnaires' answers. This correlation gives us the internal consistency of the variables to be used (Pestana & Gageiro, 2014). In addition, this reliable is measured between 0 and 1, according to the following scale of the authors George & Mallery (2003).

Table 26 - Cronbach's Alpha Interpretation

Cronbach's Alpha	Internal consistency
$\alpha \ge 0.9$	Excellent
$0.9 > \alpha \ge 0.8$	Good
$0.8 > \alpha \ge 0.7$	Acceptable
$0.7 > \alpha \ge 0.6$	Questionable
$0.6 > \alpha \ge 0.5$	Poor
$0.5 > \alpha$	Unacceptable

George e Mallery (2003).

Now that we have revised the methodologies used at the EFA, we going to use the statistical software IBM SPSS in order to do the final constitution of the variables. The rotation technic used at the KMO/Bartllet's test was the *varimax*. According to Damásio (2012), this rotation method makes the interpretation of the factors easier. The varimax maximizes the sum of the variances of the weights at the factorial matrix (Hair, 2005). Therefore, bellow follows the variables and the results of the exploratory factorial analyses.



FEUC

FACULDADE DE ECONOMIA UNIVERSIDADE DE COIMBRA

Table 27 - Final Constitution of the Variables

Variable	Items	Dimensions	Cronbach Alpha	KMO	Bartlet's	% Explicated Variance
Price Sensibility	3	1	0,707	0,652	0,00	63,103%
Hedonistic Behavior	13	1	0,963	0,960	0,00	69,611%
Brand Loyalty	3	1	0,845	0,684	0,00	76,436%
Brand Awareness	6	1	0,864	0,836	0,00	59,747%
Brand Perceived Quality	6	1	0,947	0,917	0,00	79,216%
Brand Purchase Intention	4	1	0,927	0,837	0,00	83,332%
Brand Switch Intention	3	1	0,943	0,763	0,00	89,719%
Private Label Loyalty	3	1	0,870	0,709	0,00	79,418%
Private Label Brand Awareness	6	1	0,942	0,900	0,00	77,567%
Private Label Perceived Quality	6	1	0,962	0,919	0,00	83,921%
Private Label Purchase Intention	4	1	0,919	0,788	0,00	80,737%
Private Label Switch Intention	3	1	0,955	0,760	0,00	91,802%

In a general way, all values presented are satisfactory according to the literature review. The authors "advise" values above 0,5 for the KMO test, and the range calculated with the sample are values between 0,652 and 0,960. Therefore, in the mediocre interval we have the Brand Loyalty and the Price Sensibility variables. Nevertheless, this is not a huge concern, those are satisfactory values and these variables have a good Bartllet's significance, which enables us to interpret well the exploratory factorial analysis. On other hand, half of the

variables have values above 0,8 for the KMO test, representing a good adjustment of the factorial analysis of the data. In addition, to attest the reliability of the factorial structure, the Cronbach's Alpha are very satisfactory, with no variable included at the "questionable" range.

4.6.2 Confirmatory Factor Analysis (CFA)

Ok, so, all variables have stupendous reliable values at the exploratory factorial analyses. That means we are one hundred percent able to proceed with the other evaluations of the model. Wrong! Before a structural equation modeling (SEM) is necessary to first test the validity of the measurement model (Anderson, 1988) (Byrne, 2010)

Therefore, the objective here in this section is similar to the exploratory factor analysis (EFA): to identify the minimal number of factors among the observed variables. However, we have to consider the regression structure that we imagine with our theory framework, which is not possible with the EFA. Besides that, the confirmatory factor analysis (CFA) [..."model focuses solely on the link between factors and their measured variables, within the framework of SEM, it represents what has been termed a measurement model."...] (Byrne, 2010. pag, 6).

The SEM is going to help us with a confirmatory approach of the analysis of the structure and the phenomenons studied in this dissertation. This statistical methodology represents multiple variables of the causal process and their generated interpretations (Bentler, 1988). Therefore, to reach this goal, the first thing to do is to evaluate the goodness-of-fit of the measurement model. Initially, in a general way, and afterwards evaluating each indicator.

4.6.2.1 The goodness-of-fit of the measurement model in their set

We saw that the structural model is going to give us the causal relationship between the latent variables. Nevertheless, before that we have to have a good measurement model, which is the measurement of the latent variables. In sum, first one assumes a good measurement model in order to achieve a good structural model.

To reach an acceptable goodness-of-fit within the measurement model, we analyzed the Modification Indices, at the AMOS software in a sequential way. We eliminated the items with the bigger indices successively until reaching the parameters required by a good measurement model.

As stated before, first we are going to make an analysis that allows us to verify the quality of the conceptual framework towards one correlational structure of the variables. According to the parameters presented below, we care able to verify if the model is able to demonstrate the correlational structure of the variables of this dissertation.

Table 28 - Parameters for the Adjustment of the Measurement Model

X ²	-	The smaller the better	Marôco (2010)	
	>5	Bad Adjustment		
X²/df]2;5]	Sufficient Adjustment		
]1;2]	Good Adjustment	Marôco (2010)	
	~1	Very Good Adjustment		
CFI	<0,8	Bad Adjustment		
TLI	[0,8;0.9[Sufficient Adjustment Marôco (202		
GF	[0,9;0,95[Good Adjustment		
	≥0,95	Very Good Adjustment		
IFI	≥0,95	Very Good Adjustment	Lisboa et al (2012)	
	>0,10	Unacceptable Adjustment		
RMSEA]0,05;0,10]	Good Adjustment	Marôco (2010)	
	≤0,05	Very Good Adjustment		

Table 29 - Goodness-of-fit Results

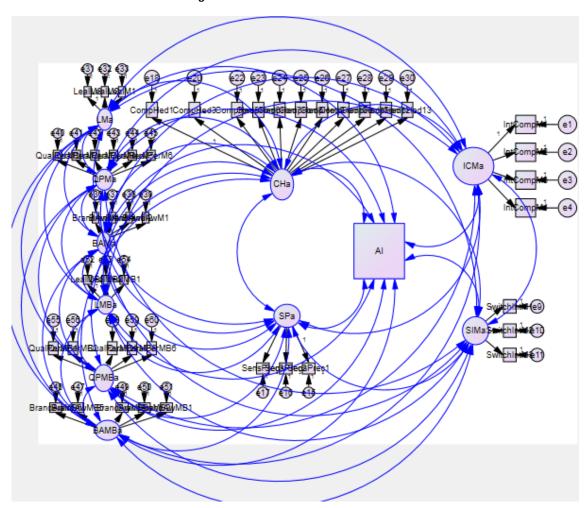
X^2	2520,365
df	1026
IFI	0,915
TLI	0,906
CFI	0,914
RMSEA	0,06

Comparing our FIT results with the parameters, we can identify one good adjustment. First, dividing the Chi-Square by the Degrees of Freedom (2520,365/1026), we have 2,45. Note that the value is close to two, in the range of good evaluation of the table parameters (table 29). The IFI value of the Measurement Model is 0,915, which means a good adjustment of the model in their set, higher than 0,9.

According to Marôco (2010), values next to one mean a very good adjustment. Our measurement model has the TLI 0,906, being within the good adjustment range. In addition, the Comparative Fit Index (CFI) is 0,914. Bentler (1992) states that with a CFI value higher than 0,9 we have a well-fitting measurement model.

In the end, within the RMSEA indicator, values that can be presented between zero and one, where below 0,8 represents one acceptable fit, our measurement model has 0,6. What allows us to conclude that this measurement model has one goodness-of-fit in their set.

Figure 5 - Measurement Model



4.6.2.2 Measurement Model Analysis

Now that we have evaluated the measurement model in their set, and we concluded that we have a good adjustment in order to explain the correlational structure in this sample, what means a goodness-of-fit according the author Byrne (2010), we are going to analyze the quality of the measurement model in their items and latent variables.

The adjustment of the measurement model in their set allowed us to realize how the chosen items are measuring the latent variables. Now the task is to evaluate the reliability of each item's measurement. In order to reach this goal, that is to evaluate the quality of the measurement model, we are going to use the following work steps: the reliability of the measurement of the latent variables, the reliability of the measurement of the items, and the discriminant validity.

Concerning the reliability of the measurement of the latent variables and the items, we are testing the individual – item reliability, the composite reliability (reliability of the latent variables) and the Average Variance Extracted. In addition, after that we will test also the evaluation of the discriminant validity.

4.6.2.2.1 Individual – item reliability

The individual item reliability will give us the better understanding if the items are a good reflection of the latent variables to measure. "The individual item reliability is a necessary condition, but not sufficient, to demonstrate the factorial validity." (Marôco, 2014. *page 183, translated*).

The evaluation of this reliability is estimated by the fraction of the variability total of the item explained by your own latent variable. It works similarly to the R² of the regression.

· U

• FEU

FEUC FACULDADE DE ECONOMIA UNIVERSIDADE DE COIMBRA

According to Marôco (2014), If the Standard Regression Weights (SRW) of every item is more than 0,5, the latent variable presents factorial validity.

