



Tattoo and fear of commitment:
Temporary tattoos, their influence on
consumer behavior and acceptance in the
Portuguese market

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Abstract

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Keywords: Tattoo consumption, Fear of commitment, Tattoo industry, Permanent tattoos, Temporary tattoos, Stickers tattoos, E-commerce stores, Market attractiveness, Financial concerns, Psychological concerns, Physiological concerns, Consumer behavior.

Although temporary tattoos have been in the market for some time, some brands decided to create online stores dedicated exclusively to the promotion and sale of this type of tattoos, specifically the so-called "stickers" or "transfers". Through this concept, they give the hypothesis to a client, of testing a future permanent tattoo or usufruct only of a new accessory in the body. For this reason, this highly customizable service could be a threat to the permanent tattoo industry. However this will not be the focus, but rather how it might be an alternative for those who have some fear related to the permanent tattoo industry, whether financial, psychological or physiological.

The primary objective of this study is to identify, in the Portuguese market, the attractiveness of this new service of temporary tattoos, the drivers and the factors that could be compromising in the purchase, the tattooed people and the not tattooed.

Even though there were several limitations in this study, in general, the service of temporary tattoos showed to have potential in the Portuguese market. The reasons that were chosen for the participants to order a temporary tattoo were related to a choice associated with the permanent tattoo industry. However, in addition to the points mentioned above, other variables were considered in this conclusion, namely the participants' possible concerns about the service of temporary tattoos and the variables in which the participants showed themselves willing to give more money.

Resumo

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Palavras-chave: Consumo de tatuagem, Medo de compromisso, Indústria das tatuagens, Tatuagens permanentes, Tatuagens temporárias, Tatuagens adesivas, Lojas online, Atratividade de mercado, Preocupações financeiras, Preocupações psicológicas, Preocupações fisiológicas, Comportamento do consumidor.

Apesar das tatuagens temporárias já existirem há algum tempo no mercado, algumas marcas decidiram criar lojas online que se dedicam exclusivamente à promoção e venda deste tipo de tatuagens, mais especificamente as chamadas “stickers” ou “transfers”. Através deste conceito, dão a hipótese a um cliente, de testar uma futura tatuagem permanente ou usufruir apenas de um novo acessório no corpo. Por essa razão, este serviço altamente personalizável, poderá ser uma ameaça à indústria das tatuagens permanentes. Contudo, esse não será o foco, mas sim, de que forma é que esta poderá ser uma alternativa para aqueles que tenham algum tipo de receio relacionado com a indústria das tatuagens permanentes, seja relativamente à dimensão financeira, psicológica ou fisiológica.

O principal objetivo deste estudo é identificar, no mercado português, a atratividade deste novo serviço das tatuagens temporárias, os drivers e os fatores que poderão ser comprometedores na compra, nas pessoas tatuadas e nos não tatuadas.

Independentemente de terem existido várias limitações neste estudo, no geral, o serviço das tatuagens temporárias mostrou ter potencial no mercado Português. As razões que mais foram escolhidas para os participantes encomendarem uma tatuagem temporária, estiveram relacionadas com uma escolha relacionada com indústria das tatuagens permanentes. Contudo, existiram outras variáveis que foram consideradas nesta conclusão, nomeadamente, as preocupações hipotéticas dos participantes sobre o serviço das tatuagens temporárias e as variáveis em que os participantes se mostraram a dispostos a dar mais dinheiro.

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Chapter 1. Introduction

The art of tattooing, considered to be a mass consumer phenomenon (Kjeldgaard & Bengtsson, 2005), is currently a sought-after industry, increasingly admired by the public. Currently, it is estimated that up to a quarter of the population in North America, Europe and Australia now has at least one tattoo (e.g., Heywood et al., 2012, Laumann & Derick, 2006, Stieger et al., 2010). However, this is still a taboo subject, and it makes people uncomfortable when faced with the decision of whether or not to do a tattoo.

Besides the fact that this is a growing industry and there has been a lot of changes during the last years, the consumption of tattooing is yet a subject that has not been adequately investigated in the consumer behavior area (Follet, 2009). However, this dissertation will be focused on this area.

Firstly, in this dissertation will be addressed the several risks that are involved in the decision to get a tattoo. These risks are both the cause of short-term consumer anxiety - financial and physiological risks - and those that cause long-term anxiety - psychological risks - which are mainly responsible for the regret that is often feared in this tattooing service. Secondly, it will be explored as an alternative for the permanent tattoo industry which is the temporary tattoos. The service of temporary tattoos exists today as a solution for those who want to do or always wanted to get a tattoo but still have one of the previously mentioned factors blocking the decision to make that permanent tattoo.

This study aims to understand, inside the Portuguese market, the attractiveness of temporary tattoos and their influence on the consumer behavior of permanent tattoo consumers and non-users of permanent tattoos.

In case the reader may have some doubts, for the following dissertation sections, it is going to be assumed that, the risks and concerns within the permanent tattoo process acquisition, addressed in the literature review, are verified in the permanent tattoo consumers and in the non-users of permanent tattoos who have already considered a permanent tattoo service. However, it will also be considered the non-users of tattoos (who have never wanted tattoos) since they may also be a target interested in acquiring the service of temporary tattoos.

This research aims to answer the following research questions, across the three different groups of people:

1. Permanent tattoo consumers

•Will negative lived experiences in the permanent tattoo industry affect negatively the permanent tattoo consumers' concerns?

2. Non-users of permanent tattoos who have already look for a permanent tattoo service

•Will concerns regarding the permanent tattoo industry affect negatively people's concerns regarding the temporary tattoo service?

3. Non-users of permanent tattoos

•Will concerns regarding the permanent tattoo industry affect negatively people's concerns regarding the temporary tattoo service?

In the hypothetical case of inserting a service such as Momentary Ink, giving a chance to make known the temporary tattoos product in the Portuguese market, what drivers could motivate groups 1,2 and 3 to order a product from the service? Is there any concern that could jeopardize a purchase?

This dissertation consists of five chapters. The next section, Chapter 2, will be developed around the existent academic literature, firstly, focused on risks involved in the permanent tattoo service and secondly, on the existence alternative service for permanent tattoos, which is the temporary tattoo service. It will also be provided a conceptual framework at the end of Chapter 2. Chapter 3 will be presented the research methodology around this study. In the next sections, Chapter 4 will be focused on the results obtained and Chapter 5 on the discussion, which includes the conclusions, limitations, and suggestions for future research.

Chapter 2. Theoretical Framework and Hypothesis Development

This is the chapter focused on the existing academic literature. In the first part are introduced some introductory concepts to the theme of permanent tattoos. Then, the focus will be on the risks associated with the permanent tattoos industry, causing concerns observed in consumer behavior, such as anxiety and feelings of regret. Furthermore, alternatives to the permanent tattoo industry are discussed, more specifically, tattoos stickers or transfers, which are a type of temporary tattoos. Lastly, it will be presented the several hypothesis and the conceptual framework constructed, which are based on the previously referenced topics.

2.1. Tattoo, tattooing and the industry evolution

The concept of body modification is defined as the changing of the body by various means and to varying degrees from its natural, original state to another altered form (Featherstone, 1991, 1999; Mercury, 2000). A tattoo, considered to be a body modification, is an invasive practice – because it modify permanently by adding something to the body (Camphausen, 2000; Mercury, 2000; Schouten, 1991) - and a permanent decoration – since it is an invasive change that causes a permanent alteration on the soft tissue areas (skin) (Camphausen, 2000; Favazza, 1996; Featherstone, 1999, 2000; MacKendrick, 1998; Mercury, 2000; Myers, 1992).

Since it is known, tattooing, the practice that results on a tattoo, is one of the oldest art forms (Ball, 1996) and the first evidence of tattoo was recorded during the ancient Egypt course around 2000 B.C. (Bianchi, 1988). Tattooing is a non-standardized and personalized service which involves the direction of a tangible action by craftwork at the body of a customer (Lovelock, 1984).

If in other times tattooing was an art form considered by the community, at the beginning of the century, the tattoo consumption topic turned to be a relatively obscure topic associated with mark of social deviance related with bikers, sailors, convicts, gang members and prostitutes (DeMello, 2000; Goulding et al., 2004, Rubin, 1988; Sanders, 1989). Meanwhile, the tattooing subject has become a mass consumer phenomenon (Kjeldgaard & Bengtsson, 2005) that is very often associated with fashion (MacKendrick, 1998) and popular culture like celebrities and musicians (e.g. Angelina Jolie, Johnny Depp) (Atkinson, 2002, 2003a; Bengtsson et al., 2005; Kjeldgaard & Bengtsson, 2005; Kosut, 2006). During the last decade, it has become more usual to see tattoo conventions and tattoo removal clinics (Ball, 1996; Blouin, 1996; Peterson, 1996) due to the popularization of the tattoo industry.

More recently, the broad definition of the tattooing service can also be adapted for another more socially acceptable and quasi-tangible services. Hairdressing, weight-training, plastic surgery, circumcision, and dentistry (Featherstone, 1999, 2000) are similar to tattooing because, after the service interaction reached the end, an appreciation or dissatisfaction outcome continue long after the delivering is over (cf., Kelly & George, 1982).

There are several reasons behind the decision of making a tattoo. The more familiar ones are the enhancement of the personal sense of individuality (DeMello, 2000), for example, a tattoo that celebrates a moment in their life (Velliquette et al., 1998), or a representation of an aspect of the personal identity like an animal or nickname (Sanders 1989; Velliquette et al., 1998). The tattoo choice can also be involved in an act of rebellion, an act of connection to higher powers (DeMello, 2000) or even an act of enhancing a person's body aesthetics – e.g., to hide a scar or merely draw attention to a particular body part (Sanders, 1989).

Besides the different reasons which may be behind the tattoo's choice, every single tattoo has a common characteristic: it's an investment (Follett, 2009). This means that the body is a consumable object that can be upgraded through the meticulous process of tattooing which can allow an individual to become part of one or more groups (Rubin, 1995; Scutt & Gotch, 1974).

2.2. The risks associated with tattooing

As it was already mentioned, tattoos are a type of body modification (Camphausen, 2000; Mercury, 2000; Millner & Eichold, 2001), represented by a unique purchase due to the body's permanent alteration and their relationship to personal expression, creativity, and identity (Handwerk, 2002; Hudson, 2009; Watson, 1998).

Since the process of getting a tattoo comes with the uncertainty factor at different levels, this can attract negative emotions and may lead to feelings of anticipated regret (Das & Kerr, 2010; Greenleaf, 2004; Zhang & Fishbach, 2005). Anticipated regret, according to Roese (2000), is a negatively-charged emotion linked with a forecasted result from an exchange related process (Zeelenberg & Pieters, 2007).

This is an example of how affective states can influence or not the consumer decision making process within tattooing. For this reason is valuable to understand the motivation factors around the consumer's decision making process (Roy, 1994) and the interaction between the cognitive (i.e., self-expression through tattoos) and emotive (i.e., anticipated regret about getting a tattoo

and emotional response before and after getting a tattoo) factors (Lehrer, 2009; van Gelder et al., 2009) that drives the intention to get a tattoo (cf. Bitner, 1992). This means that anticipated and experienced emotions, such as anxiety, can influence the tattoo purchase process, inducing or not a positive effect on the intention to get a tattoo or not. Therefore, tattooing studios can stimulate emotional appeals (Mano, 1999) positively to maintain anxiety levels at the minimum.

2.2.1. Anxiety

The tattooing service is expensive, meaning that financial risk can be an influential variable in the final decision and a reason for anxiety, depending on the socio-economic status of the customer (Velliquette et al., 1998). Since the price of a tattoo depends on several variables and the minimum cost for a tattoo is, on average, 40 euros to 70 euros in Portugal - according to the qualitative research that was developed on Chapter 3 - the final budget can easily reach significant proportions. If is a more elaborate, more extensive or colorful tattoo design, if a reputable artist does it, if it's going to be at a tattoo shop located in another country, and the travel costs are going to be also an expense to be considered, are some of the variables that influence the price (Velliquette et al., 1998).

Intrinsic to the financial risk, the potential customer looks for information, analyzing the perceived risk (see Ross 1975, Jacoby & Kaplan, 1972) and their criteria (cf. Kaiser, 1998), to make the best decision. To overcome the risks and smooth the anxiety, it's frequent to see, customers, especially the novices, trying to bargain the price (Sanders, 1985). The most usual strategies used are asking the range of possibilities for a tattoo within the budget that the customer pre-established or, for example, trying to argue saying that the neighboring studio is charging a lower price. Since this can be seen as a high involvement commercial transaction (Assael, 1984, Radder & Huang, 2008), it can be interpreted an attitude of ignorance and lack of commitment that the customer treats the service as a low involvement purchase (Sanders, 1985).

However, this no longer can be seen only as a high involvement transaction. There are differences between the level of attention, time and energy involved in the pre-acquisition tattoo stage, between customers (Zaichkowsky, 1985, 1986). This means that the tattoo process can be related with both high-involvement and low product purchase activities (Radder & Huang, 2008) because it can have different involvement levels across customers (Laurent & Kapferer, 1985; Zaichkowsky, 1985, 1986).

Depending on the level of involvement, it's common that a person, when confronted with this service, experiences a considerable amount of anxiety, especially if he or she is a novice in this industry. After all, the tattoo is a permanent body modification (Camphausen, 2000; Mercury, 2000; Millner & Eichold, 2001) with symbolic meaning (cf. Solomon, 1986) that reflects the person own social life, ambitions, desires fantasies and (sub)cultural affiliations (Kaiser, 1998).

Nowadays, the majority of the professional studios and their artists, not only are aware of the previous situation, but also are aware of possible conditions that may compromise the application of the tattoo and the well-being of the customer: possible infections, adverse reactions to the ink pigments on the customer's skin and fear of contracting a disease (e.g., Long & Rickman, 1994; Serup et al., 2015). This situations, which are related to the physiological risks, can also be a motive for an anxious customer.

The physiological risk of getting a tattoo is related to the concern of contracting a disease (e.g., Long & Rickman, 1994; Serup et al., 2015). A customer that has in consideration this variable can, for example, decide to invest some time doing market research. The goal is to analyze and choose a tattoo shop that guarantees the hygiene and quality of the service provided. The person can also look for online reviews about customer feedback to see if there is consistency within the brand.

In order to avoid the anxiety which may be induced by the previous physiological risk, keeping the studio scrupulously clean, cleaning, on a regular base, everything with ant-bacterial solutions, choosing autoclaved equipment, discarding unused pigments rather than putting back into the ink containers, are some of the examples that the tattoo studios follow in order to prevent the delicate situations previously mentioned (Sanders, 1985).

The physiological risk can also be related to the pain that can be felt during the tattoo application (Velliquette et al., 1998). Since the consumer is an active participant in the tattoo purchased process when it comes to having to sit for hours and having to deal and tolerate the pain (Sweetman, 1999), it is not an option, not to deal with pain.

In general, the anticipation of the pain, included in the physiological risk, is the variable that generates the most anxiety in the customers, whether or not they are familiar with the industry (Sanders, 1985). There are customers that, before the tattooing application, ask for advice to suffer as little as possible, mostly when it's going to be a tattoo that will take longer. Some of the most heard advices are, for example, to eat a good meal before the tattooing application, to

bring food and an anti-inflammatory medicine for the tattoo day, to be sure that the menstruation time does not match the day of the tattoo (in case of being a woman), and others – inputs from the qualitative research of Chapter 3.

2.2.2. Regret

Having the courage for advancing with a permanent form of art in the body brings a certain amount of risk that can lead to satisfaction or, in the opposite side, dissatisfaction (cf., Kelly & George, 1982).

If the creative extension of the self (Belk, 1988) is achieved, the tattooing experience may become habitual in the customers' life (Velliquette et al., 1998). It may be a problem if, on the contrary, the tattoo process does not meet the customer's expectations. The outcome, which is derived from an experiential purchase, can lead, for example, to a much more unhappy life, when compared to a negative material purchase that may not leave such a negative mark on the consumer's life (Nicolao et al., 2009) that can be the reason of regret.

Regret is defined as “a more or less painful cognitive and emotional state of feeling sorry for mistakes” (Landman, 1993). It is also related to the risk attitude, which is the way that people perceive and resolve decisions involving risk and uncertainty (Blais & Weber, 2006), and with the risk-taking behavior, focused on impulsivity which is related with the predisposition toward unplanned reactions without consideration of consequences (Moeller et al., 2001).

Many customers don't have into consideration the risk attitude and risk-taking behavior, leaving apart the reflection about the risks and future consequences within tattooing. It may also happen that sometimes they do not realize if they are truly aware and conscious about it. In both situations, they may have to deal with regret, sooner or later.

Although regret can be induced by the physiological risk, in case the customer catches a disease, it is also essential to understand the social psychological risks which are related with the appropriate assumption for the regret subject, that the personality characteristics will remain the same over time (Shelton & Peters, 2008).

The social psychological risk is associated with the negative social reaction that the tattoo can induce others (friends, familiars or the society in general – c.f. Wooten & Reed, 2004, Armstrong et al., 2008) and with the fact that the final tattoo result may not match the customer desire (Shelton & Peters, 2008). This type of risk can have a significant impact on consumer

choice. The size (small or big), the location (visible area or more hidden), the design (threatening or more appealing) are, for example, some of the variables that can be weighted during the initial phase of the tattooing process. The consumer may even choose, not to acquire the tattoo in the case the risk surpass the will and desire (Velliquette et al., 1998). However, people should be aware that transitions in lifestyle and psychological evolvement through years (Adatto, 2004) may have direct effects on feelings about a particular tattoo, for instance, changing the tattoo desire. It can also have an immediate impact, for example, on the level of importance for other people's opinions which may induce later, to negative thoughts, leading to the regret feeling.

The American Society estimates for Aesthetic Plastic Surgery, there was an increase of 43%, from 2011 to 2012, in the USA of the number of people who want to have tattoos remove (Youn, 2013). Braverman (2012) found that, among 2,016 adult Americans, 14% of tattoo consumers have regretted at least one of their tattoos. Greenaway (2014) in the study carried among 1,200 tattooed people, observe a 32% increase in the concealers sales which are used to cover tattoos. Some of the most common reasons for regret and the desire the tattoo removal are: afraid of people thoughts (e.g. Youn, 2013), spelling errors, incorrect placement on the body, pressure from others demands (Madfis, 2013), tired of the tattoo, to feel better about myself, (Armstrong et al., 1996), family pressure, improving potential for employment or even remorse after an impulsive decision (Varma & Lanigan, 1999).

2.3. Alternatives to the traditional tattoo industry

There are products, most known as temporary tattoos, that replicate the "typical tattoo", but instead of being permanent body modification (Camphausen, 2000; Mercury, 2000; Millner & Eichold, 2001), they are temporary body modifications, known to be short or long-term nature (Favazza, 1996; Featherstone, 1999, 2000; Camphausen, 2000; MacKendrick, 1998; Mercury, 2000; Myers, 1992). The most known are the transfers, henna tattooing and semi-permanent tattoos (Cartwright-Jones, 2003, 2005a, 2005b; Phoenix & Arabeth, 2003). These body modifications are available in the market through a similar service as the traditional tattoo industry, where the customer pays for a service to apply the temporary tattoo, except for stickers, which are purchased as self-use kits, prepared for the customer to apply on her/himself. From the three previously mentioned temporary options, the one that has a look more similar to the permanent tattoo, the cheapest and easy to purchase and get on the skin is the sticker tattoo.

The transfers or stickers, which are produced on a paper backing and made from food coloring, works by peeling off the backing, transferring the design with spit or water and sticking to a body exposed area (Follett, 2009). One of the firsts companies to start circulating this product was possibly the Cracker Jacks®, the American brand of popcorn and peanut confection. Currently, the company continues to distribute food coloring style tattoos as bonus prizes in the packages. There were also other companies that used the sticker's tattoos to promote their products: Baseball Tattoos hit the market in the 1970s, and Topps® started to circulate around 1980s the Smurf Tattoos. If in other times, this type of temporary tattoos were only known among the children's audience, in the 1980s, Ole Hansen, a famous tattoo artist, made a partnership with the Dandy Novelty Company and started to produce transfers tattoos to other target audience (Tattoo Archive © 1995).

Nowadays, there are people looking for transfer's tattoos as an alternative product to the permanent tattoos, in order to avoid the permanency factor or just to try a design before it turns definitive on their skins. A customer who wants to buy a more customized sticker tattoo, can easily ordered from an online store to any part of the world. The most relevant brands which have online stores with this type of customize service are Momentary Ink and InkBox.

The InkBox company, founded in 2014 and based in Toronto, which slogan is "Tattoos for now, not forever", has the goal to help people who struggle with lack of confidence and commitment within the next permanent tattoo decision (© 2019 Inkbox Ink Inc.). They believe that people styles, tastes, and opinions are constantly changing and they came up with InkBox to give a chance to customers to change their tattoos as well. They defend that, unlike the others transfers tattoos that are just stickers on the skin, their product can adapt to the customer skin to get the closest possible to the final look of a permanent tattoo, fading as the customer skin naturally regenerates (McDermott, 2015).

Located in Philadelphia, PA, Momentary Ink was founded in 2015 by Jordan Denny, that was interested in getting a tattoo due to a commemorative event but didn't know what and where to get it. After that situation, he came up with a solution for the ones that could be in the same position as him, by giving a chance to people to test-drive a future tattoo or enjoy a new accessory without the permanent commitment, through the creation of Momentary Ink. As a differentiation point, the brand emphasizes the fact that their transfer's tattoos come with the "Real Teal™" solution which erases the shine when applied on the skin which is a differentiation point for them. This shine is a visual characteristic of the temporary tattoos; thus,

by developing this product feature, Momentary Ink can approach closer to the mattifying look characteristic of the permanent tattoos. They are the only company that manages to bridge the gap between the look of a permanent tattoo and the lifetime of a temporary one (© 2019 Momentary Ink).

2.4. Hypothesis development and conceptual framework

As it was already mentioned, this study aims to understand, inside the Portuguese market, the attractiveness of temporary tattoos and their influence on the consumer behavior of permanent tattoo consumers and non-permanent tattoo users.

To structure the several hypothesis, it is going to be considered, firstly, the 3 types of risks which are responsible for the anxiety and regret, frequently observed in the consumer behavior of a person involved with the decision of tattooing something: financial, physiological and psychological risks. Secondly, not only is going to be assumed that these risks are verified in the permanent tattoo consumers and in the non-users of permanent tattoos who have already considered a permanent tattoo service, but also it is going to be considered the non-users of tattoos (who have never wanted tattoos) since they may also be a target interested in acquiring the service of temporary tattoos.

Focused on the permanent tattoo consumers, the first group of hypothesis is going to be focused on the lived past experiences in the permanent tattoo industry and their influence on the present permanent tattoo consumers' concerns, which may be an interesting point to analyze since it can leave a gap that temporary tattoos can fulfill:

- *H1a: Lived experiences by permanent tattoo consumers regarding the financial variable within the permanent tattoo industry will affect the present concerns regarding that variable.*
- *H1b: Lived experiences by permanent tattoo consumers regarding the physiological variable within the permanent tattoo industry will affect the present concerns regarding that variable.*
- *H1c: Lived experiences by permanent tattoo consumers regarding the social psychological variable within the permanent tattoo industry will affect the present concerns regarding that variable.*

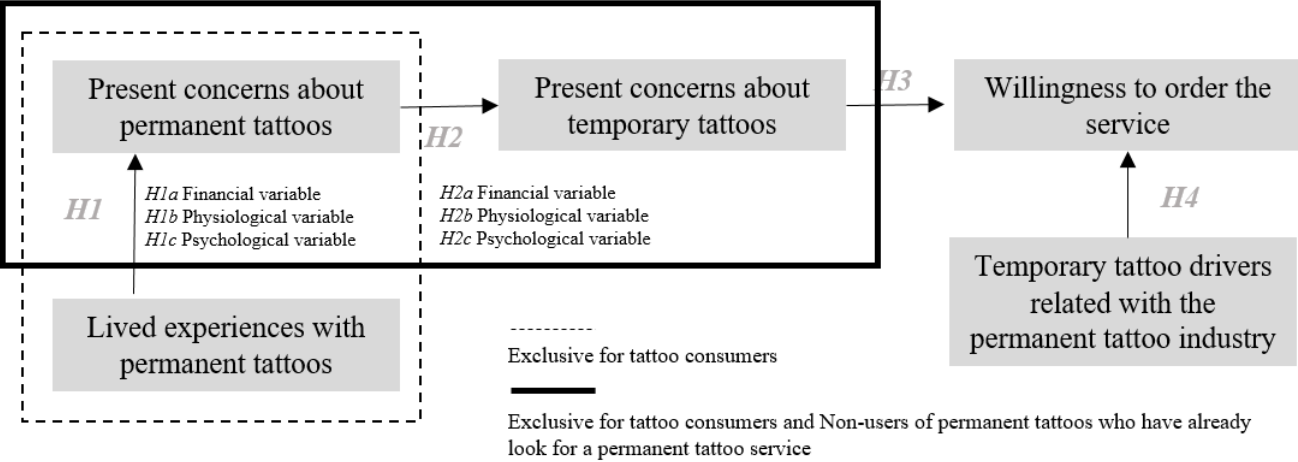
The second group of hypothesis developed, focused, not only in the tattoo users but also the non-users which have already considered a tattoo, is related with the present concerns regarding the permanent tattoo industry and their effect on people's concerns regarding the temporary tattoo service. This is important to analyze to understand if there is a group of product characteristics that the brand may have to give more attention or have more sensibility when promoting to the market:

- *H2a: A person who shows financial concerns regarding the permanent tattoo industry will perceive financial variables regarding the temporary tattoo service as a concern.*
- *H2b: A person who shows physiological concerns regarding the permanent tattoo industry will perceive physiological variables regarding the temporary tattoo service as a concern.*
- *H2c: A person who shows social psychological concerns regarding the permanent tattoo industry will perceive social psychological variables regarding the temporary tattoo service as a concern.*

Lastly, the following two hypothesis covers everybody, including the non-users of tattoos who have never wanted tattoos. Once again, in terms promotion of the product, it's interesting to have an extra sensibility when it comes to the following to hypothesis to design and plan the marketing strategy align to the target' sensitivity to the overall concerns and drivers:

- *H3: The more concerns regarding the temporary tattoo service, the lower is the willingness to order a temporary tattoo.*
- *H4: Participants who choose a driver that parallels the permanent tattoo industry are willing to give more money*

Having in consideration the previous mentioned hypothesis, the following conceptual model was developed for this study:



Chapter 3. Methodology

The following section of the dissertation is devoted to the methodology that will be described in detail. First, the focus will be on the qualitative research that has been carried out. Later, it will go into detail in qualitative research, namely the data collection, study designs and the plan defined for the data analysis.

3.1. Research Method

The purpose of this study is to understand the attractiveness of temporary tattoos, inside the Portuguese market. However, since the Literature Review has significant weight on the permanent tattoo industry, it's also important to get insights about this subject. The primary purpose is to understand the consumer behavior related to the concerns which can influence the temporary tattoo service. For this reason, not only is essential to understand the drivers of motivation to order this temporary tattoo service but also the concerns and influence that the permanent tattoo industry can have on the consumer behavior, related to permanent tattoo consumers and non-permanent tattoo users, of this new service.

Therefore, before the quantitative research, qualitative research was conducted, to get more insights about the concerns related to the permanent tattoo industry and the new service of temporary tattoos. The quantitative study was then developed, using the literature review and the qualitative research insights, through an online survey, via Qualtrics, to collect data and to test the several hypothesis mentioned on Chapter 2.

3.2. Qualitative Research

Qualitative data was gathered to understand and take some conclusions about the consumer behavior related to the permanent tattoo industry and the drivers and concerns associated with the temporary tattoo service.

Primary data was gathered under one type of exploratory design which was the depth interviews. The depth interviews were separated into two different types. The first was focused on permanent tattoo consumers. The second was for the non-users of permanent tattoos.

A total of 24 people were interviewed between the ages of 22 and 31 years. Ten of the respondents had permanent tattoos, and fourteen had never done a tattoo. Of these fourteen non-

users, seven had already thought about getting a permanent tattoo, and the other seven had never had that desire.

It was important to note that, in the case of the permanent tattoo consumers interviewed, the concerns shown in the permanent tattoo industry relative to the financial risks, physiological risks, and psychological risks, were found to be in line with literature review.

In the non-permanent tattoo users, the same concerns about the three type of risks, have been demonstrated as an obstacle to the acquisition of a permanent tattoo. However, it was found that, because they never went through the acquisition process, the insights obtained were rather superficial compared to permanent tattoo consumers. For this reason, care has been taken to simplify the section in the quantitative research dedicated to the obstacles to the acquisition of permanent tattoos, to avoid creating confusion in the participants' heads.

In the case of non-permanent tattoo users, who had never in the past intended to acquire a tattoo, having never even thought about it at all, little or nothing could spontaneously demonstrate about permanent tattoo concerns. The strategy used to get insights about the temporary tattoo service to be tested was to present several hypothetical situations where the interviewee imagined being in the role of someone with permanent tattoo concerns.

After the presentation of the temporary tattoos service, it was verified that the possible existing concerns about this service were mainly related to the same three types of categories of existent concerns about permanent tattoos: financial, physiological and social psychological. For this reason, these categories were respected in quantitative research.

Lastly, the drivers mentioned, by the respondents, to order the temporary tattoo service, have been considered on the quantitative research. As the interviewees usually suggested only one driver, this condition was also imposed in the online survey.

3.3. Data Collection

3.3.1. Research Sample

The method used to collect the data for the quantitative research was an online survey which was designed on the Qualtrics.

The survey was focused on targeting consumers living in Portugal because of being a market choice with an easier access in reaching consumers. For this reason, the survey was translated to Portuguese to make it more transparent for participants to answer. Besides living in Portugal, it was also designed for consumers who have and have not experienced the industry of permanent tattoos.

The participants were recruited by private messages on Facebook and posts on several Portuguese Facebook groups mainly university groups (for example, CLSBE – Full-Time Masters 2017/2018), Portuguese sales groups (for example, “Trocas, Vendas e Compras de Artigos”) and tattooed people groups (for example, “Tattoo Portugal Material Usado/novo”).

The hypotheses have been tested on a sample of 231 people.

3.4. Study Designs

The survey was designed having in consideration the research questions, the conceptual framework from Chapter 1 and the insights that were gained in qualitative research. It was divided into six parts.

The first part was focused on presenting the survey, explaining its purpose and to guaranteed confidentiality and exclusivity to participants. In this section, it was also included a question that asked if the participant lived in Portugal, to filter the survey to the target audience that interested in the study.

It is important to note that throughout this survey there were three different types of paths, depending on whether the participant was a permanent tattoo consumer, a non-user who had previously thought of making tattoos or a non-user who had never thought to do.

The second part of the survey was devoted exclusively to permanent tattoo consumers, to gain insight about their past experiences regarding the permanent tattoo industry and their present concerns about the permanent tattoo industry.

The third part was focused on non-users of permanent tattoos. For those who had already thought about getting a tattoo, it was asked about their concerns about the permanent tattoo industry, having in consideration their past concerns that dominated the decision to go ahead with the process of getting a permanent tattoo.

The fourth section of the survey, presented for all types of participants, was focused on introducing the temporary tattoos service. Subsequently, some questions were asked about the drivers and possible concerns in this service. Participants were also asked about the willingness to order several types of packs.

The final part was focused on collecting participants' socio-demographic characteristics, such as their age, gender, occupation, and personal monthly income.

This whole online survey, which is presented in Appendix 3, was developed through Qualtrics and was accessible for 5 days. Before the online publication of the survey, care was taken to ensure the surveys' clarity, comprehension and easiness to complete it. For that reason, it was pre-tested among 18 people.

3.5. Data Analysis

Statistical analysis was performed with SPSS (Statistical Package for the Social Sciences) version 24.0 for Windows.

Firstly, some variables were treated, and the unsatisfactory respondent was discarded.

After the initial treatment of the data for the analysis, statistical analysis involved descriptive statistics measures (absolute and relative frequencies, means and respective standard deviations) and inferential statistics. The level of significance to reject the null hypothesis was set at $(\alpha) \leq .05$.

Since the questionnaire was constructed from scratch, taking into account some essential points of the literature review and from the qualitative research that was developed, Cronbach's alpha was measured for multi-item scales to test the reliability of each scale item and to guarantee internal consistency of the scales before testing the hypothesis. This is a test which is important to understand how a range of items focuses on a single construct and to evaluate the validity and accuracy to the interpretation of data collected (Tavakol & Dennick, 2011).

Besides the Cronbach Alpha coefficient of internal consistency, the Spearman's correlation coefficient, Pearson's correlation coefficient, Student's t-test for independent samples, the exploratory factorial analysis, Anova Repeated Measures with Pairwise Comparisons for multiple comparisons with Bonferroni, the Chi-square test of independence with Monte Carlo

simulation and Fisher's test was also used. In the Chi-square test of independence, the differences were analyzed with the support of the standardized adjusted residuals.

Chapter 4. Results

4.1. General Results

4.1.1. Sample characteristics

After the survey was closed, a total of 302 responses were recorded. However, the response rate was around 80.46%, since only 243 people completed the survey. After cleaning data, a total of 231 responses were considered for further analysis. The 231 participants can be divided into two different groups. The first group is the tattooed people, in which are inserted 100 participants (43%). The second group is referred to the 131 non-tattooed participants (57%).

The general characteristics of the sample are presented in Appendix 4. The majority of the participants were female (75.8%) and were in the age range of 18-22 years (45.5%). They were also full-time students (46.8%) and had a monthly income of less than 500 euros (54.4%).

The groups were gender equivalent ($p > .05$). In terms of age, there was a significantly higher proportion of non-tattooed people in the 18-22 age group and tattooed people in the group of 23-26 age, $\chi^2(4) = 31.141$, $p = .001$. In terms of professional occupation, there was a significantly higher proportion of full-time employed in the tattooed and full-time student in the non-tattooed, $\chi^2(5) = 50.083$, $p = .001$. Regarding the monthly income, there was a significantly higher proportion of subjects with less than 500 euros per month in the non-tattooed and of subjects who received between 500-1000 euros in the tattooed ones, $\chi^2(5) = 36.285$, $p = .001$.

Besides, as we can see in Appendix 5, most participants ($N = 231$) were moderately familiar with the permanent tattoo industry (30.7%).

Of the tattooed participants ($N = 100$), only 16% had tattoos costing more than 300 euros and, on average, the participants had about 6.63 tattoos, that is, between 6 and 7 tattoos (Appendix 6).

Regarding the non-users of tattoos participants ($N = 131$), the vast majority of them (77.9%) already considered making a permanent tattoo (Appendix 7).

4.1.2. Tattooed people past experiences about permanent tattoos

This section refers to past experiences in the permanent tattoo industry by tattooed participants ($N = 100$). It was divided into three parts: financial (Q7), physiological (Q39) and psychological (Q10). The physiological group was divided, for strategic analysis, into two different

subgroups, health concerns, and pain, as well as the psychological which was divided into social expectations and personal expectations.

After this division, we proceeded to the measurement of Cronbach's Alpha to assess the reliability of each construct which is presented in Appendix 8. The internal consistency of the constructs of the tattooed people concerns, analyzed with the coefficient of internal consistency, ranged from a minimum of .637 (weak but acceptable) in the health concerns dimension to a maximum of .752 (reasonable) in the dimension pain. The categorization of Alfa values follows the published in Hill (2005).

Regarding the past financial experiences of tattooed people, as can be seen in Appendix 8, most of the answers were located between totally disagree and disagree. This means that, overall, the financial variable was not a significant worrying variable that people considered in their past experiences ($M=2,62$). The one that had the lowest impact on the past experiences was changing the design for having a limited budget ($M=2,37$).

Moving on to the next group, for reasons of analysis, it was decided to split the past physiological experiences into health concerns (first two lines) and pain (last three lines). As we can see in Appendix 8, the statement that had the most significant impact on respondents' answers was "look for a reliable tattoo artist", who observed the highest mean ($M = 4.28$), which means that most respondents be careful in choosing the tattoo artist. The remaining statements obtained a response between disagree and do not agree or disagree. The average of "already asked for advices" was the lowest ($M = 2.14$), meaning that, overall, the respondents did not ask for advices for dealing with the pain involved in the tattoo application process.

The psychological group was also divided into two subgroups: social expectations (first two) and personal expectations (last to lines). Regarding the social expectations, about "not seeking the opinion of others about the tattoo idea", most of the answers do not agree or disagree ($M = 3.01$) so there are so many respondents who in the past have valued others' opinions, such as respondents who did not. On the contrary, most respondents, in their past experiences, were never influenced by the opinion of others regarding their tattoo ($M = 1.61$). Lastly, relative to personal expectations group, we can see that these were mostly positive in past experiences since the respondents mostly disagreed with the two statements in question ($M = 2.43$): They usually matched their expectations, and they never regretted a tattoo.

To conclude, the most worrisome past experience of the tattooed people was the health concerns ($M = 3.63$) and the smaller the social expectations ($M=2.30$).

Except for the financial concerns, all the other dimensions have a mean significantly higher or lower than the midpoint of the scale ($p <.001$). The multivariate tests of the Anova repeated measures indicate that the differences between the means of the dimensions are statistically significant, trace of Wilks' Lambda =, 461, $F(4, 96) = 28.025$, $p = .001$. Excluding the financial and pain comparison ($p = .456$) and pain with social expectations ($p = .271$) all the rest are significant.

4.1.3. Tattooed people present concerns about permanent tattoos

Considering the values of the descriptive statistics (Appendix 9), the most evident concern of tattooed people, relative to permanent tattoos, is the tattoo price ($M = 2.87$) and the lowest social expectations ($M=1.24$).

Except for the tattoo price, all other dimensions have a mean that is significantly lower than the midpoint of the scale ($p <.001$). The multivariate tests of Anova Repeated Measures indicate that the differences between the means of the dimensions are statistically significant, Wilks' Lambda =, 361, $F(4, 96) = 42,532$, $p = .001$. Except for the comparison tattoo price and the possibility of health problems ($p = .067$) and the possibility of health problems with not matching expectations ($p = 1,000$) all the others are significant.

4.1.4. Non-users of tattoos present concerns about permanent tattoos

The biggest concern of the non-users of tattoos is Personal expectations ($M = 3.30$) and the least worrying dimension Social expectation ($M=1.92$).

The average of Not matching personal expectations is significantly above the mean ($p = .043$), and the Tattoo price was too high and did not differ significantly from the midpoint of the scale ($p = .377$). All other dimensions have a mean considerably lower than the midpoint of the scale ($p <.05$). The multivariate tests of Anova repeated measures indicate that the differences between the means of the dimensions are statistically significant, Pillai's Trace =, 460, $F(4, 72) = 15,332$, $p = .001$. The means of the dimensions Tattoo price was too high and Possibility of negative reactions from others ($p = .001$), Concerns with possible health problems and Not matching expectations ($p = .006$), Concerns with possible health problems and Possibility of negative reactions from others ($p = .011$), Pain involved in the tattoo process and Possibility of

negative reactions from others ($p = .002$), and Pain involved in the tattoo process and Not matching expectations ($p = .009$) are significantly different.

4.1.5. Temporary tattoo concerns

The biggest concern about temporary tattoos is Not matching expectations ($M = 3.35$) and the least worrying dimension Pain (2.22). The averages of the dimensions are all significantly different from the midpoint of the scale ($p < .05$).

The multivariate tests of Anova Repeated Measures indicate that the differences between the means of the dimensions are statistically significant, Wilks' Lambda = .686, $F(4, 227) = 26.025$, $p = .001$. Except for the mean differences between Price with health problems, pain and negative reactions from others all the others are statistically significant ($p = .001$).

4.1.5.1. Possible threats to the temporary tattoo service

The analysis of the relational structure of the items of the temporary tattoos concern scale was performed through the exploratory factor analysis on the correlation matrix, with the extraction of the factors by the principal component method followed by Varimax rotation. The retained common factors were those that presented an eigenvalue greater than 1. The validity of the factor analysis was done through KMO (0.836, good) and Bartlett's test (significant) indicates acceptable values for its continuation. The factor analysis converged to a solution with four main components explaining 66.3% of the total variance.

The saturation of items ($> .40$) in each of the major components can be seen in Appendix 13. The first significant component integrates items related to Design concerns and explains 39.1% of total variance, the second component groups the issues pertaining to Delivery concerns, explains 11.2%, the third component explains 8% of the variance and is related to the Price concerns while the fourth component by the configuration of the weights of the issues can be designated as Reaction concerns which include allergic reactions (physiological variable) and social reactions from others (psychological variable). The internal consistency of the dimensions, evaluated with Cronbach's alpha consistency coefficient, ranged from a minimum of .672 (weak but acceptable) in the dimension Reaction concerns to a maximum of .873 (good) in the dimension Design concerns.

The primary concern with temporary tattoos is Design ($M = 3.01$), and the least worrying is Allergic or Social reactions (1.84). Except for Design concern, all other dimensions have mean

significantly lower than the midpoint of the scale ($p < .001$). The multivariate tests of the Anova repeated measures indicate that the differences between the means of the dimensions are statistically significant, Wilks' Lambda trait =, 525, $F(3, 228) = 68.827$, $p = .001$. Except for the comparison Delivery and Price concerns ($p = .656$), all the others are significant.

4.1.6. Drivers to order the temporary tattoo service and willingness to order

The driver most chosen was, with 91 answers, the "Test driver for a future tattoo", and the least chosen was, with 18 answers was "Due to lack of confidence and commitment within the next permanent tattoo decision ". In this same question, 46 of the respondents (19.9%) answered that they would not use the service.

When some of the products available on the service of temporary tattoos were presented, on average, the respondents were willing to give 8.59 euros for Customized 5X5cm tattoo + instructions, 5.95 for Special liquid + instructions and 13.37 euros for the pack between the two previously mentioned products (Appendix 11).

4.2. Hypothesis Testing

4.2.1. Lived experiences impact on present tattoo permanent concerns

This section was divided into financial variables, physiological variables, and psychological variables.

The correlation coefficient between the Lived financial experiences and the present financial variable, namely Tattoo price is too high, is statistically significant, positive and moderate ($r = .441$, $p = .001$). Since the coefficient of correlation is positive, this means that the higher the concern in the past about the lived experiences with the price of tattoos, the higher the concern about the current price of tattoos. The hypothesis H1a is thus confirmed.

The correlation coefficient between Lived health concerns experiences and present Health problems concerns is statistically significant, positive and weak ($r = .387$, $p = .001$). The correlation coefficient between Lived experiences related to the pain involved in the tattoo process and present Pain concerns is statistically significant, positive and moderate ($r = .479$, $p = .001$). Like the financial variables, in the two subgroups of the physiological variables, as the correlation coefficient is positive, the hypothesis H1b is confirmed.

The correlation coefficient between Lived experiences related to social expectations and present Social expectations concerns is marginally significant, positive and very weak ($r = .184$, $p = .068$). The correlation coefficient between Lived experiences related to personal expectations and present Personal expectations concerns is not statistically significant ($p > .05$). It can be concluded that H1c hypothesis is partially confirmed.

4.2.2. Present concerns about permanent tattoo and their impact on temporary tattoo service' concerns

For analysis reasons, this section was divided into financial variables, physiological variables, and psychological variables. Also, there was made a segmentation between tattooed people and non-users of permanent tattoos. The following results can be confirmed in Appendix 15.

In the first section of the financial concerns, in the segment of tattooed respondents, the correlation coefficient between Permanent tattoo price concerns and the perceived Temporary tattoo price concerns is statistically significant, positive and weak ($r = .351$, $p = .001$). This confirms partially, the hypothesis H2a, meaning that a tattooed person who shows financial respects regarding the permanent tattoo industry will perceive financial variables regarding the temporary tattoo service as a concern. The same situation is confirmed in the non-users of tattoos since the correlation coefficient between the two financial variables is statistically significant, positive and weak ($r = .338$, $p = .001$). The whole hypothesis H2a is verified.

In the second section of the psychological concerns, H2b hypothesis was mostly confirmed. Regarding the social expectations related to tattooed people, the correlation coefficient between Negative reactions from others about permanent tattoos and the same perceived variable about temporary tattoos is statistically significant, positive and weak ($r = .224$, $p = .035$). In non-users of permanent tattoos group, the correlation coefficient between the same two previous dimensions is statistically significant, positive and weak ($r = .391$, $p = .001$), thus confirming the hypothesis stated in both cases. However, the same is not established in the Personal expectations variables. Although in the tattooed people group, the coefficient of correlation between the Not matching expectations related to permanent tattoos and the same perceived variable about temporary tattoos, is statistically significant, positive and weak ($r = .393$, $p = .001$), in the non-users of tattoos, the correlation coefficient between this variables, is not statistically significant ($p = .523$). The hypothesis of H2b is partially verified.

Relative to the physiological concerns, the hypothesis H2c is confirmed. In the tattooed people group, the correlation coefficient between Possibility of getting health problems related to permanent tattoos and the same perceived variable about temporary tattoos is statistically significant ($p = .485$, $p = .001$). In the case of non-users of tattoos, the correlation coefficient between the previously mentioned two variables is also statistically significant ($p = .422$, $p = .001$). Concerning the subgroup of Pain, in tattooed people, the correlation coefficient between Pain involved in the permanent tattoo application and the same perceived variable about permanent tattoos is statistically significant ($p = .270$, $p = .007$). In non-users of permanent tattoos, the correlation coefficient between the previous two variables about Pain is statistically significant ($p = .270$, $p = .003$). This confirms the H2c hypothesis stated.

4.2.3. Temporary tattoo service' concerns and their impact on willingness to order the service

Analyzing Appendix 16, some significant correlation coefficients were verified. The first significant is related to Delivery concerns and Special liquid ($r = .139$, $p = .034$). This means that the higher the concern with this dimension the more people are willing to pay for this product. It was also significant the Reactions concerns and Special liquid, ($r = .210$, $p = .001$). In this case, the higher the concern with this dimension the more people are willing to pay for the Special liquid product. For this reason, the H3 hypothesis is confirmed in the variables that were previously mentioned. In the others ten variables, the hypothesis is not confirmed.

4.2.4. Temporary tattoo service' drivers and their impact on willingness to order the service

For this section, there was a division between the drivers that are parallel to the permanent tattoo industry (the first two ones of question 26) and the others in another group. They were compared with each others. The goal is to see if a person, who chooses a parallel driver for a reason that involves a choice related to permanent tattoos, is willing to pay more for the service.

When comparing the participants who choose a driver that is parallel to the permanent tattoo industry with the others who do not select the driver that is parallel to the permanent tattoo industry, were found significant differences all the products tested.

The first one was relative to the product PACK - $t(180) = 4.404$, $p = .001$. The participants who choose a driver that is parallel to the permanent tattoo industry are willing to pay more for temporary tattoo PACK (15.38 vs. 12.08).

Participants who choose a driver parallel are also more likely to pay more money for the other two types of products. Regarding the presented product containing only the tattoo with the instructions, without the special liquid ($t(180) = 3.440$, $p = .001$) they are willing to give an additional 2.24 euros (9.80 vs. 7.56). Finally, about the product containing only the special liquid with instructions ($t(180) = 2.107$, $p = .037$) they are willing to give an additional 1.16 euros (6.57 vs. 5.41).

Therefore H4 was supported.

Chapter 5. Discussion

The main essence of this study, which was focused on the Portuguese market, was to understand the attractiveness of temporary tattoos and their influence on the consumer behavior of permanent tattoo consumers and non-permanent tattoo users. Inherent in this objective, it has been studied whether the concerns in the permanent tattoo industry have any impact on the possible concerns that may exist around the temporary tattoo service. Also, this research attempted to find the drivers that could motivate people to order a product from a temporary tattoo service and if there is any concern regarding the service that can jeopardize the service. Hence, in the following section, conclusions, limitations, and directions for future research will be discussed.

5.1. Conclusions, limitations and future research

In the tattooed people group, all sorts of worries that have been experienced in the past, whether financial, physiological or psychological concerns. Those lived experiences around the several concerns had an impact on each one of the three types of concerns, in the present moment, regarding the permanent tattoo industry. The Psychological concerns section was the only one whose past experiences had no impact on present concerns, more specifically, in the subgroup Personal expectations. This is probably because, as Personal expectations have always been positive in past experiences, tattooed persons at present do not have significant concerns about such dimensions. In qualitative research, some people said, for example, that they chose the same tattoo artist when they wanted to get a new tattoo.

An interesting topic to be studied in the future would be to try to understand what lived experiences in tattooed people inside the permanent tattoo industry, has a positive impact on the search and choice of a service that sells temporary tattoos. This way, we could find and better understand a niche market to be attacked.

Concerning the temporary tattoo service concerns, it was verified that practically all type of present concerns about permanent tattoo had impacted the concerns on the temporary tattoo service. This was almost verified in the three dimensions of concerns, both in the tattooed people group and in the non-user of tattoos who already wanted to make a permanent tattoo. The only exception was verified in the group of non-users of tattoos, more specifically, in the subgroup of Personal expectations, within the section of Psychological concerns. This means

that it was the only dimension, whose concerns about the personal expectations of the permanent tattoos, which had no impact on the concerns of the temporary tattoo service. For this reason, if it is created in the Portuguese market, a temporary tattoo service through an e-commerce store, it is a good idea to make a positive reinforcement to the dimensions where there are concerns. In the case of financial concerns, promotions may be a hypothesis, in order to lower these type of price worries and, in the case of the physiological concerns, allusion to the kind of products that are used, for example, anti-allergic, vegan or biological, it might be something positive to lower such concerns. Combining this type of strategy with the various dimensions where there are concerns may be an interesting strategy to be adopted in the Portuguese market. It may also be an interesting topic to study in the future.

Regarding the drivers, it was verified that, in every 5 participants, 1 would not use this service. However, the most chosen drivers were related to a decision parallel to the permanent tattoos industry. It was also interesting to note that in all the products that were exposed in the question that tested the willingness to order, participants who choose a driver that is parallel to the permanent tattoo industry are willing to pay significantly more money. An interesting topic to be studied would be, for example, instead of limiting ourselves merely to a distribution channel, in this case, e-commerce stores, to analyze other options, for example, permanent tattoo stores, to examine and conclude which would be the most appropriate for the Portuguese market.

Concerning the several concerns that could jeopardize a temporary tattoo purchase, as would be expected after qualitative research, the most obvious concern was related to Design. For this reason the Design, in case of the Portuguese market, should be the dimension that more promotion should have, to give more visibility to future clients, to not to be feared.

Concerning the impact of the temporary tattoo concerns on the willingness to order the service, only concerns about the Delivery and Reactions dimension, are the ones in which the participants were willing to pay more money, in the special liquid product and instructions.

At the strategic level, an interesting study for the future would be to realize the impacts of the previously mentioned concerns on the practical level. In the Portuguese market, an e-commerce store of temporary tattoos, should focus its promotion on showing to the public that has nothing to fear about the temporary tattoo product design or, on the other hand, should promote the dimensions where they are more willing to give money? Another suggestion for an interesting point to be studied is to study the maximization between the two alternatives.

Overall, the concept of Momentary Ink or Ink Box in the Portuguese market, is something that could have potential, especially in the segment which has had somehow a driver parallel to the permanent tattoo industry, since a higher number of adherents were verified in relation to this driver and, moreover, they were also willing to give more money for the temporary tattoo product. However, some limitations were found in this study that may have a negative influence on the conclusion mentioned above.

In the first place, the major limitation is because overall, a significant lack of academic literature, mostly concerning the temporary tattoo service 'behaviors and attitudes to this business. On the other hand, the literature review on the permanent tattoo industry was limited to outdated references. The major challenge and limitation was that the whole study drawn after the Literature Review had to be created from scratch.

Another limitation was the sample collected. Although the market to be studied was Portuguese, if we look at the target audience of the e-commerce stores that were mentioned in the literature review, we find that they are brands that commercialize all over the world. This means that Momentary Ink, despite being an American brand, its public target does not necessarily have to be the American market, since a person located in Portugal, can order a temporary tattoo to Portugal or wherever it is located. For this reason, as we are limited to the Portuguese market, there is a need to define very well the distribution channels that will be used, in case the reader decide to use the study to open a temporary tattoo service, in the Portuguese market. A suggestion for future research would be to analyze the potential of this service of temporary tattoos, in another target, for example, people located in Europe.

Finally, the last major limitation found is related to the fact that the study had a limited deadline and to be accomplished, which had influences on study designs. Several topics were explored regarding the attractiveness of the service in the Portuguese market, from the lived experiences related to the permanent tattoo industry to the drivers to purchase a temporary tattoo service product. However, none of them was explored in depths. We can, therefore, consider this, an introductory study to the temporary tattoo service in the Portuguese market and that, from this, many others can be drawn on more depth, having in consideration the topics that were approached to study.

Appendices

Appendix 1: Depth Interviews guideline for permanent tattoo consumers

A. INTRODUCTION

Introduction to research process: “Hello! First of all thank you for taking your time to participate in this study for my final dissertation. In this first phase I would like to ask you a few questions about your past experiences with the tattoo industry”.

B. PERSONAL INSIGHTS ABOUT THE TATTOO INDUSTRY EXPERIENCE

- How many tattoos do you have?
- What is the biggest tattoo you have and what was the price?
- When did you decide to make your first tattoo and why? What was it and what was the price? Did it take a long time before advancing with the final decision to move forward with the tattoo acquisition process?
- Do you consider the process of tattooing as a process of high or low involvement process?
- Compared to the past experiences, today, does it continue to take the same time to come up with the final decision of advancing with a new tattoo?
- Would you like to add something that you find useful about this section?

C. TATTOO INDUSTRY RISKS AND CONCERNS

Presentation of this section: “This 2nd section is going to be focus on how you dealt in the past with the various risks and concerns involved in the tattoo acquisition process and how you deal with it nowadays.”

- Do you have any concerns regarding the risks and concerns involved in the tattoo acquisition process?
- The concerns you had when you started your first tattoo process acquisition are the same as the ones that you have today (in case you decide to make a new tattoo)?

1. Financial concerns

- Have you ever had concerns about the financial situation that is involved in the process? If so, what did you make to overcome it?
- Did you have to postpone a tattoo because you did not expect the price to be high?
- Nowadays is this a variable that continues to affect your decision if you consider doing another tattoo?

2. Physiological concerns

- Have you ever been concerned with the existence of a probability of catching a disease? In the past have you had any kind of care to minimize this probability?

- Did you ever had health problems after a tattoo application that affected your tattoo decisions after that?
- Does the pain involved in the application process usually affect before and during the application you during that time? Have you looked for ways to deal with pain as little as possible?

3. Social psychological concerns

- Before going to get the tattoo do you usually ask opinions of your friends?
- Have you ever had to deal with negative opinions about your tattoos? How did it affect you?
- After completing the process of tattooing were your expectations matched in all the tattoos that you have? If not, in what way did affect your behavior?
- Did you have some care to ensure that the matching expectations factor was achieved?

4. Current perceptions

- From what we talked previously what was the factor that affected you the most when you made your first tattoo? And nowadays?
- Of the risks that were mentioned what causes you the most discomfort and why?
- Have you ever had to deal with regret? If so, what was the situation like and did it affect the next decisions?
- Do you think it was a waste of money how much you spent with one tattoo (s)? If I could go back in time had I allocated that amount of money to other things?
- If you could change anything in the tattoo industry, what would you change?

D. PRESENTING THE SERVICE

Presentation of the final section: “One of the goals of my dissertation is to study the attractability of inserting a service of temporary tattoos, like Momentary Ink and Y, in the Portuguese market. This is a service which gives a chance to people to test-drive a future tattoo or just enjoy a new accessory without the permanent commitment. This brands, usually have e-commerce stores where the customer choose an available design or a customized design and order for her/his house. After applying the product It lasts 2 weeks more or less.”



- Did you already know this type of service?
- What's your opinion about this service? What do you like and dislike about it?
- Do you think this service could be a tool for those who have concerns about some of the situations that we talked prior? Which situations and why?
- Would you change anything in this kind of service?

- Would you buy this type of service considering that it has a reasonable price for the type of product that it is? If you did not buy why?

E. CONCLUSION

- Would you like to add something that you find useful?
- “Thank you for your time!”

Appendix 2: Depth Interviews guideline for non-users of permanent tattoos

A. INTRODUCTION

Introduction to research process: “Hello! First of all thank you for taking your time to participate in this study for my final dissertation. In this first phase I would like to ask you a few questions about your past experiences with the tattoo industry”.

B. PERSONAL INSIGHTS ABOUT THE TATTOO INDUSTRY

- When and how many times in the past have you considered getting a tattoo?
- Have you ever been involved in the process of acquiring tattoos (for example, search for tattoo shop, get price information, etc)?
- Would you like to add something that you find useful about this section?

C. TATTOO INDUSTRY RISKS AND CONCERNS

Presentation of this section: “This 2nd section is going to be focus on how you dealt/deal with the concerns regarding the tattoo acquisition process.”

- What type of concerns do you have that blocked you in the past for advance with the decision of making a tattoo and initiating the tattoo acquisition process? Why did you never go forward with the decision to get a tattoo?
- What would it take to convince you to make your old tattoo idea?

1. Financial concerns

- Have you ever been informed about the costs associated with this industry?
- Have these kinds of concerns already affected you in the past?
- If you were offered a voucher of 600 Eur and could choose a tattoo shop and a tattoo artist of your choice, would you accept it?

2. Physiological concerns

- Have you ever been concerned with the existence of a probability of catching a disease or any type of health complications? Do you have any health problems that could compromise the tattoo application?
- Is the anticipation of pain a factor that has block you?

3. Social psychological concerns

- