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BUSINESS & ECONOMICS

Can we feel prettier?

**Makeup usage among Portuguese women and its potential
extracted benefits: self-esteem, physical attractiveness, social
confidence, social interactions, and satisfaction with life.**

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Abstract

To the best of our knowledge, the existent studies in Portugal about makeup never focused on the benefits that women can extract from its usage. Moreover, the penetration of this category is much lower than the European average and has then room for growth. Therefore, the aim of the present thesis is to characterize the usage of makeup among Portuguese women, as well as to explore what are the relationship between the usage of makeup and different possible psychosocial benefits.

To investigate this topic, first a literature review was done in order to understand what were the benefits that one could have from using makeup. The result was a set of five benefits: self-esteem, self-perceived attractiveness, social confidence, social interactions, and satisfaction with life. Based on the frequency of use and quantity of use, three segments of makeup users were created and the statistical analyses were performed. Makeup usage was found to positively impact four out of the five psychological dimensions. The higher the usage, in terms of quantity and frequency, the higher the levels of one's self-esteem, self-perceived physical attractiveness, social confidence as well as social interactions.

Regardless of the limitations and necessary future researches, the present thesis gives a primary contribution with regard the benefits that the usage of makeup can have on women's lives. These insights enable beauty brands to better understand their consumers and the differences in usage among different segments, as well as the benefits that each one can extract.

Resumo

Os estudos realizados em Portugal sobre maquilhagem não focam os benefícios que as mulheres podem retirar da sua utilização. Simultaneamente, a penetração desta categoria em Portugal é inferior à média Europeia, havendo, desta forma, espaço para crescimento. Assim, o objetivo do presente estudo é caracterizar o uso de maquilhagem entre as mulheres portuguesas, bem como explorar a relação entre o uso de maquilhagem e os possíveis benefícios psicossociais que daí possam advir.

Para estudar este tópico, em primeiro lugar foi desenvolvida uma revisão da literatura, com o objetivo de compreender quais os benefícios que uma mulher pode retirar do uso de maquilhagem. O resultado foi um conjunto de cinco benefícios: autoestima, perceção pessoal de atratividade, confiança social, interações sociais e de satisfação com a vida. Com base na frequência e quantidade de maquilhagem utilizada, foram criados três segmentos e as análises estatísticas foram realizadas. Foi verificado que a utilização de maquilhagem influencia positivamente quatro dos cinco possíveis benefícios psicossociais. Quanto maior o uso, em termos de quantidade e frequência, maiores os níveis de autoestima, perceção pessoal de atratividade, confiança social, bem como o nível de interações sociais.

Independentemente das limitações e de necessários estudos futuros, a presente tese dá uma contribuição primária, relativamente aos benefícios que o uso de maquilhagem pode ter na vida das mulheres. Estes *insights* permitem às marcas de beleza uma melhor compreensão das suas consumidoras e as diferenças no uso entre os diferentes segmentos, assim como os benefícios que cada um pode extrair do seu uso.

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Chapter 1 | Introduction

1.1 Topic Presentation

With the rise of cosmetics brands and the evolving innovation within the Beauty Industry, women have nowadays access to thousands of products that are made to solve specific skin problems or just to enhance their natural beauty. In fact, the idea that the usage of makeup is part of women's beauty rituals has been evoked by cosmetic brands since the beginning of the 20th century (Cosmetics, 1963; Lydia O'Leary Inc., 1936; The Armand Company, 1935); since that time that cosmetics companies highlight not only the features/utilitarian effects of their products but also the impacts that these can have on the users themselves (Bloch & Richins, 1992; Cash & Cash, 1982; Cash, Dawson, Davis, Bowen, & Galumbeck, 1989; Dellinger & Williams, 1997; Fabricant & Gould, 1993; Gentina, Palan, & Fosse-Gomez, 2012; Keil, 2006; Korichi, Pelle-de-Queral, Gazano, & Aubert, 2008; Robertson, Fieldman, & Hussey, 2008) as well as on the as well as the perceptions of others (Cash et al., 1989; Cox & Glick, 1986; Dellinger & Williams, 1997; Dion, Berscheid, & Walster, 1972; Etcoff, Stock, Haley, Vickery, & House, 2011; Mulhern, Fieldman, Hussey, Lévêque, & Pineau, 2003; Nash, Fieldman, Hussey, Lévêque, & Pineau, 2006; Osborn, 2003).

This dissertation aims therefore to understand the phenomena of make-up usage in Portugal. Beyond the characterization of the process of consumption of make-up, this thesis has as main objectives the study of the benefits extracted by women when using makeup and the impact that it might have on one's psychosocial profile. Women that use makeup infrequently or never will also be a focus of this study, in order to understand the reasons why they do not use it and also what could change their behavior in order to start using it more often.

1.2 Academic and Managerial relevance

With the beauty industry becoming an increasingly competitive one, it is essential to know what consumers look for when purchasing and using these type of products, the importance that such habit have in their lives and what it influences with regard each one's psychological profile. The makeup market represents nowadays, in revenues, 28.6 B€ globally and this value is expected to grow about 25% until 2019 (Marketline, 2015a). In Portugal, the makeup market had a total value of 93.9 M€ and is expected to grow approximately 3% until 2018 (Marketline, 2014). Despite this being a growing category, Portugal, according to a study conducted by L'Oréal Portugal in 2015 (Marketeer, 2016) has a category's penetration of

71% comparing to 83% in Europe, which represents less 12 p.p. and most importantly shows there is a room for improvement.

This has been a topic of interest of several researchers and the studies' objectives have long surpassed the utilitarian benefits that the usage of makeup has on one's life. However, to the best of our knowledge, the previous studies that analyzed both the impact on the users themselves as well as on the perceptions of others did so using a very small sample of respondents and concentrating on a specific age segment: adolescent/students. Furthermore, although this topic has received wide attention, the majority of the studies have also been focused on American girls and much less attention has been allocated to European women.

In terms of a managerial point of view is crucial to understand how the Portuguese consumers' habits and needs are characterized so that companies can create their products and market them in a way that they connect directly with consumers' desires and needs. Furthermore, companies will as well have information about their potential consumers and adjust their marketing objectives in order to reach them.

1.3 Problem statement

Given the size of the category in Portugal and the fact that there is much room for its improvement with regard to its penetration, based on the difference between Portugal and the European average, the present study has as its main objective to understand the benefits that can may come from the usage of makeup and to give valuable insights of Portuguese consumers to the Portuguese Cosmetic Industry and other European countries that might have similar characteristics.

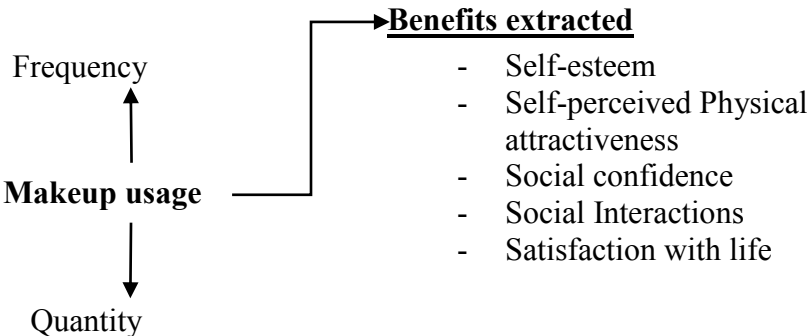


Figure 1 - Conceptual model

1.4 Research questions

RQ1: How is the usage of makeup products characterized?

We aim to understand what are the characteristics of makeup usage of Portuguese women, with regard the frequency and quantity of use. It is also our objective to characterize the usage regarding its application setting and also the relationship that women have with this hedonic and/or utilitarian category and its brands.

RQ2: Is the usage of makeup products a ritual?

This question has the goal to understand if Portuguese women have clear patterns in the usage of makeup, if it is part of their grooming habits and whether or not it can be classified as a ritual.

RQ3: What are the benefits extracted when using makeup?

Determining the relationship/effect that the usage of makeup might have on one's psychosocial profile is one of the main purposes of this study. It is our goal to explore whether there are benefits that can be extracted with the practice of using makeup in the psychosocial characteristics, and if there is any relation between these (e.g. Self-esteem, Physical attractiveness). More specifically, the following will be addressed:

- Is there a relationship between a woman's level self-esteem and her usage of makeup?
- Is there a relationship between one's level of self-perceived physical attractiveness and the usage of makeup?
- Is there a relationship between the level of social confidence and social interactions and the usage of makeup?
- Is there a relationship between women's satisfaction of life and the usage of makeup?

RQ4: What are the reasons for the non-use of makeup?

This question aims to understand what are the main drivers for the reduced use of makeup or for non-use by Portuguese women, namely if it is driven by personal motives or/and social.

1.5 Thesis structure

This thesis is organized in five main chapters. In the first chapter – Chapter 1 – Introduction, a brief introduction is made to the makeup industry with a special focus on the Portuguese market and the problem statement is defined as well as its research questions. The managerial and academic relevance of this study is also included in this chapter. Then, in a second chapter – Chapter 2 – Literature Review – a literature review on several topics regarding usage characteristics, benefits extracted, drivers for the non-use of makeup, as well as an overview of past studies will be presented. In a third chapter – Chapter 3 – Methodology – the study to be conducted as well as the tools used for its implementation will be explained. In the consecutive chapter - Chapter 4 – Results’ Analysis – the results of the study will be presented and interpreted. In the following chapter - Chapter 5 – Main conclusions and future research– conclusions on the study and results will be made. This chapter will also contain the main limitations and future research directions in the topic.

Chapter 2 | Literature Review

The aim of the upcoming chapter is to display relevant research and theoretical foundation about the usage of Makeup/Cosmetics and what is that it impacts/benefits. This is crucial in order to better understand all the inter-related concepts and to more accurately formulate our study about Portuguese women.

This chapter is organized in four main sections. The first section – The Makeup market and definition, aims to provide an overview of the Makeup Market and to define “Makeup” and “Cosmetics” making the distinction between these two concepts.

The following section – The Makeup usage – is divided in two parts. The first aims to characterize the makeup usage, while the second has the goal to analyze the ritual dimension of the use of Makeup.

The third section – The Makeup extracted benefits – is divided in 4 parts that represent each of the possible benefits extracted of using makeup: physical attractiveness, self-esteem, social confidence and social interactions and satisfaction with life.

Lastly, the fourth section – Drivers for the non-use of makeup - considers the various drivers for the non or reduced use of makeup.

2.1 The Makeup market and definition

Color cosmetic or makeup market represents just slightly over 18% of the whole market of the personal care industry (Kumar, 2005). Both terms – cosmetics and makeup - have a different etymology and have arrived in the present by a different path (Carter, 1998), but for simplicity, and in order to keep consistency with much of the existing research, the present study uses the terms cosmetics/cosmetic products to refer to this makeup or color cosmetics and both terms will then be used interchangeably.

The FD&C Act defines cosmetics by their intended use, as “articles intended to be rubbed, poured, sprinkled, or sprayed on, introduced into, or otherwise applied to the human body...for cleansing, beautifying, promoting attractiveness, or altering the appearance” (U.S. Food and Drug Administration, 2013). Among the products included in this definition are skin moisturizers, perfumes, lipsticks, eye and facial makeup, shampoos and others.

The makeup market consists of 4 segments: eye makeup, face makeup, lip makeup and nail makeup and represents approximately 28.6 B€ globally (total revenues). This value is expected to grow about 25% until 2019 (Marketline, 2015a).

Whit regards to Europe, the makeup market had a value, in 2014, of 11.1B€, which represents approximately around 39% of the global makeup market. In 2019 is forecasted to have a value of around 13B€ (Marketline, 2015b), representing about 45% of the global market. In Europe the largest segments are face makeup (34%), followed by eye-makeup (33%) (Marketline, 2015b), while in Portugal face makeup represents about 36%, followed by lip makeup (29%) (Marketline, 2014).

With respect to Portugal, the makeup market had a total value of 93.9M€ in 2013, which represented nearly 0.9% of the European market, and a growth of 2,8% is expected until 2018 (Marketline, 2014). Another interesting aspect to refer is how the market is distributed (channels): “supermarkets/hypermarkets accounted for 47.5% of the total market’s value”, being followed by “specialist retailers” (32%) and “Pharmacies/drugstores” (8%) (Marketline, 2014).

Alike Europe, in Portugal, L’Oréal is also the leading player, generating 24,5% of the market’s value, while Coty accounts for a further 19,5% of the market and Procter & Gamble around 10% (Marketline, 2014).

Besides the comparisons previously described between the values of the market in both Europe and Portugal, it is of major importance to refer that Portuguese women use less makeup than the average European women. According to a study conducted by L’Oréal Portugal in 2015, the penetration of this category in Portugal is of 71%, compared with the 83% in Europe (Marketeer, 2016).

2.2 The Makeup usage

2.2.1 Characterization of the Makeup usage

According to Fabricant and Gould (1993) with the usage of makeup women may build aspects of their selves consistently over time, at least at the level of their visible self-images. Previous work as outlined that indeed first impressions based on facial appearance are formed automatically and besides the fact that they are difficult to overcome, they also impact decision making (Etcoff et al., 2011). Moreover, the use of cosmetics reflects the individual’s preferences and choices, and the response to their use reflects

the perceiver's attitudes about ways of self-presentation and grooming practices (Fabricant & Gould, 1993).

Previous studies have considered the existence of a makeup career, which consists of a woman's varying use of makeup through her life (Cash, 1987; Fabricant & Gould, 1993). This called "makeup career" usually follows a general route that begins at adolescence (Gentina et al., 2012), accelerates in high school and then drops a bit and levels off later on (Fabricant & Gould, 1993).

There are several studies that characterize women regarding their usage of makeup and the procedure followed to do so is distinct: some researchers opt to classify users according to the number of products used (Brinegar & Weddle, 2014; Robertson et al., 2008), while some studies have a combined approach, using both frequency of use and number of products (Cash & Cash, 1982; Cash et al., 1989; Fabricant & Gould, 1993; Keil, 2006). One example of this last approach is the interpretive study from Fabricant and Gould (1993), based on the frequency of use and the quantity of use. The authors designed a classification of 4 segments making combinations of the two dimensions: low "frequency of use" (L) / high "frequency of use" (H) and high "quantity of use" (H) / low "quantity of use" (L).

In a slightly different perspective, Brinegar and Weddle (2014) in a study conducted to study the correlation between makeup usage and self-esteem, also classified the makeup used by women. From this study, a sixth category classification in which they used a scale ranging from "no makeup" to "theater / "celebrity-type" makeup was proposed, having into consideration the number of products used by each woman at the time the interview was being run. The segments created were: "no makeup"; "limited makeup": 1-2 products; "below average": 3-4 products; "above average": 5-6 products; "excessive makeup": 7-8 products and "theater/celebrity-type makeup": 9-12 products.

The most used procedure to classify consumers with regards to their cosmetic usage is however the one developed by Cash and Cash (1982). These authors developed the Cash Cosmetics Use Inventory (CCUI) – which is a scale composed by 14 items and asks people to classify each one according to the frequency of use. An adapted version of the CCUI was also the procedure used in the present research.

2.2.2 Ritual dimensions of the Makeup usage

The idea that the usage of makeup is part of women's beauty rituals has been evoked by cosmetic brands since the beginning of the 20th century (Cosmetics, 1963; Lydia O'Leary Inc., 1936; The Armand Company, 1935).

In 1935, Carl Weeks, President of the Armand Company, wrote in the preface of the book published by the company: "the use of cosmetics has become an intimate part of feminine life

– and with the vast majority of women quite as habitual as eating and sleeping, and as natural.” (The Armand Company, 1935).

Previous work has outlined that in fact makeup is a learning process that changes over a woman’s lifetime (Fabricant & Gould, 1993). The shift from parental to peer influence is seen as the central achievement of the called adolescence autonomy and it is also in adolescence when the emotional autonomy is developed (Gentina et al., 2012). This practice can be seen as a potential ritual of separation from the childhood role (Cash & Cash, 1982). and may facilitate the achievement of adolescence autonomy (Gentina et al., 2012).

The ritual behavior is a positive and meaningful characteristic of both every day and extraordinary human experience and the right definition for it should include both the structural elements that characterize ritual behavior and the qualitative elements that distinguish ritual form comparable behavior modes (Rook, 1985).

In the study developed by Gentina and colleagues (2012) it was found that the makeup gestures used by informants were repeated, automatic and sequential: “In the morning, I eat my breakfast, I take a shower I get dressed and afterwards I put on makeup, it is always the same thing, it is an automatic thing, I don’t think about it (Pauline, 18)”. Respondents even reported a very specific sequence and rules with respect to the usage of makeup: “I put on mascara, and then I only put on the pencil and my eye shadow if I have time (Clémence,14)”. These findings are aligned with the ones from the study conducted by Cash and Cash (1982), who showed that women put on their cosmetics “routinely each morning”.

Moreover, studies have been focusing on the differences in the time women use to apply their makeup (Cash & Cash, 1982; Gentina et al., 2012), in the place where makeup is applied (Gentina et al., 2012; Keil, 2006) and also on the fact that the type of makeup that is used may change according to the situation (Cash & Cash, 1982; Fabricant & Gould, 1993; Gentina et al., 2012; Robertson et al., 2008).

Rook (1985), in their study about the ritual dimension of consumer behavior, highlights that everyday rituals, such as those associated with personal grooming are more than “mindless habits”, they involve “deep-seated emotions and aspirations”, which reinforce the importance of studying such rituals as a way for interpreting the consumer behavior.

2.3 The Makeup extracted benefits

Since the beginning of the last century that cosmetics companies highlight not only the features/utilitarian effects of their products (ex: high vs. low coverage of a face makeup) but they also add others dimensions to it (Lydia O'Leary Inc., 1936, p. 1; The Armand Company, 1935, p. 6), as can be seen in Appendix 1.

Indeed, these are examples that illustrates superbly that the use of makeup goes far beyond the literally idea that makeup products are used to achieve a desire facial symmetry or a skin homogeneity (Carter, 1998). Several studies since the beginning of the 80's have reported that the usage of cosmetics can positively influence the users themselves (Bloch & Richins, 1992; Cash & Cash, 1982; Cash et al., 1989; Dellinger & Williams, 1997; Fabricant & Gould, 1993; Gentina et al., 2012; Keil, 2006; Korichi et al., 2008; Robertson et al., 2008), as well as the perceptions of others (Cash et al., 1989; Cox & Glick, 1986; Dellinger & Williams, 1997; Dion et al., 1972; Etcoff et al., 2011; Mulhern et al., 2003; Nash et al., 2006; Osborn, 2003).

The “camouflage” effect that makeup has, was proved to provide a greater self-esteem (Bloch & Richins, 1992; Cash & Cash, 1982) and also to give the user a different level of social confidence (Nash et al., 2006) as well as improve their social interactions (Cash & Cash, 1982; Robertson et al., 2008).

All the studies analyzed in the present work concluded that makeup is undoubtedly a holistic procedure that can not only adjust one's appearance but can also have an impact on one's psychosocial profile. Therefore, it will be essential to study the impact that makeup can have on women's potential extracted benefits, such as: physical attractiveness, self-esteem, social confidence and interactions as well as well-being.