Table 30 - SRW Values

variable	item	SRW	CR	variable	item	SRW	CR
	PI1	0,823	20,142		BAKB4	0,662	14,382
Purchase	PI2	0,863	21,704	Brand	BAKB3	0,713	15,847
Intention	PI3	0,928	24,484	Awareness (Known Brand)	BAKB2	0,842	20,062
	PI4	0,885	22,59	(Kilowii Brana)	BAKB1	0,814	19,095
	SI1	0,907	23,583		PQKB1	0,842	20,944
Switch Intention	SI2	0,954	25,739		PQKB2	0,891	22,987
intention	SI3	0,898	23,21	Perceived	PQKB3	0,869	22,024
	SP1	0,722	13,777	Quality (Known Brand)	PQKB4	0,863	21,787
Price Sensibility	SP2	0,744	14,189	<i>S.a.ia</i>	PQKB5	0,893	23,071
Sensibility	SP3	0,551	10,428		PQKB6	0,842	20,942
	HB1	0,781	18,752		BAPL6	0,797	19,204
	НВ3	0,82	20,162	Brand	BAPL5	0,826	20,269
	HB5	0,771	18,408	Awareness	BAPL3	0,892	22,917
	НВ6	0,849	21,314	(Private Label)	BAPL2	0,89	22,864
	НВ7	0,88	22,565		BAPL1	0,886	22,657
Hedonistic Behavior	HB8	0,833	20,685		LPL3	0,728	16,536
Dellavioi	НВ9	0,772	18,439	Loyalty (Private Label)	LPL2	0,878	21,601
	HB10	0,83	20,546	(Filvate Label)	LPL1	0,899	22,395
	HB11	0,871	22,179	-	PQPL1	0,907	23,763
	HB12	0,828	20,49	Perceived	PQPL2	0,922	24,454
	HB13	0,763	18,121	Quality	PQPL4	0,89	22,997
	LBKB3	0,679	15,022	(Private Label)	PQPL5	0,931	24,892
Loyalty (Known Brand)	LBKB2	0,865	21,139	<u></u>	PQPL6	0,898	23,377
(Kilowii bialiu)	LBKB1	0,894	22,211			_	_

As we can notice in the table above, every SRW is superior than 0,5, which allows us to conclude a good individual item reliability.

4.6.2.2.2 Composite Reliability – CR

The composite reliability tests the reliability of the measurement of the latent variables, which means the reliability of the compositions of the items into a variable and how the items measure their latent variable.

The authors (Hair et al, 2005) suggest, for this indicator, that values superiors than 0,7 are good indicators of reliability. As we can see in the table 31, all latent variables showed values higher than 0,7, above the previous recommendation.

4.6.2.2.3 Average Variance Extracted – AVE

Here we are going to measure the proportion of the items variance in relation to the measurement of the latent variable exposed to itself Lisboa (2012). This calculation gives us the average variance of the items that is explained by the latent variables.

The authors recommend an AVE value superior than 0,5. At the table 31 we can verify that the AVE indices are higher than 0,5, aside from the Price Sensibility. This variable shows us one AVE of 0,459. However, this value is close to the recommended value and we can state that the items are representations of their latent variables.

SD ΡI SI PS HB LKB BAKB POKB LPL BAPL POPL CR **AVE** 1,49 0,927 PΙ 0,929 0,767 1,52 0,943 -0,058 0,943 | 0,846 SI 0,96 PS -0.1090,187 0,707 0,715 0,459 1,42 0,495 0,073 0,115 0,957 0,955 HB 0,68 1,15 0,721 -0,143 -0,009 0,427 0,845 **LKB** 0,857 0,67 BAKB 1,19 0,154 -0,016 0,382 0,329 0,275 0,84 0,845 0,58 PQKB 1,04 0,146 0,365 0,229 0,338 | 0,672 0,947 0,948 0,752 LPL 1,43 0,19 0,224 0,206 0,316 0,13 0,457 0,382 0,933 0,703 0,876 **BAPL** 1,30 0,483 0,237 0,022 0,435 0,488 | 0,123 0,267 0,422 0,87 0,934 0,738 1,27 0,222 0,249 0,121 0,311 0,213 0,374 0,452 0,693 0,402 0,927 0,96 0,828 **PQPL**

Table 31 - CFA Results

AVE→ Average Variance Extracted

 $SD \rightarrow$

Standard

Deviation;

Bold

Diagonal→

Cronbach's

Alpha;

 $CR \rightarrow$

composite

4.6.2.3 Discriminant Validity

According to Marôco (2014), the discriminant validity is an instrument that evaluates if the measurement scale measures what we want to measure. Here we are going to check if the items that build a factor are not correlated with other factors, which means that the factors defined by each set of items are different between them.

Marôco (2014) presents three conditions to verify the discriminant validity. This task follows the first condition presented, that states the AVE of the factors have to be higher than the square of the correlation between these factors.

According the table presented below, all values correspond to the parameter above, the square of the correlations are lower than the AVE, which confirms the discriminant validity of the variables.

Table 32 - Discriminant Validity Results

1		2	Estimate	Estimate ²	AVE 1	AVE 2
Purchase Intention	<>	Switch Intention	-0,058	0,003364	0,767	0,846
Purchase Intention	<>	Price Sensibility	-0,109	0,011881	0,767	0,459
Purchase Intention	<>	Hedonistic Behavior	0,495	0,245025	0,767	0,68
Purchase Intention	<>	Loyalty (Known Brand)	0,721	0,519841	0,767	0,67
Purchase Intention	<>	Brand Awareness (Known Brand)	0,154	0,023716	0,767	0,58
Purchase Intention	<>	Perceived Quality (Known Brand)	0,146	0,021316	0,767	0,752
Purchase Intention	<>	Brand Awareness (Private Label)	0,19	0,0361	0,767	0,703
Purchase Intention	<>	Loyalty (Private Label)	0,483	0,233289	0,767	0,738
Purchase Intention	<>	Perceived Quality (Private Label)	0,222	0,049284	0,767	0,828
Switch Intention	<>	Price Sensibility	0,187	0,034969	0,846	0,459
Switch Intention	<>	Hedonistic Behavior	0,073	0,005329	0,846	0,68
Switch Intention	<>	Loyalty (Known Brand)	-0,143	0,020449	0,846	0,67
Switch Intention	<>	Brand Awareness (Known Brand)	-0,016	0,000256	0,846	0,58
Switch Intention	<>	Perceived Quality (Known Brand)	0	0	0,846	0,752





FEUC FACULDADE DE ECONOMIA C UNIVERSIDADE DE COIMBRA

0,050176 0,846 0,703 **Switch Intention** <--> Brand Awareness (Private Label) 0,224 Switch Intention Loyalty (Private Label) 0,237 0,056169 0,846 0,738 <--> Switch Intention Perceived Quality (Private Label) 0,249 0,062001 0,846 0,828 <--> **Price Sensibility Hedonistic Behavior** 0,115 0,013225 0,459 0,68 <--> **Price Sensibility** Loyalty (Known Brand) -0,009 0,000081 0,459 0,67 <--> Price Sensibility Brand Awareness (Known Brand) 0,382 0,145924 0.459 0.58 <--> **Price Sensibility** Perceived Quality (Known Brand) 0,365 0,133225 0,459 0,752 <--> Brand Awareness (Private Label) **Price Sensibility** 0,206 0,042436 0,459 0,703 <--> **Price Sensibility** Loyalty (Private Label) 0,022 0,000484 0,738 <--> 0,459 **Price Sensibility** Perceived Quality (Private Label) <--> 0,121 0,014641 0,459 0,828 **Hedonistic Behavior** <--> Loyalty (Known Brand) 0,427 0,182329 0,68 0,67 0,329 0,108241 0,58 **Hedonistic Behavior** <--> Brand Awareness (Known Brand) 0,68 **Hedonistic Behavior** Perceived Quality (Known Brand) 0,229 0,052441 0,68 0,752 <--> **Hedonistic Behavior** 0,316 0,099856 <--> Brand Awareness (Private Label) 0,68 0,703 **Hedonistic Behavior** Loyalty (Private Label) <--> 0,435 0,189225 0,68 0,738 **Hedonistic Behavior** Perceived Quality (Private Label) 0,311 0,096721 0,68 0,828 <--> Loyalty (Known Brand) <--> Brand Awareness (Known Brand) 0,275 0,075625 0,67 0,58 0,338 0,114244 Loyalty (Known Brand) Perceived Quality (Known Brand) 0,67 0,752 <--> Loyalty (Known Brand) Brand Awareness (Private Label) 0,13 0,0169 0,67 0,703 <--> Loyalty (Known Brand) Loyalty (Private Label) 0,488 0,238144 0,67 0,738 <--> Loyalty (Known Brand) Perceived Quality (Private Label) 0,213 0,045369 0,828 <--> 0,67 Brand Awareness (Known Brand) Perceived Quality (Known Brand) 0,672 0,451584 0,58 0,752 <--> Brand Awareness (Known Brand) Brand Awareness (Private Label) 0,457 0,208849 0,58 0,703 <--> Brand Awareness (Known Brand) Loyalty (Private Label) 0,123 0,015129 0,58 0,738 <--> Brand Awareness (Known Brand) Perceived Quality (Private Label) 0,374 0,139876 0,58 0,828 <--> Perceived Quality (Known Brand) <--> Brand Awareness (Private Label) 0,382 0,145924 0,752 0,703 Perceived Quality (Known Brand) Loyalty (Private Label) 0,267 0,071289 0,752 0,738 <--> Perceived Quality (Known Brand) Perceived Quality (Private Label) 0,452 0,204304 0,752 <--> 0,828 Loyalty (Private Label) Brand Awareness (Private Label) <--> 0,422 0,178084 0,703 0,738 Brand Awareness (Private Label) Perceived Quality (Private Label) 0,703 <--> 0,693 0,480249 0,828 Loyalty (Private Label) Perceived Quality (Private Label) 0,402 0,161604 0,738 <--> 0,828

4.7 Conclusion

This chapter presented to us the methodology used to reach the goals of this dissertation. The challenge here began presenting the ways to achieve the sample and the data collection process.

After that, we resorted to the literature to look for the best ways to measure our variables. First, we presented the operationalization of the antecedents and consequents variables and after that we developed the main purpose of this work, a methodological proposal to measure the anchoring between two products.

Before building our questionnaire, we chose the product to be tested and the anchor prices through the calibrations groups. After gathering this information, we were able to elaborate our inquiry.

In the end, we started some statistical analyses, beginning with a sample characterization to demonstrate the socio-demographical behavior of our respondents, followed by a consistent factorial analysis in order to demonstrate a good model to be worked with.

Primarily the Exploratory Factorial Analysis showed us a reliable factorial structure. Then, we proceeded with a Confirmatory Factor Analysis to test the validity of the measurement model. At this point, we did tests at the set of the model adjustment with a goodness-of-fit evaluation, followed by a test of the measurement model in an individual way, about the items and the latent variables. We tested the individual item reliability, the composite reliability, the AVE and the Discriminant Validity. The measurement model presented the conditions recommended by the literature with satisfactory indices, which means we are able to proceed to the SEM.

5. RESULTS

5.1 Introduction

During this long journey, we always dreamed about arriving here alive and with good results to show (relieved sigh). So, let us try to make this dream come true. With the blessing of a good measurement model development, we are going to abuse the Structural Equation Modeling. We are going to extract from the model all information needed in order to achieve our objectives. Here, the SEM will reveal everything hidden from us.

The first task is to estimate the goodness-of-fit of the model and in a second movement reveal the hypotheses test. The third part will divide the effects into direct, indirect and total effects. In addition, in one forth section, we are going discuss some miscellaneous results of the task, as some sample differences and some anchoring measurement results. In the end, we are going to discuss the results and summarize them.

5.2 Hypotheses Test

After the measurement model, and the establishment of the hypotheses of this investigation, the goodness-of-fit of the Structural Equating Model can be observed in table 33.

Table 33 - SEM Goodness-of-fit

X ²	2894,931
df	1050
IFI	0,894
TLI	0,886
CFI	0,894
RMSEA	0,06

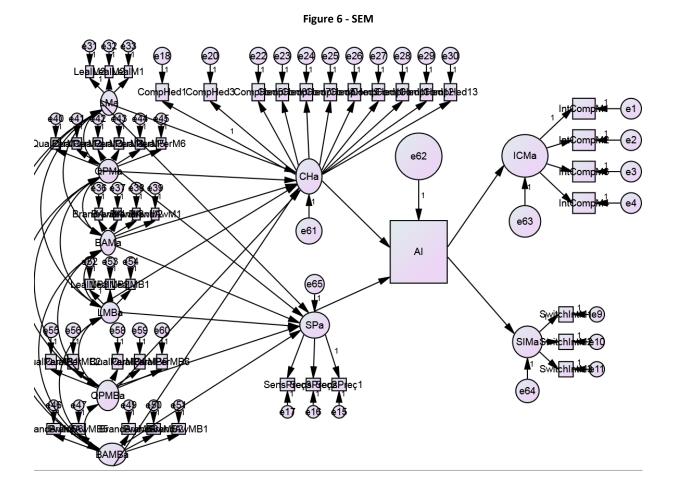
• U FEUC FACULDADE DE ECONOMIA UNIVERSIDADE DE COIMBRA

Here, the first thing to notice is one small reduction of some indicators previously discussed in the measurement model goodness-of-fit analysis. Nevertheless, we still have one suitable model. First, dividing the Chi-Square by the Degrees of Freedom (2894,931/1050), we have 2,75. It is important to notice that this value is close to two, in the range of good evaluation of the table parameters (table 28).

The IFI value of the SEM is 0,894, the TLI value is 0,886 and the Comparative Fit Index (CFI) is 0,894. For these three parameters, the range for one good modeling starts in 0,9. However, despite our SEM values being below this threshold, they are very close to 0,9, which allows us to interpret a good adjustment as well.

In the end, we also have the RMSEA value inside the range of good adjustment, with the value 0,6. Therefore, with this statistics and indices, we can conclude a suitable adjustment of the SEM. The final SEM design is the following.





Ok, now with one suitable SEM, we can start our hypotheses analysis. Below is table 34 with the results.



FEUC FACULDADE DE ECONOMIA UNIVERSIDADE DE COIMBRA

Table 34 - Hypothesis Analysis

Hypothesized Relationship					P/2	Conclusion
Relat	ionship between the Known Brand B	E and	d Consumer Behavior			
H1a	Loyalty (Known Brand)	\rightarrow	Price Sensibility	-0,15	0,0225	Supported
H2a	Perceived Quality (Known Brand)	\rightarrow	Price Sensibility	0,271	0,001	Supported
НЗа	Brand Awareness (Known Brand)	\rightarrow	Price Sensibility	0,24	0,006	Supported
H4a	Loyalty (Known Brand)	\rightarrow	Hedonistic Behavior	0,243	***	Supported
H5a	Perceived Quality (Known Brand)	\rightarrow	Hedonistic Behavior	-0,186	0,004	Supported
H6a	Brand Awareness (Known Brand)	\rightarrow	Hedonistic Behavior	0,303	***	Supported
Relat	ionship between the Private Label B	E and	d Consumer Behavior			
H1b	Loyalty (Private Label)	\rightarrow	Price Sensibility	0,004	0,479	Not Supported
H2b	Perceived Quality (Private Label)	\rightarrow	Price Sensibility	-0,133	0,058	Not Supported
H3b	Brand Awareness (Private Label)	\rightarrow	Price Sensibility	0,105	0,1315	Not Supported
H4b	Loyalty (Private Label)	\rightarrow	Hedonistic Behavior	0,275	***	Supported
H5b	Perceived Quality (Private Label)	\rightarrow	Hedonistic Behavior	0,095	0,0795	Not Supported
H6b	Brand Awareness (Private Label)	\rightarrow	Hedonistic Behavior	0,036	0,3155	Not Supported
Re	lationship between the Consumer Bo	ehavi	ior and Anchoring			
H7	Price Sensibility	\rightarrow	Anchoring	-0,096	0,045	Supported
Н8	Hedonistic Behavior	\rightarrow	Anchoring	0,171	***	Supported
	Relationship between the Anchoring and Consequents					
Н9	Anchoring	\rightarrow	Purchase Intention	0,162	0,0005	Supported
H10	Anchoring	\rightarrow	Switch Intention	-0,142	0,0025	Supported

Following distribution in table 34, first we are going to present the relationship between the Known Brand *B.E.* and the Consumer Behavior. As we predicted in the third chapter of this work, an increase of Loyalty decreases the Price Sensibility ($\beta = -0.15$, p < 0.05) supporting the H1a. In other hand, we supported that an increase of Perceived Quality ($\beta = 0.271$, p < 0.01) and Brand Awareness ($\beta = 0.24$, p < 0.01) increases the Price Sensibility, supporting the hypotheses H2a and H3a respectively. The relations between the Known Brand and the Hedonistic Behavior were supported as well. We supported the direct effect of Loyalty

• U FEUC FACULDADE DE ECONOMIA UNIVERSIDADE DE COIMBRA

 $(\beta = 0.243, p < 0.01)$ and Brand Awareness $(\beta = 0.303, p < 0.01)$ at the Hedonistic Behavior, confirming the H4a and H6a respectively. The indirect effect between the Perceived Quality and the Hedonistic Behavior $(\beta = -0.186, p < 0.01)$, the H5a, were supported as well.

The second task here is the analysis of the relationship between the Private Label B.E. and the Consumer Behavior. In this relation, we have only one supported hypothesis, an increase of Loyalty increase the Hedonistic Behavior ($\beta = 0.275$, p < 0.01), the H4b. The other relations are not supported, that is, the Private Label Brand Equity does not have a relation with the proposed Consumer Behavior dimensions. A most refined analysis will be done in the section 5.5.

Concerning the Relationship between the Consumer Behavior and Anchoring, we also have supported the initial hypotheses. First the indirect relation; one increase of Price Sensibility decreases the Anchoring (β = -0,096, p < 0,05), thus the H7 is corroborated. Second the direct relation, an increase in Hedonistic Behavior increases the Anchoring (β = 0,171, p < 0,01), the H8, is corroborated as well.

In the end, as the proposed statements at the third chapter, we can notice that the increase of Anchoring increases the Purchase Intention of the Known Brand (β = 0,162, p < 0,01), H9. The other consequent variable of the model had the hypothesis supported as well, an increase in Anchoring decreases the Switching Intention to the Known Brand by the Private Label (β = -0,142, p < 0,01), H10. The discussion of these results will be done at the section 5.5 of this chapter. For a while, let us check some indirect effects at the next section.



C

5.3 Indirect, Direct and Total Effects

Here we are. We have discovered which proposed hypothesis are supported and which are not. Now we are going to look for others relations inside of the framework model.

It may be a little bit innocent to think that the variables only have effect on the other variables and that is it. The explanation of some variable may suffer from indirect effects of other variables, because the relation between these variables are included in a complex system of effects (Bairrada, 2015).

Therefore, now that we have the direct effect exposed, let us dig a little bit further in order to analyze some indirect effects. In our conceptual framework, we consider that, as antecedents, we have the Consumer Behavior dimensions, Price Sensibility and Hedonistic Behavior, mediating the relation between the Brand Equity factors and the Anchoring.

To demonstrate that mediating relation, we are going to discuss the statistical significance of the indirect effects. The method used will be the *bootstrapping*. This methodology considers multiple subsamples from the original data (Byrne, 2010). In our case, we are going to consider a sample of 500, and 95% of confidence level.

Initially, in table 35, we are going to look for the Brand Equity's indirect effects on the Anchoring.

Table 35 - Anchoring: Direct, Indirect and Total Effects

		A	Ancho	ring		_
	Indire	ct	Dire	ect	Total	
	β	P	β	P	ß	P
Loyalty (Private Label)	0,047	**	0		0,047	**
Perceived Quality (Private Label)	0,029	*	0		0,029	*
Brand Awareness (Private Label)	-0,004	0,844	0		-0,004	0,844
Loyalty (Known Brand)	0,056	***	0		0,056	***
Perceived Quality (Known Brand)	-0,058	***	0		-0,058	***
Brand Awareness (Known Brand)	0,029	0,276	0		0,029	0,276

Note: ***<0,01, **<0,05,*<0,1 (one tailed tests)

Among the Brand Equity factors, we can see that the Loyalty and Perceived Quality, of both brands, have an indirect effect on the Anchoring. However, the Brand Awareness does not show indirect relation with our main variable.

