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Drivers of Purchase Intention for Predetermined Subscription Services

The case of Menstrual Products in Portugal

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ABSTRACT

Title: Drivers of Purchase Intention for Predetermined Subscription Services - The case of Menstrual Products in Portugal

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The modernized subscription business model was initiated by Birchbox in 2010. With yearly market growth of over 100%, consumer goods subscriptions had reached 15% of e-commerce buyers by 2016. **Predetermined Subscription Services (PSS)** are an online service and distribution mechanism that consists on the replenishment of commoditized items.

At a global scale approximately 26% of women in reproductive age menstruate each month. Online purchase has been gaining traction in the feminine hygiene category, with a trend a trend of increasing social media promotion and sales via e-commerce platforms.

Little scientific research over the subscription business model and the gap is especially apparent for tangible consumer products.

It is the purpose of this research to study consumers' adoption of menstrual products subscription models in the Portuguese market, with an emphasis on the impact of functional and emotional benefits on purchase intention, focusing on i) consumption drivers and ii) consumer demographic profile.

The present study aims to provide implications and recommendations for companies seeking to optimize their marketing strategies utilizing PSS. It exposed that price advantage, as well as addition of an extra bonus to a otherwise commoditized product subscription were the biggest drivers of purchase intention of PSS the feminine hygiene category in Portugal. The study also revealed that the consumer profile with the highest purchase intention was 18 to 24 year old high school graduate working students, with monthly income below €500.

Keywords: Subscription-based business, predetermined subscription services, feminine hygiene products, functional benefits, emotional benefits, purchase intention.

SUMÁRIO

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A versão modernizada dos modelos de subscrição começou com a Birchbox em 2010. As subscrições de bens de consumo tinham atingido 15% dos compradores de comércio electrónico em 2016, com um crescimento anual superior a 100%. As subscrições pré-definidas (PSS) são um serviço online e um mecanismo de distribuição que consiste no reabastecimento de bens de consumo.

Aproximadamente 26% das mulheres em idade reprodutiva menstruam todos os meses. A compra online tem ganho força na categoria de higiene feminina, com uma tendência de aumento da promoção nas redes sociais e vendas online.

Existe pouca investigação científica sobre modelos de subscrição com uma lacuna evidente nos bens de consumo.

O objetivo desta investigação é estudar a intenção de compra relativa a subscrições de produtos menstruais no mercado português, com ênfase no impacto dos benefícios funcionais e emocionais na intenção de compra, focando i) fatores de consumo e ii) perfil demográfico do consumidor.

O presente estudo visa fornecer implicações e recomendações para as empresas que procuram otimizar as suas estratégias de marketing utilizando o PSS. Expôs que a vantagem de preço, bem como a adição de um bónus extra à subscrição de um produto de outro modo comoditizado foram os maiores impulsionadores da intenção de compra na categoria de higiene feminina em Portugal. O estudo revelou também que o perfil do consumidor com maior intenção de compra era o de estudantes do ensino secundário com idades entre os 18 e os 24 anos, com rendimentos mensais inferiores a 500 euros.

Palavras-chave: Negócios baseados em subscrição, serviços de subscrição pré-definidos, produtos de higiene feminina, benefícios funcionais, benefícios emocionais, intenção de compra.

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GLOSSARY

| | |
|------|-------------------------------------|
| B2C | Business to Consumer |
| CAGR | Compound Annual Growth Rate |
| PI | Purchase Intention |
| PSS | Predetermined Subscription Services |
| SaaS | Software as a Service |
| SBB | Subscription-based online Business |
| SSIs | Semi-structured Interviews |

CHAPTER 1: INTRODUCTION

1.1 Background

Subscription-based businesses did not emerge with its e-commerce version (Woo & Ramkumar, 2018). The e-commerce version succeeded a loyalty-based marketing strategy from traditional subscription businesses, such as magazines and catalogues, as a way to incentivize repeat purchase (Woo & Ramkumar, 2018). While notice of earliest adoption of the business model leads back to European map publishers in the 1500s (Rudolph et al., 2017), research on the subject dates back to seventeenth century England (Clapp, 1931).

Subscription-based online business (SBB) refers to a portion of e-business that provides the delivery of a customized box of merchandise to the consumer, at a predetermined regular pace, for a set price (Mimoun et al., 2015; Woo & Ramkumar, 2018). The modernized business model was initiated by Birchbox in 2010 (Woo & Ramkumar, 2018). The relevance and popularity of Subscription-based Business has grown considerably in recent years (McCarthy et al., 2017). Previously Dominated by newspapers, magazines and telecommunications companies, it made its way into consumer software (Microsoft 365), food preparation (Blue Apron), health and beauty products (Dollar Shave Club), among others (McCarthy et al., 2017). This large array of subscription-based software as a service (SaaS) B2C enterprises emerged also from the need to increase predictability of their revenue (McCarthy et al., 2017).

Subscription-based online business comes in many forms, from convenience to personalised discover-oriented offer (Mimoun et al., 2015; Woo & Ramkumar, 2018). Subscription-based business are spreading wide and offer a wide variety of products and services, from purely convenient to highly experiential, that can save the consumer time, effort and enhance online shopping experience by shortening the decision making-process, offering customization and surprise (McCarthy et al., 2017; Mimoun et al., 2015; Woo & Ramkumar, 2018).

Brand Associations are the nodes that contain the brand's meaning and often represent basis for purchase decisions and brand loyalty (Aaker, 1991; Keller, 1993) . The inherent value of a brand lies in such meaning (Aaker, 1991). Uniqueness, strength and favourability of associations is what companies strive for when developing their brand (Keller, 1993; P. Kotler & Keller, 2012; Keller, 2013).

(Keller, 1993) proposed the classification of Brand Associations (BA) into three categories: (i) Attributes – comprising the descriptive properties that distinguish a product or service; (ii) Benefits – personal worth attached to the attributes of the product or service by the consumer; (iii) Brand Attitude – consumer’s global evaluation of a brand as a function of salient attributes and benefits. Benefits offered by a brand can be functional, experiential and symbolic/self-expressive. When building their image, brands often use a mixture of the three (Park et al., 1986).

1.2 Problem Statement

Despite the growing importance of the subscription business models for retailers, little scientific research exists (Bischof et al., 2017, 2019; Chen et al., 2018; Janzer, 2015; Mimoun et al., 2015; Rudolph et al., 2017; Warrillow, 2015; Woo & Ramkumar, 2018). The research gap is especially apparent for tangible consumer products (Rudolph et al., 2017). The purpose of this research is to study consumers’ adoption of menstrual products subscriptions models, focusing on i) consumption drivers and ii) consumer demographic profile.

RQ1: What are the main drivers of the purchase intention of menstrual products subscriptions in the Portuguese Market?

RQ2: What is the demographic profile of consumers of menstrual prod subscriptions in the Portuguese Market?

1.3 Relevance

Figures of e-commerce predict an increase in the number of digital buyers worldwide from 2014 to 2021 of 820 million people (Clement, 2019). Sales in e-commerce are expected to reach 6.542 billion dollars by 2023 (Clement, 2020). With an yearly market growth of over 100%, consumer goods subscriptions had already reached 15% of e-commerce buyers by 2016 (Chen et al., 2018). The success and strong growth of the business model has not gone undetected by traditional and established retailers who are adding, or exploring the option to do so, subscription services to their core lines (Chen et al., 2018; Fetto, 2016).

Future Markets Insights, estimated the revenue of the global feminine hygiene products market to reach over 27 million USD in 2021. Overall sales of the category will likely surpass 54 million USD by 2031, growing at a Compound Annual Growth Rate (CAGR) of 7.0% for the period 2021 - 2031. Despite retail pharmacies leading the market, online purchase has been

gaining traction in the feminine hygiene category, with predicted 7,9% CAGR in the forecast period (2021-2031).

As of April 2017, subscription company websites had 37 million visitors, having grown by over 800% since 2014. Beauty, food and apparel amounted for 84% of these visits (Kestenbaum, 2017). In the US alone, SBB has more than 11 million subscribers, with little being known for other countries (D. McCarthy & Fader, 2017).

With creating new experiences for the consumer becoming more and more difficult to achieve, especially with the wide variety of products and services on offer nowadays, there is a space for new forms of consumption (Mimoun et al., 2015). The importance of consumption experience is highlighted in the discipline of Consumer Behaviour and research indicates that mere satisfaction is not enough, there is a need to achieve consumer delight, which is defined as the highest level of customer satisfaction (Mimoun et al., 2015; Vanhamme & Snelders, 2003). Vanhamme and Snelders (2003) also indicates that a higher level of customer satisfaction (delight) is believed to translate into higher retention and loyalty, with pleasant surprise being a privileged way to trigger customer delight. These mystery-boxes are able to elevated the consumption moment, making it satisfying, extraordinary and hard to forget, thriving in categories linked to pleasure (wine) or well-being (cosmetics) (Mimoun et al., 2015; Vanhamme & Snelders, 2003).

1.4 Research methods

In order to answer the research questions, both primary and secondary data were collected. Secondary data was collected from an array of sources, such as top journals, other ranking journals (given the recent nature of the study of pre-determined subscription models), books and online articles in order to build a good basis for further primary data collection.

For primary data collection, there will be firstly semi-structured interviews (SSIs), with the goal of exploring consumers' views on online shopping for personal care products, with a focus on the feminine hygiene category. The data collected through the SSIs will be used to improve the stimuli for the online survey, ensuring that it includes elements that consumers find relevant. The survey will test a number of constructs obtained from both secondary data collection and SSIs and their influence on purchase intention of subscriptions on the feminine hygiene products market in Portugal.

1.5 Dissertation outline

The following chapter presents a literature review and the development of the hypothesis that will guide the study. The literature review section reviews and summarizes relevant research on feminine hygiene products, the subscription-based business model, and the relationship between brand associations and purchase intention. The methodology section describes the research design, sample size, and data collection and statistical tests and techniques applied to the study. The fourth chapter will present the results of the study obtained through the survey, as well as discuss the implications of the results in relation to the research questions being addressed. The final chapter will address the conclusions of this dissertation, as well as the limitations and areas for further research.

CHAPTER 2: LITERATURE REVIEW

2. LITERATURE REVIEW

The present chapter aims to introduce a theoretical framework on the topics linked to the research questions and to the purpose of this study. The relevant concepts and constructs were explored through the support of previous studies and a summary of empirical evidence from numerous academic journals. The first part of this literature review is primarily focused on an overview of the feminine hygiene products market and a definition of subscription based business and its multitude of formats. It then goes on to define Brand Image and its effect on Purchase Intention of Predetermined Subscription for Feminine Hygiene Products in Portugal.

2.1 Feminine Hygiene Products

The need for personal care absorbent products remains unchanged for humans since prehistoric times. In those times, man had access to an assortment of natural materials, such as dry grasses, plant fibres, animal fur, among others. Technologic advances led to more sophisticated articles of personal hygiene (Gross, 1990). The sanitary napkin was the first absorbent material of commercial significance introduced in 1921. In 1933, the Tampax Corporation introduced the first menstrual tampon.

Globally, approximately 26% of the total population is of reproductive age and most women and girls menstruate each month for two to seven days (House et al., 2013). The most common menstrual hygiene products include disposable and reusable menstrual pads, tampons and the menstrual cup (Choi et al., 2021; Pryia, 2022; Statista, 2022). It is estimated that a woman uses approximately 11.400 pads throughout her life (Choi et al., 2021).

A significant transformation on the personal care industry has been observed over the past few years with the adoption of feminine hygiene products increasing notably (Future Markets Insights, 2021). In 2019, the feminine hygiene market in Europe had total revenues of \$7,66bn and consumption volume reached 2,43bn units (MarketLine, 2020). Europe has also seen a trend of increasing social media promotion and sales via e-commerce platforms (Future Markets Insights, 2021). The prominent players in the market are Procter & Gamble, Unilever, Johnson & Johnson, Kimberly Clark, as well as several local start-ups (Future Markets Insights, 2021).

2.2 Subscription-based Business

Subscription-based business did not emerge with its e-commerce version (Woo & Ramkumar, 2018). The e-commerce version succeeded a loyalty-based marketing strategy from traditional subscription businesses, such as magazines and catalogues, as a way to incentivize repeat purchase (Woo & Ramkumar, 2018). While notice of earliest adoption of the business model leads back to European map publishers in the 1500s (Rudolph et al., 2017), research on the subject dates back to seventeenth century England (Clapp, 1931).

2.2.1 Subscription-based E-Business

SBB refers to a portion of e-business that provides the delivery of a customized box of merchandise to the consumer, at a predetermined regular pace, for a set price (Mimoun et al., 2015; Woo & Ramkumar, 2018). The modernized business model was initiated by Birchbox in 2010 (Woo & Ramkumar, 2018). The evolution of the subscription business model was facilitated by technology development, as a result of technology's interaction with business models (Baden-Fuller & Haefliger, 2013). Just as the example of Amazon, that applied technology to improve on the previously developed mail-order business model (Baden-Fuller & Haefliger, 2013). The relevance and popularity of SBB has grown considerably in recent years (McCarthy et al., 2017). Previously Dominated by newspapers, magazines and telecommunications companies, it made its way into consumer software (Microsoft 365), food preparation (Blue Apron), health and beauty products (Dollar Shave Club), among others (McCarthy et al., 2017). This large array of subscription-based software as a service (SaaS) B2C enterprises emerged also from the need to increase predictability of their revenue (McCarthy et al., 2017).

2.2.2 Subscription Business Types

Subscription-based online business comes in many forms, from convenience to personalised discover-oriented offer (Mimoun et al., 2015; Woo & Ramkumar, 2018). SBB are spreading wide and offer a wide variety of products and services, from purely convenient to highly experiential, that can save the consumer time, effort and enhance online shopping experience by shortening the decision making-process, offering customization and surprise (McCarthy et al., 2017; Mimoun et al., 2015; Woo & Ramkumar, 2018). In his book, Warrillow (2015) differentiates between two kinds of subscriptions: previously known items and surprise items. In an effort to divide and further structure subscription types, Rudolph et al. (2017) and Chen et al. (2018) proposed its division into three distinct archetypes. Rudolph et al. (2017) divided

SBB types according to Customer Value, Earnings Mechanisms and Key Performance Indicators (KPIs), dividing subscriptions into Chen et al. (2018) suggested a different division in subscription types: replenishment, curation and access, based on the degree of personalization and motives for purchasing. By this definition, curation comprises what Rudolph et al. (2017) distinguished as Curation and Surprise, while suggesting a different category, Access Subscriptions.

Bischof et al. (2019) proposed a four archetype matrix, adapting the works of Rudolph et al. (2017) and Chen et al. (2018) and combining the dimensions of degree of surprise (low vs. high control over the assortment of products acquired) and personalization (low vs. high):

Table 1: Management matrix of subscription archetypes (Bischof et al.,2019)

| | | Predefined Subscriptions | Curated Surprise Subscriptions | General Surprise Subscriptions | Access Subscriptions |
|---------------------|---------------------------|--|---|--|---|
| Customer Value | USP | -Convenience | -Personalization | -Inspiration | -Unique Assortment |
| | Surprise | -Low | -Medium | -High | -High |
| | Outcome | -Equipment with Expected Product | -Controlled Inspiration | -Inspiration via Unexpected Product | -Access |
| Earnings Mechanisms | Earnings Perspective | -Long Term Profitability (High Acquisition Cost) | -Short-Term Profitability (Premium Retail) | -Long-Term Profitability (Building up Reach) | -Membership Fees and Additional Purchases |
| | Profit-Critical Aspects | -Keeping Subscribers in the Long Run | -Balancing Sales with Related Service Costs | -Scale: to acquire Subscribers & Suppliers | -Unique Assortment to Keep Subscribers Interested |
| | Additional Income Sources | -Online-Shop | -Membership Fee | -Online Shop Marketing Channel | -Online-Shop Special Products Sharing Economy |
| | Product Sourcing | -Mostly Proprietary Products | -Both Proprietary and Third Party Producers | -Third-Party Producers | -Mass-Purchased -Specially Curated -Self-Produced |
| KPIs | General-Level KPIs | -Box Profit (Profit per Delivery) -Growth Rate (of Subscriber Base) | | | |
| | Customer-Level KPIs | -Retention Rate (Likelihood to Stay Subscribed) -Customer Lifetime Value (Expected Contribution) -Customer Acquisition Costs (Costs for Advertisement and Rebates) | | | |
| | Type Specific KPIs | -Cross-Sales (eShop) | -Net Promoter Score -Average Basket Size | -Cross-Sales (eShop) -Engagement (Community) -Profits from Producers (Consumer Insights) | -Cross-Sales (eShop) -Length of Membership -Perceived Exclusivity |

Curated Surprise Subscriptions retailers are the most preminent and popular of the archetypes accounting for the majority of all subscriptions (Chen et al., 2018). They permit consumers access to highly inspirational content and the latest developments within the desired product category (Rudolph et al., 2017). Products are chosen are tailored to subscribers preferences but entirely chosen by the provider (Bischof et al., 2019). Curation is most common in categories such as food, apparel and beauty (Chen et al., 2018). **General Surprise Subscription** differs from Curated Surprise in that the consumer has no input in the selection of items contained in the shipment and that, as such, contents of shipment are not tailored to individual preferences. For **Access Subscriptions**, membership grants access to exclusive perks or content (Chen et al., 2018). For this type of subscription the fee alone does not involve the

receipt of a product, in turn, it grants access to a club that allows members to purchase special products, placing in them full control over items purchased (Bischof et al., 2019).