2.3.1 Physical Attractiveness

“The desire to be attractive is inherent, and as old as the human race” (The Armand Company, 1935).

Before analysing the impact that the use of makeup might have on one's physical attractiveness, it is important to first understand the importance (or not) of being physical attractive. There are several studies that concluded that there are indeed advantages for those who are physical attractive (Dion et al., 1972; Eagly, Ashmore, Makhijani, & Longo, 1991; Judge, Hurst, & Simon, 2009; Osborn, 2003; Riggio, Widaman, Tucker, & Salinas, 1991). Dion and Berscheid (1972) stated that “a person's physical appearance, along with his sexual

identity, is the personal characteristic that is most obvious and accessible to others in social interactions” p.1 and conducted a study to assess whether physically attractive stimulus persons are assumed to possess more “socially desirable personality traits” and “expected to lead better lives”. The participants had to rate photographs of the stimulus people on 27 different personality traits. Attractive men and women were undeniably judged to be “more socially desirable than unattractive” as well as expected to “secure more prestigious jobs”, “experiencing happier marriages” and “enjoying more fulfilling social and occupational lives”. This effect was named as “What is beautiful is good” and raised the attention of other researchers. At the beginning of the 90’s, Eagly and colleagues (1991) decided to further explore this topic and although having found that attractive subjects “ascribed more favourable personality traits and more successful life outcomes”, this “beauty-is-good effect” was moderate and its strength varied considerably from study to study.

Additionally, Riggio and colleagues (1991) found that one’s facial beauty and the dynamic components (expressive behaviours and style) were the most contributors to overall evaluations of attractiveness. More recently, Judge and colleagues (2009) also found that one’s physical attractiveness, together with intelligence and personality, influences income and financial well-being.

The idea that women might modify their physical attractiveness through the use of cosmetics products, more specifically makeup products, is widely accepted in the society and supported by several researchers. There are two different perspectives and focus of study: the effect of the use of makeup on self-perceived attractiveness and its effect on other’s perception. Several studies found that makeup has a positive impact on self-perceived attractiveness (Bloch & Richins, 1992; Cash et al., 1989; Keil, 2006; Mulhern et al., 2003) as well on others’ perceptions (Cash et al., 1989; Cox & Glick, 1986; Etoff et al., 2011; Mulhern et al., 2003; Nash et al., 2006; Osborn, 2003).

Cash and colleagues (1989), studied both perspectives and found that the presence of makeup, besides increasing the ratings of perceived attractiveness by male peers (increase of 0.5 in the median of the scale of physical attractiveness), also affected women’s self-perceived attractiveness (1.5 in the median of the scale of physical attractiveness), concluding that when subjects were wearing their habitual makeup they indeed reported more satisfaction with their faces and with their overall appearance and believed they would be regarded by peers as more attractive. Also Keil (2006), found in her research a significant relationship between cosmetics use and self-perceived attractiveness.

Additionally, Osborn (1995) found that “a woman can change her attractiveness, on average, more than one standard deviation on a physical attractiveness scale”. This effect was notably higher than the one found in Cash and colleagues’ (1989) work. Moreover, in a more recent study, photographs (with minimal makeup, moderate makeup and dramatic makeup) were showed to participants for 250 ms or for an unlimited inspection time and the presence of makeup had a significant positive effect on physical attractiveness on both scenarios (Etcoff et al., 2011).

Despite the different approaches and methods used in past researches, all the results lead to the idea that the use of cosmetics has an effect on the self-perceived attractiveness as well on other’s perceptions. The one that is going to be assessed in the present work is the possible effects on women’s self-perceived attractiveness.

2.3.2 Self-Esteem

“Self-esteem refers to feelings of self-worth or the global evaluation of the self. High self-esteem refers to a highly favorable global evaluation of the self. Low self-esteem, by definition, refers to an unfavorable definition of the self” (Baumeister, Campbell, Krueger, & Vohs, 2003, p. 2)

Self-esteem is a widely studied concept that is developed throughout an individual’s lifetime (Mac Pherson, 2005) and like other personality characteristics, can “change in systematic ways while exhibiting continuity over time” (Chung et al., 2014). Mac Pherson (2005) aimed to address the “correlation between a patient’s self-esteem and nonsurgical cosmetic enhancement”. The Rosenberg’s Self Esteem Scale was used and a strong relationship between one’s level of self-esteem and nonsurgical cosmetic enhancement was found.

Previous research was conducted in order to determine whether or not individual’s self-esteem is affected by improvement in external appearance through the correct use of cosmetics (Wright, Martin, Flynn, & Gunter, 1970). In this longitudinal study, participants were college students with various degrees of facial blemishes, and that was the motive why makeup was used. They concluded that participants after the 3 months applying makeup had an increase in their level of self-esteem. Findings from Gentina and colleagues (2012) reinforce this notion that people that use makeup products in order to hide what they consider as facial imperfections end up feeling more confident about themselves. This method of using makeup to hide imperfections is referred in previous studies as a phenomenon named “camouflage” (Bloch & Richins, 1992; Fabricant & Gould, 1993; Korichi et al., 2008). Bloch

and Richins (1992) stressed that the camouflage benefits may be used as a way to increase a currently low level of self-esteem. Moreover, Fabricant and Gould (1993) considered camouflage to be one of the most important motivations towards the usage of makeup. In a similar vein, in the study from Korichi and colleagues (2008) concerning the reasons why women use makeup, it was showed that makeup could support not only the “camouflage function” but also a “seduction function”. The first function, camouflage, is “intended to decrease a negative self-perception”, whereas the function of seduction is more focused on the “desire to please”. Moreover, when looking at the characteristics of the women that use makeup as a camouflage tool, it was concluded that they were rather concerned with anxiety and neuroticism, while those using makeup as a seduction tool were rather characterized by higher self-esteem, extroversion, and assertiveness (Korichi et al, 2008).

In a different perspective, Robertson and colleagues (2008) conducted an exploratory research in order to assess how 16 personality traits affected cosmetic usage so that they could understand the “psychosocial motivations behind cosmetic usage”. The hypotheses were built based on the assumption that the “manipulation of features will be most used when at its most functional”, which means that the authors supported the idea that a negative correlation should exist between cosmetic usage and self-esteem. This was indeed confirmed: cosmetic usage was found to negatively correlate with self-esteem, as well as with physical attractiveness. Also in the study developed by Brinegar and Weddle (2014) it was hypothesized that low levels of self-esteem would positively correlate with the amount and frequency of makeup usage, but this was not confirmed by statistical tests.

The Rosenberg self-esteem construct was the one applied in the present study in order to assess the potential benefits that one’s level of self-esteem might have as a result of the usage of makeup.

2.3.3 Social Confidence and Social Interactions

“For the first time in many years, I have been able to appear in evening dress clad like other women.” (Lydia O’Leary Inc., 1936, p. 27).

This was a testimonial written by a person who used a concealer product to hide a scar on her neck. She showed that the camouflage feature allowed her to increase their social confidence. The studies and their results previously described, showed that the makeup usage has indeed an effect on physical attractiveness (both self and perceived) and self-esteem. Based on past

research, we also support the idea that makeup usage affects women's social confidence and social interactions.

In the study conducted by Cash and Cash (1982), it was concluded that increasing one's level of attractiveness, with the use of makeup, has not only "psychological benefits such as increased social confidence", but social benefits as well. They wanted to develop on the following research question "Do women who wear makeup in a given situation feel more confident and sociable than they would without cosmetics?". In a scale from 0 to 10, participants were asked to rate their level of confidence and situational avoidance. The results were notorious and clear, following the assumption that cosmetics users have more confidence (difference of 3.25 in mean) and report a greater situational comfort (difference of 3.87 in mean) while using cosmetics. The authors also found a negative correlation between social anxiety and the amount of makeup products use, which is consistent with the findings from Fabricant and Gould (1993) that have records of respondents saying that if they have to go out in public without their makeup on they will feel anxious and try to not interact or be seen. Moreover, Cash and colleagues (1989) strengthened the idea that cosmetics use allows women to manage and control social impressions as well as their self-image.

In a similar vein, previous research has also outlined the existence of a negative correlation between cosmetic usage and social confidence and social intellect (Robertson et al., 2008). The authors expected this relationship among these variables because they support the idea previously described that "the need for such manipulation should be as its strongest when it is most functional: when the individual is feeling less certain, less sure of themselves, less confident in their social context".

In the current work we aim to assess both social confidence and social interactions as potentials extracted benefits one can have from the usage of makeup.

2.3.4 Satisfaction with life

"We hope that our inner qualities, and not simply our outward appearance, cause life satisfaction" (Diener, Wolsic, & Fujita, 1995).

Life satisfaction, used in the present research interchangeably with the term well-being, have long been studied. The Satisfaction with Life Scale (SWLS) (Diener, Emmons, Larsen, & Griffin, 1985) was developed to assess "satisfaction with the respondent's life as a whole"

(Diener et al., 1995) and have been used largely by researchers, also because it is suited for use with different age groups (Diener et al., 1985).

In the study conducted by Diener and colleagues (1995), they wanted to assess whether “native beauty” or “enhanced beauty” (with the usage of adornments such as cosmetics) would be the most related with subjective well-being and they found that there is only a small relation between physical attractiveness and subjective well-being. Even though this relationship did not turn out significant, other authors suggest that makeup usage can have influence regarding the sense of well-being. In a study conducted by Bloch and Richins (1992), it is referred that hedonic motives that lead to the usage of cosmetics “could include a desire for selfish pampering”. Also Robertson and colleagues (2008), based on their findings, suggested that cosmetics might be “actively promoted by healthcare and well-being professionals as another valuable aid to psychological well-being and self-enhancement”.

Moreover, previous research has outlined the importance that makeup has in some women’s lives, allowing them to “express their femininity and advance their career goals” (Fabricant & Gould, 1993). Furthermore, this fact leads sometimes to the increase of the frequency of makeup usage and/or in the increase of quantity of products used (Fabricant & Gould, 1993). Additionally, the study conducted by Korichi and colleagues (2008) validated the positive impact that the confidence about one’s appearance has on one’s mood and on the well-being. In line with this idea, other participants provided evidence that using makeup is not just an activity in their daily life but it is also critical to their sense of well-being: “Using makeup is a part of me. Without makeup, I would not feel good (Emiline, 17)” (Gentina et al., 2012).

2.4 Drivers for the non-use of Makeup

The General Manager of L’Oréal Portugal, Inês Caldeira, says in an interview that “There are myths in our country with regard Makeup that we have to demystify because they influence the women’s behavior and consequently the products’ utilization and the category penetration.” (Marketeer, 2016).

This issue of the reasons for the non-use of makeup, or of the consequences of the makeup usage that may lead to the decrease or even to the non-use of makeup products at all, have been studied by researchers for a long time now. Besides the positive consequences and benefits extracted with the makeup usage, previous work has outlined negative aspects.

In the study conducted by Fabricant and Gould (1993) it was discussed that the makeup use is related with a socialization process in which opinions leaders such as peers and media are involved. It was further concluded that peer pressure, from peers and also one's family, provided a big impetus with regard the use or non-use of makeup. Another essential conclusion from this research was the fact that many women see "makeup as negative as and as perpetuating the sexual stereotyping of women in our society", and the reaction to this thinking is the decrease in the frequency of times they use makeup and/or in the quantity used when they do wear it. This influence of the use of makeup on the sexual stereotyping of women have been identified in various other studies (Cox & Glick, 1986; Dellinger & Williams, 1997; Gentina et al., 2012; Workman & Johnson, 1991).

In the study conducted by Cox and Glick (1986) regarding the relationship between employment evaluations of women and the use of varying degrees of cosmetics, respondents were firstly asked to rate two to three photographs on a range of aspects, including perceived attractiveness, sexiness and makeup use and secondly asked to answer a series of questions about the applicant's expected job performance (accountant vs. secretary), along with hiring and salary recommendations. Female applicants were photographed in three different conditions: wearing no makeup, a moderate amount of makeup, and heavy makeup. Cosmetics use was found to be positively correlated with perceived attractiveness, femininity and sexiness, however, it had a negative effect on the expected performance of female applicants for a gender-typed (secretary) position. One of the particularly shocking conclusions of this study, even being a study from 1983, is that the authors advised women that have or aspire to have professionally success in a stereotypically feminine occupation to consider to avoid cosmetics use, since it would strengthen any sex role or physical attractiveness stereotypes associated with their positions.

In line with this reasoning of the way makeup usage may detract from perceived competence on the job, it was found, in a much more recent study about the variables that predict cosmetic usage, a negative relationship between aspects of intelligence and cosmetic usage (Robertson et al., 2008). The authors supported these results with the hypothesis that if women's inherent strengths are considered to be in the intellectual arena, the need for facial enhancement through the use of makeup would be reduced.

Historically, the amount of makeup worn was associated with provoking sexual harassment: "the use of cosmetics to increase attractiveness may also increase impressions of sexiness and

immorality, and may be interpreted as an "invitation" to the opposite sex" (Workman & Johnson, 1991).

In a much more recent study, it is showed that this thinking still persists and that these reasoning and behaviors are not exclusive of mature women neither a characteristic of professional women in working environments. It also happens with much younger females, for example with teenage girls. They are hesitant to use lipstick, irrespective of the color, because they associated lips with sexuality and femininity (Gentina et al., 2012).

Therefore, it seems of great relevance to further explore this topic, trying to understand not just what are the underlying reason for women to not use makeup or to use it infrequently and what would lead them to start using it, but also to understand among those that do, what are the perceived extracted benefits.

Chapter 3 | Methodology and Data Collection

The main objective of the subsequent chapter is to provide a detailed description of the methodology used to collect the data to answer our research questions. It is divided into four main parts: research method, sampling, procedure and variables assessed.

3.1 Research Method

The main objective of this thesis was to understand and characterize Portuguese women and their relationship with makeup. Therefore, in order to attend this goal, we adopted an online survey methodology. The advantages of this method are fourfold. First it allows to reach a broad audience with heterogeneous characteristics, aligned with the purpose of the current work. Second, it allows to collect data efficiently, since the method allows to reach a large number of people, using digital media (e-mail and social networks), to facilitate its spreading. Third, it is a non-expensive method to collect data. Fourth, it allows the customization of the research instruments, aligning them with the primary interests of the research.

Regarding the disadvantages of the method, it is important to outline that since participants are reached through e-mail or social media networks, the researcher has little control over their identity and true motivation to participate in the study. In order to overcome this issue, the survey included a detailed set of questions regarding social demographics characteristics, which allowed to identify any inconsistent characteristics.

3.2 Sampling

Concerning the sampling techniques, they can be classified as non-probabilistic and probabilistic. Typically, the non-probability sampling is used in exploratory researches. This technique is divided in: convenience sample, judgmental sampling, quota sampling and snowball sampling (Malhotra & Birks, 2007).

Snowball sampling was the non-probability sampling method used to collect the data for this research. As stated in the Introduction, the population of the present study is the Portuguese women. In order for the sample of the study to be as accurate as possible with regard the representativeness of the population, the ideal situation was to have Portuguese women from all the Districts, all the age ranges, as well as with different work conditions, different levels

of education, different marital status and different levels of household income and expenditures.

The main advantage of snowballing is its ability to “reach the parts other methods cannot reach”, whereas the main disadvantage is the fact that it “cannot be relied upon as a probability sample”. With regard to challenges of recruitment into this sampling technique, “refusal, ineligibility or early dropouts of participants” are mentioned as the main ones (Streton, Cooke, & Campbell, 2004).

Despite the disadvantages and possible challenges, this method was found to be the most logical for this study. The majority of responses were driven through Facebook and e-mail, but LinkedIn was also used as a way to get responses.

3.3 Procedure

Our online survey was conducted using Qualtrics software and it was targeted at the female population. Before it was launched, the survey was pre-tested with 5 women, all with different grooming habits, in order to have feedback about all the sections of the survey, since there were specific questions that were only displayed if the participants had some characteristics (example: frequency of usage of makeup). This stage of pre-test was essential to assure all the questions were clear and completely understood by the participants. It was also crucial in order to test all the different questionnaire paths.

The survey was available in Portuguese and included seven different sections (See appendix 2). The first section – Introduction and screening, explained the purpose of the study and assessed to what extent participants could proceed with the questionnaire (participants had to be female).

As an incentive, all respondents received the chance to participate in a lottery for one FNAC voucher of 20€. To participate, respondents could provide their private e-mail address in the last question of the questionnaire. This was the only question that did not have forced response.

In the first section, respondents were asked to indicate their frequency of use of makeup. Participants that indicated to use makeup from 2 to 3 times a week to everyday, were classified as *makeup high frequency user*, while participants that indicated to use makeup only once a week or less, were classified as *makeup low frequency users*. As described in the purpose of the present the study, we also aimed to study women that do not use makeup at all

and to this end, there was also the choice of “never” in the frequency question, being than classified as *non-users of makeup*. Depending on the classification, participants were further exposed to different set of questions. The *high frequency users* proceeded to the section three - makeup involvement and usage, while the *low frequency users* and *non-users* were first asked to complete a set of questions related with the reasons to not frequently use makeup (section 2). Therefore, section 2 – reasons for the non-use of makeup, included a set of questions to assess participants’ main reasons to exhibit low makeup usage frequency (e.g., “What prevents you to use makeup more often?”; “What would increase your frequency of use?”).

The next section (section 3 - Makeup involvement and usage), assessed the level of involvement of participants with makeup (e.g., “Makeup interests me a lot”, “Makeup is very important to me”) as also tried to characterize participants’ usage makeup habits (e.g., “How often do you use the following makeup products?”; “Where do you put your makeup on?”) and lastly tried to assess the main reasons that make them use makeup (“Rank your top 5 reasons, in order of importance, that make you use makeup”). The first question of this section – “How old were you when you started using makeup” – had a display logic for the choice “never used it”, appearing only for respondents who answered “never” for the frequency question in the first section of the questionnaire. At first glance, the most likely scenario would be that non-users of makeup have never used makeup before, but there might be cases when that does not apply and for that reason, that group of women – *non-users of makeup* – were also presented with this question. Non-users of makeup then proceeded to the section 5. *High frequency users* and *low frequency users* progressed to the following section (section 4).

After we assessed all these elements of makeup involvement and usage we opted to include a fourth section related with rituals of the makeup usage. As described in the literature review, several authors emphasize the importance of understanding makeup consumption rituals (Gentina et al., 2012), therefore we included a set of questions that allowed us to identify the type of rituals Portuguese women engage in when using makeup (e.g., “I always apply the same products, but with no specific order”; “Do you touch-up your makeup during the day?”). In order to understand the relation of the population in study with cosmetics brands we included section 5 – relation with cosmetic brands, including a question assessing their evoked set (three brands) regarding makeup brands, followed by questions about the brands they use the most, as well as the channel utilized to buy their makeup products (e.g., “When

you think about makeup, which three brands come to your mind? “Where do you usually buy your makeup products?”). Out of this section, *non-users of makeup* were only presented with the first question regarding the evoked set, while *makeup users (high and low frequency)* and were shown all the three questions.

Section six – extracted benefits, aimed to assess what were the main extracted benefits from the usage of makeup. Here we assessed all the dependent variables previously described in our conceptual framework (e.g., physical attractiveness, self-esteem, well-being). This section, as well as the following and last one: section 7 – Demographics, were presented to all the respondents.

Finally, the last section was then composed by a set of demographic questions to characterize our sample. It included questions about the respondent’s age, children, place of residence, marital status, level of education, job condition, monthly household income and also the monthly spent in one month with cosmetic products (See Appendix 3).

3.4 Variables Description

Cosmetics Usage. In regards to cosmetic usage, the scale used was adapted from the scale “Cash Cosmetics Use Inventory (CCUI) was adapted from Cash and Cash (1982). The CCUI is a self-report matrix with 15 makeup products (foundation, face powder, concealer, face shading products, mascara, eye-liner, eye shadow, eye-brow pencil, under-eye lightener, artificial lashes, lip color, lip gloss, lip liner pencil and blush), in which participants have to choose the products they normally wear. Since the objective of this study is not only to study people who use makeup, but also those who use it infrequently, we decided simplify and to present 6 items: face makeup (e.g. concealer, foundation, BB cream, powder), eyelashes mascara (*rimmel*), eyeliner, eyeshadow, lips makeup (lipstick, lip pencil, lip gloss) and nail varnish. To be consistent with the remainder of the study, a 7-point Likert scale was used (1 – never to 7 – always).

Makeup Involvement. In regards to category involvement, a scale was adapted from Steenkamp, van Heerde and Geyskens (2010). This 7-point Likert scale (1 -do not agree, 7 – totally agree) was composed by two sentences: “Makeup interests me a lot” and “Makeup is very important to me”.

Makeup rituals. In order to understand if there was a ritual associated with the usage of makeup, we built a construct that consisted of 3 sentences: “I always apply the same products in the same order (e.g. 1st foundation, 2nd concealer, 3rd eye liner), no matter the time I have”, “I always apply the same products, but with no specific order” and “I apply different products, according to the time I have”. Participants had to indicate how much they agreed with which one, using a 7-point Likert scale (1 – totally disagree, 7 – totally agree).

Physical attractiveness. The physical attractiveness construct ($\alpha = .87$) was taken from the International Personality Item Pool (IPIP) website (“International Personality Item Pool,” 2016) and adapted from the Rational Scale. It has 9 items (7-point Likert scale), three of them reversed: “I am considered attractive by others.”, “I attract attention from the opposite sex.”, “I have a pleasing physique.”, “I like to look at my body.”, “I like to look at myself in the mirror.”, “I like to show off my body.”, “I don't consider myself attractive.”, “I dislike looking at myself in the mirror.” and “I dislike looking at my body.”.

Self-esteem. To assess self-esteem, the scale from Rosenberg (1985) was used. In this scale, participants had to say to what extent they agreed with 10 statements (7-point Likert scale): “On the whole, I am satisfied with myself”, “At times I think I am no good at all”, “I feel that I have a number of good qualities”, “I am able to do things as well as most other people”, “I feel I do not have much to be proud of”, “I certainly feel useless at times”, “I feel that I'm a person of worth, at least on an equal plane with others”, “I wish I could have more respect for myself”, “All in all, I am inclined to feel that I am a failure” and “I take a positive attitude toward myself”.

Social confidence. The social confidence construct ($\alpha = .87$) was adapted from the Jackson Personality Inventory (JPI). Participants were asked to identify their level of agreement, on a 7-point Likert Scale, with 10 items, half of them reversed: “Feel comfortable around people.”, “I don't mind being the center of attention.”, “I am good at making impromptu speeches.”, “I express myself easily.”, “Hate being the center of attention.”, “I lack the talent for influencing people.”, “I often feel uncomfortable around others.”, “I don't like to draw attention to myself.” and “I have little to say.”. In this construct it was added a control variable in which participants could read “If you are paying attention, please click in the choice number 1”.

Social interactions. This construct ($\alpha = .78$) was also adapted from the Jackson Personality Inventory (JPI). Similarly to the previous construct, respondents were also asked to identify their level of agreement, on a 7-point Likert Scale, with 10 items, half of them reversed: “I enjoy bringing people together.”, “I enjoy being part of a group.”, “I love to chat.”, “I love surprise parties.”, “I am interested in people.”, “I prefer to be alone.”, “I seek quiet.”, “I keep others at a distance.”, “I am a very private person.” and “I don't like crowded events.”.

Satisfaction with life. This construct was adapted from the original one from Diener and colleagues (1985) and “is narrowly focused to assess global satisfaction and does not tap related constructs such as positive affect or loneliness” (Diener et al., 1985). Participants were shown the 5 items of the scale (“In most ways my life is close to my ideal.”, “The conditions of my life are excellent.”, “I am satisfied with my life.”, “So far I have gotten the important things I want in life.”, “If I could live my life over, I would change almost nothing.”) and asked to indicate their level of agreement with each one on a 7 point Likert scale.

Chapter 4 | Results' Analysis

4.1 Data cleaning

Within the 2 weeks dedicated to data collection, a total of 714 respondents started the online questionnaire. However, from these, 46 were males and 5 were foreign women. From the 663 remaining questionnaires, 526 were entirely completed. As previously explained in the Procedure section, a control variable was included and 70 respondents did not comply with its rule, being therefore excluded from the database. The total sample considered for data analysis was then composed by 456 participants.

4.2 Sample Characterization

Our sample of 456 female respondents has an average age of 43,6 years old ($SD = 41.7$), having the youngest 17 years old and the oldest 82 years old. The majority is single (55%) and has no children (56%). Our sample is composed by women distributed across all districts in Portugal, with Faro (40%) and Lisbon (37%) having the highest concentration of respondents. With regard to the education level, the majority of our sample have a Bachelor's degree (52%) and 70% are full-time workers, followed by 17% of students. With regard to the characteristics of the household, 76% of our sample has from 2 to 4 people in the household and 61% has a monthly household income between 1000€ and 3000€. Lastly, the monthly average spent on cosmetic products is of 43.55€ per person ($SD = 55.99$), with 0€ being the minimum amount indicated and 300€ the maximum (see Appendix 4).

4.3 Scales Reliability

Using the Cronbach's Alpha, we aimed to assess to what extent were the items of our scales close to each other and also the internal reliability of our constructs. "In most social science research situations", a value of .70 for this coefficient of reliability have been considered to be "acceptable" (UCLA, 2016), but more recently a value of .80 has also started to be considered the "minimum" alpha (Borgatti, n.d.). We then calculated the Cronbach's alpha for each scale that was compose by three or more items. The results are presented in Table 1.

Table 1 - Reliability Test

Scale	Initial number of items	Cronbach's alpha	Cronbach's alpha if item deleted	Item deleted	Final number of items
Physical Attractiveness	9	0.889	--	--	9
Self-Esteem	10	0.876	--	--	10
Social Confidence	10	0.854	--	--	10
Social Interactions	10	0.831	--	--	10
Satisfaction with life	5	0.900	--	--	5

Table 1 demonstrates that all of our scales had high levels of internal consistency, with alpha values greater than 0.80 (between 0.83 and 0.90). In all the scales, apart from the “Satisfaction with Life” that had a marginal difference, there was not an improvement of the alpha measure when testing for its difference if any item was deleted, we therefore calculated the scales averages based on all the initial items.

Some researchers support the idea that using the alpha coefficient is “inappropriate and meaningless” for scales with two items (Eisinga, Grotenhuis, & Pelzer, 2013), we therefore run a correlation analysis to test the strength and significance of the correlations between the items of the “Makeup involvement scale”. The items were found to have a “very strong” (“Statstutor,” n.d.) significant and positive linear correlation (Table 2).

Table 2 - Pearson correlation - Makeup involvement

Scale	Number of items	Pearson correlation
Makeup Involvement	2	0.831**

** Correlation is significant at the 0.01 level

4.4 Results

4.4.1 Reasons for the non-use of makeup

Out of the 456 women analyzed, 4% do not use makeup (*non-users*, n=19) and 28% use makeup from once a week to less than once a month (*low frequency users*, n=129). These two groups of consumers answered a set of questions to understand the reasons why they do not

use makeup at all or why they use it not frequently and also what would lead them to increase the makeup usage. The main reason stated by *non-users* to not use makeup was “I have no patience” (84%) and 37% of them would increase their usage if they “learnt how to apply makeup”, while another 37% of these users would not increase their usage for any reason. With regard to the *low frequency users*, a segment that is composed by a much higher number of respondents (n=129), the main three reasons that lead them not to use makeup are “I have no patience” (67%) “I don’t have time” (44%) and “I don’t know how to use” (26%). 45% of the *low frequency users* would increase their makeup usage if they “Learnt how to apply makeup”, with many users also noting that if they “had more free time” (40%) and had “skin imperfections” (35%), that would increase their makeup usage (See Appendix 5).

4.4.2 Makeup Involvement and Usage

The majority of the Portuguese women in this study started using makeup in their adolescence - before the age of 18 (42%, n=192) or between 18 and 23 years old (42%, n=192) and have a mean of 4.18 ($SD = 1.789$) on a 7-point scale of makeup involvement. The majority uses makeup everyday (37%, n=167), face makeup products are the most used ($M = 5.27$, $SD = 1.937$) (Table 3), and spend 5 to 15 minutes to put their makeup on (54%, n= 235) on a regular day. “Home” (94%, n = 411) is by far the most common place chosen to put on makeup.

Table 3 - Makeup involvement and products used




	N	Minimum	Maximum	Mean	Std. Deviation
Makeup Involvement	456	1	7	4.18	1.789
Face makeup	437	1	7	5.27	1.937
Mascara	437	1	7	5.1	1.987
Eyeliners	437	1	7	3.33	2.001
Eyeshadow	437	1	7	3.47	1.911
Lips makeup	437	1	7	4.77	1.799
Nails varnish	437	1	7	4.74	1.995

4.4.3 Segments characterization

In order to segment the type of users of makeup, two variables were used: frequency of use (7-point Likert Scale) and quantity of products (6 types of makeup products, each one on a 7-Point Likert Scale with regard to frequency of use). Respondents who use makeup less than once a month to once a week (up to 4 on the scale) were classified as *Low frequency users* and the ones who use makeup from “2 to 3 times a week” to “everyday” (5 or higher on the scale) were classified as *High frequency users*. With regard to the quantity of products used, respondents who use 3 or more products regularly (regularly being defined as answers from 4 to 7 in the frequency of use of that particular product) were classified as *High quantity users* and the remaining as *Low quantity users*.

The next step was to use these classifications to generate our three segments: *Light users (L)*, *Medium users (M)* and *Heavy users (H)*. *Lights users* are the ones with simultaneous low frequency of use and low quantity of use; *Heavy users* are the ones with simultaneous high frequency of use and high quantity of use; *Medium users* are the ones that were classified as either simultaneously low frequency users and high quantity users or simultaneously high frequency users and low quantity users.

Table 4 - Segments characterization

LIGHT USERS (L) N=66	MEDIUM USERS (M) N=155	HEAVY USERS (H) N=216
Low frequency of use and Low quantity of use	High frequency of use and Low quantity of use <u>or</u> Low frequency of use and High quantity of use	High frequency of use and High quantity of use
35% below 30 years old, 47% with 31-50 years old, 19% more than 51 years old	43% below 30 years old, 47% with 31-50 years old, 11% more than 51 years old	51% below 30 years old, 38% with 31-50 years old, 10% more than 51 years old
44% has no children, 32% has 1 child	56% has no children, 19% has 1 child	61% has no children, 17% has 1 child
49% in single, 39% is married and 12% divorced	55% in single, 34% is married and 9% divorced	58% in single, 32% is married and 7% divorced
70% have higher education	73% have higher education	76% have higher education
Household of 3 people (35%)	Household of 2 people (26%)	Household of 4 people (31%)
Median Household Income of 1500€ - 2000€	Median Household Income of 1500€ - 2000€	Median Household Income of 2000€ - 3000€
31.30 € 	39.04 € 	52.17 € 

As can be seen from the table above, the segments have different characteristics that distinguish themselves. *Light users* are older, have more children, have a lower degree of higher education and is the segment with the lower percentage of singles and higher percentage of divorced women; from the three segments, it is also the one with a lower monthly household income and, as expected, the one that has the lowest average monthly spent in cosmetic products (31.3€L, 39.04€M, 52.17€H). These differences in spending were found to be statistically different, $F(2,434) = 8.346, p = .000$. With regard to the place where they put on their makeup, it is interesting to highlight that for *Light users*, home is the place used more often (97%), while *Medium users*, apart from home, which is also the most common place (99%), also made themselves up at a friend's homes (8%) and *Heavy Users* use a higher diversity of places, such as home (98%), car (15%), work (12%) and a friend's home (9%). Adding to this idea, *Heavy users* are also the ones who spend more time to put their makeup on (5-15 minutes: 47%L, 46%M, 66%H) (see Appendix 6).

The usage of makeup, as showed in past researches is a ritual that can be used by women of different ages as a passage to a different stage in life and it is often used by teenagers to mark their passage into womanhood. People that are identified as *Heavy users* started using makeup mainly before the age of 23 (89%), compared with 83% of *Medium users* that started with the same age and only 42% of *Light Users*.

In respect to the products used, as can be seen in table 4 below, *Heavy users* have higher means in all the products and segments of products analysed, as have *Medium users* over *Light users*. In all the products and segments of products the differences between the three segments are statistically significant, $p = .000$. Concerning Face Makeup, the differences between the three segments are statistically significant, $F(2,434) = 95.307, p = .000$; more specifically, the differences between *Light users* and *Medium users* are significant, $t(219) = -7.160, p = .000$, as well as for *Medium* and *Heavy users*, $t(369) = -6.411, p = .000$ and for *Light users* and *High users*, $t(280) = -16.323, p = .000$. With respect to Mascara, the differences between *Light users* and *Medium users* are also significant, $t(219) = -6.595, p = .000$, as well as for *Medium* and *Heavy users*, $t(369) = -7.085, p = .000$ and for *Light users* and *High users*, $t(280) = -15.548, p = .000$.

Overall, *Light users* use more Lips makeup ($M = 3.48, SD = 1.50$), followed by Face makeup ($M = 3.03, SD = 1.63$) and Mascara ($M = 2.91, SD = 1.54$). On the other hand, Face makeup is the one most used by *Medium users* and *Heavy users* ($M_M = 5.04, SD = 2.02$; $M_H = 6.13, SD = 1.25$), followed by Mascara ($M_M = 4.75, SD = 2.04$; $M_H = 6.01, SD = 1.38$).

Table 4 - Products used by segment

	Light (L) N=66		Medium (M) N=155		Heavy (H) N=216		F	p
	Mean	Std. Deviation	Mean	Std. Deviation	Mean	Std. Deviation		
Face Makeup	3.03	1.63	5.04	2.02	6.13	1.25	95.307	.000
Mascara	2.91	1.54	4.75	2.04	6.01	1.38	92.856	.000
Eyeliner	2.23	1.40	3.20	2.15	3.76	1.91	16.534	.000
Eyeshadow	2.23	1.06	3.16	2.06	4.08	1.76	30.575	.000
Nail Varnish	3.95	2.09	4.12	1.96	5.44	1.75	29.139	.000
All Makeup	2.97	0.70	4.13	1.06	5.13	0.76	171.854	.000
Eyes Makeup	2.45	0.81	3.71	1.52	4.62	1.12	82.116	.000
Lips Makeup	3.48	1.50	4.48	1.99	5.38	1.45	36.008	.000

When asked about the 5 main reasons that make them use makeup, “To feel better / Improve self-esteem” was the 1st reason stated by all segments as the most important ($M_L = 2.1$; $M_M = 2.22$; $M_H = 2.15$). For *Light users*, the 2nd reason was “To hide skin imperfections” ($M_L = 2.58$) while for *Medium* and *Heavy users*, the 2nd main reason was “Because it is a rule at my work” ($M_M = 2.25$; $M_H = 2.5$). These results illustrate that the main objective of everyone by using makeup is to feel better with themselves and for *Light users*, the fact that makeup allows women to hide imperfections and therefore manipulate each one’s physical attractiveness, is of major importance when deciding to use or not makeup (See full ranking list in Appendix 7).

The involvement (scale from 1 to 7) that one has with the category of makeup was expected to increase from *Light users* to *Heavy Users* and it was confirmed by our results (Table 5). The difference of the involvement was found to be statistically significant between the three segments, $F(2,434) = 116.46$, $p = .000$. The makeup involvement of *Light* and *Medium users* had a significant difference, $t(219) = -4.63$, $p = .000$, of a total of $p = 0.97$; The highest difference in means was between *Heavy* and *Light users*, with the *Heavy Users*’ mean being $p = 3.81$ higher than *Light users* ($t(280) = 13.85$, $p = .000$). The difference of $p = 1.66$ in the means of *Medium Users* to *Heavy users* was also found to be significant, $t(369) = -10.958$, $p = .000$.

Table 5 - Makeup involvement

	Light		Medium		Heavy			
Makeup Involvement	Mean	Std. Deviation	Mean	Std. Deviation	Mean	Std. Deviation	<i>F</i>	<i>p</i>
		2.67	1.124	3.62	1.497	5.28	1.399	116.459

4.4.4 Rituals in the use of makeup

After analysing the frequencies based on our segments, we could conclude that *Heavy users* show a much clearer pattern in the usage of makeup. 44% of the *Light users* showed to be neutral or agree with “*I always apply the same products in the same order, no matter the time I have*”, comparing with 70% of *Medium users* and 82% of *Heavy users* (See detailed graphs in Appendix 8). When comparing the means for the same statement, the differences between segments were statistically relevant, $F(2,434) = 77.392, p = .000$. In the *Heavy* segment particularly, the average of 5.16 ($SD = 1.732$) highlights the importance that this segment gives to the ritual of applying makeup always in the same order and using the same products. This mean is higher in a statistically relevant way than both the median of *Medium users* ($M_M = 4.58, SD = 1.923$), $t(369) = -3.020, p = .003$, and of *Light users* ($M_L = 3.42, SD = 1.993$), $t(280) = -6.863, p = .000$).

There was also a notable higher percentage of people saying that they touch-up their makeup during the day, when analysing the *Heavy* segment (37%). Only 3% of the *Light users* answered affirmatively (“yes, sometimes”) to that question, while when analysing *Medium users*, this percentage increased to a total of 14.2% (1.3% “*Yes, everyday*” and 12.9% “*Yes, sometimes*”).

4.4.5 Relation with cosmetic brands

In order to analyze the evoked set (composed by 3 brands) of each segment, all the brands stated by all the respondents had to be codified and a first analysis with the entire sample was performed. In order to evaluate the presence of the brands on the three spaces available for answer (1st brand, 2nd brand and 3rd brand), each space was given a score to reflect their relative importance, since recalling a brand in the 1st place is deemed to be more important than in the 2nd and 3rd place. This way, a score of 3 was assigned to the 1st place, 2 to the 2nd place and 1 to the 3rd place. This allowed us to evaluate the presence of each brand on the 3

places in a single score, that was subsequently used to form our top 5 recalled brands. Since each segment had a different number of respondents (n), a new relative score was evaluated as the previous score divided by the respective “n” of the segment. On the table below, the top 5 most recalled brands by all the sample can be found, with L’Oréal Paris being the 1st brand with 84.6%. A total of 81 different brands was identified and analyzed.