Now, considering that we have two consequents variables, Purchase Intention and Switching Intention, with direct effects supported, let us find out if the antecedent variables generate indirect effects on them.

Table 36 - Switching Intention: Direct, Indirect and Total Effects

	Switch Intention						
	Indire	ect	Dire	ect	Tota	!	
	β	P	ß	P	ß	P	
Loyalty (Private Label)	-0,007	**	0		-0,007	**	
Perceived Quality (Private Label)	-0,004	*	0		-0,004	*	
Brand Awareness (Private Label)	0,001	0,84	0		0,001	0,84	
Loyalty (Known Brand)	-0,008	***	0		-0,008	***	
Perceived Quality (Known Brand)	0,008	**	0		0,008	**	
Brand Awareness (Known Brand)	-0,004	0,28	0		-0,004	0,28	
Hedonistic Behavior	-0,024	***	0		-0,024	***	
Price Sensibility	0,014	0,113	0		0,014	0,113	

Note: ***<0,01, **<0,05,*<0,1 (one tailed tests)

The table 36 above presents us the relation between the antecedent variables and the Switching Intention. Here we can note, again, that the Loyalty and the Perceived Quality are able to generate indirect effect at our consequent variable, but the Brand Awareness does not demonstrate this statistical significance. Among the Consumer Behavior factors, the Hedonistic Behavior has indirect effects on the Switching Intention, unlike the Price Sensibility.

Table 37 - Purchase Intention: Direct, Indirect and Total Effects

	Purchase Intention						
	Indire	Dire		Total	,		
	ß	P	ß	P	ß	P	
Loyalty (Private Label)	0,008	**	0		0,008	**	
Perceived Quality (Private Label)	0,005	*	0		0,005	*	
Brand Awareness (Private Label)	-0,001	0,848	0		-0,001	0,848	
Loyalty (Known Brand)	0,009	***	0		0,009	***	
Perceived Quality (Known Brand)	-0,009	**	0		-0,009	**	
Brand Awareness (Known Brand)	0,005	0,279	0		0,005	0,279	
Hedonistic Behavior	0,028	***	0		0,028	***	
Price Sensibility	-0,016	0,113	0		-0,016	0,113	

Note: ***<0,01, **<0,05,*<0,1 (one tailed tests)

In addition, the table 37 demonstrates the relations between the antecedents and the Purchase Intention. A very similar phenomenon happens here. In the same way as between the relations with the Switching Intention, the antecedent variables behave the same way, with the same statistical significance. Nevertheless, here we have a big difference. Note that the direction of the indirect effects changes between these cases. While in table 36, an increase of Perceived Quality (Known Brand) shows an increase of the Switching Intention, here the opposite happens, an increase of Perceived Quality (Known Brand) decreases the Purchase Intention. The same difference at the direction of the relation (β signal) is happening with the others statistical significant variables, as the Loyalty (Private Label), Perceived Quality (Private Label), Loyalty (Known Brand) and the Hedonistic Behavior.

Therefore, this section helped us understand that the proposed framework model has other effects besides the supported hypothesis. Here we notice that we have one complex network of effects between the variables. The indirect effect showed us the mediating relation at the SEM.

5.4 Miscellaneous

Now that we have tested the effects between the variables of the Structural Equation Model, the next step is an exploration of some "second hand" information that the collected data can give us.

The first task is to present some differences of the Portuguese and American sample. In addition, the second discussion is a review and other explorations of the Anchoring calculation.

5.4.3 Difference in Samples

As presented in the third chapter, the data collection of this dissertation takes into account two samples, which together allowed us to describe one suitable Structural Equation Model. However, at this point we are going to analyze these samples singly, in order to notice their connections and differences.

Initially we resorted to one *Independent-Samples T Test* at the SPSS software. This test is able to demonstrate if the means of the samples are statistically different. Therefore, the hypothesis to be tested is if the means of the populations are equal (H0: $\mu^1 = \mu^2$) versus the alternative hypothesis of the means of the populations are different (HA: $\mu^1 \neq \mu^2$). With a significance of 5%, the interpretation of table 38 follows:



FACULDADE DE ECONOMIA UNIVERSIDADE DE COIMBRA

Table 38 - "T" Test between American and Portuguese Sample

Variable	Portuguese Mean (SE)	American Mean (SE)	T Value	P Value	Decision
Loyalty (Private Label)	2,63 (1,57)	3,46 (1,68)	-5,12	0,000	Reject H0
Perceived Quality (Private Label)	4,39 (1,29)	4,98 (1,20)	-4,83	0,000	Reject H0
Brand Awareness (Private Label)	4,36 (1,55)	5,09 (1,38)	-4,99	0,000	Reject H0
Loyalty (Known Brand)	2,36 (1,33)	3,26(1,64)	-5,99	0,000	Reject H0
Perceived Quality (Known Brand)	5,19 (1,04)	5,61 (1,05)	-4,09	0,000	Reject H0
Brand Awareness (Known Brand)	5,01 (1,13)	5,69 (1,13)	-6,11	0,000	Reject H0
Hedonistic Behavior	2,8 (1,27)	4,02 (1,61)	-8,4	0,000	Reject H0
Price Sensibility	5,96 (1,07)	5,79 (1,06)	1,64	0,101	Not Reject H0
Purchase Intention	1,74 (1,15)	2,58 (1,71)	-5,8	0,000	Reject H0
Switch Intention	4,74 (1,62)	4,33 (1,59)	2,57	0,010	Reject H0

You can see in Table 38, the samples have statistical different means in most cases. For example, the Americans have more Loyalty to the Private Label (μ =3,46, SE=1,68) than the Portuguese (μ =2,63, SE=1,57) with a statistic significance, T = -5,12, P = 0,000. The same interpretation may be done with the other variables, except the Price Sensibility. In this case, we are not statistically able to confirm a difference of means: both samples have a similar Price Sensibility.

Continuing the sample differentiation saga, we estimate the Structural Equation Model within the two groups. Nevertheless, here, we had one goodness-of-fit under of the expectations. For example, the IFI value, the TLI value and the CFI value of the SEM were 0,859, 0,847 and 0,858 respectively. As we already know, the range for a good modeling of these parameters starts in 0,9. Therefore, the SEM within the two groups is far below this cut-

off point, which does not allow us to interpret a good adjustment. Even though, we are going to check the hypotheses' test of this modeling.

Table 39 - American vs Portuguese Hypotheses Analysis

				PT		USA	<u> </u>
	Hypothesized Relati	Estimate	P/2	Estimate	P/2		
Rela	ationship between the Known Brand B	E and	Consumer Behavior				-
H1a	Loyalty (Known Brand)	\rightarrow	Price Sensibility	-0,147	0,061	-0,101	0,160
H2a	Perceived Quality (Known Brand)	\rightarrow	Price Sensibility	0,196	0,066	0,281	0,008
НЗа	Brand Awareness (Known Brand)	\rightarrow	Price Sensibility	0,226	0,054	0,39	***
H4a	Loyalty (Known Brand)	\rightarrow	Hedonistic Behavior	-0,065	0,224	0,368	***
H5a	Perceived Quality (Known Brand)	\rightarrow	Hedonistic Behavior	-0,146	0,111	-0,107	0,1285
H6a	Brand Awareness (Known Brand)	\rightarrow	Hedonistic Behavior	0,38	0,002	0,127	0,092
Rela	ationship between the Private Label Bi	E and	Consumer Behavior				
H1b	Loyalty (Private Label)	\rightarrow	Price Sensibility	0,005	0,481	0,078	0,257
H2b	Perceived Quality (Private Label)	\rightarrow	Price Sensibility	-0,099	0,196	-0,17	0,076
H3b	Brand Awareness (Private Label)	\rightarrow	Price Sensibility	0,051	0,353	0,146	0,104
H4b	Loyalty (Private Label)	\rightarrow	Hedonistic Behavior	0,354	***	0,145	0,074
H5b	Perceived Quality (Private Label)	\rightarrow	Hedonistic Behavior	0,189	0,037	0,042	0,334
H6b	Brand Awareness (Private Label)	\rightarrow	Hedonistic Behavior	-0,194	0,057	0,144	0,066
i	Relationship between the Consumer Bo	ehavio	r and Anchoring				
H7	Price Sensibility	\rightarrow	Anchoring	-0,161	0,045	-0,029	0,356
H8	Hedonistic Behavior	\rightarrow	Anchoring	0,136	***	-0,069	0,158
	Relationship between the Anchorin	g and	Consequents				
Н9	Anchoring	\rightarrow	Purchase Intention	0,22	0,002	0,078	0,257
H10	Anchoring	\rightarrow	Switch Intention	-0,085	0,115	-0,17	0,076

Note: supported

As we can notice above in table 39, we have a poor quality of adjustment and interpretation of the relations of the model. The differentiation of the samples is not helpful with a good evaluation of the phenomena proposed by the hypotheses.

5.4.2 Difference between Brand Equities

Other miscellaneous results which this work can show us is the brand equities' differences within the Known Brand and the Private Label. In order to discover those differences, we going to resort to a One-Way ANOVA test.

Here, the task is to demonstrate if the means of the variables are statistically different. Therefore, the hypothesis to be tested is if the means of the variables are equal (H0: $\mu^1 = \mu^2$) versus the alternative hypothesis of the means of the variables are different (HA: $\mu^1 \neq \mu^2$). With a significance of 5%, the interpretation at table 40 follows:

Table 40- Difference between Brand Equities

Variable	Private Label Mean (SE)	Known Brand Mean (SE)	F Value	P Value	Decision
Loyalty	3,07 (1,68)	2,84 (1,56)	8,55	0,000	Reject H0
Perceived Quality	4,71 (1,28)	5,42 (1,07)	5,62	0,000	Reject H0
Brand Awareness	4,75 (1,50)	5,37 (1,18)	5,72	0,000	Reject H0

The table above shows us that all means tested are different. First, the Loyalty of the Private Label (μ =3,07, SE=1,68) is higher than the Loyalty of the Known Brand (μ =2,84, SE=1,56) with a statistic significance, F = 8,55, P = 0,000. On the other hand, the Known Brand has a higher Perceived Quality (μ =5,42, SE=1,07) and Brand Awareness (μ =5,37, SE=1,18) than the Private Label, with a statistic significance F = 5,62, P = 0,000 and F = 5,72, P = 0,000 respectively.