Lastly we have **Predetermined Subscription Services (PSS)** on which our study will be focusing. For PSS the main incentive is convenience, as commoditized everyday items, such as razors, diapers, socks or food are shipped to fulfil regular needs (Bischof et al., 2019; Chen et al., 2018)

2.2.3 Predetermined Subscription Services

With digitalization leading to the reinvention of subscription models in the early 2000s, the expansion of this model into physical goods took place around 2013 (Rudolph et al., 2017). Despite the growing relevance of subscription business models for retailers, there is little scientific research on the subject of this new type of online consumption (Bischof et al., 2017, 2019; Chen et al., 2018; Janzer, 2015; Mimoun et al., 2015; Rudolph et al., 2017; Warrillow, 2015; Woo & Ramkumar, 2018) . The gap becomes even more apparent in the realm of tangible consumer goods, with the emphasis of recent research being placed mostly on subscriptions to intangible services, such as television and mobile phone (Rudolph et al., 2017).

2.2.3.1 Value Proposition of PSS

PSS are viewed as being the less risky of the archetypes, as lower levels of surprise are associated to lower levels of perceived risk to consumers (Bischof et al., 2019). All control regarding products acquired remains in the hands of the consumer (Bischof et al., 2017; Chen et al., 2018; Rudolph et al., 2017). PSS allows consumers to receive a recurring shipment of products they would have to replenish regularly, without the effort of having to reacquire them and thus guaranteeing availability to fulfil their habitual needs (Bischof et al., 2019; Warrillow, 2015). Furthermore, most offers include a price discount, the possibility to choose the preferred delivery interval and the ability to skip or cancel delivery at any given moment . The study from McKinsey&Company (Chen et al., 2018) showed that, when it comes to PSS, financial incentive is the number one trigger for purchase as well as number one motive for continuing with a subscription. When it comes to cancelation, consumers point out dissatisfaction with product or experience as the main motive (Chen et al., 2018).

H1: Price advantage positively impacts purchase intention for feminine hygiene product subscriptions in the Portuguese Market.

2.2.3.2 Succeeding in PSS

Figures of e-commerce predict an increase in the number of digital buyers worldwide from 2014 to 2021 of 820 million people (Clement, 2019). Sales in e-commerce are expected to reach 6.542 billion dollars by 2023 (Clement, 2020). With an yearly market growth of over 100%, consumer goods subscriptions had already reached 15% of e-commerce buyers by 2016 (Chen et al., 2018). The success and strong growth of the business model has not gone undetected by traditional and established retailers who are adding, or exploring the option to do so, subscription services to their core lines (Chen et al., 2018; Fetto, 2016). Pettey (2018) predicted that, by 2020, all new entrants and 80% of incumbent retailers will operate subscription-based business models.

Amazon Subscribe & Save and Dollar Shave Club are some of the most used examples successful product subscription models (Bischof et al., 2017, 2019; Chen et al., 2018; Rudolph et al., 2017; Warrillow, 2015). Amazon was not new to the subscription model prior to entering the PSS space, having had the experience for years with Amazon Prime (Warrillow, 2015). For the retail giant Subscribe & Save is another addition to its subscription portfolio, offering a 15% discount on regular interval purchases of nearly all of its consumables (Bischof et al., 2019; Warrillow, 2015). On the other end of the spectrum was, until its sale to Unilever in 2016, Dollar Shave Club. The mission of the startup established in 2011 was to provide men with an inexpensive razor blade subscription (Isaac & Merced, 2016). By avoiding traditional retail space the start-up was able to reduce costs and reflect savings onto consumers (Isaac & Merced, 2016).

With retail and online giants entering the consumable subscription space, the business model itself is no longer enough to differentiate a company (Warrillow, 2015). When the product offered is a commodity and there is no trademark feature, the most time-efficient and painless option always wins (Warrillow, 2015). There is no value for small independent retailers in trying to compete with Amazon or Walmart in product selection, delivery speed or price (Fetto, 2016; Warrillow, 2015). For companies to succeed in the PSS space and attain the desired long-lasting relationship with its customers, leveraging on increased lifetime value, the key is differentiation (Warrillow, 2015). According to Michael Dubin, - co-founder of Dollar Shave Club - quoted in Warrillow (2015): *“Tech start-ups often focus on functionality, but we have had a lot of success building an emotional brand.”*. Showing that building a strong brand is important even for commodity items. According to Chiu et al (2014) repeat purchasing is

fundamental for the survival of any retail business, especially so in the increasingly competitive online retailing landscape.

H2: Time-efficiency positively impacts purchase intention for feminine hygiene product subscriptions in the Portuguese Market.

2.2.4. Feminine Hygiene Products Subscription models

Feminine hygiene products are available through several distribution channels, such as supermarkets, convenience stores, department stores, pharmacies, and online stores. Projected Compound Annual Growth Rate of online purchases of feminine hygiene products is of 7,9% (projection period 2021-2031). Higher acceptance of online sales channels, together with the increasing trend of promotion and sales via e-commerce platforms represent an opportunity in the market (Future Markets Insights, 2021).

A few companies have ventured into the online space for selling feminine hygiene products following subscription models. Riley and Clementine offer customers the opportunity to customize their perfect multi-product period box, delivered to their door at predetermined intervals so they never run out (Clementine, n.d.; Riley, n.d.). Similarly, DAME offers customers an organic cotton tampon subscription with customizable free deliver (DAME, n.d.), while DAYE offers subscriptions of personalized organic cotton and CBD infused tampons with a money-back satisfaction guarantee and the option to purchase their sampler kit (DAYE, n.d.).

2.3. Brand

Kotler (1991) defined Brand as *"a name, term, sign, symbol, or design, or combination of them which is intended to identify the goods and services of one seller or group of sellers and to differentiate them from those of competitors"*. A Brand is a highly valuable intangible asset which power resides in the mind of the consumer and that must be carefully managed (Webster Jr. & Keller, 2004). Webster Jr. & Keller (2004) identified Brand Awareness and Brand Image (BI) as two components of the psychological meaning of a brand: *"Customers must know what products or services are associated with a brand (brand awareness) and must know what attributes and benefits the brand offers and what makes it better and distinctive (brand image)."*

2.3.1 Brand Image

Aaker (1991) defined Brand Image (BI) as a set of associations organized into groups that have meaning. Said associations are formed by anything connected to the brand. Later, Keller (1993) built on this construct and defined BI as the perception of a brand being reflected by the connections present in the memory of the consumer. These correspond to informational nodes linked to a brand. Uniqueness, strength and favourability of associations is what companies strive for when developing their brand (Keller, 1993; P. Kotler & Keller, 2012; Keller, 2013). Both association and meaning represent perceptions, which do not necessarily mirror an objective reality (Aaker, 1991) and thus may be affected and influenced by a multitude of brand interactions, such as commercial messages, personal experiences and inter-personal interactions (Webster Jr. & Keller, 2004). It is important for brands to clearly define what they want to portray to consumers as every touch point between the consumer and the company may become an input to BI (Aghekyan-Simonian et al., 2012; Warrillow, 2015). Esch et al. (2006) concluded that BI can have an influence on purchase intention.

2.3.2 Brand Associations

Among the explored definition of Brand Image, we note Keller's (1993) as “...*consumer perceptions of a brand as reflected by the brand associations held in consumers’ memory.*”. Associations are the nodes that contain the brand’s meaning and often represent basis for purchase decisions and brand loyalty (Aaker, 1991; Keller, 1993) . The inherent value of a brand lies in such meaning (Aaker, 1991).

Keller (1993) proposed the classification of Brand Associations (BA) into three categories: (i) Attributes – comprising the descriptive properties that distinguish a product or service; (ii) Benefits – personal worth attached to the attributes of the product or service by the consumer; (iii) Brand Attitude – consumer’s global evaluation of a brand as a function of salient attributes and benefits.

2.3.2.1 Benefits

Benefits offered by a brand can be functional, experiential and symbolic/self-expressive. When building their image, brands often use a mixture of the three (Park et al., 1986). A study presented in Aaker (2012) supports the assertion that strong brands are associated with both functional and emotional benefits.

Functional benefits, also called utilitarian or rational hereafter, are based often characterized as task-related with a focus on the maximization of utility of the shopping experience to the consumer (Batra & Ahtola, 1991; Forsythe et al., 2006). They are specific to each product or service's function to its end user such as taste, safety or convenience (Aaker, 2012). Previous research points to greater product selection, convenience and lower prices being the primary reasons for shopping in non-store formats (Forsythe et al., 2006). These benefits are directly linked to decision-making and should be chosen to fit consumer's needs. Selling a product through communicating pure functional benefits often does not work due to easy replicability. Most functional benefits have feelings associated (Aaker, 2012).

Emotional benefits, also referred to as psychological hereafter, are the positive feelings the consumer ties to the brand. The combination of emotional and functional benefits is what allows for a product or service to go beyond commodity status (Aaker, 2012). They are also associated with the richness and depth of the experience of using or owning a brand which is why they tie in with **self-expressive benefits**, which occur when a product or brand becomes part of one's self-concept and a vehicle for expressing self-image.

For the purpose of simplification and in coherence with prior research we focus on functional and emotional benefits (Chu & Lu, 2007).

2.4 Purchase Intention

Purchase Intention (PI) has been defined by multiple authors as a customer's likelihood of buying a given product (Dodds et al., 1991; Fishbein & Ajzen, 1975; Schiffman & Kanuk, 2000). It is always crucial to mention the gap between intention and behaviour, as sometimes one does not lead to the other. Spears & Singh, (2004) also defined PI as “... *an individual's conscious plan to make an effort to purchase a brand.*”. For the purpose of this study we consider purchase intention as the intention to subscribe to Predetermined Subscription Services.

2.4.1 Brand Image and Purchase Intention

Findings from previous studies showed a positive impact of brand image on purchase intentions (Belén del Río et al., 2001; Dodds et al., 1991; Esch et al., 2006).

Brand image, as beforementioned, is formed through brand associations. Favourable brand association produce attitudes that reflect on the product. It is thus implied that the more positive

the brand image the more positive the attitude towards the product. A favourable brand image is said to yield positive effect on purchase intentions, as show the findings in several studies (Belén del Río et al., 2001; Dodds et al., 1991; Esch et al., 2006; Keller, 1993).

2.4.2 Brand Associations and Purchase Intention

A research study presented in Aaker (1991) tested the power of psychological benefits across various product/service categories (shampoo, computers and banking). Results showed that pure functional appeal was better than pure psychological appeal, but it also showed that a combination of both scored the highest. Conclusions reached in this study and others presented by Aaker showed that psychological benefits can be powerful even when dealing with products with a more primarily utilitarian function such as a computer. Conclusions also show psychological that a psychological benefit will be more effective if it is accompanied by a rational benefit.

In coherence with literature, the following hypothesis are proposed:

H3: Functional Brand Associations have a positive impact on Purchase Intention of PSS of feminine hygiene products.

H4: Emotional Brand Associations have a positive impact on Purchase Intention of PSS of feminine hygiene products.

H5: A combination of Functional and Emotional Brand Associations have a stronger positive influence on Purchase Intention of PSS than purely functional or purely emotional of feminine hygiene products.

CHAPTER 3: METHODOLOGY

The present chapter is dedicated to exposing how the research questions and the mentioned hypothesis should be validated. It provides the tools, characteristics, suitability, and justifications of the research methodology, along with the rationale for the data analysis tool chosen.

3.1 Research Approach

The goal of this study is to understand the main drivers and motivations for purchasing feminine hygiene products through an online subscription in the Portuguese market. To achieve this objective, the research began with the collection of secondary data through a review of relevant literature from academic journals. Primary data collection was then conducted in two stages: i) qualitative semi-structured interviews to gain further insights, define appropriate stimulus, and define additional relevant hypotheses (appendix 9); ii) a quantitative online survey (appendix 10) to provide a more detailed analysis of the results.

This research approach combines both qualitative and quantitative research methods, known as mixed methods research (Johnson & Onwuegbuzie, 2004). This approach is commonly used in exploratory and evaluative studies to gain multiple perspectives on a subject and to triangulate findings. It allows for the integration of different data sources and methods to provide a more comprehensive understanding of the research topic.

3.2 Secondary Data Collection

To thoroughly grasp the subject at hand and identify important concepts and areas that need further exploration, it is necessary to conduct a critical review of the literature. This review assisted in identifying the main variables to be analysed in order to address the research problem, questions, and hypothesis. It is worth noting that while data was gathered from top marketing journals, the research on predetermined subscription services is a relatively recent topic, making it difficult to find information on it solely in top journals. To gather more insightful data, a combination of other ranking journals was consulted as well as in other publications as the interest in these solutions is still developing.

3.3. Primary Data Collection

To provide well-supported answers to the research questions, we conducted both SSIs and an online survey. Both studies involved collecting and analysing primary data. The purpose of these studies was to achieve the research objectives in a thorough and reliable manner.

3.3.1 Qualitative Research - Semi-structured Interviews

SSIs are a type of research method that involves in-depth conversations with a small number of participants to gather qualitative data about their experiences and opinions. They allow for flexibility and follow-up questions to explore complex issues in more depth than is possible with other research methods (Saunders et al., 2009).

This research used SSIs as a way to explore consumers' views on online shopping for personal care products, with a focus on the feminine hygiene category. The goal was to gain a deeper understanding of preferences and consumption patterns of feminine hygiene products. The data collected was used to improve the stimuli for the online survey, ensuring that it included elements that consumers found important and easy to understand.

SSIs were chosen as the most appropriate approach as they are built on open-ended conversations, allowing the interviewee to express their thoughts and experiences in their own words. They also allow for more flexibility and natural conversation compared to standardized interviews. Semi-structured interviews may be less reliable and more difficult to analyse than standardized interviews.

3.3.1.1. Sample and Results

In an attempt to gain a preliminary understanding of consumers' knowledge of PSS as well as potential drivers for purchase, 8 women were interviewed. The interviews happened in person and over the phone with a duration of 25 to 40 minutes. A script was designed to guide the interviews and ensure the necessary information was collected during the process (Appendix 9). The interview was divided in 6 sections consisting mainly of open ended questions with the goal of allowing participants to discuss the topic in the most natural way possible as follows:

1. Warm up and demographics;
2. Online Shopping Habits;
3. Knowledge and experience with subscription services;
4. Introduction of PSS and first impressions;
5. Feminine hygiene products shopping habits;

6. Willingness to try a PSS for feminine hygiene products.

All participants were Portuguese and currently resided in Portugal and their ages ranged from 23 to 36 years old, with an average age of 29 years old. One out of the eight participants was a student and 7 were non-students. The student was completing her bachelor degree in occupational therapy and the non-students' occupations included two auditors, one consultant, one lawyer and one business controller.

As for the online shopping habits, 75% of participants stated they regularly shop online, at a frequency of once to twice per month, while 25% only do so occasionally. Clothing, personal care (skincare and haircare) and groceries were the top categories participants shopped for online with convenience and time savings being pointed as the most important factors, fitting in with their busy schedules. 37,5% of participants highlighted the ability to purchase from stores that are not available in geographic proximity and 25% noted they enjoyed the excitement of receiving a package in the mail.

Eight out of the eight participants had heard of subscription services and had at least one subscription, with 87,5% having multiple subscriptions. Music and entertainment streaming platforms were highlighted by all participants, specifically Spotify and Netflix were known to all. When asked about their opinion of those services, once again convenience was the top response, with 37,5% of participants commenting on how seamlessly these services had integrated in their daily lives. For 87,5% of participants, trial of the subscription was triggered by a price promotion.

When introduced to PSS and specifically to product subscriptions, 50% of respondents said they had considered subscribing and only 1 out of the 8 participants said she had tried a product subscription in the health and wellness category. When asked about main reasons for not subscribing, number one was the feeling of obligation, followed by the sense that the subscription was a superfluous purchase.

When inquired about their feminine hygiene product preferences and shopping habits, all respondents stated to buy them at least once every two months, with 87,5% using tampons with applicator and 37,5% using them exclusively.

Finally, when asked if they were willing to try a subscription for feminine hygiene products, price and flexibility of the service were the main variables they would consider. Two out of the

8 participants highlighted they would try such a service only if a differentiating factor was included with one of them specifying that a treat to help during that time of the month would be a nice addition.

From the in depth interviews multiple insights were derived to help build the online survey. Firstly, perceived compatibility constructs were added to the model. According to Rogers (2003) perceived compatibility refers to the degree to which an innovation is seen as being congruent with one's existing values. Also from the SSIs, a sixth hypothesis was derived:

H6: The addition of an extra bonus positively impacts the Purchase Intention of PSS of feminine hygiene products.

3.3.2. Quantitative Research – Online Survey

A primary data collection method was chosen to gather relevant information to the research problem using an online survey. This type of collecting data (Hox & Boeije, 2005) is more accurate and reliable because it comes from a direct source, and it is faster and easier.

This online survey is a convenience sample, then a non-probabilistic sampling method, easier to use for participants and researchers, although it is impossible to measure its representativeness. Between 4th and 6th December 2022, the online survey gathered 331 answers of which 238 were finished, this gives a rate of response of 71,9%.

3.3.2.1. Indicators / Variables

The variables of interest in this study are presented in Table 2 and were chosen through the literature analysis employing constructs that compose this study. Those constructs are concepts used to measure the variables of interest.