Table 6 - Top 5 most recalled brands by all sample

		Brand	N	Score	Score/Segment N	No. of Brands
All sample	1st Brand	L’Oréal Paris	456	386	84.6%	81
	2nd Brand	KIKO	456	350	76.8%	
	3rd Brand	Maybelline NY	456	239	52.4%	
	4th Brand	MAC Cosmetics	456	235	51.5%	
	5th Brand	Lancôme	456	158	34.6%	

When performing the analysis by segments, as can be seen in table 7, we could note that the number of different brands recalled by each segment increased from 35 (*Light users*) to 59 (*Heavy users*), showing a deeper knowledge of the Makeup category by *Heavy users*. The distribution of the scores among the different segments also allowed to assess a few key differences in the knowledge of the category’s brands. It would appear that the *Light users* have a more dispersed recall on the brands, since even with a much smaller subset of answers than the other segments (n=66, compared to n=155 and n=216), the 1st answers could not get the same amount of concentration as the first brands in the *Medium users* and *Heavy users* (L’Oréal Paris = 81.8% (L), 89.7% (M), 84.3% (H)).

Table 7 - Top 5 most recalled brands by segments

		Brand	N	Score	Score/Segment N	No. of Brands
Light	1st Brand	L'Oréal Paris	66	54	81.8%	35
	2nd Brand	KIKO		40	60.6%	
	3rd Brand	Maybelline NY		39	59.1%	
	4th Brand	Lancôme		33	50.0%	
	5th Brand	MAC Cosmetics		28	42.4%	
Medium	1st Brand	L'Oréal Paris	155	139	89.7%	52
	2nd Brand	KIKO		130	83.9%	
	3rd Brand	MAC Cosmetics		76	49.0%	
	4th Brand	Maybelline NY		72	46.5%	
	5th Brand	Lancôme		54	34.8%	
Heavy	1st Brand	L'Oréal Paris	216	182	84.3%	59
	2nd Brand	KIKO		175	81.0%	
	3rd Brand	MAC Cosmetics		127	58.8%	
	4th Brand	Maybelline NY		124	57.4%	
	5th Brand	Lancôme		69	31.9%	

After being asked to write down the first 3 makeup brands that came to their mind, respondents identified the makeup brands that they use more often, with a total of 44 different brands being pointed out. The 3 most used makeup brands by all women are KIKO (47,7%), L'Oréal Paris (44.2%), followed by Maybelline NY (31.4%). These results are more or less coincident with the top recalled brands previously analyzed. Apart from the *Medium users*, who have “Perfumeries’ own brands” as the 3rd most used brands, both *Light* and *Heavy users* have the same brands in their top 3, albeit in a different order. (see detailed table in Appendix 9).

With respect to the channel used to buy the makeup products, the most used, by all segments, is “Perfumery” (L, 47%; M, 59%; H, 69%), followed by “Super/Hypermarkets” when considering Light Users (41%) and “Own Brand Stores” for *Medium users* (50%) and *Heavy Users* (60%). One expected finding is the difference of the utilization of the “online” channel, with 12% of the *Heavy Users* using it and only 6% of *Light Users* (see full table in Appendix 10).

4.4.6 Extracted Benefits

4.4.6.1 Correlations

In order to analyze whether the suggested makeup extracted benefits are related to each other, we run a Pearson correlation analysis. Self-esteem was found to have a significant moderate positive relationship with Physical attractiveness, $r(454) = .520, p = .000$, and with Satisfaction with life, $r(454) = .500, p = .000$. Apart from Self-esteem, Physical attractiveness also had a significant positive relationship with Social confidence, $r(454) = .474, p = .000$, Social interactions, $r(454) = .346, p = .000$ and Satisfaction with life, $r(454) = .368, p = .000$. There was as well a significant moderate positive relationship between Social confidence and Social interactions, $r(454) = .599, p = .000$. Lastly, it was also found a weak, but significant positive relationship between Social interactions and Satisfaction with life $r(454) = .267, p = .000$ (See Appendix 11).

When analyzing the relationship of the different benefits according to each type of segment (See Appendix 12), *Heavy users* is the segment in which the strongest positive significant relationships can be found between Self-esteem and Social confidence, $r(214) = .494, p = .000$, Self-esteem and Social interactions, $r(214) = .359, p = .000$, Physical attractiveness and Social confidence, $r(214) = .465, p = .000$, Physical attractiveness and Social interactions, $r(214) = .381, p = .000$ and also between Social confidence and Social interactions, $r(214) = .637, p = .000$. *Medium users* have the strongest significant positive relationship between Self-esteem and Physical attractiveness, $r(153) = .559, p = .000$, while *Light users* had the strongest significant positive relationship between Self-esteem and Satisfaction with life, $r(64) = .607, p = .000$.

4.4.6.2 Regression Analysis

With the purpose of understanding what are the benefits that women can extract from the usage of makeup, a simple linear regression analysis was run. With this analysis we could conclude that makeup usage has a positive impact on four of our dependent variables: self-esteem, physical attractiveness, social confidence, and social interactions (See Table 8).

$$\text{Extracted Benefit}_i = \beta_0 + \beta_1 * \text{Makeup Usage}_i + \varepsilon_i$$

Table 8 - Regression Analysis - Impact of makeup on extracted benefits

Dependent variables	β	t	p
Self-Esteem	.114	2.399	.017
Physical Attractiveness	.235	5.048	.000
Social Confidence	.173	3.67	.000
Social Interactions	.191	4.052	.000
Satisfaction with life	.061	1.267	.206
Independent variable: makeup usage			
N = 437			

4.4.6.3 Difference in means

In order to understand if there were different levels of benefits extracted along the three segments of makeup users (Light, Medium, Heavy), ANOVAs and t-tests were performed.

At a first sight all the means of Self-esteem, Physical attractiveness, Social confidence, Social interactions and Satisfaction with life experienced an increase from the first segment to the second and to the third segment (See Appendix 13). When analyzing the statistical significance of the mean's difference, out of the 5 potential benefits, 3 were proved to be different between the three segments: Physical attractiveness, $F(2,434) = 12.796$, $p = .000$, Social Confidence, $F(2,434) = 7.113$, $p = .000$, and Social Interactions, $F(2,434) = 8.809$, $p = .000$ (See Appendix 14). When comparing *Light users* to *Medium users*, their self-perceived Physical attractiveness had a significant difference, $t(219) = -2.573$, $p = .011$. The differences were more noticeable when comparing *Light users* to *Heavy users*. *Heavy users* presented a mean of Physical attractiveness $p. .75$ higher than *Light users*, $t(280) = -4.953$, $p = .000$; $p. .49$ higher in Social confidence, $t(280) = -3.259$, $p = .001$, and $p. .46$ higher with regard Social interactions, $t(280) = -3.437$, $p = .001$. Also the means of *Heavy users* were statistically higher than the ones of *Medium users* [physical attractiveness: $t(369) = -2.834$, $p = .005$; social confidence: $t(369) = -2.946$, $p = .003$, social interactions: $t(369) = -3.415$, $p = .001$].

Chapter 5 | Main Conclusions and future research

5.1 Conclusions

RQ1: How is the usage of makeup products characterized?

In line with the results of the study developed by Marketline (2014), face makeup products are also the most used in our sample of respondents. Women spend 5 to 15 minutes to put their makeup on a regular day and they mostly do it at home. Aligned with the results from Gentina and colleagues (2012), our study also concluded that the practice of makeup usage starts during the adolescence.

When analyzing the different segments created based on the frequency of usage of makeup and quantity of use, differences arise. *Heavy users*, younger than both other segments, are the ones who spend more time to put their makeup on, vary the place where they do it and spend the highest amount in cosmetics in a month. Moreover, face makeup, mascara and nail varnish are the most used products by this segment of users, while for *Light users* are nail varnish, lips makeup and face makeup and for *Medium users*, face makeup is the most used, followed by mascara and lips makeup.

Regarding the reasons to use makeup, researchers have concluded that “camouflage” is one of the main reasons and that it was proved to improve one’s self-esteem (Bloch & Richins, 1992; Cash & Cash, 1982), self-confidence (Nash et al., 2006), as well as the social interactions (Cash & Cash, 1982; Robertson et al., 2008). Our results illustrate that the main reasons for women to use makeup is “To feel better / improve self-esteem” and the for *Light users*, “To hide skin imperfections” (i.e.” camouflage”) was the second more important reason, while for *Medium* and *Heavy* it is in fact a professional reason that makes them use makeup on a second place.

Lastly, L’Oréal is the leading player in Portugal (Marketline, 2014) and it is also the most recalled brand by Portuguese women, followed by KIKO and Maybelline, which is also part of the L’Oréal group. When considering the segments, Medium and Heavy users had MAC Cosmetics, instead of Maybelline NY, as the 3rd most recalled brand, which makes sense in the sense that Maybelline NY is a brand mostly present in Supermarkets and Hypermarkets, while MAC is only sold in their own brand stores and has a professional positioning.

RQ2: Is the usage of makeup products a ritual?

Previous qualitative and quantitative studies have concluded that the process of using makeup follows a ritual, whether in the circumstances in which a woman applies it, the way the products are used, the number of products applied or with regard to the place that each woman chooses to make herself up. When analysing the answers of the entire sample, not having into consideration the different segments, the results were not conclusive. After analyzing by segments, the results were found to be different in a statistically significant manner. Heavy users not only have a higher involvement with makeup, as also show a clear pattern in the usage of makeup, in terms of products used and order. The strictest definition of a ritual, with the same products and order being used every time, becomes more relevant the more a person uses makeup (quantity and frequency), with this ritual being particularly relevant for Heavy users.

RQ3: What are the benefits extracted when using makeup?

Aligned the previous literature, makeup usage was found to be positively related with the level of self-esteem, self-perceived physical attractiveness, social confidence, and social interactions. Regarding self-esteem, when analyzing in detail the differences between the three segments, it did not come up significantly. There is in fact an increase in the means from Light users to Heavy users, but not in a statistically significant manner. It was found, however, among Heavy users, a positive relationship between self-esteem and social confidence and also between self-esteem and social interactions. Amongst Medium users, a positive relationship was found between self-esteem and physical attractiveness and in the segment of Light users, their level of self-esteem was found to have a positive strong relationship with satisfaction with life. Additionally, Heavy users' level of physical attractiveness has a positive relationship with their level of social confidence and with their level of social interactions. As predictable, also the level of social confidence was positively related with social interactions.

As was expected, based on the past literature and studies, the levels of three of our psychosocial extracted benefits (physical attractiveness, social confidence and social interactions) were found to have significant differences among the different segments of makeup users. The higher the usage, in terms of quantity and frequency, the higher the levels of one's self perceived physical attractiveness, level of social confidence as well as social interactions.

RQ4: What are the reasons for the non-use of makeup?

The past research, besides proving the benefits that this grooming habit has on women's lives, also reported a few possible drawbacks. Peer pressure, from work colleagues, partners, family, or even the society in general might lead women to reduce the makeup usage or to avoid it at all. Moreover, myths created around the usage of makeup make women themselves believe in the idea that the usage of makeup is a negative way of enhancing their sexuality (Dellinger & Williams, 1997; Gentina et al., 2012; Workman & Johnson, 1991) or that serves to camouflage the fact that they are not intelligent (Cox & Glick, 1986). Besides all of these past studies and conclusions, our results show that the reasons why Portuguese women do not use makeup or use it infrequently are only related with personal motives, such as the lack of patience, time and the fact that they do not know how to apply it. These reasons are in line with what would make Portuguese women increase the usage: if they learnt how to apply it, if they had more free time and also if they had skin imperfections.

5.2 Limitations and Future research

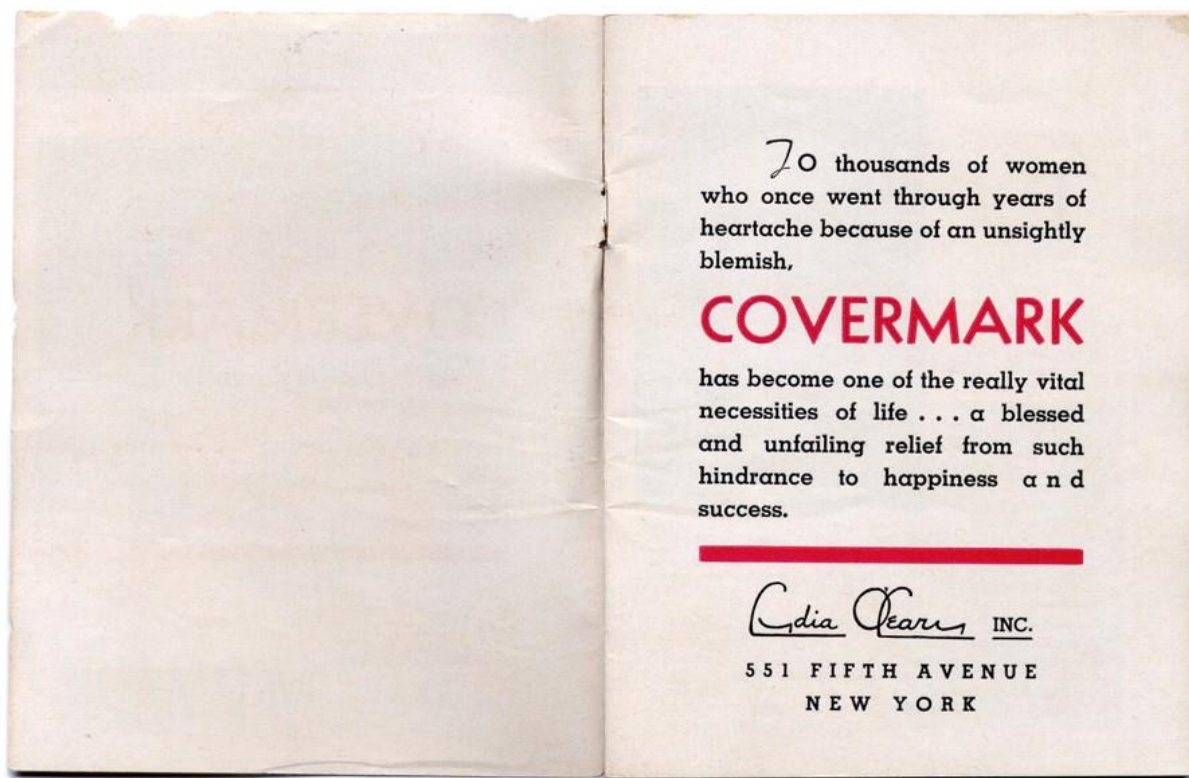
The insights from the present work enable beauty brands to better understand their consumers and the differences in usage among different segments, as well as the benefits that each one can extract.

One limitation is related with the fact that the benefits extracted can be more than the five analyzed in the present study. Makeup usage can have an influence on other psychosocial dimensions that were not within the scope of this research. Having said this, future researchers may approach other variables which may prove to be significantly related with makeup usage.

Furthermore, the other limitation of this study is associated with the small number of respondents who are non-users of makeup. A study focused only on this subset of users that could develop statistically relevant conclusions would be especially important since one of the main characteristics of the makeup category of Portugal is that its penetration is 12 p.p. below the European average.

Chapter 6 | Appendices

6.1 Appendix 1 – Makeup extracted benefits - historical booklets



(Lydia O'Leary Inc., 1936, p. 1)

learned how to make the most of what nature has given them. As some Frenchman has said: "There are no ugly women; only those who do not yet know how to be beautiful."

All women, then, have beauty. Each should seek to bring it out. Speech, poise, mannerisms and grace of movement all play their part. Cosmetics, too, are important. Properly used, they enhance and preserve the attractiveness of physical characteristics and accentuate the beauty which nature has bestowed.

The Origin of Cosmetics

The beginning of the use of cosmetics is lost far back in the long corridors of time. There is definite proof of their use as long ago as 5000 B. C. Recorded human history itself dates back only 2,000 years beyond that, or to 7000 B. C.

There is no knowledge of any primitive race that did not use cosmetics in some form or other. Perhaps the first cosmetics were animal fats and oils, used in their natural state, around the campfires of the cave men. Then, perhaps, one of them discovered a chalk bank, and used the chalk to change his appearance. Still another probably found a deposit of red iron that lent another color.

Today, in Asia Minor, archeologists are unearthing the remnants of civilization as it existed in 4000 B. C. In their excavations, pots of rouge are frequent finds. All down through the various dynasties of Egypt they have found proof of the use of rouge for the cheeks, kohl for the eyes and oils for the skin. The Greeks were large users of cosmetics, particularly perfumed olive oil. Cold Cream, as we know it, was invented in Rome by Galen, a physician druggist, who belonged to the court of Marcus Aurelius.



Ancient Rouge Pot*

* Illustration by courtesy of Metropolitan Museum of Art. From "Out of the Past" by Ruth Hooper Larison in *American Perfumer*, February, 1935.

Modern Development of Cosmetics

It has been only within the last fifty years that cosmetics have achieved their highest development. Perhaps the largest contributing factor to this was the discovery of petroleum and the refinement of its products. From these we get the fine medicinal mineral oils which are stable and do not turn rancid the way vegetable and animal oils do. Then the ingredients of face powder, such as talc and zinc oxide, have been refined to the last degree and their impurities removed, and harmless food colors have been discovered. All of these have added to the quality and range of cosmetics.

The Foundation of Beauty

True beauty depends on three things:

1. Health
2. Being Yourself
3. The Appearance of the Skin.

1. Health:

The foundation of all beauty is health. The foundation of health is pure blood. Pure blood results from clean, wholesome food, properly prepared, and sufficient exercise to insure good circulation. Good food creates good blood, and good circulation purifies it.

Our early ancestors, living as simply and as naturally as the animals, did not have to concern themselves so much about health. But modern living has become both complex and artificial. We cannot take health for granted as our forefathers did. If you would have beauty, take care of your health. Exercise daily in fresh air, eat wisely and drink plenty of good water.