5.4.3 Anchoring Calculations

In this section, we are going to explore more the anchoring results that the collected data presents. Using the methodological discussion of the last chapter, about the mathematical efforts of the Anchoring Index, we will make some calculations in order to evaluate and interpreted some results.

Initially, let us demonstrate the individual calculation of the Anchoring Index using the formula 2 developed before. In order to do so, we are going to select randomly one individual of the Portuguese group. The selected individual answered that the Private Label price is $1,20 \in$ when exposed to the low anchor price $(3,00 \in)$, and answered that the Private Label price is $4,10 \in$ when exposed to the high anchor price $(6,52 \in)$. Therefore, this individual anchor index is calculated and interpreted as follow:

$$\begin{array}{ccc} AII_{mb} = & \underline{X_{p^1,85^\circ} - X_{p^1,15^\circ}} \\ & & 5^{\circ}_{p^2} - 15^{\circ}_{p^2} \end{array} \longrightarrow \begin{array}{c} 4,10 - 1,20 \\ 6,52 - 3,00 \end{array} = 0,82$$

The value interpretation is: the estimate of the anchored individual moved 82% towards the anchor in relation to the medians of the calibration group. That is, 82% of the estimation of the Private Label price is anchored to the Known Brand price. Therefore, each individual of the sample has an Individual Anchoring Index that was used as data in this dissertation.

Now, we are going to discuss the distribution of the Anchors Index of the sample. The table below follows:

Table 41 - Anchor Index Distribuition

	Relative
AII < 0	1,7%
AII = 0	21,8%
0 <aii<1< td=""><td>63,8%</td></aii<1<>	63,8%
1=AII	2,4%
1 <aii< td=""><td>10,2%</td></aii<>	10,2%
Total	100%

The first thing to notice is that we have respondents with one negative *AII*. That means those participants answered a lower value when expose to the high Anchor compared to when expose to the low Anchor. However, these outliers represent only 1,7% of the sample. On the other hand, we have 21,8% of the participants with an Anchoring Index of zero, which is interpreted by the literature as no Anchoring Effect. That means those individuals answer the same price for both estimation tasks, the low and high anchor exposition. In addition, 63,8% of the sample allows us to make interpretations like those previously made, and 2,4% of the participants have 100% of anchoring, which means the estimation were hugely influenced by the anchor prices. In the end, the sample demonstrate 10,2% of individuals with an Anchoring Index value higher than 1. As foreseen by the literature, this value represents that the difference between the estimated values are higher than the difference between the anchors values.

5.5 Discussion of Results

Now that we have the results presented, the goodness-of-fit of the SEM, the hypotheses tests, the indirect effects and some miscellaneous, it is time to discuss them. Here, we are going to interpret each result according to the previous literature revision and hypotheses' formulation. The discussion will be divided following the sections of table 34, the hypotheses analysis.

5.5.1 Relationship between the Brand Equity and Consumer Behavior

5.5.1.1 Known Brand BE and Consumer Behavior

- Loyalty (Known Brand) and Price Sensibility (H1a)

Starting with the relations of the Known Brand *B.E* and Price Sensibility, we notice that all hypotheses were supported. We corroborated the fact that an increase of Loyalty decreases the Price Sensibility (H1a). Here, we can focus our discussion at the hypotheses formulation we presented, that the Loyalty is a factor independent of outside influences, and the higher the Loyalty is the lower is the probability to be vulnerable to changes in prices. (Aaker, 2007). Therefore, we stated that the higher the Loyalty is towards the brand, the lower is the sensibility towards the price.

- Perceived Quality (Known Brand) and Price Sensibility (H2a)

In addition, we supported the hypothesis that an increase of Perceived Quality increases the Price Sensibility (H2a). In this point, we are going to base the discussion of the results in the fact that higher prices generate better associations (Yoo *et al*, 2000). Therefore,



the price can be one stimulus to evaluate Quality. In conclusion, if the price is high, the Perceived Quality is high, and vice versa. Here we have a direct relation between the Perceived Quality and the Price Sensibility, because, being the Perceived Quality a factor that influences the consumer behavior, the higher the Perceived Quality, the more the consumer is going to do associations with the price, which means he is going to have more Price Sensibility.

- Brand Awareness (Known Brand) and Price Sensibility (H3a)

Continuing the Yoo *et al* (2000) logic that the higher the price is, higher is the added value of the brand for the consumer perception. In addition, joining the Keller's (2003) definition of Brand Awareness being a tool capable of making the client create satisfactory associations towards the brand, from his previously knowledge. We supported the hypothesis that an increase of Brand Awareness increases the Price Sensibility (H3a). That is because price and Brand Awareness create associations towards the added value of the brand, and the individual price sensibility follows this relation in a positive way, the higher is the Brand Awareness, the higher is the Price Sensibility.

- Loyalty (Known Brand) and Hedonistic Behavior (H4a)

Now, let us begin the discussion of the Known Brand B.E and the Hedonistic Behavior with the Loyalty concept. As we stated before, the Hedonistic Behavior has a strong involvement with the emotional side and with the subjectivity. In addition, the loyalty brings a huge emotional load as well. Therefore, we supported the hypothesis that an increase of Loyalty increases the Hedonistic Behavior (H4a). The more loyal to the brand the consumer is, the more emotive he is, and shows more Hedonistic Behavior towards the brand.



- Perceived Quality (Known Brand) and Hedonistic Behavior (H5a)

In the other hand, the Perceived Quality is a more objective evaluation rather than subjective one, with lower emotional appeal. Moreover, being the Hedonistic Behavior a more ludic consumer behavior we supported the indirect influence between the variables: where an increase of Perceived Quality decreases the Hedonistic Behavior (H5a). Here we can note that the higher the Quality Perceived the lower is going to be the emotional behavior of the consumer, because he is acting in a rational way.

- Brand Awareness (Known Brand) and Hedonistic Behavior (H6a)

The corroborated hypotheses here were that an increase of Brand Awareness increases the Hedonistic Behavior (H6a). We can support that with the hypotheses formulations' statements, when we consider that within the Brand Awareness factor, the client added value through his previous associations, which can involve pleasure and experiences. Therefore, the Brand Awareness can generate an increase of Hedonistic Behavior towards the brand.

5.5.1.2 Private Label BE and Consumer Behavior

Ok, so far, we discussed the relation between the Known Brand BE and Consumer Behavior, and concluded the corroboration of every hypotheses. However, in this point, we are going to discuss the relation between the Private Label and Consumer Behavior hypotheses.

Instead of the observed between the Known Brand influence and Consumer Behavior, the Private Label has no supported hypotheses, unlike the hypothesis 4b, where an increase of Loyalty increases the Hedonistic Behavior. In this particular case, we can notice that the



Loyalty of the Private Label is able to generate some influence, more emotive and ludic in the Consumer Behavior, which is the Hedonistic Behavior.

However, in most cases there is no influences. The Private Label Brand Equity does not influence the Consumer Behaviors, Price Sensibility and Hedonistic Behavior. What we can discuss with this result is the fact that the Private Label does not have the same added value through the brand as the Known Brand. As we have seen in table 40 of the section comparing the Brand Equity of the Brands, even though the Private Label presents more Loyalty than the Known Brand (what we could attribute to one specific case), the Perceived Quality and the Brand Awareness of the Known Brand is, on average, higher than the Private Label.

In conclusion, we can state that the Known Brand is able to influence the Consumer Behavior, and the Private Label does not have the same capacity to do so, because its added value to the consumer (Brand Equity) is lower.

5.5.2 Relationship between the Consumer Behavior and Anchoring

- Price Sensibility and Anchoring (H7)

Here, we are still going to use the notion that the Price Sensibility is a more rational behavior than the Hedonistic Behavior. As we have seen in the literature review, the Anchoring is a Heuristic presented in uncertainty tasks. Nevertheless, the price sensitivity of the consumer is rational, he pays attention to his wallet, he is sensible to the price and uses it to know about that. He uses less heuristics to solve the estimation task, because he is usually familiar with prices. Therefore, we supported the hypothesis that an increase of Price Sensibility decreases the Anchoring (H7), which means that the higher the sensibility to the price is, the less the consumer is going to resort to heuristics and biases in order to solve price estimations tasks.



- Hedonistic Behavior and Anchoring (H8)

We already know that the Anchoring Effect works with subjective evaluations of likelihood in uncertain judgements. When the human being is not able to consider all factors involved in certain tasks, he resorts to this heuristics. We already know well how the Hedonistic Behavior is extremely subjective and has a big emotional and ludic load. Therefore, in an uncertain task the Hedonistic Behavior will resort to the subjectivism, following the heuristics and biases in order to solve the tasks. That is what we supported with the hypothesis: an increase in Hedonistic Behavior increases the Anchoring (H8).

5.5.3 Relationship between the Anchoring and Consequents

In this dissertation, we researched as consequents of the Anchoring Effect the Purchase Intention of the Known Brand, and the Intention to Switch the Known Brand for the Private Label. The results of our supported hypotheses, are that an increase of Anchoring increases the Purchase Intention (H9) and an increase of Anchoring decreases the Switching Intention (H10).

That direct and indirect relationship is very easy to understand. In this dissertation, the anchor is the Known Brand, and we note that the more an individual uses to consider the Known Brand price to do his estimation, the less information he has about other factors, and the more he will resort to heuristics to solve the task. In addition, the anchoring of an heuristic that make us adapt our estimations through known things: a higher Anchoring tends to make us more willing to the Known Brands, which means one higher Purchase Intention and less intention to switch the Known Brand by the Private Label.