The items of the constructs Purchase Intention for feminine hygiene product subscriptions in the Portuguese Market, Perceived Usefulness, Intention to Use, Perceived Usefulness, Perceived Compatibility, and Attitude are measured on a five-point Likert Scale, and so are qualitative ordinal variables. These constructs presented a Cronbach alpha greater than 0,9 which indicates excellent quality, except for the construct Attitude with Good quality (Saunders et al., 2009). The items of Perceived Benefits are coded into one if the participant answers Yes and Zero if the participant answers No, so those are qualitative binary variables. The variable willingness to pay is quantitative.

Table 2: Constructs Description

| Question | Construct | | Litterature |
|---|---------------------------------------|------------------------------------|-------------------------|
| I feel like using this subscription service is a good idea. | Attitude | | (Vijayasathy, 2004) |
| I feel like using subscription service is a wise idea. | Attitude | | (Vijayasathy, 2004) |
| I would use the subscription service for my shopping needs. | Intention to use | | (Cheng et al., 2006) |
| I would see myself using the subscription service for my feminine hygiene products. | Intention to use | | (Cheng et al., 2006) |
| I intend to use the subscription service. | Intention to use | | (Turner et al., 2010) |
| Ability to shop without leaving home | Perceived Benefits of Shopping Online | Shopping Convenience (utilitarian) | (Forsythe et al., 2006) |
| Ability to shop without schedule restrictions | Perceived Benefits of Shopping Online | Shopping Convenience (utilitarian) | (Forsythe et al., 2006) |
| Ability to access shops/brands that are not in close proximity | Perceived Benefits of Shopping Online | Product Selection (utilitarian) | (Forsythe et al., 2006) |
| Ability to shop without the effort of visiting multiple stores | Perceived Benefits of Shopping Online | Shopping Convenience (utilitarian) | (Forsythe et al., 2006) |
| Ability to compare prices among multiple retailers | Perceived Benefits of Shopping Online | Shopping Convenience (utilitarian) | (Forsythe et al., 2006) |

| | | | |
|---|---------------------------------------|----------------------------------|---------------------------|
| Access to a wider product selection | Perceived Benefits of Shopping Online | Product Selection (utilitarian) | (Forsythe et al., 2006) |
| Trying a new shopping experience | Perceived Benefits of Shopping Online | Enjoyment (hedonic/experiential) | (Forsythe et al., 2006) |
| Ability to custom design a product/service | Perceived Benefits of Shopping Online | Enjoyment (hedonic/experiential) | (Forsythe et al., 2006) |
| Excitement of receiving a package | Perceived Benefits of Shopping Online | Enjoyment (hedonic/experiential) | (Forsythe et al., 2006) |
| Using this subscription service would facilitate my shopping. | Perceived Usefulness | | (Venkatesh & Davis, 2000) |
| I find this subscription would make my everyday life easier. | Perceived Usefulness | | (Venkatesh & Davis, 2000) |
| I find that using this subscription would be useful in my everyday life. | Perceived Usefulness | | (Venkatesh & Davis, 2000) |
| Using this subscription service fits well with my lifestyle. | Perception Compatibility | | (Moore & Benbasat, 1991) |
| Using this subscription service fits well with my shopping needs. | Perception Compatibility | | (Moore & Benbasat, 1991) |
| I am interested in trying this subscription. | Purchase Intention | | (Barber et al., 2012) |
| I intend to use the subscription service to buy my feminine hygiene products. | Purchase Intention | | (Barber et al., 2012) |
| I would consider purchasing the subscription. | Purchase Intention | | (Barber et al., 2012) |

| | | | |
|---|---|--|------------------------------------|
| Using this subscription service would save me time when buying feminine hygiene products. | Perceived Usefulness/ Extrinsic benefits | Time savings (enefits that provide better efficiency or convenience) | (Atchariyachanvanich et al., 2008) |
|---|---|--|------------------------------------|

3.3.2.2. Research Design

As previously indicated, in order to collect primary quantitative data, the Qualtrics online platform was used to build and distribute the online survey. The survey was personally sent to a network of people, as well as distributed in LinkedIn and Instagram in order to obtain a higher number of responses.

The survey was composed of 28 questions and targeted females who resided in Portugal. The survey was available in both Portuguese and English for respondents. The focus of the study was to assess their online shopping habits, feminine hygiene product shopping preferences, knowledge of subscription services and assessment of a purely fictional subscription in order to gather their insights (Stimulus 1 and 2).

The initial 2 questions were filter questions in order to ensure that only female residents in Portugal followed through with the survey. These were followed by a block of questions related to online shopping habits, namely frequency of purchases, most purchased categories and main perceived benefits. The block that followed focused on feminine hygiene products buying habits, namely frequency of purchase, preferred products and average monthly spending. These blocks were followed by a portion of the survey introducing subscription services and inquiring participants on their experience using such services.

The following portion of the survey showed participants two different Stimulus, and inquired about first impressions of the service, tested attitude towards the offers, intention to use, purchase intention, perceived compatibility and willingness to pay for the offers with and without an extra bonus added.

The final portion of the survey asked for demographic data on age, occupation, education level and income.

3.3.2.3. Data Analysis

The operationalization and distribution of the survey were all made through Qualtrics. The online platform allowed to directly collect data automatically so that after closing the survey, data could easily be exported to an excel file. After importing the excel file into SPSS version 27.0 for statistical analysis, the data preparation process started. The survey sample was characterized through demographic and consumption habits variables making use of frequency tables. To certify the reliability of the presented constructs, Cronbach's alpha is applied to measure their internal consistency.

For comparing The Purchase Intention, Intention to Use, and Willingness to Pay between Stimulus 1 and Stimulus 2, it is required to check for normality distribution by Kolmogorov-Smirnov test, in each of the two categories (Stimulus 1 and Stimulus2) to decide for a parametric or non-parametric test.

The samples, in this case, are pairwise, then for variables with normal distribution the paired t-test is applied, or else, the Wilcoxon matched pair signed rank test is used.

To establish the relationship between quantitative variables or between a quantitative variable and a binary, the Pearson linear correlation coefficient is employed.

Functional Brand Association is measured by the Perceived Benefits items: "Ability to shop without leaving home", "Ability to shop without schedule restrictions", "Ability to access shops/brands that are not in close proximity", "Ability to shop without the effort of visiting multiple stores", "Ability to compare prices among multiple retailers" and "Access to a wider product selection", which are binary variables, with value one if the participant chose this item and zero otherwise. To create the new construct "Functional Brand Association", the relative frequency of the answers to the set of those items is calculated and the variable is called FUNC, FUNC1 for Stimulus 1, and FUNC2 for Stimulus 2.

The Emotional Brand Association is measured by the Perceived Benefits items: "Trying a new shopping experience", "Ability to custom design a product/service" and "Excitement of receiving a package". The same procedure as the one used for Functional is followed to create the new construct "Emotional Brand Association", and the designed variable is called EMO, EMO1 for Stimulus 1, and EMO2 for Stimulus 2.

To validate the research questions two linear regression models are estimated, considering as Dependent variables the Purchase Intention with Stimulus 1 and the Purchase Intention with Stimulus 2.

For the demographic variables Age, current Employment Status, Level of Education, and monthly Income to be part of a regression model as independent variables they need to be dichotomized in order to become binary: Age takes value zero for participants who are at least 35 years old and one for those under 35, the new binary variable is called AgeB; Employment take value zero for those not employed and value one for those who are employed and the new binary variable is EmployB; Education Level has value zero for someone who is not Graduated and value one for the Graduated ones, and the new binary variable is EducB, lastly monthly Income is recoded into zero for those with income lower than €1500 and one for the persons with monthly income higher or equal than €1500, and the new binary variable is called IncB. The conditions of normality, homoscedasticity, and independence of residuals are also verified to assure the estimators' properties of unbiasedness, consistency, and efficiency. The normality is verified using the Kolmogorov-Smirnov test, the homoscedasticity with the Breusch-Pagan test, and the independence with the Durbin-Watson test. Outliers' detection is also made, by extracting the Mahalanobis distance, calculating the p-values associated, and performing the test by comparing those p-values with 0,001 level. For p-values less than 0,001 the observation is an outlier.

To extract the consumer's profile a computation of Spearman's correlation coefficient is made between the qualitative ordinal variables and the Purchase Intention. Moreover, for comparing Purchase Intention and Intention to Use in the categories of the demographic variables, normality tests for checking if Purchase Intention and Intention to Use in each category of the demographics follow a normal distribution, to decide between a parametric or nonparametric test. If the sample size in a category is under 50, the Shapiro-Wilk normality test is employed, otherwise Kolmogorov-Smirnov test is used. Since normality does not hold, the nonparametric alternative to ANOVA, the Kruskal-Wallis test is performed.

For all statistical tests, significance levels of 10%, 5%, and 1% are used.

Given the data collected, the analysis was held in IBM SPSS Statistic, version 27.

CHAPTER 4: RESULTS AND DISCUSSION

This chapter's purpose is to present the results of the collected data from the conduction of the online survey. The identification of outliers in the dataset is made using the Mahalanobis distance test. Once the data was cleaned, the characterization of the sample proceeded, followed by a check for the internal consistency of the constructs. These basic procedures allowed the statistical analysis to test the research hypothesis.

4.1 Data Preparation

The online survey gathered 238 fully completed answers. First excluding the 23 (9,7%) participants that did not live in Portugal and after excluding the 31 (14,4%) males, it remains a sample of size 184.

4.2 Sample Characterization

In this case, all sample participants are female. The majority are young people, 59,3% are aged between 25 to 34 years old (Appendix 2, Table 1), lying 23,9% in ages between 18 to 24. 66,8% of participants are employed (working for a third party) and 56,5% have a Graduate degree (Master's degree or equivalent) but finding 27,2% with Undergraduate degree (Bachelor's or equivalent). The income is almost identically distributed in categories less than €500 in 19,0% of the cases, 13,1% with income between €500 to €999, 16,8% with income from €1000 to €1499, 22,9% in €1500 to €1999 and 16,3% in the class of incomes between €2000 to €2999.

In terms of habits of consumption (Appendix 2, Table 2), 50,6% are not very regular shopping online: 22,3% shops online two or three times per year, and 28,3% once every three months; but 41,8% make more often purchase online: 19,0% once a month and 22,8% more than once a month. Most of them buy clothes and accessories (89,1%) followed by beauty products (48,9%), technological products (37,5%), or personal products (36,4%). The perceived benefits of shopping online are mostly the ability to shop without leaving home (79,3%), the ability to access shops/brands that are not in proximity (63,6%) or to shop without schedule restrictions (54,9%), and the ability to compare prices among multiple retailers (54,9%).

4.3 Measurement Reliability

To analyse the internal consistency of the participant's answers to the presented constructs, Cronbach's alpha is used (Saunders et al., 2009). Quality is Excellent in all the constructs except

for Attitude which quality is Good (Table 3), and this allows the construction of a composite measure created with the mean answers of each construct's items, generating quantitative variables: PI, IU, PU, PC, and A, and a descriptive statistic of the new variables is presented in Table 4.

Table 3: Cronbach's alpha of each construct

| Construct | Number of items | Cronbach's alpha | Quality |
|--|-----------------|------------------|-----------|
| Purchase Intention with Stimulus 1 (PI1) | 3 | 0,94 | Excellent |
| Intention to Use with Stimulus 1 (IU1) | 3 | 0,943 | Excellent |
| Perceived Usefulness (PU) | 4 | 0,948 | Excellent |
| Perceived Compatibility (PC) | 2 | 0,932 | Excellent |
| Attitude (A) | 2 | 0,898 | Good |
| Purchase Intention with Stimulus 2 (PI2) | 3 | 0,968 | Excellent |
| Intention to Use with Stimulus 2 (IU2) | 3 | 0,972 | Excellent |

Table 4: Descriptive Statistics of the new variables

| Descriptive Statistics | | | | | | | |
|--|-----|-----|-----|-------|----------------|----------|----------|
| | N | Min | Max | Mean | Std. Deviation | Skewness | Kurtosis |
| Purchase Intention with Stimulus 1 (PI1) | 184 | 1 | 5 | 3,027 | 1,24424 | -0,234 | -1,133 |

| | | | | | | | |
|--|-----|---|---|-------|---------|--------|--------|
| Intention to Use with Stimulus 1 (IU1) | 184 | 1 | 5 | 3,034 | 1,24942 | -0,301 | -1,126 |
| Perceived Usefulness (PU) | 184 | 1 | 5 | 3,25 | 1,19739 | -0,281 | -0,747 |
| Perceived Compatilbility (PC) | 184 | 1 | 5 | 3,095 | 1,28694 | -0,281 | -1,049 |
| Attitude (A) | 184 | 1 | 5 | 3,492 | 1,12895 | -0,682 | -0,214 |
| Purchase Intention with Stimulus 2 (PI2) | 184 | 1 | 5 | 3,152 | 1,3378 | -0,349 | -1,156 |
| Intention to Use with Stimulus 2 (IU2) | 184 | 1 | 5 | 3,105 | 1,31862 | -0,285 | -1,171 |

4.4 Hypothesis Testing Results

4.4.1 Comparison of Purchase Intention, Intention to Use, and Willingness to Pay for subscription with Stimulus 1 and Stimulus 2

Before comparing the quantitative variables, Purchase Intention on subscription (PI), Intention to Use subscription (IU), and Willingness to Pay (Pay) in the two categories: Stimulus 1 (without an extra bonus) and Stimulus 2 (with an extra bonus), for deciding between parametric or non-parametric tests, it is necessary to assess if the variables' distribution in each category follows a normal distribution. For that, a Kolmogorov-Smirnov test is used given the sample size. Appendix 3 shows that for a 5% significance level, the normal distribution null hypothesis is rejected ($p\text{-value} < 0,05$) for all three variables, and a non-parametric test is chosen. For paired samples, the Wilcoxon matched pair signed rank test is used.

The null hypothesis of equal distributions for Purchase Intention with Stimulus 1 (PI1) and Purchase Intention with Stimulus 2 (PI2) is rejected at the 5% level (Appendix 4, Table 2) with a standardized test statistic of -2,314 and a p-value of 0,021. Observing the mean (Appendix 4, Table 1), the Purchase Intention of the subscription is higher when an extra bonus is offered (Stimulus 2). Also, the correlation between the two variables is strong, with a value of 0,817,

and significant (Appendix 4, Table 3), $p\text{-value} < 0,001$. As such, **H6: The addition of an extra bonus positively impacts the Purchase Intention of PSS of feminine hygiene products is verified.**

For the comparison between Intention to Use with Stimulus 1 (IU1) and Intention to Use with Stimulus 2 (IU2), the null hypothesis of equal distribution is not rejected at a 5% level (Appendix 4 Table 4), with the value of the standardized test statistic $-1,718$ and $p\text{-value}$ of $0,086$. For a 10% level, the null hypothesis is rejected, and by the mean of both variables, the Intention to Use a subscription when an extra bonus is offered is higher. The correlation between those variables is strong and significant, with a value of $0,813$ and a $p\text{-value} < 0,001$.

Lastly, comparing Willingness to Pay with Stimulus 1 (Pay1) and Willingness to Pay with Stimulus 2 (Pay2), also the null hypothesis of equal distributions in the two categories is rejected (Appendix 4, Table 5), being the standardized test statistic $5,340$ and the $p\text{-value} < 0,001$. Observing the mean values in both categories surprisingly the willingness to pay for a subscription is lower when an extra bonus is offered. A study from Lu & Hsee, (2019) found a similar relation in which, when the valuation of a product is based on willingness to pay, consumers value a product less when it is offered with a promotion on price. In the case of our study, price was maintained in stimulus 2 while offering included additional products.

4.4.2 Research Hypothesis Testing

Hypothesis H1: Price advantage positively impacts purchase intention for feminine hygiene product subscriptions in the Portuguese Market.

To validate this hypothesis the Pearson linear correlation coefficient is applied, since in both variables, the willingness to pay, represented by the variable “How much do you usually pay, on average, for your feminine hygiene products, on a monthly basis? - in €” (Pay) and Purchase Intention are quantitative variables, and the results are shown in Table 5 for both Stimulus.

Table 5. Pearson linear correlation Between Willingness to Pay and Purchase Intention considering Stimulus 1 and Stimulus 2

| Correlations | | |
|--------------|----------|----------|
| | PI1 | PI2 |
| Pay1 | 0,221*** | |
| Pay2 | | 0,507*** |

*p<0,10 ; ** p<0,05 ; ***p<0,01

By Table 5 the correlation between these two variables is positive and significant, but the Willingness to pay is more strongly related to the Purchase Intention in Stimulus 2 than to Stimulus 1. In general, price advantage positively impacts purchase intention for feminine hygiene product subscriptions in the Portuguese Market, but when an extra bonus is offered this relation becomes stronger. **H1 is verified.**

Hypothesis H2: Time efficiency positively impacts purchase intention for feminine hygiene product subscriptions in the Portuguese Market.

Time efficiency is measured by the item “Ability to shop without leaving home” from the set of Perceived Benefits. Each item of the Perceived Benefits is coded 1 if the participant chooses Yes and zero for No and they are binary variables. To relate a binary variable with the quantitative Purchase Intention variable could still be used Pearson linear correlation coefficient. In Table 6, those results are presented for Those variables with Stimulus 1 and 2.

Table 6. Pearson linear correlation Between the Ability to shop without leaving home and Purchase Intention considering Stimulus 1 and Stimulus 2

| Correlations | | |
|--|--------|-------|
| | PI1 | PI2 |
| Ability to shop without leaving home with Stimulus 1 | -0,036 | |
| Ability to shop without leaving home with Stimulus 2 | | 0,055 |

*p<0,10 ; ** p<0,05 ; ***p<0,01

It cannot be said that the ability to shop without leaving home is related to Purchase Intention for feminine hygiene product subscriptions in the Portuguese Market because with or without an extra bonus, the relation is not significant. **H2 is not verified.**

H3: Functional Brand Associations have a positive impact on the Purchase Intention of PSS of feminine hygiene products.