2. Being Yourself:

It would be rather tiresome if everyone were beautiful in the same way. For the appeal of beauty lies in individuality. There would be no appeal if we were all similarly beautiful. The thing

6.2 Appendix 2 – Questionnaire structure

Questionnaire structure

1 - Introduction and screening

2 - Reasons for the non-use of makeup

3 - Makeup involvement and usage

4 - Rituals in the use of makeup

5 - Relation with Cosmetics brands

6 - Extracted Benefits

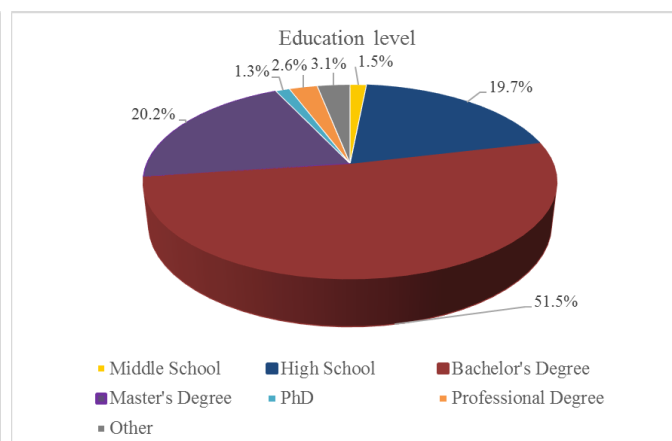
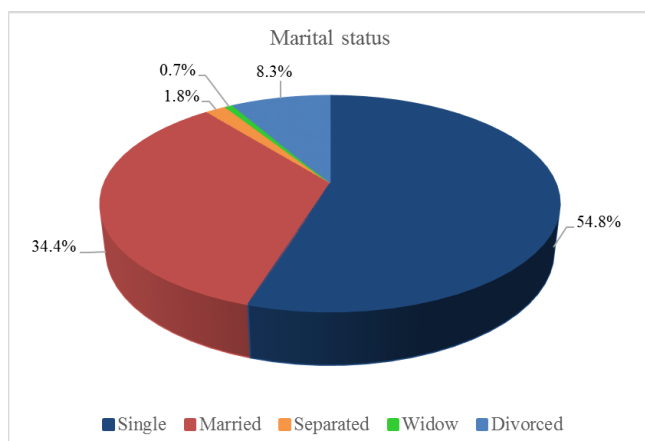
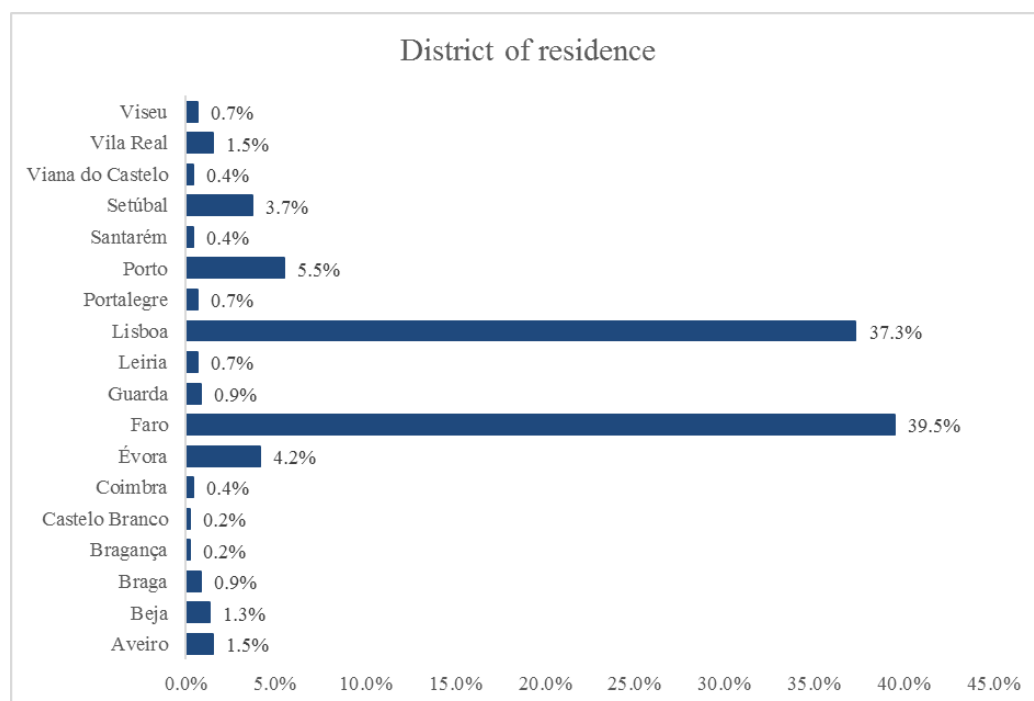
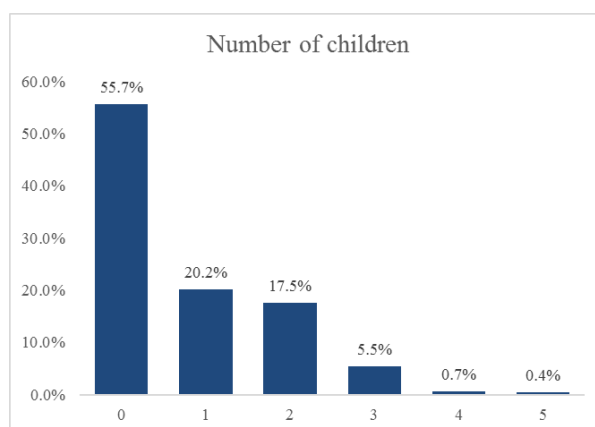
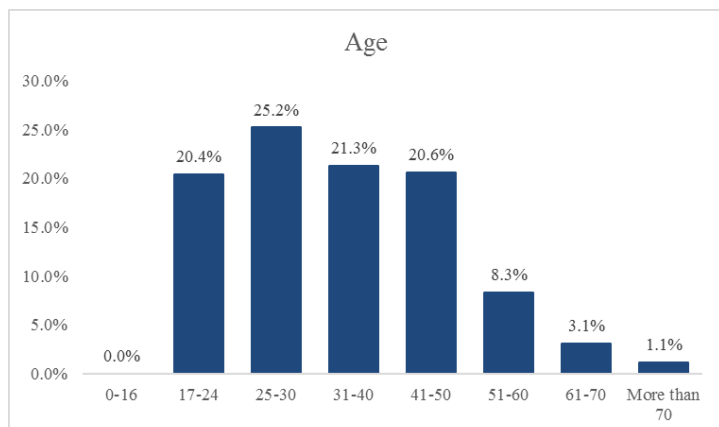
7 - Demographics

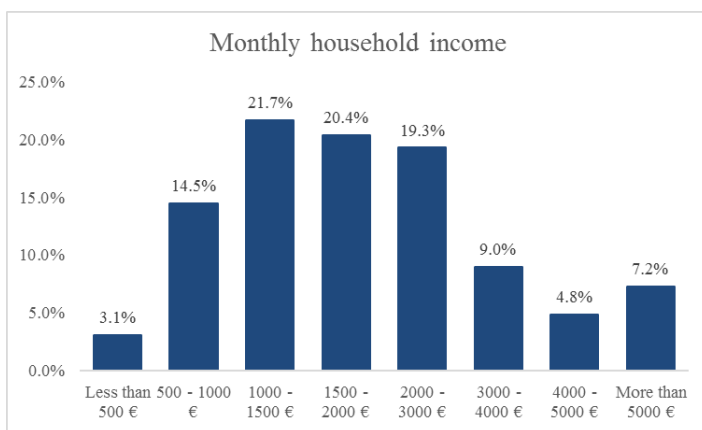
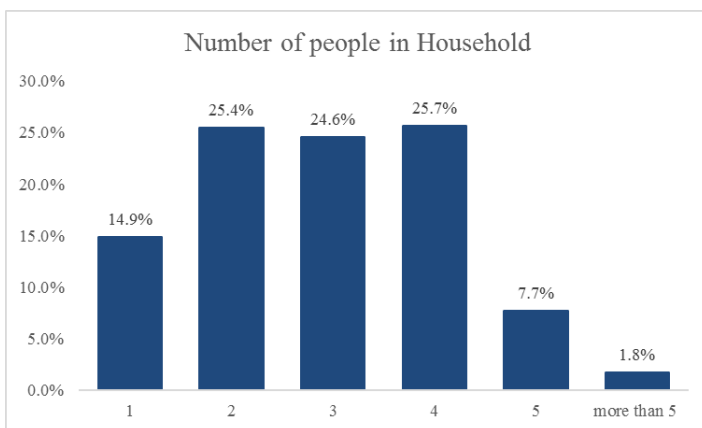
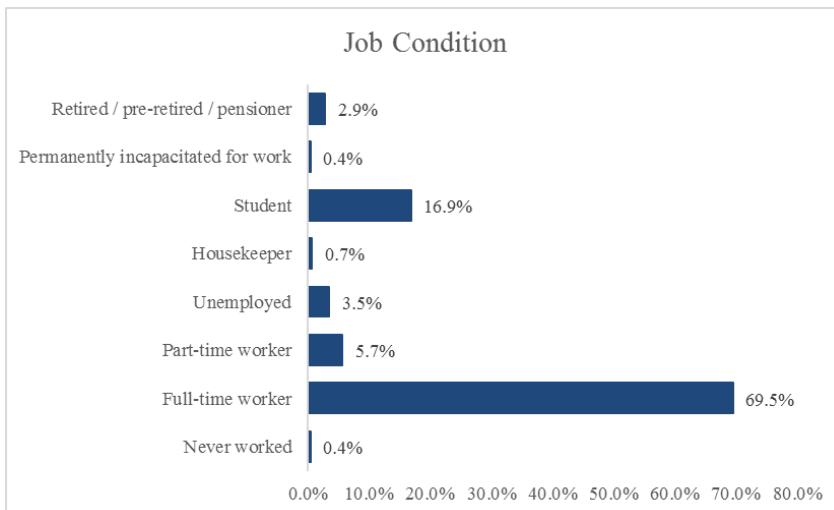
6.3 Appendix 3 – Items description

Variable	# items	Adpated from	Items
Frequency of use	7	Construct developed for this study	<ul style="list-style-type: none"> - Everyday - 4 to 5 days a week - 2 to 3 times a week - Once a week - 2 to 3 times a month - Less than once a month - Never
Reasons for the non-use of makeup	11	Construct developed for this study	<ul style="list-style-type: none"> - I have no patience - I don't like the result - I don't look much natural - I don't have time - I have sensitive skin / allergic to some products - My husband/wife - boyfriend/girlfriend doesn't like it - My parents / relatives don't like it - I don't know how to use - I look too much sophisticated - I have to remove the makeup after - Other reasons
Reasons to increase frequency of use	8	Construct developed for this study	<ul style="list-style-type: none"> - Ageing - Skin imperfections - Have more free time - To correct a scar - Learn how to apply makeup - Products have a better price - Other reasons - Nothing
Age when started using makeup	4	Construct developed for this study	<ul style="list-style-type: none"> - Before 18 - Between 18 and 23 - Between 24 and 30 - After 40
Makeup Usage (Frequency of use by type of product)	6	Cash Cosmetics Use Inventory (CCUI) - Cash and Cash, 1982	<ul style="list-style-type: none"> - Face makeup (e.g. concealer, foundation, BB cream, powder) - Eyelashes mascara (rimel) - Eyeliner - Eye shadow - Lip color (lipstick, lip liner, colored gloss) - Nail varnish
Time spent to put the make up on	4	Cash and Cash, 1982	<ul style="list-style-type: none"> - Less than 5 minutes - Between 5 to 15 minutes - Between 15 to 30 minutes - More than 30 minutes
Place used to put the make up on	6	Construct developed for this study	<ul style="list-style-type: none"> - Home - Work - Car - Public transports (metro, bus, boat) - Friend's home - Other
Reasons to use makeup	10	Construct developed for this study	<ul style="list-style-type: none"> - To feel better / Improve self-esteem - To get a more cared/sophisticated look - To look fashionable/on trend - It is part of my routine/ I am used to - To hide skin imperfections (blemishes, acne) - To highlight some parts of my face (lips/eyes...) - To feel good in my group of colleagues - To look younger - Because it is a rule at my work - To please my partner
Makeup Involvement	2	Steenkamp, van Heerde and Geyskens (2010)	<ul style="list-style-type: none"> - Makeup interests me a lot - Makeup is very important to me

Variable	# items	Adpated from	Items
Rituals in the use of makeup	3	Gentina et al., 2012 and Cash and Cash, 1982	<ul style="list-style-type: none"> - I always apply the same products in the same order (e.g. 1st foundation, 2nd concealer, 3rd eye liner), no matter the time I have - I always apply the same products, but with no specific order - I apply different products, according to the time I have
Channel used to buy makeup	6	Construct developed for this study	<ul style="list-style-type: none"> - Perfumery - Supermarket / Hypermarket - Catalogue (Avon, Oriflame...) - Pharmacy - Own brand store (Kiko, Inglot...) - Online
Physical Attractiveness	9	Rational Scale - ("International Personality Item Pool," 2016)	<ul style="list-style-type: none"> - I am considered attractive by others - I attract attention from the opposite sex - I have a pleasing physique - I like to look at my body - I like to look at myself in the mirror - I like to show off my body - I don't consider myself attractive - I dislike looking at myself in the mirror - I dislike looking at my body
Self-esteem	10	Rosenberg, 1985	<ul style="list-style-type: none"> - On the whole, I am satisfied with myself - At times I think I am no good at all - I feel that I have a number of good qualities - I am able to do things as well as most other people - I feel I do not have much to be proud of - I certainly feel useless at times - I feel that I'm a person of worth, at least on an equal plane with - I wish I could have more respect for myself - All in all, I am inclined to feel that I am a failure - I take a positive attitude toward myself
Social Confidence	10	Jackson Personality Inventory (JPI)	<ul style="list-style-type: none"> - I feel comfortable around people - I don't mind being the center of attention - I am good at making impromptu speeches - I express myself easily - I have a natural talent for influencing people - I hate being the center of attention - I lack the talent for influencing people - I often feel uncomfortable around others - I don't like to draw attention to myself - I have little to say
Social Interactions	10	Jackson Personality Inventory (JPI)	<ul style="list-style-type: none"> - I enjoy bringing people together - I enjoy being part of a group - I love to chat - I love surprise parties - I am interested in people - I prefer to be alone - I seek quiet - I keep others at a distance - I am a very private person - I don't like crowded events
Satisfaction with life	5	Diener et al., 1985	<ul style="list-style-type: none"> - In most ways my life is close to my ideal - The conditions of my life are excellent - I am satisfied with my life - So far I have gotten the important things I want in life - If I could live my life over, I would change almost nothing

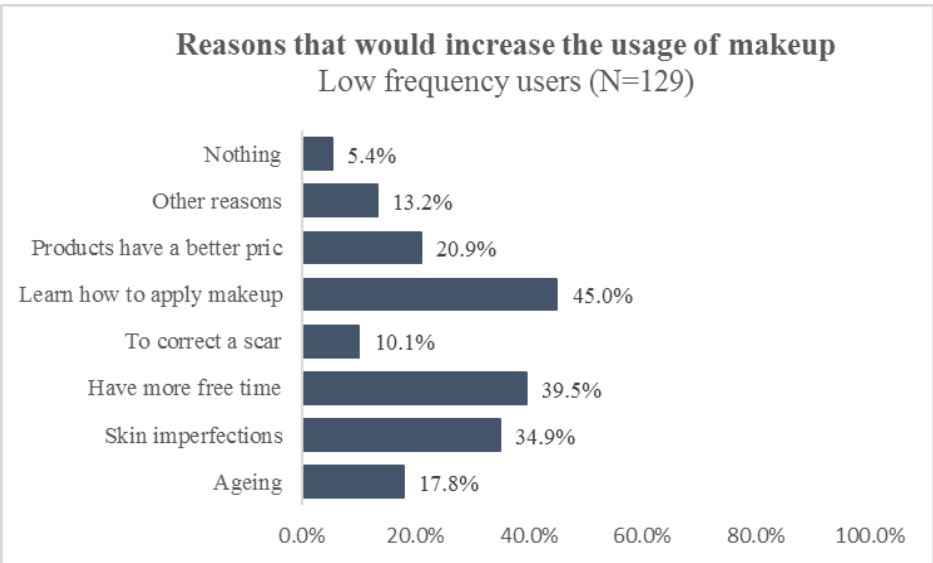
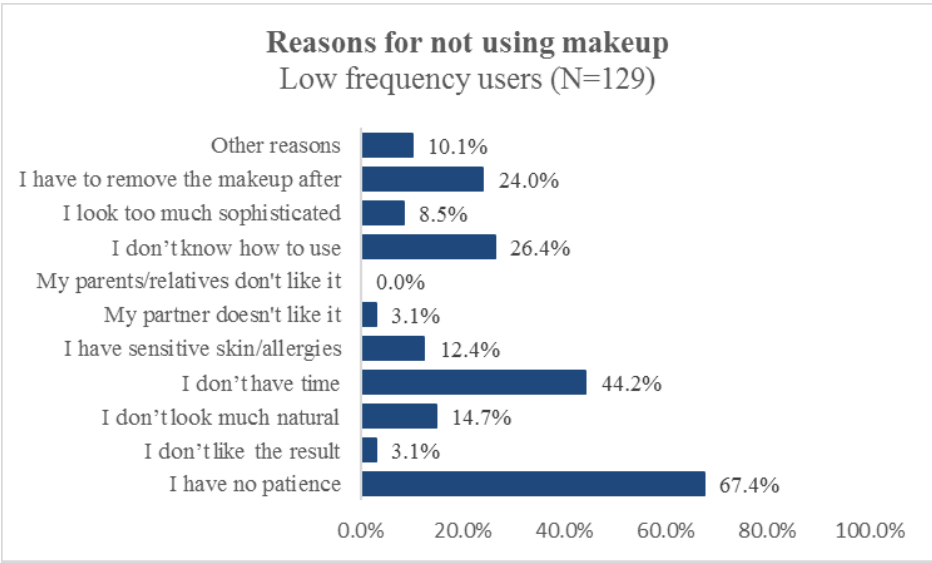
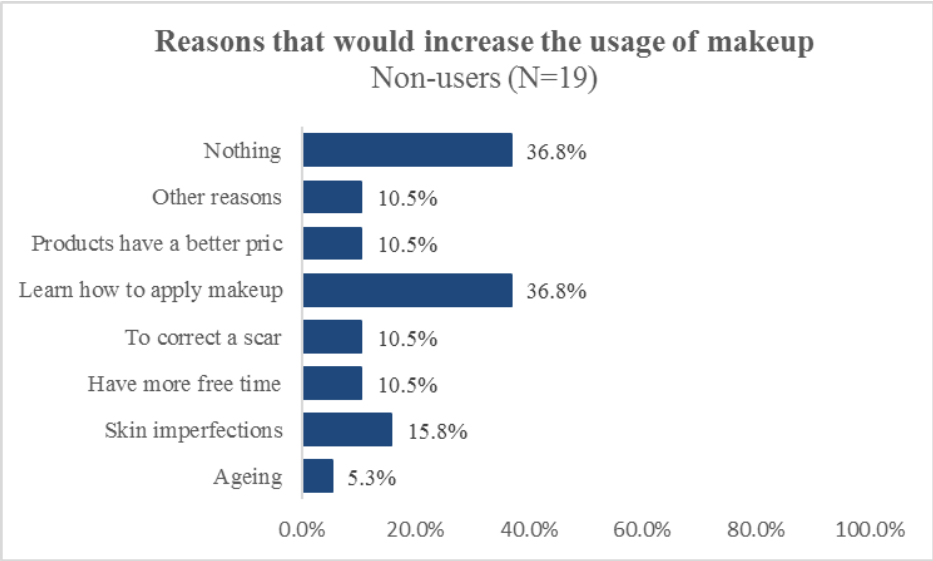
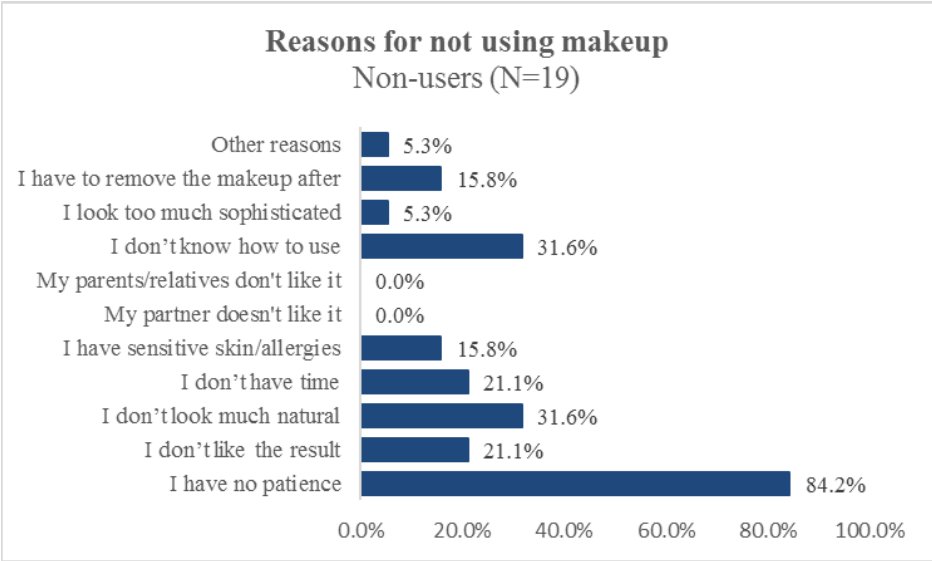
6.4 Appendix 4 – Sample characterization



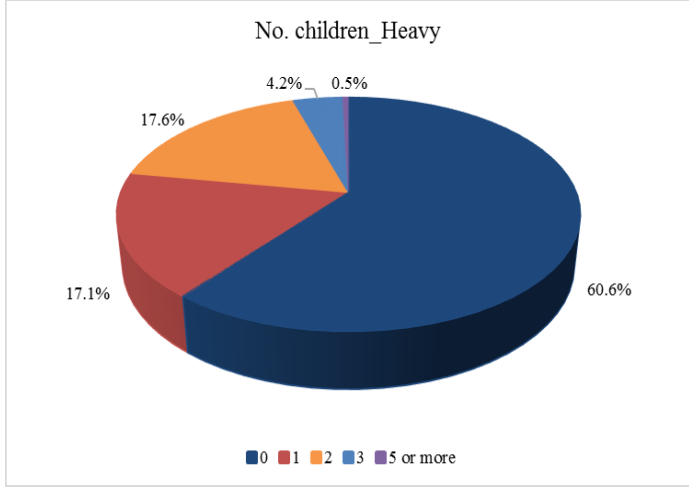
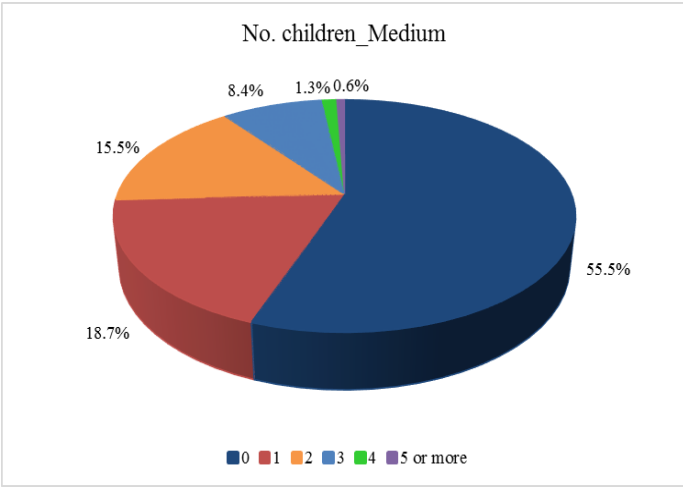
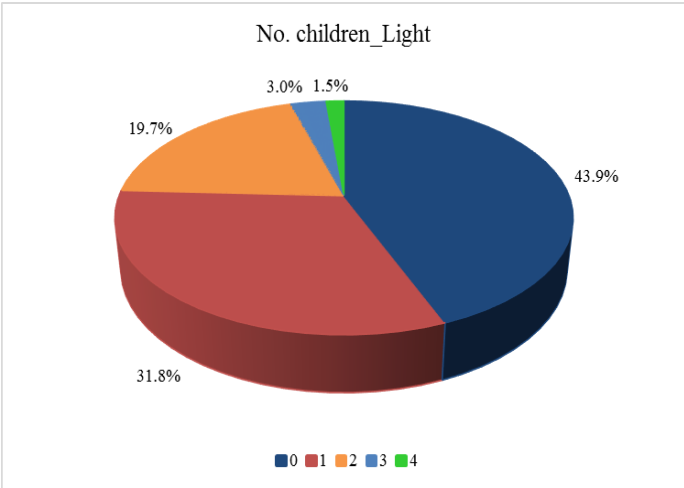
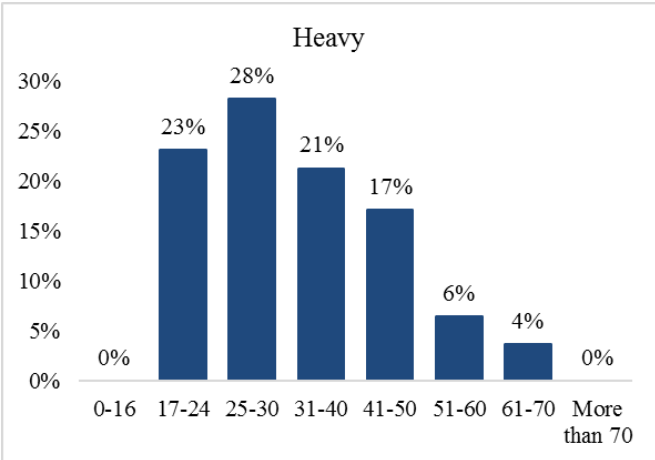
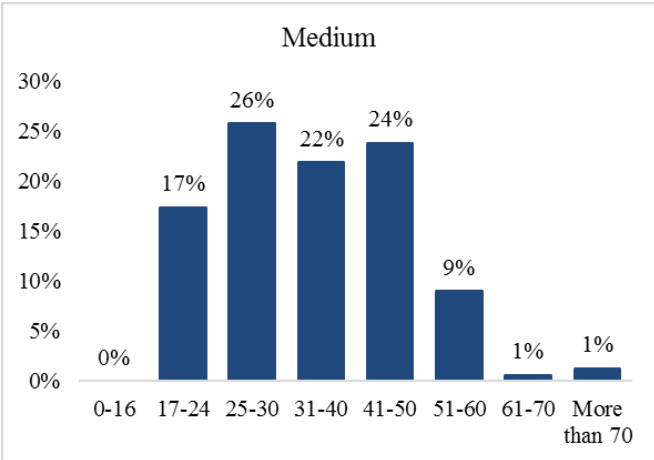
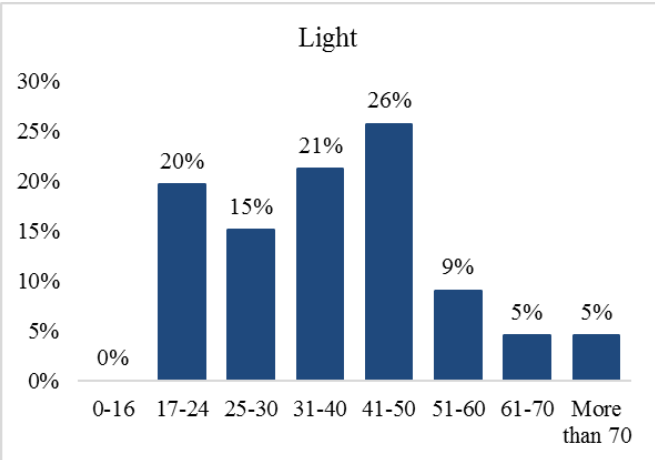


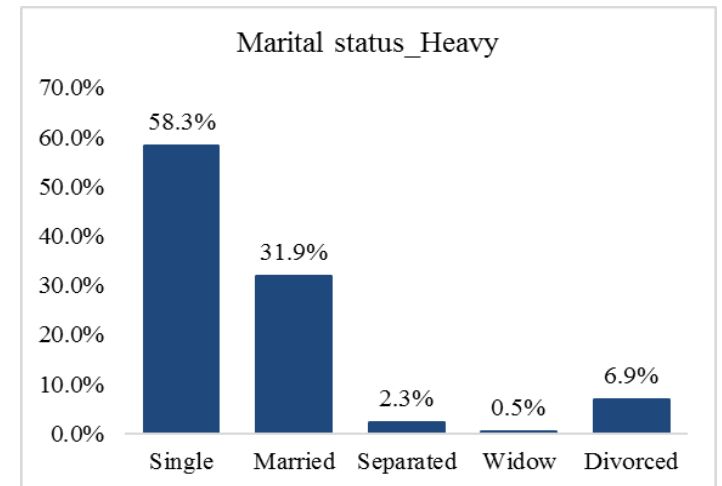
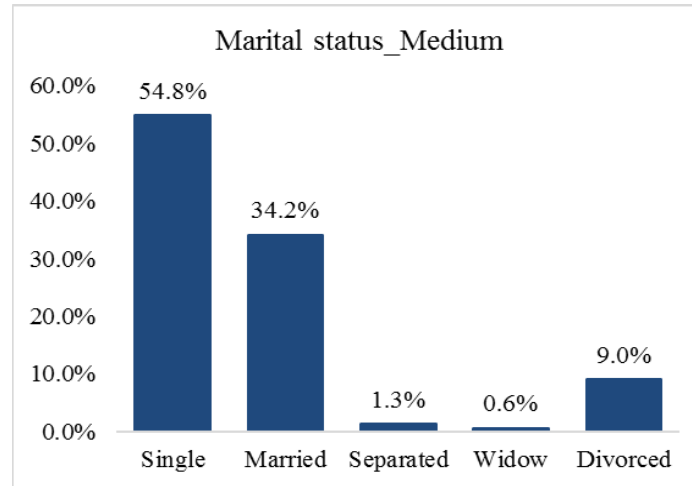
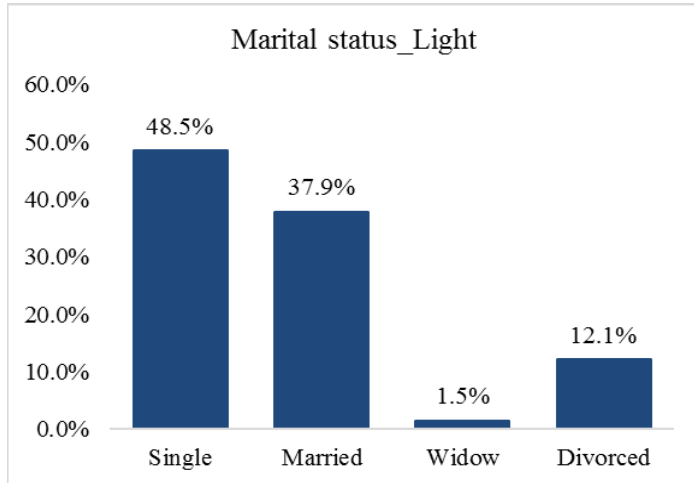
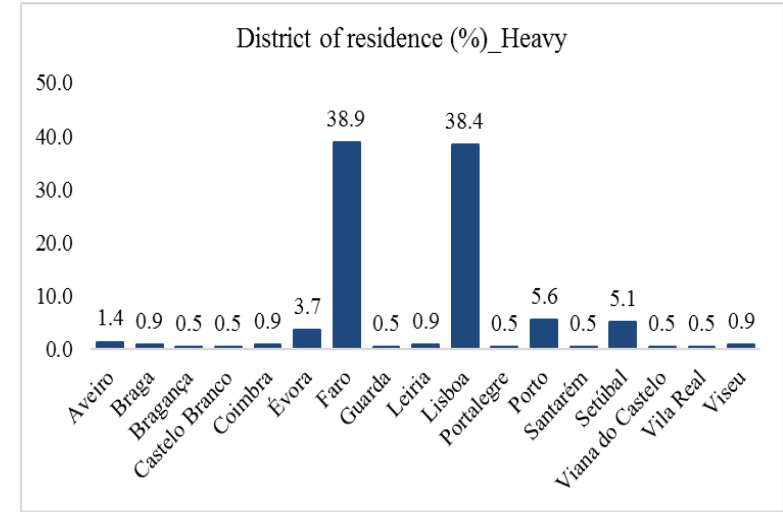
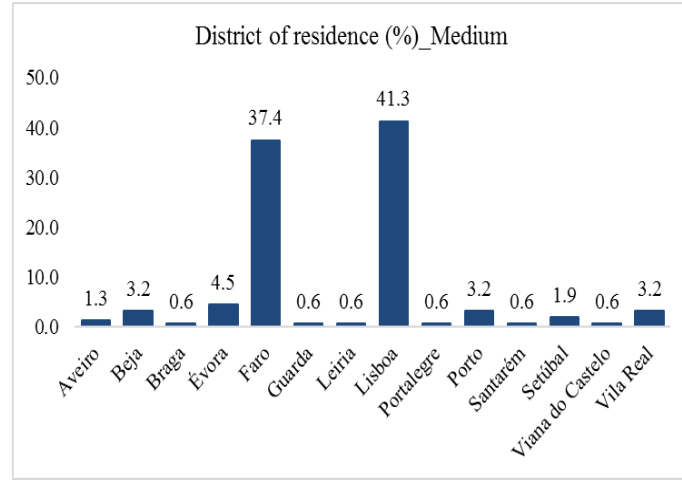
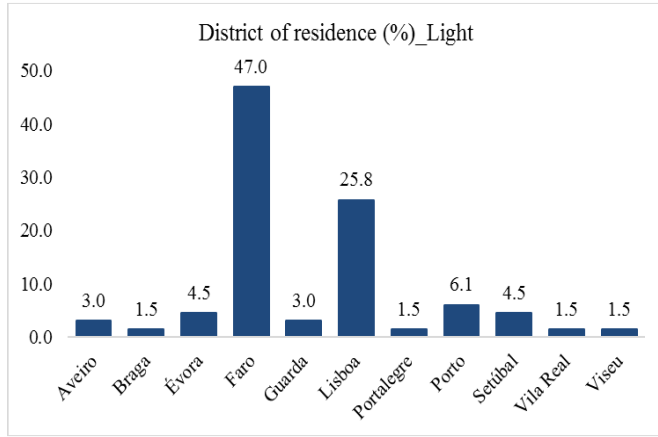
Monthly average spent (€) on cosmetics products	
mean	€ 43.55
std. deviation	€ 55.99
minimum	€ -
maximum	€ 300.00

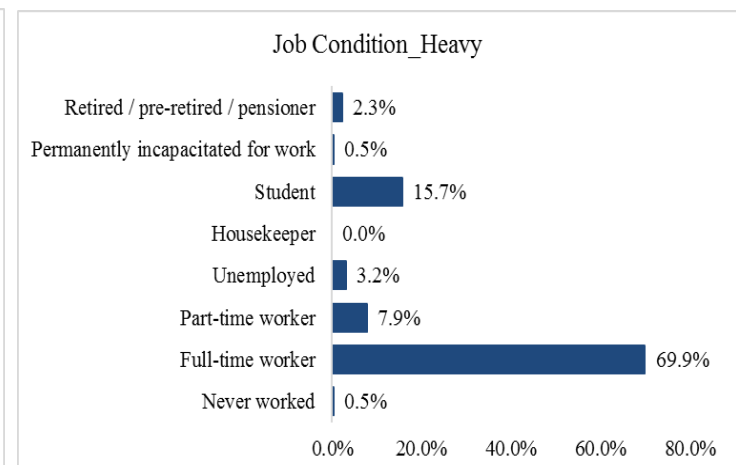
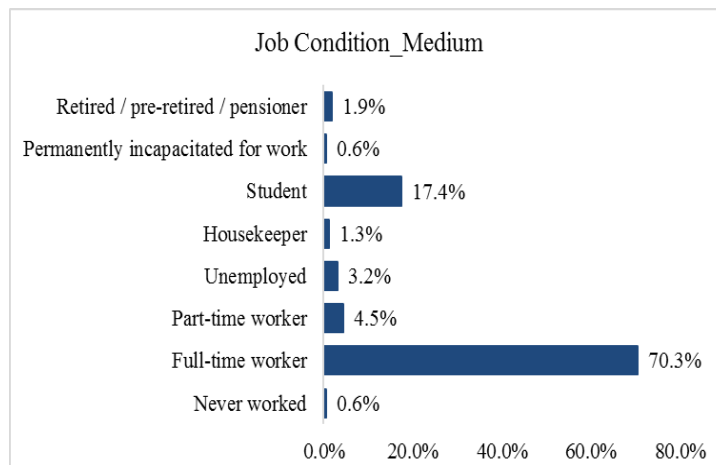
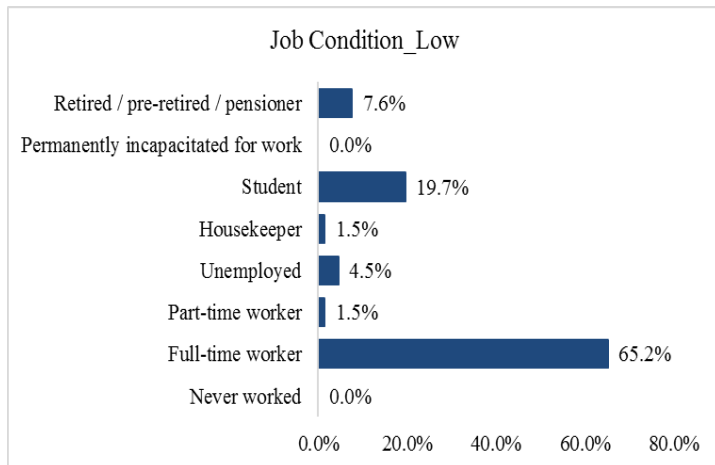
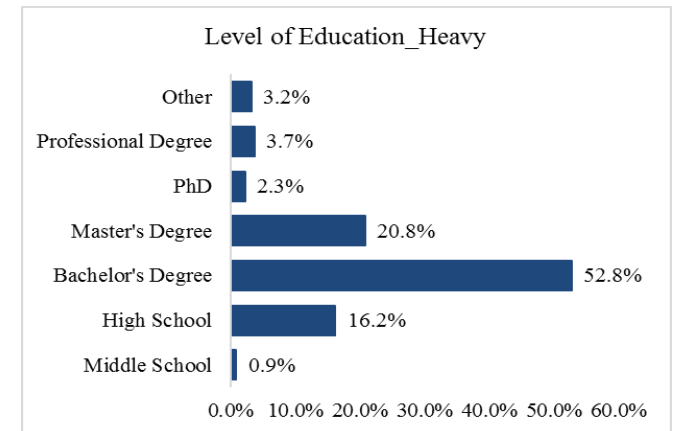
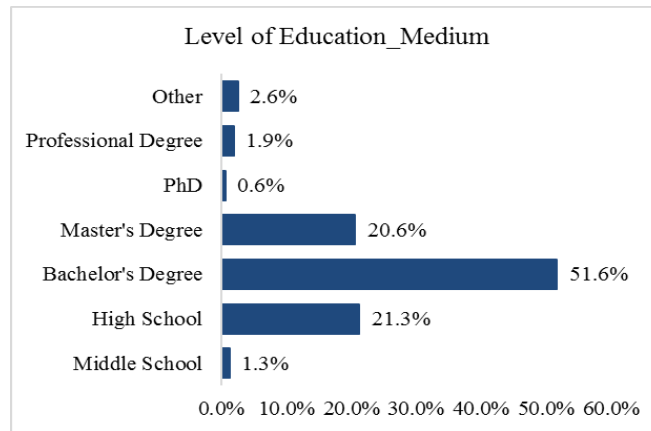
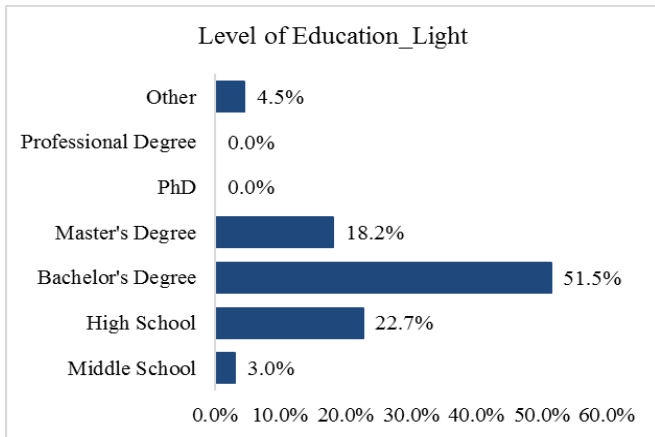
6.5 Appendix 5 – Reasons for not using makeup and to increase makeup usage