5.6 Conclusion

In this chapter, we have been allowed to understand the results of the Dissertation. The first thing that we noticed is that we were working with one Structural Equation Model, goodness-of-fit values suitable, according to the literature. In addition, it allowed us to have good supported hypotheses. The indirect effect showed that we are working with a complex network of variables, and that there is more relations inside the framework than the supported analysis only. We also noticed that the samples do not have similar averages, in most variables the Americans have higher mean than the Portuguese do. In the Anchoring calculation, we generated interpretable values and a variable able to relate with the other concepts of this work.

In the end of the results' discussion, we can highlight the main conclusions of this work. Firstly, we noticed that the Known Brand is capable to generate effects in the Consumer Behavior, while the Private Label does not. Secondly, the dissertation showed us that the higher the Price Sensibility is, the more rational we are during the shopping and the more we pay attention to prices, so, the lower is our necessity to resort to heuristics to solve our tasks, meaning a lower Anchoring Effect. On the other hand, when the Hedonistic Behavior increases, the more emotive and ludic is our shopping experience, so, with more subjectivism, the higher is the necessity to resort to heuristics at the estimation tasks and the higher is the Anchoring Effect. As consequences, we demonstrated that Anchoring is a heuristics that makes us adapted our estimates through the known, so, the higher the Anchoring Effect is, the higher is the willingness towards the Known Brand, which means an increase of Purchase Intention and a decrease of the Intention to Switch the Known Brand by the Private Label.

6. **CONCLUSION**

Moreover, here we are. "This is the end, my only friend, the end". The beginning of this incredible journey started with a main statement to be answered: What is the Brand Equity and Consumer Behavior influences as antecedents of the estimation price task, and how the Anchoring Effect can influence the Switching Intention and the Consumers Purchase intention? From this we started to develop this work.

Our first task was to understand better all concepts involved at this dissertation. Therefore, we developed a literature revision capable to deepen the knowledge of the Brand Equity, of the Consumer Behavior, of the Purchase Intention, of the Switching Intention and mainly of the Anchoring Effect. After that, during the chapter three, we built the Conceptual Framework and the hypotheses to be tested. In addition, the questionnaire was built based on measurements discussed in the fourth chapter, which allowed us to bring the survey to the field. With the SPSS software, the collected data was analyzed and we did an Exploratory Factorial Analysis that demonstrated a good adjustment of the variables.

After these tasks we resort to the statistical measurements with the AMOS software, first with one Confirmatory Factorial Analysis, and after with one Structural Equation Modeling that, with a suitable goodness-of-fit, enabled us to test our hypotheses. And finally, both literature review and statistical procedures made us understand the answers proposed at the statement presented in the beginning. In sum, the anchoring between the Known Brand and Private Label are measured, the Brand Equity factors of the Known Brand affect the Consumer Behavior, but the Private Label does not, as well some Brand Equity factors generate indirect effect at the anchoring. The Consumer Behavior affects the Anchoring, which in turn affects the Purchase Intention and the Switching Intention. Our doubts are dismissed, we turn our objectives into reality, and the mission is accomplished.

³ The Doors, "The End" (1967). Written by Bruce W. Franklin, Eric Wagner, Rick J.Wartell. Copyright © Universal Music Publishing Group.

From this point, to clarify our contributions and limitations, and based at the Structural Equation Model developed with its results, we will present the theoretical and practical contributions of this work, as well the limitations and future lines of research.

6.1 Theoretical Contributions

Since the seventies, more specific 1974, when Tversky & Kahneman wrote about the Adjustment and Anchoring Heuristic, the main concept of this dissertation has been researched by several authors as showed in the literature revision. Generally, those authors observe this effect in many cases, but they rarely discuss the causes of the Anchoring, actually they broadly disagree about that, as stated by (Jung et al., 2016).

Therefore, the main contribution of this work for the literature is to fill this gap in a supermarket environment, having Private Labels and Known Brands face to face. Now we are able to expose to the literature the idea that the Anchoring Effect may have antecedents and consequents in the estimation task in which the consumer is involved.

Another important contribution was the Anchor Index calculation between two products and in an individual way. By using the traditional methodology proposed by Jacowitz and Kahneman (1995) we will not be able to cross the data with the other variables in order to build a Structural Equation Model, because we would have two experimental groups. Therefore, with the development of the methodology in this work, we validated a measurement model capable of calculating an Anchor Index individually and between two different products. Contributing, that way with a new kind of measurement for the Anchoring Effect that allows the researcher to cross the Anchoring Index data with other variables.

In conclusion, we can consider that this dissertation is of worth to the academy. It brings to the discussion innovational themes of the daily consumers' life. In addition, we built a network of effects between variables that are not known to others until these days.

6.2 Practical Contributions

Now that we presented the theoretical contributions, we are going to extract some practical contributions of this dissertation.

As we noticed during the discussion of the results, the Private Label has no effect in the Consumer Behavior, due to a lower Brand Equity. It is important for the CEO's of the private labels to understand the importance of the added value towards the brands to reach the consumers evaluation.

We saw that the more the consumer resorts to the Anchoring, the more he intended to switch the Private Label for the Known Brand, which means that higher is the uncertainty of the task the higher is the intention to purchase the Known Brand.

Therefore, the Private Labels' consultants should to try to decrease this gap of uncertainty concerning the Private Label, which favors the Known Brand.

6.3 Limitations and Futures Lines of Research

This work may have practical and theoretical contributions, however the limitations exist. Limitations are the opportunity to reflect about better ways to develop new tasks with more explanatory capacity. Works with no limitations do not give us the opportunity to improve. Therefore, here we are going to reflect about the mistakes that will make us stronger to new proposals and challenges.

This dissertation could have a bigger sample. Yes, it could, but it did not have it. This is a limitation. The effort was to maximize the utility of scarce resources. We had a big questionnaire, maybe too boring to the respondents. And we have as well, a convenience sample, this non-probabilistic method does not allow us to generalize the results as

C • FEUC FACULDADE DE ECONOMIA UNIVERSIDADE DE COIMBRA

conclusions for all population. Therefore, here the proposition is a higher budget in order to better work with the Amazon Mechanical Turk, for example. Taking in consideration a value of ten cents (\$ 0,10) as reward for one respondent, one considerable budget may give to us more respondents.

We missed as well the opportunity to develop this research in a real environment. In spite of one simple questionnaire, it will be great to analyze the results inside of a supermarket. Putting the products side by side and observe the consumer doing the compilations. Probably this non-quantitative approach will generate more contributions for this dissertation.

Another limitation is the fact that we are taking conclusions considering only one Brand, in this case, a Dove product. When we started to think about this research, the main idea was to work with the same methodology applied to more than one brand. However, the budget and time limitations took a toll and did not allowed us to dream too big.

Therefore, for future researches, the Anchoring Index calculated in an individual way may help to explain more phenomena about the Anchoring Effect. In this dissertation, we proposed some antecedents and consequents of the anchoring. Futures researches can develop other variables that are allowed to generate effects at the main subject of this work, even in other contexts besides the comparison of Brands.

Other brands and products may also be subjects for other researches. Comparing the phenomenon here studied with other Known Brands and products to different Private Labels may generate good data in order to do comparisons. Besides, a bigger sample of only one city for example, may bring forth interpretable results for only a limited region. In the end, further researches could develop a new framework including moderator effects, as the category of products or other variables.

Concluding, we recognize that the results showed at this dissertation cannot be generalized. However, we can notice that this work is able to collaborate with other

• U FEUC FACULDADE DE ECONOMIA UNIVERSIDADE DE COIMBRA

researches. Here, we conclude this research about the antecedents and consequents of the Anchoring Effect in a Known Brand versus Private Label context, and hope that the results bring curiosity and motivation for further publications.

7. REFERENCES

- Aaker, D. A. (1992). Managing brand equity: capitalizing on the value of a brand name. *Journal of Marketing*, 56(2), 125–128.
- Aaker, D. A. (1998). Marcas: Brand equity gerenciando o valor da marca. São Paulo: Negócio Editora.
- Aaker, D. A. (2007). Construindo marcas fortes. Rio de Janeiro: Bookman.
- Ahuvia, B. A. C. · A. C. (2006). Some Antecedents and Outcomes of Brand Love Some antecedents and outcomes of brand love. *Springer Science+Business Media*, 79–89. https://doi.org/10.1007/s11002-006-4219-2
- Almeida, N. M. F. de. (2014). *O comportamento do consumidor face às marcas de distribuidor em período de crise*. Dissertação de Mestrado em Gestão. Faculdade de Economia da Universidade de Coimbra.
- Anderson, J. C. and D. W. G. (1988). Structural Equation Modeling in Practice: A Review and Recommended Two-Step Approach. *Psychological Bulletin*, *103*, 411–423.
- Bairrada, C. M. (2015). Determinantes e consequências do amor pela marca : um estudo empírico. Tese de Doutoramento em Gestão de Empresas. Faculdade de Economia da Universidade de Coimbra.
- Bentler, P. M. (1988). Causal modeling via structural equation systems, Handbook of multivariate experimental psychology (2nd ed.). New York: Plenum.
- Bentler, P. M. (1992). On the fit of models to covariances and methodology to the Bulletin. *Psychological Bulletin*, *112*, 400–404.
- Bezzera, J., & Leone, R. (2013). Efeito ancoragem e relação de consumo: Um estudo com

- produtos da cesta básica. Revista Ambiente Contábil, 68 85.
- Bohannon, J. (2011). Social Science for Pennies. *Science*, *334*(6054), 307–307. https://doi.org/10.1126/science.334.6054.307
- Bou-Llusar, J. C., Camisón-Zornoza, C., & Escrig-Tena, A. B. (2001). Measuring the relationship between firm perceived quality and customer satisfaction and its influence on purchase intentions. *Total Quality Management*, *12*(6), 719–734.
- Byrne, B. M. (2010). *Structural Equation Modeling with AMOS* (second edi). New York: Routledge.
- Campo, V. R. R. E. P. del. (2013). *Business Research Methods; Theory and Pratice*. Madrid: ESIC.
- Chapman, G. B., & Johnson, E. J. (1994). The limits of anchoring. *Journal of Behavioral Decision Making*, 7(4), 223–242. https://doi.org/10.1002/bdm.3960070402
- Chen, M. F. (2007). Consumer attitudes and purchase intentions in relation to organic foods in Taiwan: Moderating effects of food-related personality traits. *Food Quality and Preference*, *18*(7), 1008–1021.
- Crompton, J. L. (2016). Experiments Testing the Effectiveness of Purposeful Anchoring on Reference Price in the Context of Public Leisure Services, 48(4), 307–326.
- DAMÁSIO, B. F. (2012). Uses of exploratory factorial analysis in psychology. *Avaliação Psicológica*. Itatiba.
- Darden, W. R., & Griffin, M. (2004). Utilitarian Shopping Value. *Journal of Consumer Research*, 20(March 1994), 644–657.
- Dick, Alan; Jain, Arun e Richardson, P. (1995). (1995). Correlates of Stores Brand Proneness:

- Some Empirical Observations. Journal of Product and Brand Management, 4(4), 103–10.
- Dodds, W. B., & Monroe, K. B. (1985). The effect of brand and price information on subjective product evaluations. *ACR North American Advances*, *12*(1), 85–90.
- Englich, B., Mussweiler, T., & Strack, F. (2006). Playing Dice With Criminal Sentences: The Influence of Irrelevant Anchors on Experts' Judicial Decision Making. *Personality and Social Psychology Bulletin*, 32(2), 188–200. https://doi.org/10.1177/0146167205282152
- FIELD, A. (2005). Discovering statistics using SPSS (2nd ed.). London: Sage.
- Galinsky, A. D., & Mussweiler, T. (2001). First offers as anchors: the role of perspective-taking and negotiator focus. *Journal of Personality and Social Psychology*. https://doi.org/10.1037/0022-3514.81.4.657
- George, D. & Mallery, P. (2003). SPSS for Windows step by step: A simple guide and reference. Boston: Allyn & Bacon.
- Ghiglione, R; Matalon, B. (2002). O inquérito. Oeiras: Celta Editora.
- Gil, A. C. (2002). Como elaborar projetos de pesquisa. São Paulo: Atlas.
- Hair, J. (2005). Análise Multivariada de Dados. Porto Alegre: Bookman.
- Herr, P. M, Kardes, F. R, and Kim, J. (1991). Effects of word of mouth and product attribute information on persuasion: an accessibility diagnosticity perspective. *Journal Of Consumer Research*, *Vol. 17*, 454 462.
- Hwang, J. (2011). Brand preference and its impacts on customer share of visits and word-of-mouth intention: An empirical study in the full-service restaurant segment. Kansas State University.
- Hyman M., Kopf D., L. D. (2010). Future Research suggestions: Private labels brands:

- Benefits, success, factors and future research. *Journal of Brand Management*, 17, 368–389.
- Irianto, H. (2015). The Model of Consumer's Switching Intention from Conventional Food to Organic Food: An Experimental Design Study, *6*(3), 588–599. https://doi.org/10.5901/mjss.2015.v6n3s2p588
- Jacowitz, K. E.; Kahneman, D. (1995). Measures of anchoring in estimation tasks. *Personality and Social Psychology Bulletin*, 21(11), 1161–1166. https://doi.org/10.1177/01461672952111004
- Jung, M. H., Perfecto, H., & Nelson, L. D. (2016). Anchoring in Payment: Evaluating a Judgmental Heuristic in Field Experimental Settings. *Journal of Marketing Research*, *LIII*(June), jmr.14.0238. https://doi.org/10.1509/jmr.14.0238
- Keaveney, S. M. (1995). Customer switching behavior in service industries: an exploratory Study. *Journal of Marketing*, *Vol.* 59, 71–82.
- Keller, K. L. (2003). Brand Synthesis: The Multidimensionality of Brand Knowledge. *Journal of Consumer Research*, 29(4), 595–600.
- Kim, G., Shin, B., & Geun, H. (2006). A study of factors that affect user intentions toward email service switching, 43, 884–893. https://doi.org/10.1016/j.im.2006.08.004
- Kotler, P.; Keller, K. L. (2006). *Administração de Marketing. 12 ed.* São Paulo: Pearson Prentice Hall.
- Kotler, Philip & Keller, K. L. (2009). *Administração de Marketing- A Bíblia do Marketing*. São Paulo: Pearson Prentice Hall.
- Lakatos, E. M., & Marconi, M. d. (2003). Fundamentos da Metodologia Científica. São Paulo: Atlas.

- Lamey, L., Deleersnyder, B., Dekimpe, M. G., & Steenkamp, J.-B. E. (2007). How Business Cycles Contribute to Private-Label Success: Evidence from the United States and Europe. *Journal of Marketing*, 71(1), 1–15. https://doi.org/10.1509/jmkg.71.1.1
- Li, Z. (2014). FROM FREE TO FEE: EXPLORING THE ANTECEDENTS OF CONSUMER, *15*(4), 281–300.

U

- Lindon, Denis; Lendrevie, Jacques; Lévy, Julien; Dionísio, P. R., & Vicente, J. (2009). *Mercator XXI- Teoria e Prática do Marketing*. Alfragide, Portugal: Dom Quixote.
- Lisboa, João V.; Augusto, Mário G.; Ferreira, P. L. (2012). *Estatística Aplicada à Gestão*. Coimbra: Vida Económica.
- Malhotra, K. N. (2010). *Pesquisa de Marketing: Uma Orientação Aplicada.* 6^a Edição. São Paulo: Bookman.
- Malhotra, K. N. et al. (2005). *Introdução à Pesquisa de Marketing*. São Paulo: Prentice Hall.
- Marconi, M. de A., & Lakatos, E. M. (2007). *Técnicas de Pesquisa (6^a Edição)*. São Paulo: Atlas.
- Marôco. (2010). Análise de Equações Estruturais: Fundamentos teóricos, Software e Aplicações. Pêro Pinheiro: ReportNumber.
- Marôco. (2014). Análise de equações estruturais : fundamentos teóricos, software e aplicações (2ª ed). Pêro Pinheiro: ReportNumber.
- Medeiros, J. F. De, & Cruz, C. M. L. (2006). Comportamento do consumidor: fatores que influenciam no processo de decisão de compra dos consumidores. *Teoria E Evidência Econômica*, *14*(October), 167–190.
- Mehrabian, A., & Russell, J. A. (1974). An approach to environmental psychology. the MIT



Press.

- Mussweiler, T., Englich, B., & Strack, F. (2004). Anchoring effect. *Cognitive Illusions A Handbook on Fallacies and Biases in Thinking, Judgement, and Memory*, 183–200.
- Northcraft, G. B., & Neale, M. A. (1987). Expert, Amateurs and Real Estate: An Anchoring-and-Adjustment Perpective on Property Pricing Decisions. *Organizational Behavior and Human Decision Processes*, 39(1), 201–279.
- Paolacci, G., Chandler, J., & Ipeirotis, P. (2010). Running experiments on amazon mechanical turk. *Judgment and Decision Making*, 5(5), 411–419. https://doi.org/10.2139/ssrn.1626226
- Pestana, M. H.; Gageiro, J. N. (2014). *Análise de dados para ciências sociais: a complementaridade do SPSS* (6ª Ed). Lisboa: Edições Sílabo.
- Plous, S. (1989). Thinking the Unthinkable: The effects of Anchoring on Likelihood Estimates of Nuclear War. *Journal of Applied Social Psychology*, *19*(1), 67–91.
- Rand, D. G. (2012). The promise of Mechanical Turk: How online labor markets can help theorists run behavioral experiments. *Journal of Theoretical Biology*, 299, 172–179. https://doi.org/10.1016/j.jtbi.2011.03.004
- Rimal, A. P. and Fletcher, S. M. (2000). Influence of Product Attributes and Household Characteristics on Consumers' Attitude Toward and Purchase Pattern of In-shell Peanuts. *Journal of Food Distribution Researc*, 28–36.
- Sinha, I., & Batra, R. (1999). The effect of consumer price consciousness on private label purchase. International Journal of Research in Marketing (Vol. 16). https://doi.org/10.1016/S0167-8116(99)00013-0
- Sousa, D. A. da C. (2015). Brand Equity: Comportamento Do Consumidor Perante As Marcas

- *Da Distribuição*. Dissertação de Mestrado em Marketing. Faculdade de Economia da Universidade de Coimbra. https://doi.org/10.12662/2359-618xregea.v5i1.p32-49.2016
- Strack, F. (1992). The different routes to social judgments: Experiential versus informational strategies. *The Construction of Social Judgments*, 249–275.
- Strack, F., & Mussweiler, T. (1997). Explaining the Enigmatic Anchoring Effect:

 Mechanisms of Selective Accessibility. *Journal of Personality and Social Psychology*,

 73(3), 437–446. https://doi.org/10.1037/0022-3514.73.3.437
- Tai, S. H. C. and Tam, J. L. M. (1997). A lifestyle analysis of female consumers in greater China. *Psychology and Marketing*, *14*(3), 287–307.
- Tversky, A., & Kahneman, D. (1974). Judgment under Uncertainty: Heuristics and Biases. *Science*, *185*, 1124–1131.
- Wilson, T. D., Houston, C. E., & Etling, K. M. (1996). A New Look at Anchoring Effects: Basic Anchoring and Its Antecedents. *Journal of Experimental Psychology: General Tversky & Kahneman*, 125(4), 387–402. https://doi.org/10.1037/0096-3445.125.4.387
- Yoo, B., & Donthu, N. (2001). Developing and validating a multidimensional consumer-based brand equity scale. *Journal of Business Research*, 52(1), 1–14.
- Yoo, Boonghee; Donthu, Naveen; Lee, N. (2000). An Examination of Selected Marketing Mix Elements and Brand Equity. *Academy of Marketing Science, Journal*, 28(2), 195–211.
- Zeithaml, V. (1988). Consumer Perceptions of Price, Quality, and value: A Means-End Model and Synthesis of Evidence. *Journal of Management Studies*, 52, 2–22.

8. ATTACHEMENTS

8.1 QUESTIONNAIRE

Academic Research

Dear participant,

This is a research about consumer behavior.

This survey is simple, taking about 6 minutes to be completed. You will receive a security code at the end that must be copied and pasted on the Mechanical Turk activity page.

There is neither financial loss nor risk involved in participating in this research. Your participation is voluntary, which means that you are free to participate or not. Your response is anonymous, and will be used only for academic purposes. If you have any questions, suggestions or comments about the survey, please contact us by e-mail fabriciocruzr88@qmail.com

*Obrigatório

The DOVE Brand have at your line of products the Body Wash Deep Moisture 24 FI Oz. This product is also sold for supermarkets Private Labels, Body Wash Deep Moisture 24 FI Oz. Based on the range of products presented in the figure below, please answer the next three questions.



Which Supermarket Private Label do you use to consume? *
Marcar apenas uma oval.
Walmart (equate)
Target (up &up)
CVS
Other

U

FEI

FEUC FACULDADE DE ECONOMIA UNIVERSIDADE DE COIMBRA

Above, has been presented the DOVE Body Wash Deep Moisture 24 FI Oz as \$ 3,99. What is your best estimate price for the Body Wash Deep Moisture 24 FI Oz of your preferred PRIVATE LABEL (U.S Dollar)? *

For the statements be	low,	please	sign y	our lev	/el of	agreement /	disagreement.	è

Marcar	apenas	uma	oval	nor	linha
Marcar	apenas	uma	Ovai	ρυι	IIIIIII

	1 - Totally Disagree	2 3	4 - Neither Agree or Desagree	5 6	7 - Totally Agree
In the moment to do shopping, I really pay attention at the prices.					
I use to compare the different prices of different Brands					
I like to buy products in promotion					

For the statements below, please sign your level of agreement / disagreement. * Marcar apenas uma oval por linha.

	1 - Totally Disagree	2 3 4	- Neither Agree of Desagree	or 7 - 5 6 Totall Agre	
I really enjoy go to shopping.				000)
Compared to other things I could have done, the time spent shopping is truly enjoyable.		00		000)
During the shopping time, I fell the excitement of the hunt.)
I use to fell that go shopping is like an escape.)
I enjoy to be immerse in exciting new products.)
I enjoy shopping for its own sake, not just for the items I may purchase	\bigcirc	$\bigcirc\bigcirc$	\bigcirc)
I continue to shop, not because I had to, but because I like to.				000)
I like to go shop because I fell myself able to act on the "spur of the moment."				OO C)
While shopping, I am able to forget my problems.		$\bigcirc\bigcirc$)
While shopping, I use to fell a sense of adventure.		$\bigcirc\bigcirc$		000)
Shopping trips are a very nice time out.)
I use to fell really lucky while I am Shopping)
I am able to do a lot of fantasizing during my shopping time.		00		000)





C .

FEUC FACULDADE DE ECONOMIA

UNIVERSIDADE DE COIMBRA

The statements below are about the DOV	E Body Wash De	eep Moisture 2	24 FI Oz. I	Please sign
your level of agreement / disagreement. *				

Marcar apenas uma oval por linha.

	1 - Totally Disagree	2 3	4 - Neither Agree or Desagree	5	6	7 - Totally Agree
I consider myself to be loyal to this Brand.						
This Brand would be my first choice.						
I will not buy other brands if this one is not available at the store.						

The statements below are about the DOVE Body Wash Deep Moisture 24 FI Oz. Please sign your level of agreement / disagreement. $^{\circ}$

Marcar apenas uma oval por linha.

	1 - Totally Disagree	2 3	4 - Neither Agree or Desagree	5 6	7 - Totally Agree
I know what this Brand looks like.					
I can recognize this Brand among other competing brands.					
I can aware of this Brand.					
Some characteristics of this Brand come to my mind quickly.					
I have facility in imagining this Brand in my mind.					
I can recall the symbol or logo of this Brand.					

The statements below are about the DOVE Body Wash Deep Moisture 24 FI Oz. Please sign your level of agreement / disagreement. $^{\circ}$

Marcar apenas uma oval por linha.

	1 - Totally Disagree	2 3	4 - Neither Agree or Desagree	5 6	7 - Totally Agree
This Brand is of high quality.					
The likely quality of this Brand is extremely high.					
The likelihood that Brand would be functional is very high.					
The likelihood that Brand is realiable is very high.					
That Brand must be of very good quality.					
This Brand appears to be of very good quality.					

U

C •

FEUC FACULDADE DE ECONOMIA UNIVERSIDADE DE COIMBRA

The statements below are about the DOVE Body Wash Deep Moisture 24 FI Oz. Please sign your level of agreement / disagreement. *

Marcar apenas uma oval por linha.

LABEL.

	1 - Totally Disagree	2 3 4	- Neither Agree or Desagree	5 6	7 - Totally Agree
This is the only brand of this product that I will buy.					
When I go shopping, I don't even notice competing brands.					
If my store is out of this brand, I will postpone buying or go to another store.					
I will "do without" rather than buy another brand.					
your level of agreement / di Marcar apenas uma oval por	-		Neither Agree or Desagree	5 6	7 - Totally Agree
In the near future, I admit switch the DOVE Body Wash Deep Moisture 24 FI Oz to one		2 3 4-		5 6	Totally
Body Wash Deep Moisture 24 FI Oz similar of the PRIVATE LABEL.					
In the near future, the chance that I switch the DOVE Body Wash Deep Moisture 24 FI Oz to one Body Wash Deep Moisture 24 FI Oz similar of the PRIVATE LABEL is high.					
In the near future, I am seriously thinking about switch one DOVE Body Wash Deep Moisture 24 FI Oz to one Body Wash Deep Moisture 24 FI Oz similar of the PRIVATE					

The DOVE Brand have at your line of products the Body Wash Deep Moisture 24 FI Oz. This product is also sold for supermarkets Private Labels, Body Wash Deep Moisture 24 FI Oz. Based on the range of products presented in the figure below, please answer the next three questions.

U



\mathbf{C}

FEUC FACULDADE DE ECONOMIA UNIVERSIDADE DE COIMBRA



Which Supermarket Private Label do you use to consume? * Marcar apenas uma oval.
Walmart (equate)
Target (up &up)
CVS
Other

Above, has been presented the DOVE Body Wash Deep Moisture 24 FI Oz as \$ 6,95. What is your best estimate price for the Body Wash Deep Moisture 24 FI Oz of your preferred PRIVATE LABEL (U.S Dollar)? *

The statements below are about the supermarket PRIVATE LABEL Body Wash Deep Moisture 24 FI Oz. Please sign your level of agreement / disagreement. *

Marcar apenas uma oval por linha.

	1 - Totally Disagree	2 3	4 - Neither Agree or Desagree	5 6	7 - Totally Agree
I consider myself to be loyal to this Brand.					
This Brand would be my first choice.					
I will not buy other brands if this one is not available at the store.					





\mathbf{C} .

FEUC FACULDADE DE ECONOMIA

UNIVERSIDADE DE COIMBRA

	1 - Totally Disagree	2 3	4 - Neither Agree or Desagree	5 6	7 - Totally Agree
I know what this Brand looks like.					
I can recognize this Brand among other competing brands.					
I can aware of this Brand					
Some characteristics of this Brand come to my mind quickly.					
I have facility in imagining this Brand in my mind.					
I can recall the symbol or logo of this Brand.					
This Brand is of high	1 - Totally Disagree	2 3	4 - Neither Agree or Desagree	5 6	Totally Agree
This Brand is of high		2 3		5 6	Totally Agree
quality. The likely quality of this Brand is extremely high. The likelihood that		2 3		5 6	
quality. The likely quality of this Brand is extremely high. The likelihood that Brand would be functional is very high.		2 3		5 6	
quality. The likely quality of this Brand is extremely high. The likelihood that Brand would be functional is very high. The likelihood that Brand is realiable is very high.				5 6	
quality. The likely quality of this Brand is extremely high. The likelihood that Brand would be functional is very high. The likelihood that Brand is realiable is very				5 6	
quality. The likely quality of this Brand is extremely high. The likelihood that Brand would be functional is very high. The likelihood that Brand is realiable is very high. That Brand must be of				5 6	
quality. The likely quality of this Brand is extremely high. The likelihood that Brand would be functional is very high. The likelihood that Brand is realiable is very high. That Brand must be of very good quality. This Brand appears to be of very good quality.	Disagree O O ase answerder?*				Agree

U



\mathbf{C} .

FEUC FACULDADE DE ECONOMIA UNIVERSIDADE DE COIMBRA

Number of people in household *	
	π people in nousenoiα · enas uma oval.
<u> </u>	
2	
3	
<u>4</u>	
<u></u>	
60	u mais
Marital status *	
	enas uma oval.
Sin	gle
Ma	rried
div	orced
o wid	low
Oth	ner
Professio	n * enas uma oval.
	ident
	ployed ident / Worker
	enployed
Re	
Ou	
<u> </u>	
Highest le	evel of schooling completed: *
Marcar ap	enas uma oval.
◯ Mic	ddle Scholl
	ph Scholl
O Ba	chelor
	ster Degree
Ph	
Oth	ner
What is	your total annual household income in US Dollars before taxes?*
	penas uma oval.
	ess than de 500 Dolars
50	00-999 Dolars
	000-1499 Dolars
	500-2499 Dolars
() 2	500-4999 Dolars

5000 Dolars or more