H4: Emotional Brand Associations have a positive impact on the Purchase Intention of PSS of feminine hygiene products.

H5: A combination of Functional and Emotional Brand Associations have a stronger positive influence on the Purchase Intention of PSS than purely functional or purely emotional of feminine hygiene products.

To validate the above questions and to study the correlations between the Constructs and the Purchase Intention for feminine hygiene product subscriptions in the Portuguese Market, the Pearson linear coefficient of correlation is applied, and the results are presented in Appendix 5, Tables 1 and 2. All constructs are significantly and directly related to Purchase Intention for Stimulus 1 and for Stimulus 2, except Functional Brand Association. Also, high correlations are detected between constructs, which could lead to multicollinearity problems in estimating the regression model. However, collinearity diagnosis is made, using the Variation Inflation Factor (VIF) or tolerance coefficients, which higher than 10 in VIF and lower than 0,25 in tolerance could indicate multicollinearity.

To examine the impact of the constructs in analysis with Purchase Intention for feminine hygiene product subscriptions in the Portuguese Market, a regression model is estimated, by the Ordinary Least Squares Method (OLS). The dependent variable is the Purchase Intention (PI) for feminine hygiene product subscriptions in the Portuguese Market and the independent variables are the Intention to use subscription (IU), Perceived Usefulness (PU), Perceived Compatibility (PC), Attitude (A), Functional Brand Associations (FUNC), Emotional Brand Associations (EMO) plus the binary demographic variables AgeB, EmployB, EduB and IncB, explained earlier. Two linear regression models are estimated, the first one for Stimulus 1 and the second for Stimulus 2:

$$\widehat{PI1} = \beta_1 + \beta_2 IU1 + \beta_3 PU + \beta_4 PC + \beta_5 A + \beta_6 FUNC1 + \beta_7 EMO1 + \beta_8 FUNC1 \times EMO1 + \beta_9 AgeB + \beta_{10} EmployB + \beta_{11} EducB + \beta_{12} IncB + u1 \quad (\text{Model 1})$$

$$\widehat{PI2} = \beta_1 + \beta_2 IU2 + \beta_3 PU + \beta_4 PC + \beta_5 A + \beta_6 FUNC2 + \beta_7 EMO2 + \beta_8 FUNC2 \times EMO2 + \beta_9 AgeB + \beta_{10} EmployB + \beta_{11} EducB + \beta_{12} IncB + u2 \quad (\text{Model 2})$$

With $u1$ and $u2$ the residual values of Models 1 and 2 respectively. The results are presented in Table 7 and Appendix 6 and 7. And for validating Hypothesis H3, the interaction between Functional (FUNC) and Emotional (EMO) variables is performed using the cross-product between them, obtaining $FUNC1*EMO1$ and $FUNC2*EMO2$. A multicollinearity problem arises with this cross-product and the variables FUNC and EMO. Still, model estimators are yet unbiased, consistent, and efficient.

Model 1 explains 91,0% of the variation of Purchase Intention with Stimulus 1 and is globally significant ($p < 0,001$). Model 2 explains 96,3% of the variation of Purchase Intention with Stimulus 2 and is also globally significant ($p < 0,001$).

In both models, the variable that impacts mostly in Purchase Intention is the Intention to Use. With Stimulus 1, it is also important to explain the variation of the Purchase Intention the variable Perceived Compatibility, and with Stimulus 2 the participant Age.

Functional Brand Association does not have any impact on Purchase Intention. **H3 not verified.** Also, Emotional Brand Association does not have any impact on Purchase Intention. **H4 not verified.** Yet, the combination of Functional and Emotional seem to not be having any impact on Purchase Intention. **H5 was is not verified.**

Curiously, when Stimulus 1 is present, the Perceived Compatibility has a positive and significant effect on Purchase Intention. But when Stimulus 2 is presented, this is no longer important, and is the age of the participant that matters the most, having younger people more than 0,115 units on Purchase Intention than older people, keeping everything else constant.

The Mahalanobis detecting of outliers' test is made, using the Chi-square distribution with 11 degrees of freedom (the number of independent variables), and three outliers (1,6%) were detected in Model 1, but any observation is an outlier in Model 2.

Verifying the OLS assumptions in both models, the results are presented in Table 8, and the OLS assumptions are fulfilled with a 1% level for normality assumption and with a 5% level for homocedasticity and residual independence assumptions.

Table 7. Estimated Regression Models

| Model 1 | | | | | Model 2 | | | |
|--------------------|----------|-------|--------------|---------|----------|-------|--------------|--------|
| | B | Beta | Collinearity | | B | Beta | Collinearity | |
| | | | Tolerance | VIF | | | Tolerance | VIF |
| (Constant) | -0,176 | | | | 0,014 | | | |
| IU | 0,817*** | 0,821 | 0,216 | 4,623 | 1,027*** | 1,013 | 0,298 | 3,359 |
| PU | 0,058 | 0,056 | 0,201 | 4,972 | 0,011 | 0,01 | 0,202 | 4,961 |
| PC | 0,110* | 0,114 | 0,154 | 6,492 | -0,036 | -0,03 | 0,183 | 5,475 |
| A | -0,012 | -0,01 | 0,29 | 3,449 | -0,011 | -0,01 | 0,286 | 3,498 |
| FUNC | 0,247 | 0,032 | 0,011 | 91,138 | -0,212 | -0,03 | 0,848 | 1,179 |
| EMO | 0,651 | 0,044 | 0,018 | 54,828 | -0,445 | -0,05 | 0,039 | 25,722 |
| FUNC*EMO | -1,439 | -0,08 | 0,008 | 131,848 | 0,852 | 0,052 | 0,04 | 25,285 |
| AgeB | 0,062 | 0,019 | 0,83 | 1,204 | 0,115* | 0,032 | 0,821 | 1,218 |
| EmployB | 0,111 | 0,038 | 0,63 | 1,586 | 0,04 | 0,013 | 0,629 | 1,59 |
| EduB | -0,06 | -0,02 | 0,532 | 1,88 | 0,052 | 0,019 | 0,539 | 1,854 |
| IncB | 0,092 | 0,037 | 0,552 | 1,813 | 0,046 | 0,017 | 0,536 | 1,867 |
| R square | 0,91 | | | | 0,963 | | | |
| Adjusted R square | 0,904 | | | | 0,961 | | | |
| Std error estimate | 0,386 | | | | 0,264 | | | |

*p<0,10 ; ** p<0,05 ; ***p<0,01

Table 8. OLS assumptions results

| | | Statistics value | Sig |
|--------------------|---------|------------------|--|
| Kolmogorov-Smirnov | Model 1 | 0,201 | 0,012 |
| | Model 2 | 0,275 | 0,027 |
| Breush-Pagan | Model 1 | 0,19 | 0,998 |
| | Model 2 | 0,827 | 0,613 |
| Durbin-Watson | Model 1 | 1,889 | d _L = 1,654; d _U =1,885 with 5% level |
| | Model 2 | 1,964 | |

4.4.3 Identifying Costumers Profile

Due to the fact that all Demographic variables are in a qualitative ordinal scale, to relate them with Purchase Intention the Spearman's correlation coefficient is applied. The results are shown in Table 9.

The Level of Education is not important to define the Purchase Intention towards feminine hygiene product subscriptions in the Portuguese Market, neither with Stimulus 1 nor with Stimulus 2.

Apparently, the most important user profile in both models is Employment Status, positively related to Purchase Intention, employed have a higher Purchase Intention towards feminine hygiene product subscriptions in the Portuguese Market, and with the next analysis, it will be seen that working students are the ones more interested when Stimulus 2 is introduced. Followed by age, in the sense that the older the person, the lower is the Purchase Intention toward feminine hygiene product subscriptions in the Portuguese Market. At last, Monthly Income is negatively related to Purchase Intention, and as lower the monthly incomes is the more interested is the person in feminine hygiene product subscriptions. Despite the relationships found are significant, due to the large sample size, those values show weak relation between demographics and purchase intentions, which will be shown in the next analysis.

Table 9. Spearman's correlation coefficient values

| | PI1 | PI2 |
|--------------------|----------|-----------|
| Age | -0,168** | -0,208*** |
| Employment Status | 0,192*** | 0,204*** |
| Level of Education | -0,099 | -0,107 |
| Monthly Income | -0,159** | -0,187** |

*p<0,10 ; ** p<0,05 ; ***p<0,01

Now, in order to compare the categories of Purchase Intention subscription with Stimulus 1 and with Stimulus 2 in the several categories of the demographic variables, tests of the normality distribution of PI1 and PI2 are applied to decide between parametric or nonparametric tests. Results of the normality tests are presented in Appendix 8. Since in some categories of the demographic variables' normality is not present, the Kruskal Wallis nonparametric test is used. Results are presented in Table 10.

Table 10. Kruskal Wallis test results of PI1 and PI2

| | PI1 Test Statistics (p-value) | PI2 Test Statistics (p-value) |
|--------------------|-------------------------------------|-------------------------------------|
| Age | 9,744 (0,083) | 11,033 (0,051) |
| Employment Status | 7,931 (0,094) | 7,710 (0,103) |
| Level of Education | 7,690 (0,104) | 5,757 (0,218) |
| Monthly Income | 6,218 (0,399) | 8,786 (0,186) |

Although there are not significant differences at 5% level in the categories of any of the demographic variables (Age, Employment Status, Level of Education and Monthly Income) for PI1 and PI2, by Figures 1 to 8, it can be observed that younger people (18-24) are more likely to purchase the subscription, so as for working students, high school graduate and less than €500 monthly income.

Figure 1. Comparisons of means in the categories of age for PI1

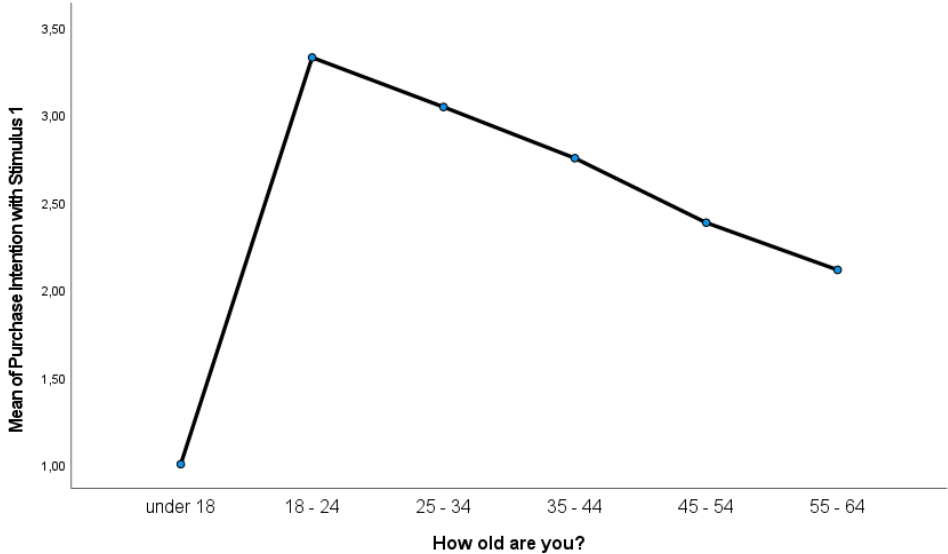


Figure 2. Comparisons of means in the categories of age for PI2

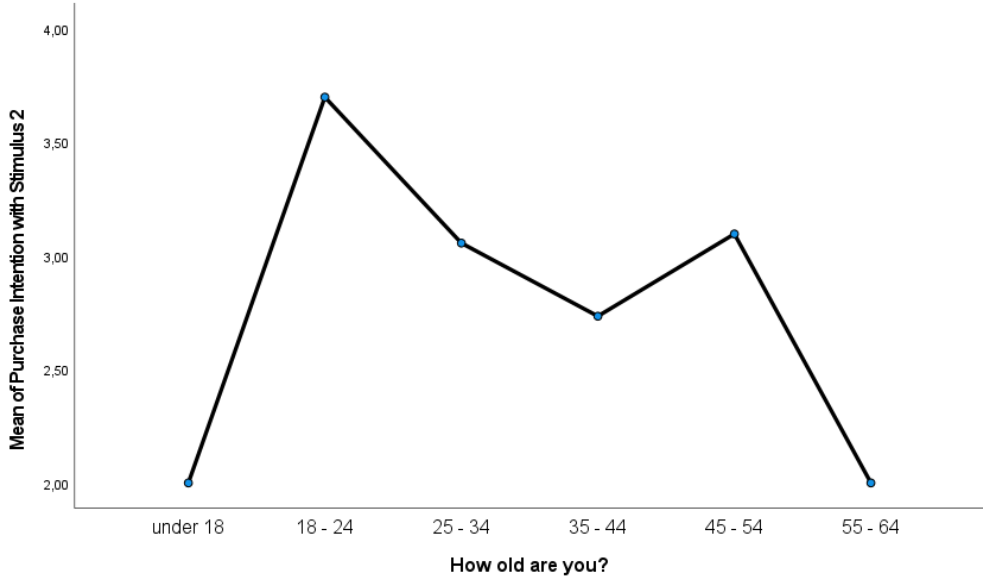


Figure 3. Comparisons of means in the categories of employment status for PI1

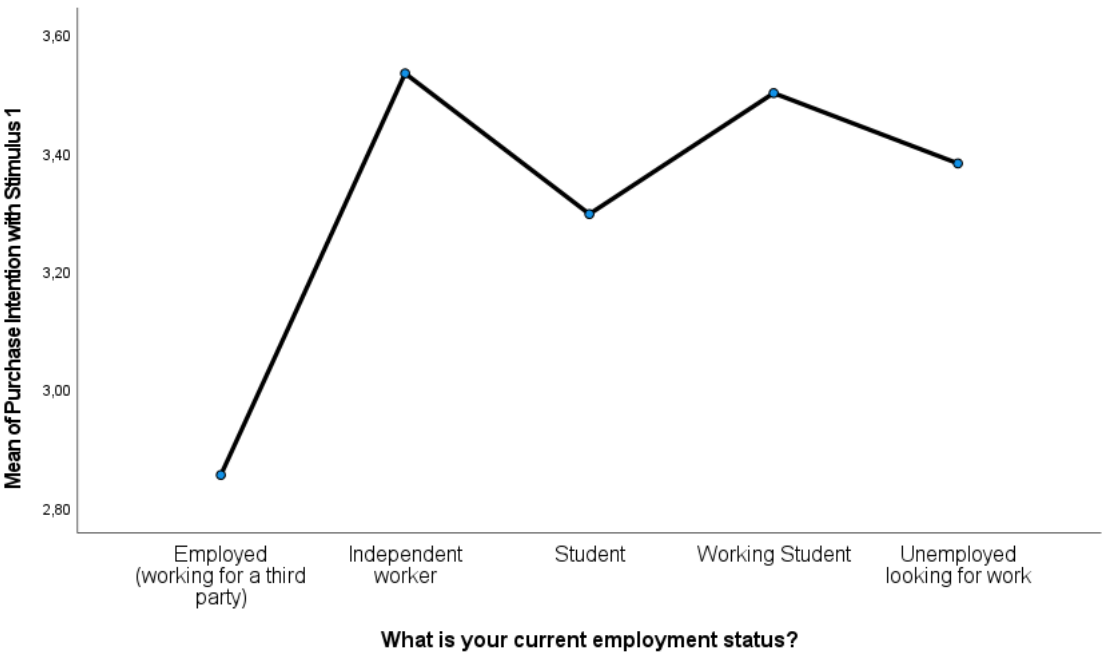


Figure 4. Comparisons of means in the categories of employment status for PI2

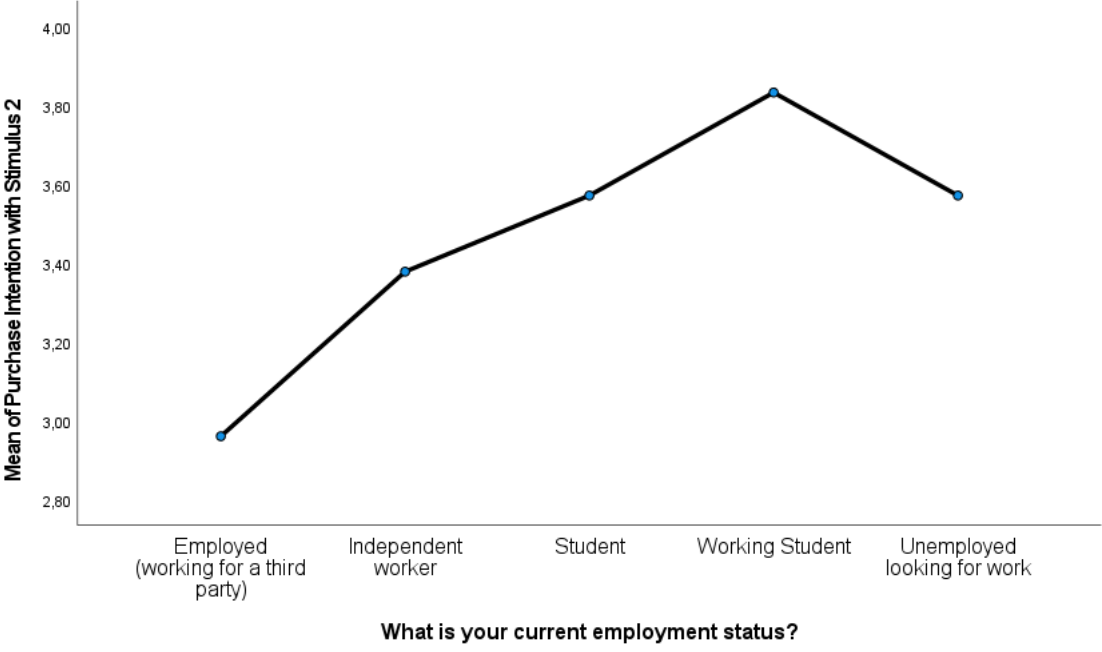


Figure 5. Comparisons of means in the categories of education level for PI1

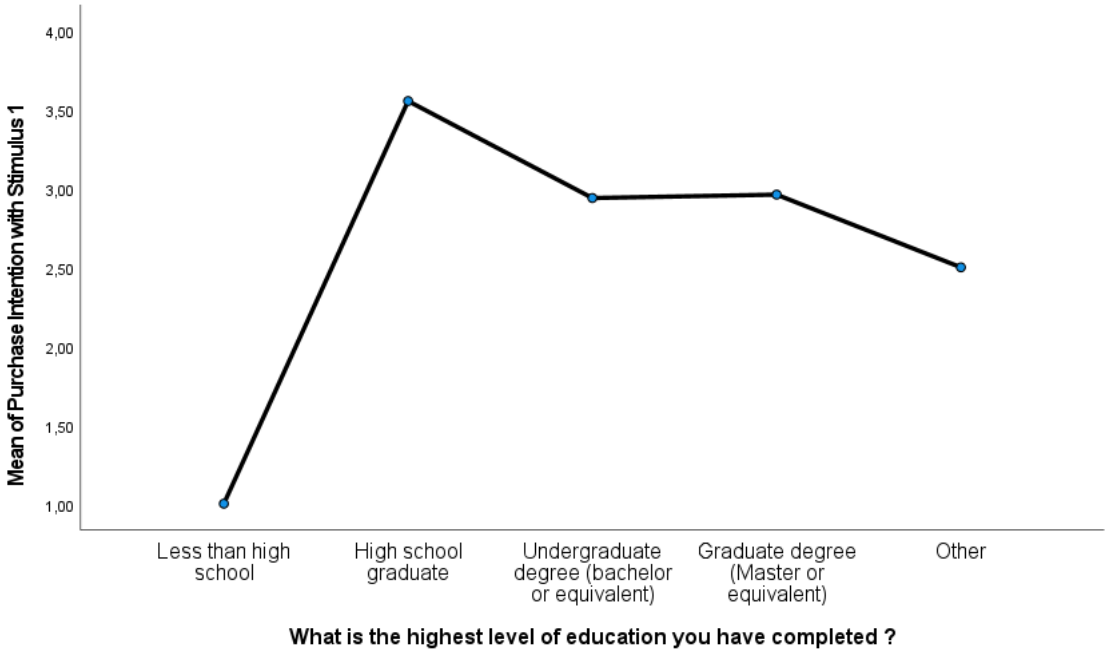


Figure 6. Comparisons of means in the categories of education level for PI2

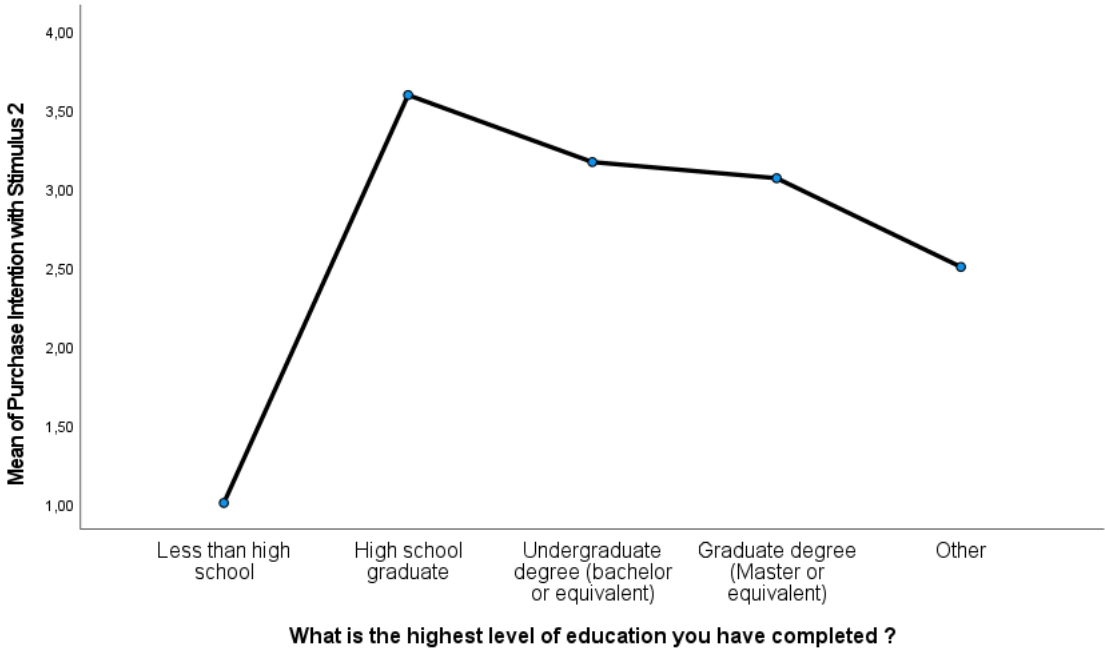


Figure 7. Comparisons of means in the categories of monthly income for PI1

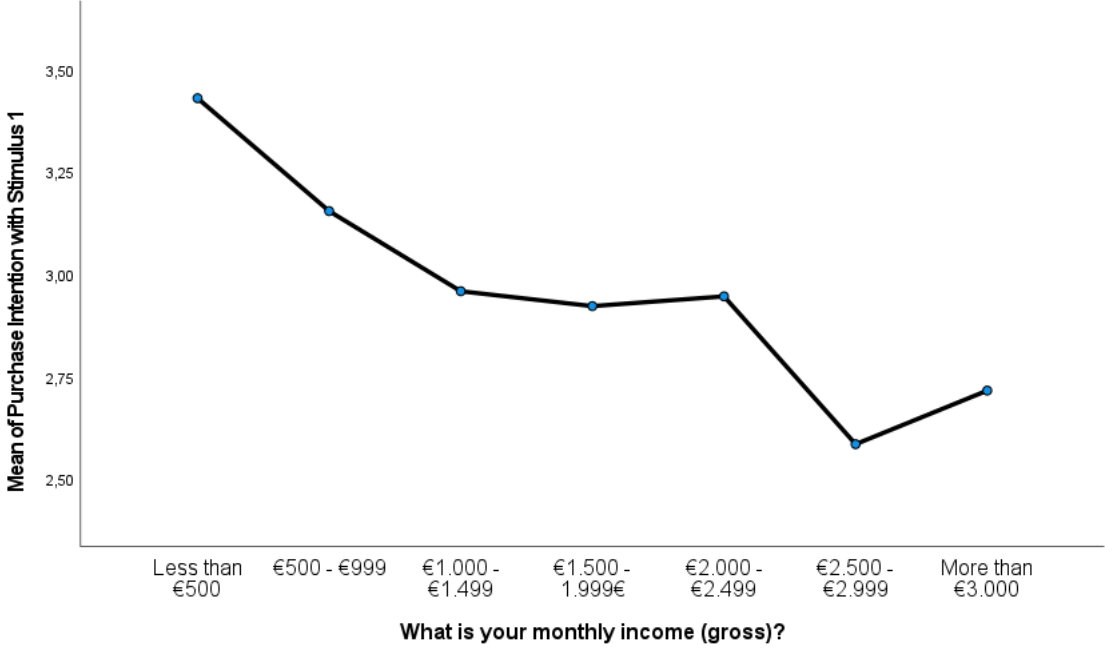
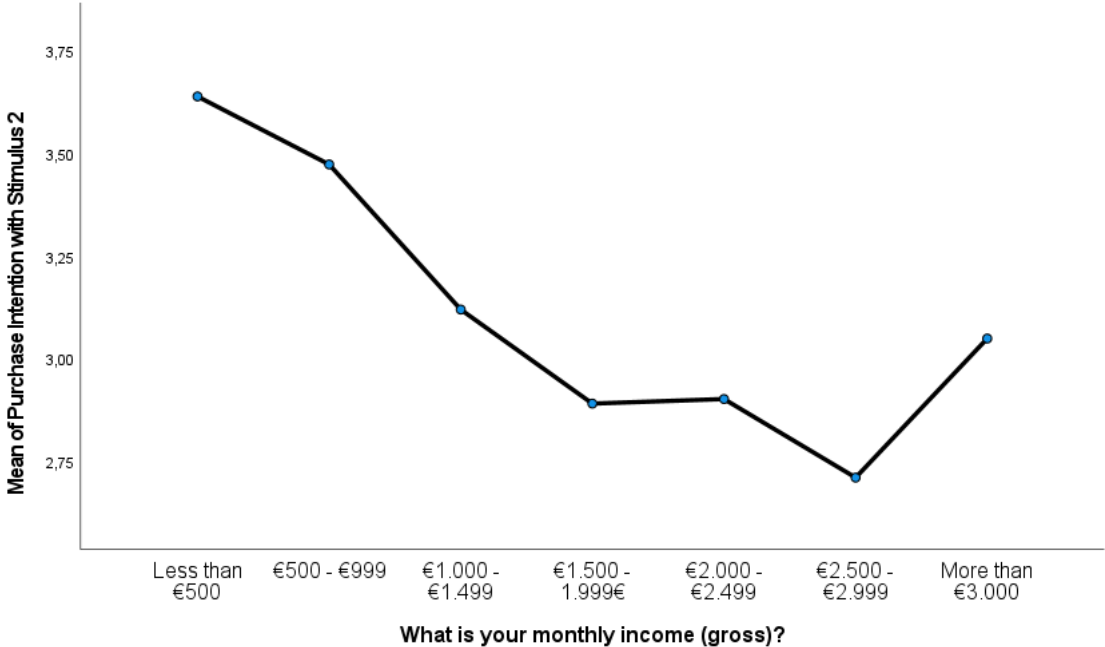


Figure 8. Comparisons of means in the categories of monthly income for PI2



The same procedure is applied to compare intention to use the subscription in the categories of the demographic variables.

Table 11. Kruskal Wallis test results of IU1 and IU2

| | IU1 Test Statistics (p-value) | IU2 Test Statistics (p-value) |
|-----------------------|-------------------------------------|-------------------------------------|
| Age | 10,766 (0,056) | 10,489 (0,063) |
| Employment Status | 14,329 (0,006) | 10,135 (0,038) |
| Level of Education | 7,110 (0,130) | 8,034 (0,090) |
| Monthly Income | 9,297 (0,158) | 11,538 (0,073) |

At 5% level, it is confirmed significant differences in the Intention to Use with Stimulus 1 for the employment status. In Figure 11 and, after pairwise comparisons, it can be settled that independent workers or working students have higher intention to use subscription than employed working for a third party.

Even not finding significant differences in the intention to use in the categories of the other demographic variables, it can be observed through Figures 9 to 16 that are still younger people, working students, with high school graduation and less than €500 income that show more likely to use.

Figure 9. Comparisons of means in the categories of age for IU1

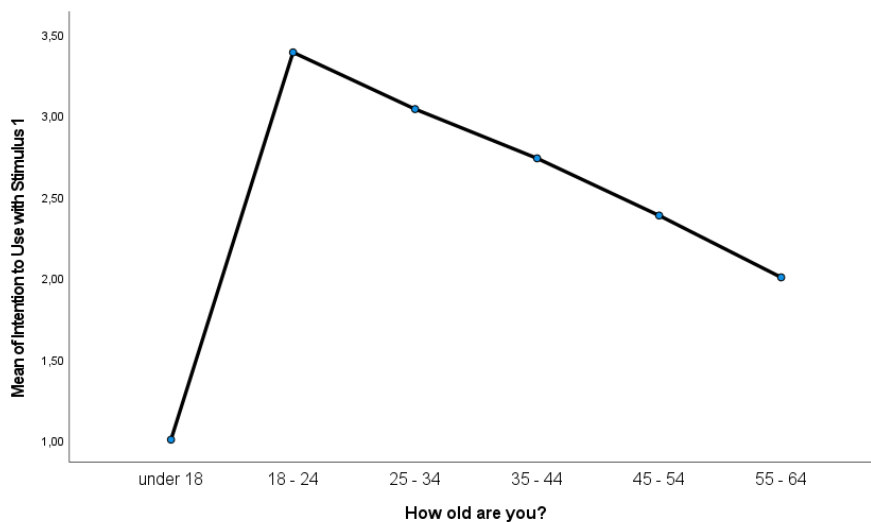


Figure 10. Comparisons of means in the categories of age for IU2

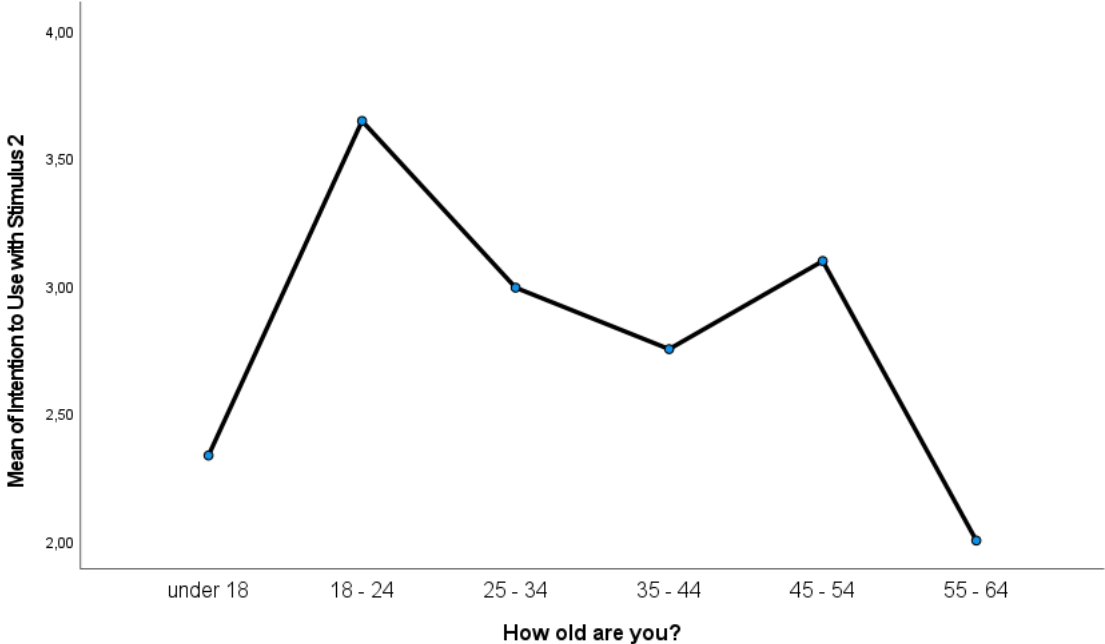


Figure 11. Comparisons of means in the categories of employment status for IU1

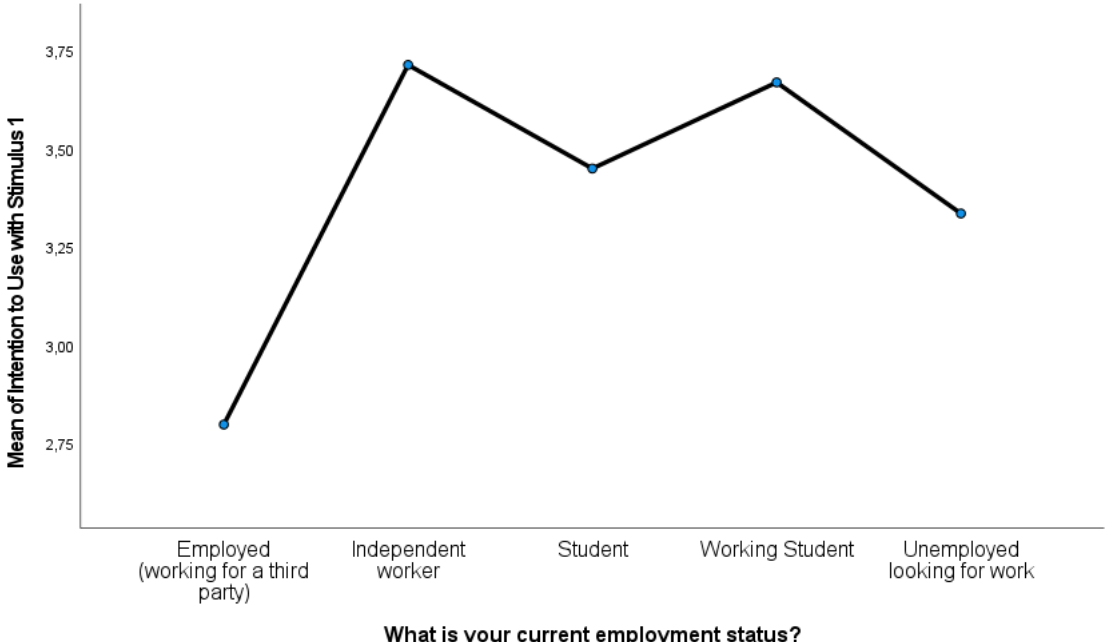


Figure 12. Comparisons of means in the categories of employment status for IU2

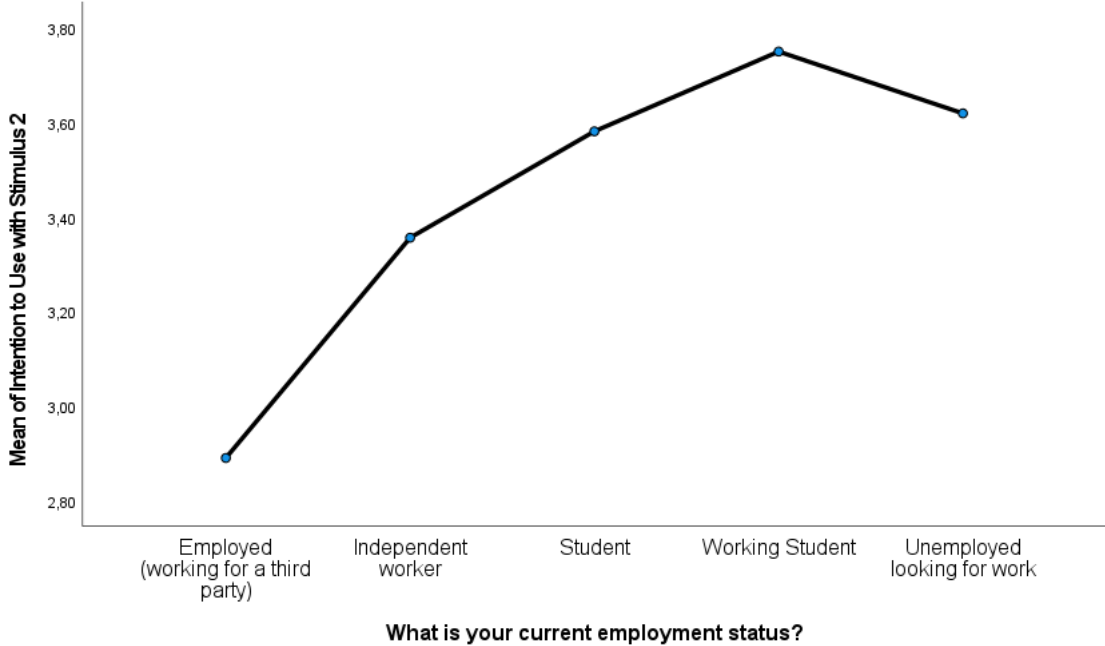


Figure 13. Comparisons of means in the categories of education level for IU1

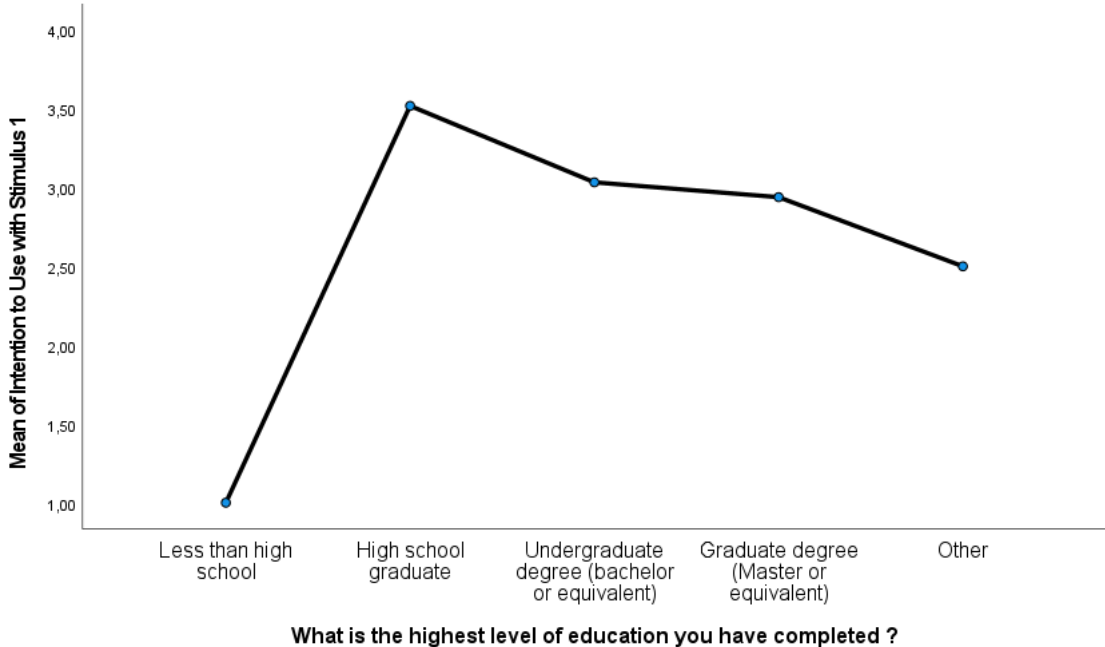


Figure 14. Comparisons of means in the categories of education level for IU2

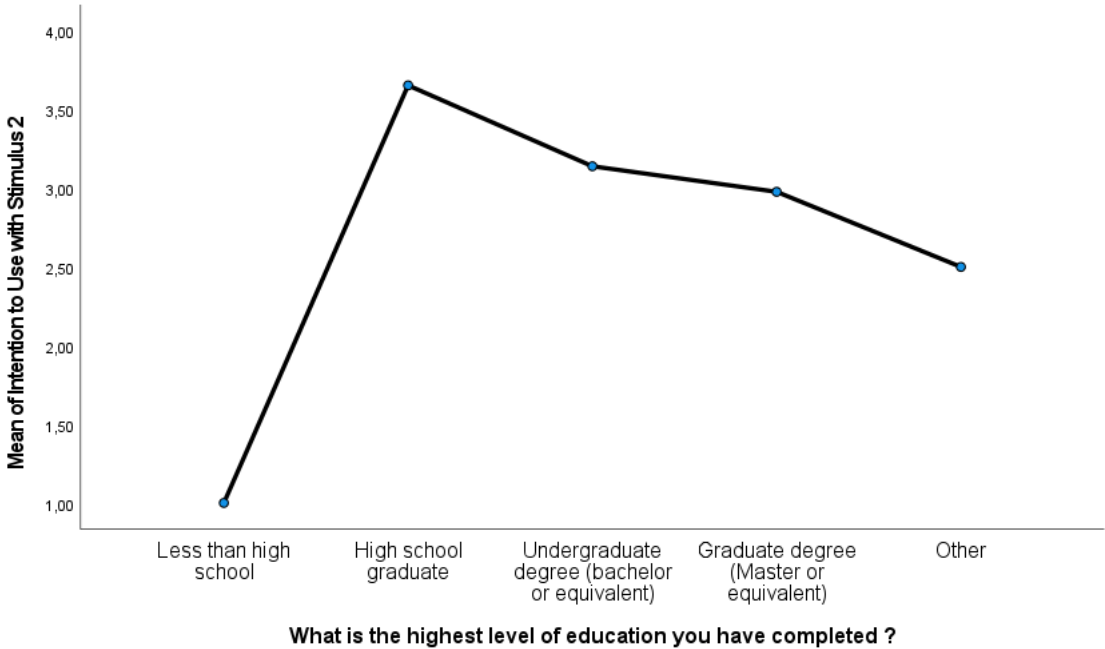


Figure 15. Comparisons of means in the categories of monthly income for IU1

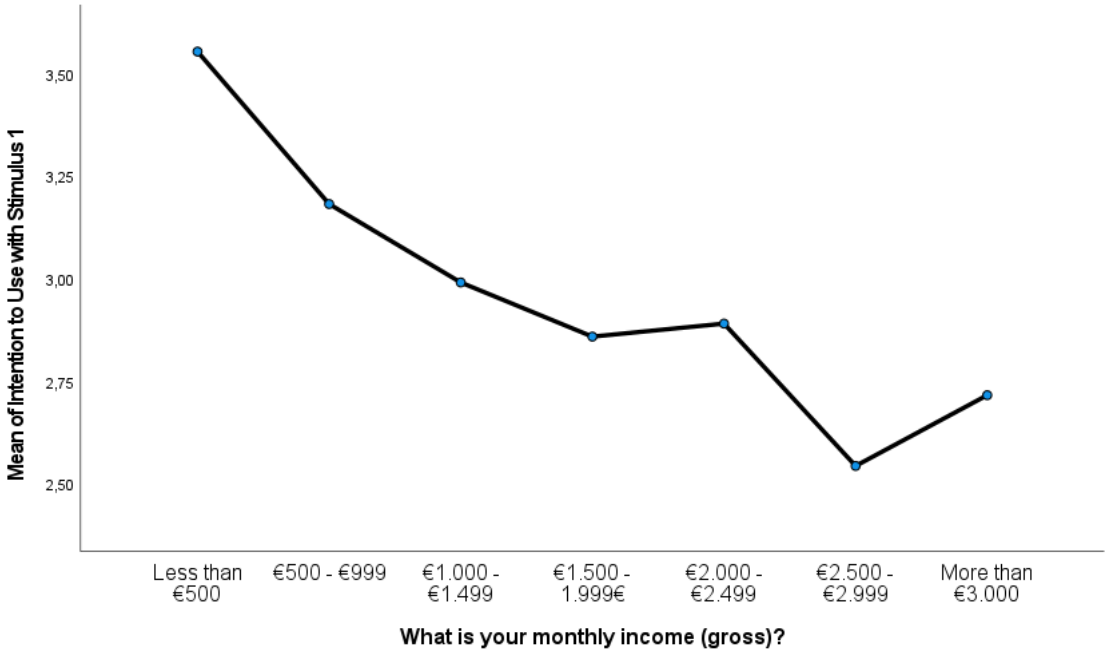
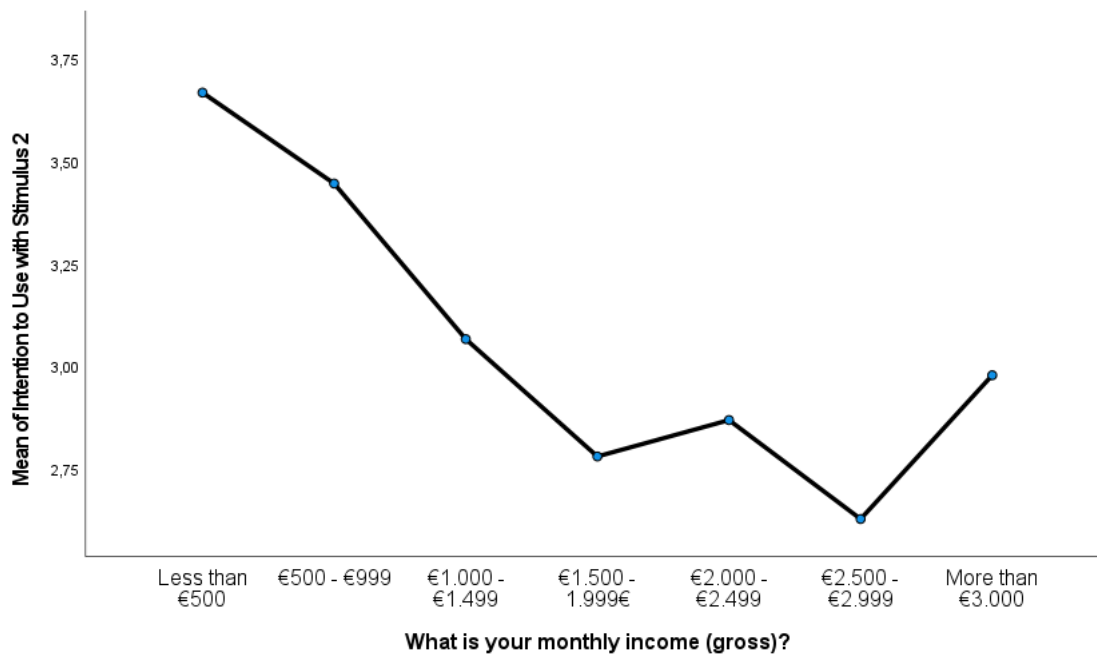


Figure 16. Comparisons of means in the categories of monthly income for IU2



CHAPTER 5: CONCLUSIONS AND LIMITATIONS

This chapter emphasizes the conclusions of this study while summarizing the research that has been achieved, linking the results with the literature. Then, limitations identified within this study will be discussed, and recommendations for mitigating them in future studies are also presented.

5.1 Main Findings & Conclusions

The Purchase Intention for feminine hygiene product subscriptions in the Portuguese Market and The Intention to Use it, when a pampering surprise (Chocolate, tea, or face mask) is offered as an extra bonus increases compared with no offer situation, under the same conditions: 10% discount on the first purchase, personalization of the box, a fix amount cost, delivery intervals customized and free shipping

The Willingness to pay for feminine hygiene product subscriptions is surprisingly lower when an extra bonus is included the without a bonus (Lu & Hsee, 2019).

Also, If Purchase Intention for buying a subscription increases the price someone is willing to pay grows. However, any relationship has been found between Purchase Intention and the Perceived Benefits of shopping online, such as shopping without leaving home. The Functional

or Emotional Brand Association is also not related to Purchase Intention, as also Perceived Usefulness or Perceived compatibility or Attitude. What defines the Purchase Intention is the Intention to Use the product (literature,...)

The profile of Portuguese women towards a feminine tampon monthly subscription is the higher education levels (Graduate Degree or more) and younger (less than 35) women.

5.2 Managerial / Academic Implications

The findings of this research have several academic implications. Firstly, our study contributes to the existing literature on Subscription-based online Business, specifically on the topic of Predetermined Subscription Services by providing an insight to the Portuguese feminine hygiene product market. Secondly, our study highlights the importance of price advantage and importance of the addition of an experiential element even in the context of a utilitarian product that , can be a clue in the study of SBB in other product categories.

From a managerial perspective, with more and more interest in the subscription business model shown by retailers, both large and small, it is important to build on the existing research, as there is little on PSS. The results of our research serve as a first insight onto the market for feminine hygiene product subscription in the Portuguese market, specifically on the importance of price advantage, offering of an extra bonus and the demographic profile of consumers to be targeted . Specifically, our study suggests that young working students, 18 to 24 years old, with monthly income below €500 which are high-school graduates display the highest PI for feminine hygiene subscriptions in the Portuguese market. These results are coherent with the aforementioned importance of price advantage. Starting to target this demographics may be an effective approach for introducing the business model to the Portuguese market.

Overall, this research provides valuable insights for both academics and practitioners, and has the potential to inform future research and decision-making in the field.

5.3 Limitations and Further Research

This research faced some limitations during its development that are necessary to address and account for future research.

The use of convenience sampling might have led to fewer variations in the population and a biased result preventing from being able to generalize results to the entire population. The study could also have profited from a large survey sample that would enable higher significance in statistical results. Future surveys should be applied over a longer period.

This research included only one product category, a Tampon subscription from one brand. Further research with other brands and product categories will be able to enlarge results to a wider spectrum of product categories. Still, reproducing this study in other countries may lead to interesting results for each country's behaviour.

Expert interviews would also have been a valuable resource to the study providing a diversified point of view and could also allow the finding of other relevant variables to explore that could potentially have a significant impact.

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APPENDICES

Appendix 1. Descriptive of the exclusion variables “Do you currently live in Portugal?” and “What your gender?”

Table 1. Do you currently live in Portugal? Frequencies

| Do you currently live in Portugal? | | | |
|------------------------------------|-------|-----------|---------|
| | | Frequency | Percent |
| Valid | No | 23 | 9,7 |
| | Yes | 215 | 90,3 |
| | Total | 238 | 100,0 |

| What gender do you identify as? | | | |
|---------------------------------|--------|-----------|---------|
| | | Frequency | Percent |
| Valid | Male | 31 | 13,0 |
| | Female | 184 | 77,3 |
| | Total | 215 | 90,3 |
| Missing | System | 23 | 9,7 |
| Total | | 238 | 100,0 |

Appendix 2. Descriptive Statistics of Demographic variables

Table 1. Demographics - Frequencies

| Variable | Categories | Frequency | Percent |
|-------------------|--------------------------------------|-----------|---------|
| Gender | Female | 184 | 100,0% |
| Age group | Under 18 | 1 | 0,5% |
| | 18 - 24 | 44 | 23,9% |
| | 25 – 34 | 109 | 59,3% |
| | 35 – 44 | 20 | 10,9% |
| | 45 – 54 | 7 | 3,8% |
| | 55 – 64 | 3 | 1,6% |
| Employment Status | Employed (working for a third party) | 123 | 66,8% |
| | Independent worker | 15 | 8,2% |

| | | | |
|------------------------------------|---|-----|--------|
| | Student | 35 | 19,0% |
| | Working Student | 4 | 2,2% |
| | Unemployed looking for work | 7 | 3,8% |
| Education Level | Less than High School | 1 | 0,5% |
| | High School Graduate | 27 | 14,7% |
| | Undergraduate degree (Bachelor's or equivalent) | 50 | 27,2% |
| | Graduate degree (Master's or equivalent) | 104 | 56,5% |
| | Other | 2 | 1,1% |
| Income | Less than €500 | 35 | 19,0% |
| | €500 - €999 | 24 | 13,1% |
| | €1000 - €1499 | 31 | 16,8% |
| | €1500 - €1999 | 42 | 22,9% |
| | €2000 - €2499 | 30 | 16,3% |
| | €2500 - €2999 | 8 | 4,3% |
| | More than €3000 | 14 | 7,6% |
| Do you currently live in Portugal? | Yes | 184 | 100,0% |

Table 2. Consumption Habits – Frequencies

| Variable | Categories | Frequency | Percent |
|-------------------------------|--------------------------|-----------|---------|
| How often do you shop online? | Less than 1x per year | 7 | 3,8% |
| | 1x per year | 7 | 3,8% |
| | 2x – 3x per year | 41 | 22,3% |
| | Once every two months | 52 | 28,3% |
| | 1x per month | 42 | 19,0% |
| | More than 1x per month | 42 | 22,8% |
| What kind of products do you | Clothing and Accessories | 164 | 89,1% |
| | Beauty Products | 90 | 48,9% |
| | Personal Products | 67 | 36,4% |

| | | | |
|--------------------------|--|-----|--------|
| usually purchase online? | Groceries | 40 | 21,7% |
| | Technological Products | 69 | 37,5% |
| | Other | 15 | 8,2% |
| Perceived Benefits | Ability to shop without leaving home | 146 | 79,3% |
| | Ability to shop without schedule restrictions | 101 | 54,9% |
| | Ability to access shops/brands that are not in close proximity | 117 | 63,6% |
| | Ability to shop without the effort of visiting multiple stores | 88 | 47,8% |
| | Ability to compare prices among multiple retailers | 101 | 54,9% |
| | Access to a wider product selection | 72 | 39,1% |
| | Trying a new shopping experience | 3 | 1,6% |
| | Ability to custom design a product/service | 7 | 3,8% |
| | Excitement of receiving a package | 184 | 100,0% |

Appendix 3: Results of Kolmogorov-Smirnov tests

| Tests of normality | | | |
|---|--------------------|-----|---------|
| | Kolmogorov-Smirnov | | |
| | Statistic | df | p-value |
| Purchase Intention with Stimulus 1 (PI1) | 0,158 | 184 | ,000 |
| Purchase Intention with Stimulus 2 (PI2) | 0,188 | 184 | ,000 |
| Intention to Use with Stimulus 1 (IU1) | 0,150 | 184 | ,000 |
| Intention to Use with Stimulus 2 (IU2) | 0,175 | 184 | ,000 |
| Willingness to pay with Stimulus 1 (Pay1) | 0,141 | 184 | ,000 |
| Willingness to pay with Stimulus 2 (Pay2) | 0,124 | 184 | ,000 |

Appendix 4: Wilcoxon matched pair signed rank test for comparing variables

Table 1. Paired Samples descriptive

| Paired Samples Statistics | | | | |
|---------------------------|---|--------|-----|----------------|
| | | Mean | N | Std. Deviation |
| Pair 1 | Purchase Intention with Stimulus 1 (PI1) | 3,0272 | 184 | 1,24424 |
| | Purchase Intention with Stimulus 2 (PI2) | 3,1522 | 184 | 1,33780 |
| Pair 2 | Intention to Use with Stimulus 1 (IU1) | 3,0344 | 184 | 1,24942 |
| | Intention to Use with Stimulus 2 (IU2) | 3,1051 | 184 | 1,31862 |
| Pair 3 | Willingness to pay with Stimulus 1 (Pay1) | 6,8859 | 184 | 4,30694 |
| | Willingness to pay with Stimulus 2 (Pay2) | 5,4022 | 184 | 3,56228 |

Table 2. Comparison between PI1 and PI2

| Related-Samples Wilcoxon Signed Rank Test Summary | |
|---|----------|
| Total N | 184 |
| Test Statistic | 3561,500 |
| Standard Error | 313,766 |
| Standardized Test Statistic | 2,314 |
| Asymptotic Sig.(2-sided test) | 0,021 |

Table 3. Paired samples correlations

| Paired Samples Correlations | | | | |
|-----------------------------|---|-----|-------------|-------|
| | | N | Correlation | Sig. |
| Pair 1 | Purchase Intention with Stimulus 1 & Purchase Intention with Stimulus 2 | 184 | 0,817 | 0,000 |

| | | | | |
|--------|---|-----|-------|-------|
| Pair 2 | Intention to Use with Stimulus 1 & Intention to Use with Stimulus 2 | 184 | 0,813 | 0,000 |
| Pair 3 | Pay with Stimulus 1 Pay with Stimulus 2 | 184 | 0,404 | 0,000 |

Table 4. Comparison between IU1 and IU2

| Related-Samples Wilcoxon Signed Rank Test Summary | |
|---|----------|
| Total N | 184 |
| Test Statistic | 3078,000 |
| Standard Error | 292,489 |
| Standardized Test Statistic | 1,718 |
| Asymptotic Sig.(2-sided test) | 0,086 |

Table 5. Comparison between Pay1 and Pay2

| Related-Samples Wilcoxon Signed Rank Test Summary | |
|---|----------|
| Total N | 184 |
| Test Statistic | 9126,500 |
| Standard Error | 562,472 |
| Standardized Test Statistic | 5,340 |
| Asymptotic Sig.(2-sided test) | 0,000 |

Appendix 5: Pearson Correlation Study among Constructs

Table 1. Correlation among Constructs with Stimulus 1

| Correlations using Stimulus 1 | | | | | | | |
|-------------------------------|----------|-----|----|----|---|-------|------|
| | PII | IU1 | PU | PC | A | FUNC1 | EMO1 |
| IU1 | 0,949*** | | | | | | |

| | | | | | | | |
|------------|----------|----------|----------|----------|--------|----------|----------|
| PU | 0,798*** | | | | | | |
| | | 0,802*** | | | | | |
| PC | 0,861*** | | 0,865*** | | | | |
| | | 0,871*** | | | | | |
| A | 0,730*** | | 0,801*** | 0,767*** | | | |
| | | 0,752*** | | | | | |
| FUNC1 | - 0,052 | - 0,036 | 0,014 | 0,013 | 0,061 | | |
| EMOT1 | 0,159** | 0,163** | 0,137* | 0,188** | 0,137* | -0,090 | |
| FUNC1*EMO1 | 0,051 | 0,071 | 0,095 | 0,123* | 0,137* | 0,769*** | 0,562*** |

*p<0,10 ; ** p<0,05 ; ***p<0,01

Table 2. Correlation among Constructs with Stimulus 2

| Correlations using Stimulus 2 | | | | | | | |
|-------------------------------|----------|----------|----------|----------|---------|--------|----------|
| | PI2 | IU2 | PU | PC | A | FUNC2 | EMO2 |
| IU2 | 0,980*** | | | | | | |
| PU | 0,736*** | 0,754*** | | | | | |
| PC | 0,791*** | 0,816*** | 0,865*** | | | | |
| A | 0,706*** | 0,726*** | 0,801*** | 0,767*** | | | |
| FUNC2 | - 0,009 | 0,010 | 0,014 | 0,013 | 0,061 | | |
| EMOT2 | 0,127* | 0,132* | 0,154** | 0,150** | 0,147** | -0,096 | |
| FUNC2*EMO2 | 0,118 | 0,122 | 0,151** | 0,136* | 0,149** | -0,026 | 0,977*** |

*p<0,10 ; ** p<0,05 ; ***p<0,01

Appendix 6: Estimated Model 1

| Model Summary ^b | | | | | |
|---|-------|----------|-------------------|----------------------------|---------------|
| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Durbin-Watson |
| 1 | 0,954 | 0,910 | 0,904 | 0,386 | 1,889 |
| a. Predictors: (Constant), IU1, PU, PC, A, FUNC1, EMO1, AgeB, EmployB, EduB, IncB | | | | | |
| b. Dependent Variable: Purchase Intention (PI1) | | | | | |

| ANOVA | | | | | | |
|-------|------------|----------------|-----|-------------|---------|------|
| Model | | Sum of Squares | df | Mean Square | F | Sig. |
| 1 | Regression | 257,740 | 11 | 23,431 | 157,617 | ,000 |
| | Residual | 25,569 | 172 | 0,149 | | |
| | Total | 283,309 | 183 | | | |

| Coefficients | | | | | | | | |
|--------------|-----------------------------|------------|---------------------------|--------|-------|-------------------------|---------|--|
| Model | Unstandardized Coefficients | | Standardized Coefficients | | Sig. | Collinearity Statistics | | |
| | B | Std. Error | Beta | t | | Tolerance | VIF | |
| 1 (Constant) | -0,176 | 0,868 | | -0,203 | 0,840 | | | |
| IU1 | 0,817 | 0,049 | 0,821 | 16,663 | 0,000 | 0,216 | 4,623 | |
| PU | 0,058 | 0,053 | 0,056 | 1,098 | 0,274 | 0,201 | 4,972 | |
| PC | 0,110 | 0,056 | 0,114 | 1,952 | 0,053 | 0,154 | 6,492 | |
| A | -0,012 | 0,047 | -0,011 | -0,259 | 0,796 | 0,290 | 3,449 | |
| FUNC1 | 0,247 | 1,694 | 0,032 | 0,146 | 0,884 | 0,011 | 91,138 | |
| EMO1 | 0,651 | 2,530 | 0,044 | 0,257 | 0,797 | 0,018 | 54,828 | |
| FUNC1*EMO1 | -1,439 | 4,987 | -0,076 | -0,289 | 0,773 | 0,008 | 131,848 | |
| AgeB | 0,062 | 0,084 | 0,019 | 0,738 | 0,462 | 0,830 | 1,204 | |
| EmployB | 0,111 | 0,085 | 0,038 | 1,305 | 0,194 | 0,630 | 1,586 | |
| EduB | -0,060 | 0,079 | -0,024 | -0,761 | 0,448 | 0,532 | 1,880 | |
| IncB | 0,092 | 0,077 | 0,037 | 1,205 | 0,230 | 0,552 | 1,813 | |

*p<0,10 ; ** p<0,05 ; ***p<0,01

Appendix 7: Estimated Model 2

| Model Summary ^b | | | | | |
|---|--------------------|----------|-------------------|----------------------------|---------------|
| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Durbin-Watson |
| 2 | 0,982 ^a | 0,963 | 0,961 | 0,264 | 1,964 |
| a. Predictors: (Constant), IU2, PU, PC, A, FUNC2, EMO2, AgeB, EmployB, EduB, IncB | | | | | |
| b. Dependent Variable: Purchase Intention (PI2) | | | | | |

| ANOVA | | | | | | |
|-------|------------|----------------|-----|-------------|---------|------|
| Model | | Sum of Squares | df | Mean Square | F | Sig. |
| 2 | Regression | 315,521 | 11 | 28,684 | 411,282 | ,000 |
| | Residual | 11,996 | 172 | ,070 | | |

| | | | | | |
|-------|---------|-----|--|--|--|
| Total | 327,517 | 183 | | | |
|-------|---------|-----|--|--|--|

| Coefficients | | | | | | | |
|--------------|-----------------------------|------------|---------------------------|--------|-------|-------------------------|--------|
| Model | Unstandardized Coefficients | | Standardized Coefficients | | Sig. | Collinearity Statistics | |
| | B | Std. Error | Beta | t | | Tolerance | VIF |
| 2 (Constant) | 0,014 | 0,113 | | 0,126 | 0,900 | | |
| IU2 | 1,027*** | 0,027 | 1,013 | 37,861 | 0,000 | 0,298 | 3,359 |
| PU | 0,011 | 0,036 | 0,010 | 0,296 | 0,768 | 0,202 | 4,961 |
| PC | -0,036 | 0,035 | -0,034 | -1,006 | 0,316 | 0,183 | 5,475 |
| A | -0,011 | 0,032 | -0,009 | -0,326 | 0,745 | 0,286 | 3,498 |
| FUNC2 | -0,212 | 0,132 | -0,025 | -1,607 | 0,110 | 0,848 | 1,179 |
| EMO2 | -0,445 | 0,656 | -0,050 | -0,679 | 0,498 | 0,039 | 25,722 |
| FUNC2*EMO2 | 0,852 | 1,210 | 0,052 | 0,704 | 0,482 | 0,040 | 25,285 |
| AgeB | 0,115 | 0,058 | 0,032 | 1,975 | 0,050 | 0,821 | 1,218 |
| EmployB | 0,040 | 0,058 | 0,013 | 0,690 | 0,491 | 0,629 | 1,590 |
| EduB | 0,052 | 0,053 | 0,019 | 0,967 | 0,335 | 0,539 | 1,854 |
| IncB | 0,046 | 0,053 | 0,017 | 0,860 | 0,391 | 0,536 | 1,867 |

Appendix 8: Tests of normality distribution of PI1 and PI2 on the demographic variables

| Tests of Normality | | | | | | | | | |
|--|--|--|------------------|---------------------------------|-----|--------------|--------------|-----|--------------|
| | | | How old are you? | Kolmogorov-Smirnov ^a | | | Shapiro-Wilk | | |
| | | | | Statistic | df | Sig. | Statistic | df | Sig. |
| Purchase Intention with Stimulus 1 (PI1) | | | 18 - 24 | 0,192 | 44 | 0,000 | 0,924 | 44 | 0,006 |
| | | | 25 - 34 | 0,180 | 109 | 0,000 | 0,923 | 109 | 0,000 |
| | | | 35 - 44 | 0,136 | 20 | 0,200* | 0,959 | 20 | 0,524 |
| | | | 45 - 54 | 0,239 | 7 | 0,200* | 0,870 | 7 | 0,184 |
| | | | 55 - 64 | 0,292 | 3 | . | 0,923 | 3 | 0,463 |
| Intention to Use with Stimulus 1 (IU1) | | | 18 - 24 | 0,204 | 44 | 0,000 | 0,915 | 44 | 0,003 |
| | | | 25 - 34 | 0,153 | 109 | 0,000 | 0,921 | 109 | 0,000 |
| | | | 35 - 44 | 0,140 | 20 | 0,200* | 0,939 | 20 | 0,225 |
| | | | 45 - 54 | 0,200 | 7 | 0,200* | 0,874 | 7 | 0,201 |
| | | | 55 - 64 | 0,343 | 3 | . | 0,842 | 3 | 0,220 |
| Purchase Intention with Stimulus 2 (PI2) | | | 18 - 24 | 0,184 | 44 | 0,001 | 0,909 | 44 | 0,002 |
| | | | 25 - 34 | 0,185 | 109 | 0,000 | 0,900 | 109 | 0,000 |
| | | | 35 - 44 | 0,198 | 20 | 0,039 | 0,872 | 20 | 0,013 |

| | | | | | | | |
|--|---------|-------|-----|--------------|-------|-----|--------------|
| | 45 - 54 | 0,188 | 7 | 0,200* | 0,924 | 7 | 0,497 |
| | 55 - 64 | 0,385 | 3 | . | 0,750 | 3 | 0,000 |
| Intention to Use with Stimulus 2 (IU2) | 18 - 24 | 0,203 | 44 | 0,000 | 0,908 | 44 | 0,002 |
| | 25 - 34 | 0,167 | 109 | 0,000 | 0,909 | 109 | 0,000 |
| | 35 - 44 | 0,175 | 20 | 0,110 | 0,895 | 20 | 0,034 |
| | 45 - 54 | 0,215 | 7 | 0,200* | 0,873 | 7 | 0,196 |
| | 55 - 64 | 0,385 | 3 | . | 0,750 | 3 | 0,000 |
| *. This is a lower bound of the true significance. | | | | | | | |
| a. Lilliefors Significance Correction | | | | | | | |

| Tests of Normality | | | | | | | | | |
|--|-----------|---|-------|---------------------------------|--------------|-------|--------------|--------------|--|
| | | What is your current employment status? | | Kolmogorov-Smirnov ^a | | | Shapiro-Wilk | | |
| | | Statistic | df | Sig. | Statistic | df | Sig. | | |
| Purchase with Stimulus 1 (PI1) | Intention | Employed (working for a third party) | 0,165 | 123 | 0,000 | 0,919 | 123 | 0,000 | |
| | | Independent worker | 0,169 | 15 | 0,200* | 0,913 | 15 | 0,152 | |
| | | Student | 0,212 | 35 | 0,000 | 0,908 | 35 | 0,007 | |
| | | Working Student | 0,251 | 4 | . | 0,927 | 4 | 0,574 | |
| | | Unemployed looking for work | 0,145 | 7 | 0,200* | 0,934 | 7 | 0,585 | |
| Intention to Use with Stimulus 1 (IU1) | | Employed (working for a third party) | 0,146 | 123 | 0,000 | 0,912 | 123 | 0,000 | |
| | | Independent worker | 0,196 | 15 | 0,125 | 0,905 | 15 | 0,113 | |
| | | Student | 0,236 | 35 | 0,000 | 0,882 | 35 | 0,001 | |
| | | Working Student | 0,269 | 4 | . | 0,844 | 4 | 0,207 | |
| | | Unemployed looking for work | 0,235 | 7 | 0,200* | 0,923 | 7 | 0,491 | |
| Purchase with Stimulus 2 (PI2) | Intention | Employed (working for a third party) | 0,178 | 123 | 0,000 | 0,894 | 123 | 0,000 | |
| | | Independent worker | 0,194 | 15 | 0,133 | 0,863 | 15 | 0,027 | |
| | | Student | 0,221 | 35 | 0,000 | 0,904 | 35 | 0,005 | |
| | | Working Student | 0,262 | 4 | . | 0,860 | 4 | 0,262 | |
| | | Unemployed looking for work | 0,192 | 7 | 0,200* | 0,919 | 7 | 0,461 | |
| Intention to Use with Stimulus 2 (IU2) | | Employed (working for a third party) | 0,156 | 123 | 0,000 | 0,901 | 123 | 0,000 | |
| | | Independent worker | 0,208 | 15 | 0,080 | 0,892 | 15 | 0,073 | |
| | | Student | 0,224 | 35 | 0,000 | 0,896 | 35 | 0,003 | |
| | | Working Student | 0,262 | 4 | . | 0,895 | 4 | 0,408 | |

| | | | | | | |
|--|-------|---|--------|-------|---|-------|
| Unemployed looking for work | 0,200 | 7 | 0,200* | 0,874 | 7 | 0,201 |
| *. This is a lower bound of the true significance. | | | | | | |
| a. Lilliefors Significance Correction | | | | | | |

| Tests of Normality | | | | | | | |
|--|---|---------------------------------|-----|--------------|--------------|-----|--------------|
| | What is the highest level of education you have completed ? | Kolmogorov-Smirnov ^a | | | Shapiro-Wilk | | |
| | | Statistic | df | Sig. | Statistic | df | Sig. |
| Purchase Intention with Stimulus 1 (PI1) | High school graduate | 0,133 | 27 | 0,200* | 0,929 | 27 | 0,067 |
| | Undergraduate degree (bachelor or equivalent) | 0,147 | 50 | 0,009 | 0,919 | 50 | 0,002 |
| | Graduate degree (Master or equivalent) | 0,176 | 104 | 0,000 | 0,925 | 104 | 0,000 |
| Intention to Use with Stimulus 1 (IU1) | High school graduate | 0,193 | 27 | 0,011 | 0,905 | 27 | 0,018 |
| | Undergraduate degree (bachelor or equivalent) | 0,168 | 50 | 0,001 | 0,916 | 50 | 0,002 |
| | Graduate degree (Master or equivalent) | 0,154 | 104 | 0,000 | 0,920 | 104 | 0,000 |
| Purchase Intention with Stimulus 2 (PI2) | High school graduate | 0,152 | 27 | 0,110 | 0,914 | 27 | 0,028 |
| | Undergraduate degree (bachelor or equivalent) | 0,159 | 50 | 0,003 | 0,895 | 50 | 0,000 |
| | Graduate degree (Master or equivalent) | 0,207 | 104 | 0,000 | 0,891 | 104 | 0,000 |
| Intention to Use with Stimulus 2 (IU2) | High school graduate | 0,170 | 27 | 0,045 | 0,899 | 27 | 0,012 |
| | Undergraduate degree (bachelor or equivalent) | 0,171 | 50 | 0,001 | 0,900 | 50 | 0,000 |
| | Graduate degree (Master or equivalent) | 0,174 | 104 | 0,000 | 0,907 | 104 | 0,000 |
| *. This is a lower bound of the true significance. | | | | | | | |
| a. Lilliefors Significance Correction | | | | | | | |

| Tests of Normality | | | | | | | |
|--|--------------------------------------|---------------------------------|----|-------|--------------|----|--------------|
| | What is your monthly income (gross)? | Kolmogorov-Smirnov ^a | | | Shapiro-Wilk | | |
| | | Statistic | df | Sig. | Statistic | df | Sig. |
| Purchase Intention with Stimulus 1 (PI1) | Less than €500 | 0,181 | 35 | 0,005 | 0,933 | 35 | 0,034 |
| | €500 - €999 | 0,148 | 24 | 0,190 | 0,916 | 24 | 0,049 |
| | €1.000 - €1.499 | 0,238 | 31 | 0,000 | 0,909 | 31 | 0,012 |
| | €1.500 - 1.999€ | 0,150 | 42 | 0,019 | 0,936 | 42 | 0,021 |

| | | | | | | | |
|--|------------------|-------|----|--------|-------|----|--------------|
| | €2.000 - €2.499 | 0,246 | 30 | 0,000 | 0,835 | 30 | 0,000 |
| | €2.500 - €2.999 | 0,203 | 8 | 0,200* | 0,914 | 8 | 0,383 |
| | More than €3.000 | 0,130 | 14 | 0,200* | 0,918 | 14 | 0,207 |
| Intention to Use with Stimulus 1 (IU1) | Less than €500 | 0,212 | 35 | 0,000 | 0,905 | 35 | 0,006 |
| | €500 - €999 | 0,127 | 24 | 0,200* | 0,926 | 24 | 0,078 |
| | €1.000 - €1.499 | 0,164 | 31 | 0,033 | 0,942 | 31 | 0,096 |
| | €1.500 - 1.999€ | 0,172 | 42 | 0,003 | 0,917 | 42 | 0,005 |
| | €2.000 - €2.499 | 0,238 | 30 | 0,000 | 0,846 | 30 | 0,001 |
| | €2.500 - €2.999 | 0,290 | 8 | 0,046 | 0,878 | 8 | 0,179 |
| | More than €3.000 | 0,183 | 14 | 0,200* | 0,883 | 14 | 0,063 |
| Purchase Intention with Stimulus 2 (PI2) | Less than €500 | 0,204 | 35 | 0,001 | 0,915 | 35 | 0,011 |
| | €500 - €999 | 0,147 | 24 | 0,193 | 0,883 | 24 | 0,010 |
| | €1.000 - €1.499 | 0,156 | 31 | 0,054 | 0,894 | 31 | 0,005 |
| | €1.500 - 1.999€ | 0,195 | 42 | 0,000 | 0,879 | 42 | 0,000 |
| | €2.000 - €2.499 | 0,219 | 30 | 0,001 | 0,869 | 30 | 0,002 |
| | €2.500 - €2.999 | 0,180 | 8 | 0,200* | 0,913 | 8 | 0,378 |
| | More than €3.000 | 0,188 | 14 | 0,197 | 0,867 | 14 | 0,038 |
| Intention to Use with Stimulus 2 (IU2) | Less than €500 | 0,197 | 35 | 0,001 | ,913 | 35 | 0,009 |
| | €500 - €999 | 0,158 | 24 | 0,126 | ,894 | 24 | 0,016 |
| | €1.000 - €1.499 | 0,125 | 31 | 0,200* | ,919 | 31 | 0,022 |
| | €1.500 - 1.999€ | 0,194 | 42 | 0,000 | ,858 | 42 | 0,000 |
| | €2.000 - €2.499 | 0,229 | 30 | 0,000 | ,869 | 30 | 0,002 |
| | €2.500 - €2.999 | 0,205 | 8 | 0,200* | ,917 | 8 | 0,407 |
| | More than €3.000 | 0,191 | 14 | 0,177 | ,887 | 14 | 0,072 |
| *. This is a lower bound of the true significance. | | | | | | | |
| a. Lilliefors Significance Correction | | | | | | | |

Appendix 9: Semi-structured Interviews Guide

1. Warm-up/ Introduction

- Presentation of participants (demographics: gender + age + profession + marital status);
- Presentation of the research topic.

2. Online shopping habits

- Do you usually shop online?
- What products you shop for online the most?
- How often would you say you shop online?

- How do you feel about online shopping/ what are the main advantages and disadvantages of online shopping in your opinion?

3. Subscriptions

- What products or services come to mind when you think about subscriptions?
- Do you currently have/ have had any subscriptions? If so, what is your experience with those services?
 - o What are the characteristics of those products/services you would highlight?
 - o Was there a promotion?
- When you consider a subscription, what makes you subscribe/ not subscribe?

4. Predetermined Subscription Services

“A predetermined subscription service is an online service and distribution mechanism which sends products to you after you run out of them and need to replenish them. You subscribe to certain products and set a delivery period. For instance, you need to get new toothpaste every 4 weeks. You subscribe to the service and will get send a new toothpaste to your home every 4 weeks.”

- What are the first thoughts about this service?
- Have they ever heard of/tried anything like this?
- Which benefits do they perceive? Why?
- Which disadvantages come to their mind? Why?
- How would they describe the user of these type of services?

5. Feminine hygiene product shopping habits

- How often do you purchase feminine hygiene products?
- Which products do you usually purchase? (Tampons with/without applicator, sanitary pads, daily pads, etc)
- What are the criteria for your purchase? (Brand, eco-friendly, price, etc)

6. Willigness to adopt

- Imagine you could purchase your products through that service, would you do so?
- Which products would you subscribe to?

Appendix 10: Dissertation Survey

Dissertation Survey

Start of Block: Block 1

Dear participant,

Thank you for agreeing to take part in this study which is very important for the completion of my Master Thesis!

- The survey that follows should take no longer than 10 minutes to complete;
 - Please read the information provided carefully;
 - All respondents are kept anonymous and data gathered is kept strictly confidential;
 - Please answer honestly and instinctively as there are no correct and incorrect answers.
-

Do you currently live in Portugal?

No (1)

Yes (2)

What gender do you identify as?

Male (1)

Female (2)

End of Block: Block 1

Start of Block: Online shopping habits

How often do you shop online?

- Less than 1x per year (1)
- 1x per year (2)
- 2x - 3x per year (3)
- Once every two months (4)
- 1x per month (5)
- More than 1x per month (6)

What kind of products do you usually purchase online? (you can choose all that apply)

- Clothing and accessories (1)
- Beauty products (2)
- Personal care products (3)
- Groceries (4)
- Technology products (5)
- Other (6) _____



What are in your opinion the main advantages of shopping online? (choose between 2 and 5 options)

- Ability to shop without leaving home (1)
- Ability to shop without schedule restrictions (2)
- Ability to access shops/brands that are not in close proximity (3)
- Ability to shop without the effort of visiting multiple stores (4)
- Ability to compare prices among multiple retailers (5)
- Access to a wider product selection (6)
- Trying a new shopping experience (7)
- Ability to custom design a product/service (8)
- Excitement of receiving a package (9)
- I see no advantage (10)
- Other (11) _____



From the options you chose, please rank them in order of importance (1 being the most important and 5 being the least important).

- _____ Ability to shop without leaving home (1)
- _____ Ability to shop without schedule restrictions (2)
- _____ Ability to access shops/brands that are not in close proximity (3)
- _____ Ability to shop without the effort of visiting multiple stores (4)
- _____ Ability to compare prices among multiple retailers (5)
- _____ Access to a wider product selection (6)
- _____ Trying a new shopping experience (7)
- _____ Ability to custom design a product/service (8)
- _____ Excitement of receiving a package (9)
- _____ I see no advantage (10)
- _____ Other (11)

End of Block: Online shopping habits

Start of Block: Feminine Hygiene Products buying habits

How often do you buy feminine hygiene products (sanitary pads, tampons, wipes, etc)

- Less than 1x per year (1)
 - 1x per year (2)
 - 2x - 3x per year (3)
 - Once every two months (4)
 - 1x per month (5)
 - More than 1x per month (6)
-

What type of feminine hygiene products do you usually buy?

- Sanitary pads (1)
- Daily pads (2)
- Tampons with applicator (3)
- Tampons without applicator (4)
- Menstrual Cup (5)
- Menstrual underwear (6)
- Wipes (7)

How much do you usually pay, on average, for your feminine hygiene products, on a monthly basis?

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

€ ()



Have you ever purchased feminine hygiene products online?

- No (1)
- Yes (2)

End of Block: Feminine Hygiene Products buying habits

Start of Block: Block 3

Are you familiar with subscription services?

Extremely familiar (1)

Very familiar (2)

Moderately familiar (3)

Slightly familiar (4)

Not familiar at all (5)

End of Block: Block 3

Start of Block: Block 4

Subscription Services correspond to a portion of e-business that provides the delivery of a desired product or service to the consumer, at a predetermined regular pace and for a set price. Subscriptions come in many forms, from convenience to personalised. Nowadays almost all consumers have at least one subscription (pre-paid phone plans, music streaming services, entertainment streaming services are only a few examples).

Do you currently have any subscription?

Yes (1)

No (2)

Which one(s)?

End of Block: Block 4

Start of Block: Tampon subscription

Imagine you are shopping online for personal care products and you come across the following offer:

- You are offered a 10% discount on your first purchase;
- You can personalize your box with according to your period needs with an assortment of tampon sizes, with or without applicator;

- The box costs a fixed amount, according to the chosen size;
- No additional value is charged for subscribing, you only pay a fixed amount for the box of your choice;
- You are able to personalize delivery intervals for your box;
- Shipping is free and you are able to cancel the service or skip a delivery any time.

End of Block: Tampon subscription

Start of Block: Block 11 Purchase Intention & Intention to use

How would you evaluate your first impression of this subscription?

- Extremely negative (1)
 - Somewhat negative (2)
 - Neither positive nor negative (3)
 - Somewhat positive (4)
 - Extremely positive (5)
-

Please Indicate your level of agreement with the following statements, taking into consideration the subscription service presented to you:

| | Strongly disagree (1) | Somewhat disagree (2) | Neither agree nor disagree (3) | Somewhat agree (4) | Strongly agree (5) |
|---|-----------------------|-----------------------|--------------------------------|-----------------------|-----------------------|
| I am interested in trying this subscription. (2) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I would use the subscription service for my shopping needs. (3) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I would see myself using the subscription service for my feminine hygiene products. (4) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I intend to use the subscription service. (5) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I intend to use the subscription service to buy my feminine hygiene products. (6) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I would consider purchasing the subscription. (7) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

End of Block: Block 11 Purchase Intention & Intention to use

Start of Block: Block 12 Willingness to pay

How much would you be willing to pay for this subscription, on a monthly basis?

Amount in euros (€)

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

| | |
|------|--|
| € () | |
|------|--|

End of Block: Block 12 Willingness to pay

Start of Block: Block 13 Perceived Usefulness

Please Indicate your level of agreement with the following statements, taking into consideration the subscription service presented to you:

| | Strongly disagree (1) | Somewhat disagree (2) | Neither agree nor disagree (3) | Somewhat agree (4) | Strongly agree (5) |
|---|-----------------------|-----------------------|--------------------------------|-----------------------|-----------------------|
| Using this subscription service would facilitate my shopping. (1) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Using this subscription service would save me time when buying feminine hygiene products. (2) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I find this subscription would make my everyday life easier. (3) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I find that using this subscription would be useful in my everyday life. (4) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Please Indicate your level of agreement with the following statements, taking into consideration the subscription service presented to you:

| | Strongly disagree (1) | Somewhat disagree (2) | Neither agree nor disagree (3) | Somewhat agree (4) | Strongly agree (5) |
|---|-----------------------|-----------------------|--------------------------------|-----------------------|-----------------------|
| I feel like using this subscription service is a good idea. (1) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I feel like using subscription service is a wise idea. (2) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Using this subscription service fits well with my lifestyle. (3) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Using this subscription service fits well with my shopping needs. (4) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Start of Block: Block 10

Imagine now the same offer as above, only this time the box also comes with a pampering surprise to help you through that time of the month (for example: a chocolate, some tea or a face mask).

The same conditions apply:

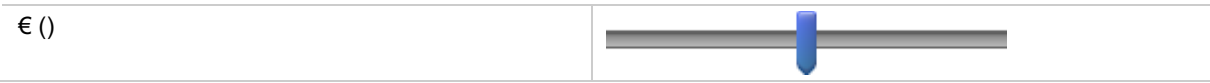
- You are offered a 10% discount on your first purchase;
- You can personalize your box with according to your period needs with an assortment of tampon sizes, with or without applicator;
- The box costs a fixed amount, according to the chosen size;
- No additional value is charged for subscribing, you only pay a fixed amount for the box of your choice;
- You are able to personalize delivery intervals for your box;
- Shipping is free and you are able to cancel the service or skip a delivery any time.

Please Indicate your level of agreement with the following statements, taking into consideration the subscription service presented to you:

| | Strongly disagree (1) | Somewhat disagree (2) | Neither agree nor disagree (3) | Somewhat agree (4) | Strongly agree (5) |
|---|-----------------------|-----------------------|--------------------------------|-----------------------|-----------------------|
| I am interested in trying this subscription. (2) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I would use the subscription service for my shopping needs. (3) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I would see myself using the subscription service for my feminine hygiene products. (4) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I intend to use the subscription service. (5) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I intend to use the subscription service to buy my feminine hygiene products. (6) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I would consider purchasing the subscription. (7) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

How much would you be willing to pay for this subscription, on a monthly basis?
Amount in euros (€)

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20



End of Block: Block 10

Start of Block: Block 15 - Demographics

How old are you?

- under 18 (1)
- 18 - 24 (2)
- 25 - 34 (3)
- 35 - 44 (4)
- 45 - 54 (5)
- 55 - 64 (6)
- 65 - 74 (7)
- 75 or older (8)

What is your current employment status?

- Employed (working for a third party) (1)
 - Independent worker (2)
 - Student (3)
 - Working Student (4)
 - Unemployed looking for work (5)
 - Unemployed not looking for work (6)
 - Retired (7)
 - Unable to work (8)
-

What is the highest level of education you have completed ?

- Less than high school (1)
 - High school graduate (2)
 - Undergraduate degree (bachelor or equivalent) (3)
 - Graduate degree (Master or equivalent) (4)
 - Professional degree (PhD or equivalent) (5)
 - Other (6)
-

What is your monthly income (gross)?

- Less than €500 (1)
- €500 - €999 (2)
- €1.000 - €1.499 (3)
- €1.500 - 1.999€ (4)
- €2.000 - €2.499 (5)
- €2.500 - €2.999 (6)
- More than €3.000 (7)

End of Block: Block 15 - Demographics

What is your monthly income (gross)?

- Less than €500 (1)
- €500 - €999 (2)
- €1.000 - €1.499 (3)
- €1.500 - 1.999€ (4)
- €2.000 - €2.499 (5)
- €2.500 - €2.999 (6)
- More than €3.000 (7)