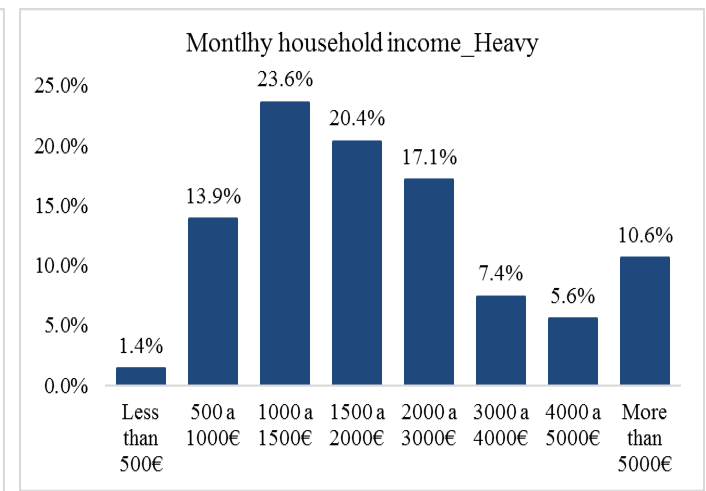
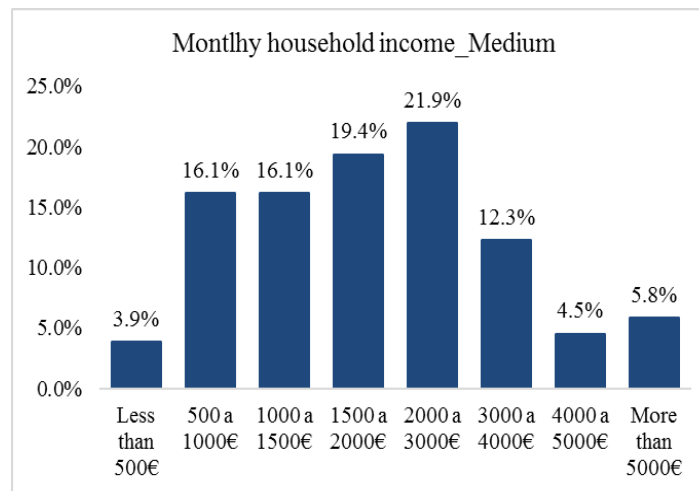
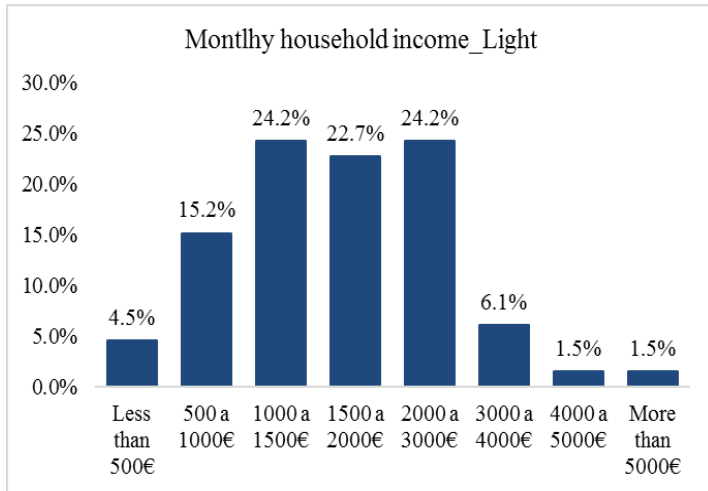
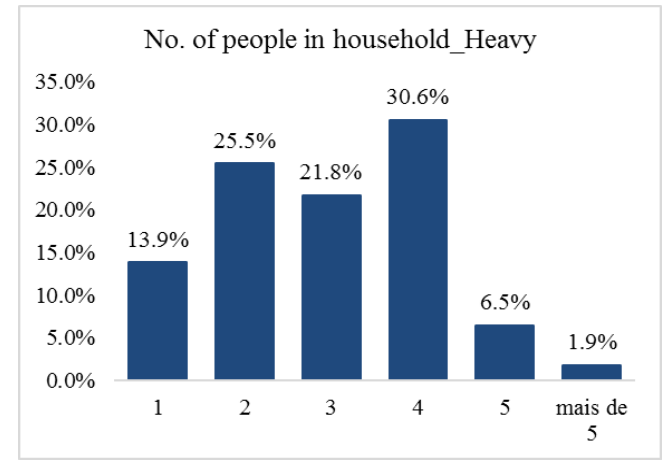
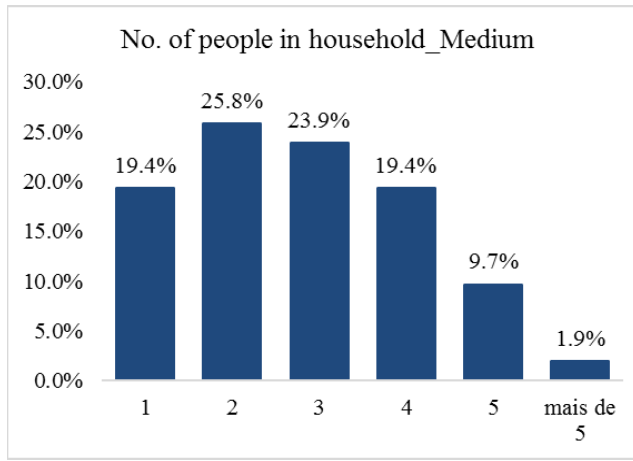
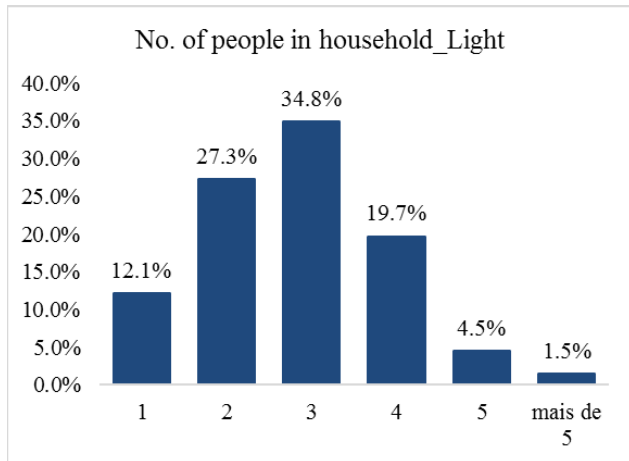


6.6 Appendix 6 – Segments characterization









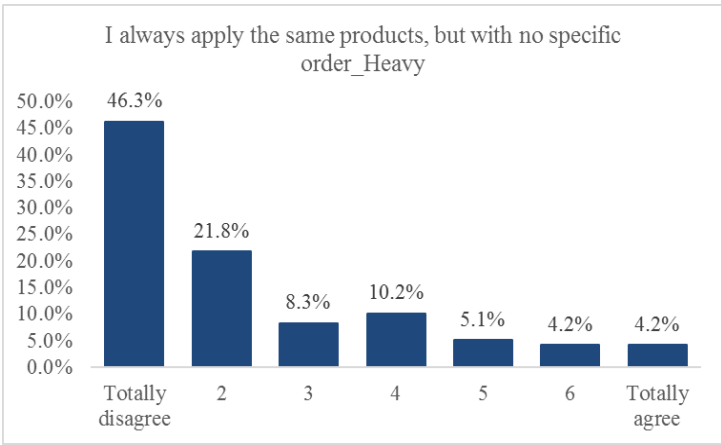
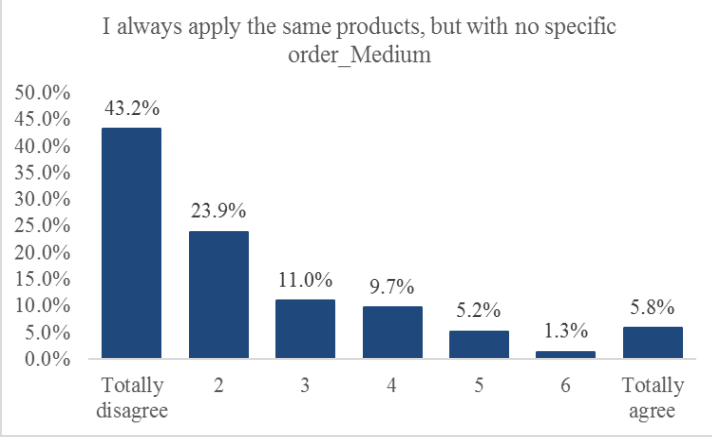
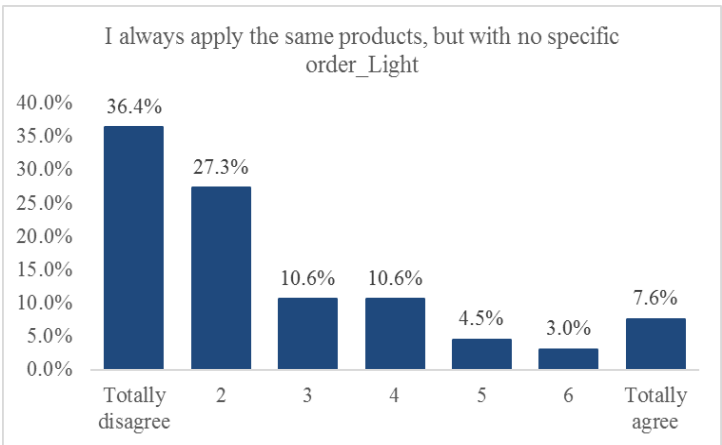
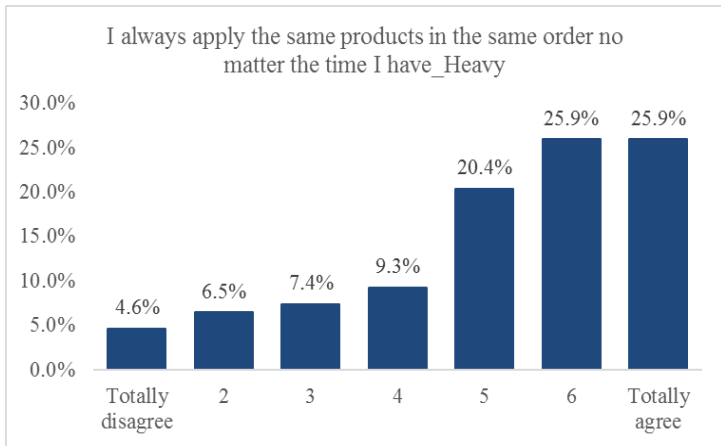
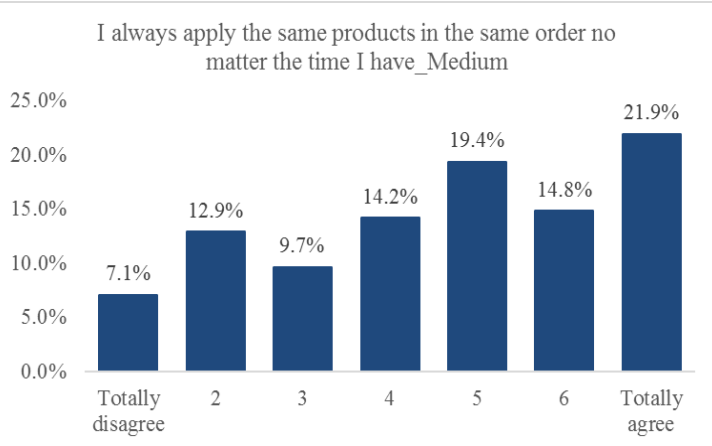
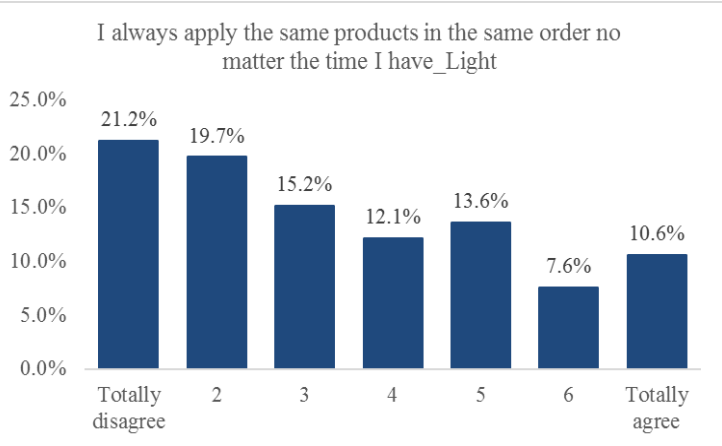
Monthly average spent (€) on cosmetics products

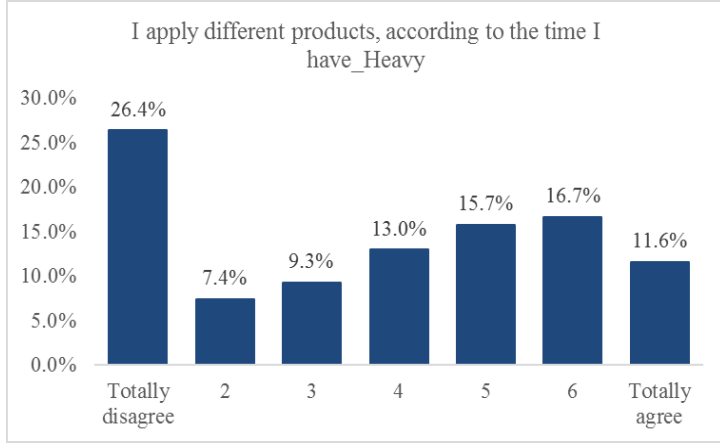
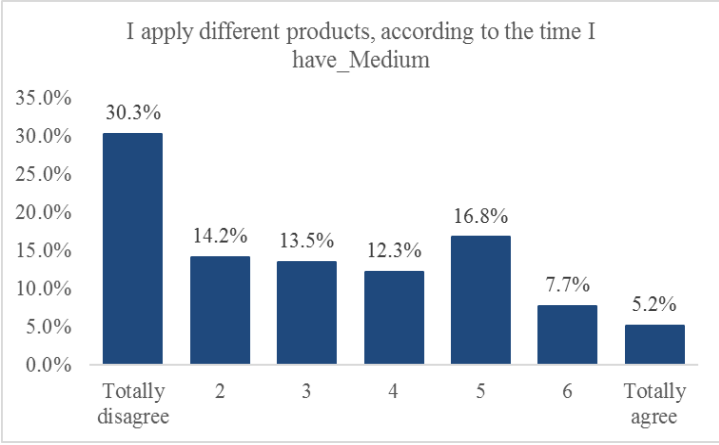
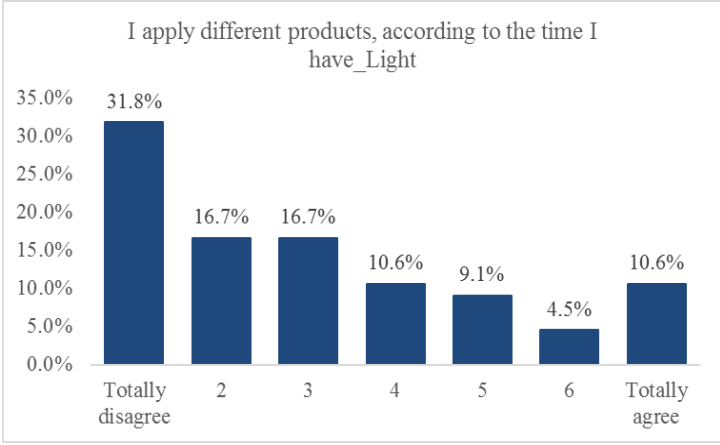
	Light	Medium	Heavy
N	66	155	216
Minimum	€ -	€ -	€ -
Maximum	€ 136.00	€ 199.00	€ 300.00
Mean	€ 31.30	€ 39.04	€ 52.17
Std. Deviation	€ 30.89	€ 37.33	€ 46.87

6.7 Appendix 7 – Top 5 reasons to use makeup

Light		Medium		Heavy	
Reason	Average	Reason	Average	Reason	Average
1	To feel better / Improve self-esteem 2.1	To feel better / Improve self-esteem 2.22	To feel better / Improve self-esteem 2.22	To feel better / Improve self-esteem 2.15	To feel better / Improve self-esteem 2.15
2	To hide skin imperfections (blemishes, acne) 2.58	Because it is a rule at my work 2.25	Because it is a rule at my work 2.25	Because it is a rule at my work 2.5	Because it is a rule at my work 2.5
3	To get a more cared/sophisticated look 2.74	To hide skin imperfections (blemishes, acne) 2.8	To hide skin imperfections (blemishes, acne) 2.8	It is part of my routine/ I am used to 3.03	It is part of my routine/ I am used to 3.03
4	To highlight some parts of my face (lips/eyes...) 2.83	It is part of my routine/ I am used to 2.94	It is part of my routine/ I am used to 2.94	To highlight some parts of my face (lips/eyes...) 3.13	To highlight some parts of my face (lips/eyes...) 3.13
5	To look healthier 3.17	To highlight some parts of my face (lips/eyes...) 2.97	To highlight some parts of my face (lips/eyes...) 2.97	To get a more cared/sophisticated look 3.25	To get a more cared/sophisticated look 3.25

6.8 Appendix 8 – Rituals in the usage of makeup





6.9 Appendix 9 – Most used makeup brands by segment

Brands	General N=437		Light N=66		Medium N=155		Heavy N=216	
	Frequency	%	Frequency	%	Frequency	%	Frequency	%
KIKO	207	47.4%	16	24.2%	67	43.2%	124	57.4%
L'Oréal Paris	193	44.2%	17	25.8%	58	37.4%	118	54.6%
Maybelline NY	137	31.4%	14	21.2%	38	24.5%	85	39.4%
Perfumeries' own brands	114	26.1%	11	16.7%	46	29.7%	57	26.4%
Lâncome	86	19.7%	11	16.7%	23	14.8%	52	24.1%
MAC	78	17.8%	5	7.6%	27	17.4%	46	21.3%
Oriflame	65	14.9%	9	13.6%	25	16.1%	31	14.4%
Yves Saint Laurent	55	12.6%	3	4.5%	8	5.2%	44	20.4%
Essence	54	12.4%	2	3.0%	16	10.3%	36	16.7%
Bourjois	47	10.8%	4	6.1%	13	8.4%	30	13.9%
Super and Hipermarkets' own brands	47	10.8%	7	10.6%	19	12.3%	21	9.7%
Catrice	32	7.3%	0	0.0%	9	5.8%	23	10.6%
Rimmel	30	6.9%	5	7.6%	5	3.2%	20	9.3%
Bodyshop	27	6.2%	4	6.1%	8	5.2%	15	6.9%
H&M	22	5.0%	0	0.0%	10	6.5%	12	5.6%
Avon	14	3.2%	2	3.0%	7	4.5%	5	2.3%
Essie	12	2.7%	1	1.5%	2	1.3%	9	4.2%
Clinique	11	2.5%	3	4.5%	5	3.2%	3	1.4%
Mary Kay	11	2.5%	1	1.5%	3	1.9%	7	3.2%
Giorgio Armani	8	1.8%	1	1.5%	3	1.9%	4	1.9%
Guerlain	7	1.6%	0	0.0%	1	0.6%	6	2.8%
Benefit	6	1.4%	0	0.0%	3	1.9%	3	1.4%
Chanel	5	1.1%	0	0.0%	1	0.6%	4	1.9%
O Boticário	5	1.1%	0	0.0%	3	1.9%	2	0.9%
Yves Rocher	5	1.1%	0	0.0%	4	2.6%	1	0.5%
Estée Lauder	4	0.9%	0	0.0%	3	1.9%	1	0.5%
Urban Decay	4	0.9%	0	0.0%	0	0.0%	4	1.9%
Christian Dior	3	0.7%	1	1.5%	1	0.6%	1	0.5%
Clarins	3	0.7%	1	1.5%	0	0.0%	2	0.9%
Invalid	3	0.7%	0	0.0%	3	1.9%	0	0.0%
Nivea	3	0.7%	1	1.5%	2	1.3%	0	0.0%
Shiseido	3	0.7%	0	0.0%	0	0.0%	3	1.4%
Vichy	2	0.5%	0	0.0%	0	0.0%	2	0.9%
Amway Artistry	1	0.2%	0	0.0%	0	0.0%	1	0.5%
Bobbi Brown	1	0.2%	0	0.0%	0	0.0%	1	0.5%
Caudalie	1	0.2%	0	0.0%	0	0.0%	1	0.5%
Flormar	1	0.2%	0	0.0%	0	0.0%	1	0.5%
Garnier	1	0.2%	0	0.0%	1	0.6%	0	0.0%
Givenchy	1	0.2%	0	0.0%	1	0.6%	0	0.0%
Hean	1	0.2%	0	0.0%	0	0.0%	1	0.5%
Juvena	1	0.2%	0	0.0%	0	0.0%	1	0.5%
La Roche-Posay	1	0.2%	0	0.0%	0	0.0%	1	0.5%
MAC Cosmetics	1	0.2%	0	0.0%	0	0.0%	1	0.5%
Make Up Forever	1	0.2%	0	0.0%	0	0.0%	1	0.5%

6.10 Appendix 10 – Channels used to buy makeup products

Location	Light N=66		Medium N=155		Heavy N=216	
	n	%	n	%	n	%
Perfumery	31	47.0%	92	59.4%	148	68.5%
Super/Hipermarket	27	40.9%	49	31.6%	73	33.8%
Catalogue	20	30.3%	41	26.5%	48	22.2%
Pharmacy	9	13.6%	19	12.3%	31	14.4%
Own Brand Stores	21	31.8%	77	49.7%	129	59.7%
Online	4	6.1%	8	5.2%	25	11.6%
Clothing retail store	-	-	1	0.6%	-	-
Airport	0	0.0%	4	2.6%	1	0.5%
Do not buy	4	6.1%	5	3.2%	3	1.4%

6.11 Appendix 11 - Correlation matrix between extracted benefits

		Self-esteem	Physical attractiveness	Social confidence	Social interactions	Satisfaction with life
Self-esteem	r	1	.520**	.452**	.334**	.500**
	p-value		0.000	0.000	0.000	0.000
	N	456	456	456	456	456
Physical attractiveness	r		1	.474**	.346**	.368**
	p-value			0.000	0.000	0.000
	N		456	456	456	456
Social confidence	r			1	.599**	.391**
	p-value				0.000	0.000
	N			456	456	456
Social interactions	r				1	.267**
	p-value					0.000
	N				456	456
Satisfaction with life	r					1
	p-value					
	N					456

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

6.12 Appendix 12 – Correlation matrix between extracted benefits and different segments

<u>Light user</u>		Self-esteem	Physical attractiveness	Social confidence	Social interactions	Satisfaction with life
Self-esteem	r	1	.345**	0.224	0.218	.607**
	p-value		0.005	0.071	0.079	0.000
	N	66	66	66	66	66
Physical attractiveness	r		1	.399**	0.189	.284*
	p-value			0.001	0.129	0.021
	N		66	66	66	66
Social confidence	r			1	.514**	.281*
	p-value				0.000	0.022
	N			66	66	66
Social interactions	r				1	.243*
	p-value					0.049
	N				66	66
Satisfaction with life	r					1
	p-value					
	N					66

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

<u>Medium-user</u>		Self-esteem	Physical attractiveness	Social confidence	Social interactions	Satisfaction with life
Self-esteem	r	1	.559**	.454**	.329**	.603**
	p-value		0.000	0.000	0.000	0.000
	N	155	155	155	155	155
Physical attractiveness	r		1	.430**	.254**	.439**
	p-value			0.000	0.001	0.000
	N		155	155	155	155
Social confidence	r			1	.563**	.405**
	p-value				0.000	0.000
	N			155	155	155
Social interactions	r				1	.263**
	p-value					0.001
	N				155	155
Satisfaction with life	r					1
	p-value					
	N					155

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

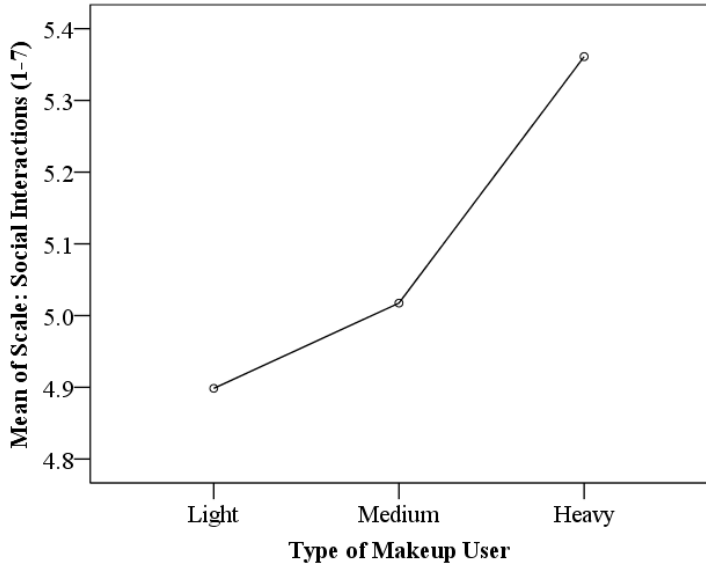
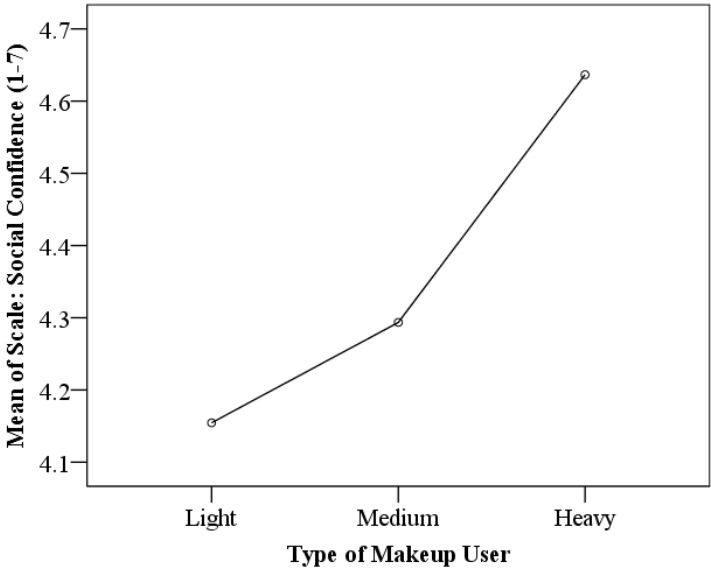
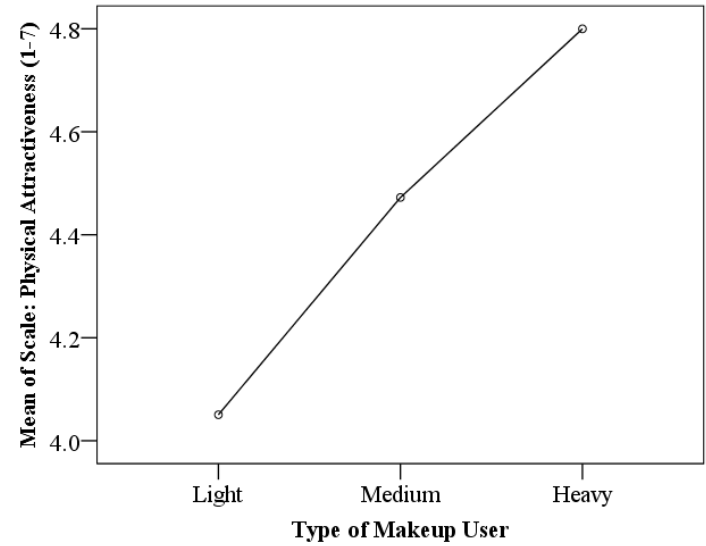
<u>Heavy-user</u>		Self-esteem	Physical attractiveness	Social confidence	Social interactions	Satisfaction with life
Self-esteem	r	1	.546**	.494**	.359**	.414**
	p-value		0.000	0.000	0.000	0.000
	N	216	216	216	216	216
Physical attractiveness	r		1	.465**	.381**	.358**
	p-value			0.000	0.000	0.000
	N		216	216	216	216
Social confidence	r			1	.637**	.393**
	p-value				0.000	0.000
	N			216	216	216
Social interactions	r				1	.305**
	p-value					0.000
	N				216	216
Satisfaction with life	r					1
	p-value					
	N					216

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

6.13 Appendix 13 – Table Difference in means

Extracted Benefit	Light N=66				Medium N=155				Heavy N=216				F	p
	Min.	Max.	Mean	SD	Min.	Max.	Mean	SD	Min.	Max.	Mean	SD		
Self-Esteem	3	7	5.30	0.93	2	7	5.53	1.12	1	7	5.66	1.01	2.968	0.052
Physical Attractiveness	1	6	4.05	1.08	1	7	4.47	1.13	2	7	4.80	1.07	12.796	0.000
Social Confidence	2	6	4.15	1.03	2	7	4.29	1.17	2	7	4.64	1.06	7.113	0.001
Social Interactions	3	7	4.90	1.01	3	7	5.02	0.98	2	7	5.36	0.94	8.809	0.000
Satisfaction with life	1	7	4.31	1.39	1	7	4.44	1.34	1	7	4.54	1.35	0.811	0.445

6.14 Appendix 14 – Plots: Significant difference in means – Physical attractiveness, Social Confidence, and Social Interactions



6.15 Appendix 15 - Questionnaire

Dear participant,

I would first like to thank their availability. The following questionnaire is part of my Master Thesis at the Catholic Lisbon School of Business and Economics. The purpose of the answers is to study the behavior and relationship of the Portuguese consumer with makeup.

Your response to this questionnaire will not take more than 10 minutes. There are no right or wrong answers and all the information you provided is anonymous.

By answering this questionnaire, you can participate in the lottery for one FNAC voucher of 20 €.

If you want to know more about this study or if you have any other question, please feel free to send me an e-mail: anacastroguimaraes@gmail.com.

Thank you,

Ana Guimaraes

1. What is your gender?

2. How frequently do you use makeup?

- Everyday
- 4 to 5 days a week
- 2 to 3 times a week
- Once a week
- 2 to 3 times a month
- Less than once a month

3. What prevents you to use makeup more often? (multiple choice)

- I have no patience
- I don't like the results
- I don't look much natural

- I don't have time
- I have sensitive skin / allergic to some products
- My husband/wife - boyfriend/girlfriend doesn't like it
- My parents / relatives don't like it
- I don't know how to use
- I look too much sophisticated
- I have to remove the makeup after
- Other reasons

4. What would increase your frequency of use?

- Ageing
- skin imperfections
- Have more free time
- To correct a scar
- Learn how to apply makeup
- Products have a better price
- Other reasons
- Nothing

5. How old were you when you started using makeup?

- Never used it
- Before 18
- Between 18 and 23
- Between 24 and 30
- Between 30 and 40
- After 40

6. Please indicate on a 1-7 scale (1 – do not agree; 7 – Totally agree) the extent to which you agree with the following statements:

- Makeup interests me a lot
- Makeup is very important to me

7. Please indicate how often do you use the following makeup products? (0 never, 1 occasionally, 2 usually, 3 always)

- Face makeup (e.g. concealer, foundation, BB cream, powder)
- Eyelashes mascara (*rimel*)
- Eyeliner
- Eyeshadow
- Lips makeup (lipstick, lip pencil, lip gloss)
- Nail varnish

8. Think about a normal day and the time you spend putting your makeup on. Approximately how much time do you spend?

- Less than 5 minutes
- Between 5-15 minutes
- Between 15-30 minutes
- More than 30 minutes

9. Where do you put your makeup on? (select all that apply)

- Home
- Work
- Car
- Public transports (metro, bus, boat)
- Friend's home
- Other, which?

10. (12) Rank your top 5 reasons, in order of importance (1- extremely important), that make you use makeup

- To feel better / Improve self-esteem

- To get a more cared/sophisticated look
- To look fashionable/on trend
- It is part of my routine/ I am used to
- To skin imperfections (blemishes, acne)
- To highlight some parts of my face (lips/eyes...)
- To look healthier
- To feel good in my group of friends
- To feel good in my group of colleagues
- To look younger
- Because it is a rule at my work
- To please my partner

11. Think about your makeup ritual and please indicate on a scale of 1 to 7, being 1 – do not agree and 7 – totally agree, how much do you agree with the following sentences.

- I always apply the same products in the same order (e.g. 1st foundation, 2nd concealer, 3rd eye liner), no matter the time I have
- I always apply the same products, but with no specific order
- I apply different products, according to the time I have

12. Do you touch-up your makeup during the day? (one choice) – only for those who answered 5 days or everyday in the 1st question)

- Yes, everyday
- Yes, sometimes
- Rarely
- Never

13. Considering only makeup products, from the brands listed below, which do you use more often?

- Bodyshop
- Bourjois

- Catrice
- Essence
- Essie
- Giorgio Armani
- H&M
- Kiko
- L'Oréal Paris
- Lâncome
- MAC
- Maybelline NY
- Oriflame
- Rîmmel
- Yves Saint-Laurent
- Perfumeries' own brands (e.g., Sephora)
- Hypermarket/Supermarket's own brands (e.g., Mylabel)
- Other, which?

14. Where do you usually buy your makeup products?

- Perfumery
- Supermarket / Hypermarket
- Catalogue (Avon, Oriflame...)
- Pharmacy
- Own brand store (Kiko, Inglot...)
- Online
- I do not buy it
- Other, which?

15. Subsequently you find a list of statements about your physical attractiveness.

Please state how much do you agree with each one, on a scale from 1 (Completely disagree) to 7 (Completely agree):

- I am considered attractive by others.
- I attract attention from the opposite sex.
- I have a pleasing physique.
- I like to look at my body.
- I like to look at myself in the mirror.
- I like to show off my body.
- I don't consider myself attractive.
- I dislike looking at myself in the mirror.
- I dislike looking at my body.

16. Below is a list of statements dealing with your general feelings about yourself.

Please indicate how strongly you agree or disagree with each statement (Scale from 1 - Completely disagree to 7 - Completely agree):

- On the whole, I am satisfied with myself
- At times I think I am no good at all
- I feel that I have a number of good qualities
- I am able to do things as well as most other people
- I feel I do not have much to be proud of
- I certainly feel useless at times
- I feel that I'm a person of worth, at least on an equal plane with others
- I wish I could have more respect for myself
- All in all, I am inclined to feel that I am a failure
- I take a positive attitude toward myself

17. Following, you can find a list of statements usually used to describe your relation with other people. Please state how much do you agree with each one, on a scale from 1 (Completely disagree) to 7 (Completely agree):

Feel comfortable around people.
I don't mind being the center of attention.
I am good at making impromptu speeches.
I express myself easily.
I have a natural talent for influencing people.
Hate being the center of attention.
I lack the talent for influencing people.
I often feel uncomfortable around others.
I don't like to draw attention to myself.
I have little to say.
If you are paying attention, please select 1 in this statement.
I enjoy bringing people together.
I enjoy being part of a group.
I love to chat.
I love surprise parties.
I am interested in people.
I prefer to be alone.
I seek quiet.
I keep others at a distance.
I am a very private person.
I don't like crowded events.

18. Finally, we would like to know how much do you agree with the following statements (Scale from 1 - Completely disagree to 7 - Completely agree):

In most ways my life is close to my ideal.
The conditions of my life are excellent.
I am satisfied with my life.
So far I have gotten the important things I want in life.
If I could live my life over, I would change almost nothing.

19. Do you have Portuguese Nationality?

20. In what year were you born?

(list with years)

21. How many children do you have?

I don't have children

1

2

3

4

5 or more

22. Which district of the country do you live in?

(list with districts)

23. What is your marital status?

- Single (never married)
- Married
- Separated
- Widowed
- Divorced

24. What is the highest degree or level of education you have completed?

25. What is your job condition?

26. How much is your monthly household income?

Less than 500€

500– 1000€

1000 – 2000€

2000 – 3000€

3000 – 4000€

4000 – 5000€

More than 5000€

**27. How much do you spend on average in one month with cosmetic products?
(makeup, perfumes, skincare products, haircare products).**

Scale from 0 to 1000.

Chapter 7 | References

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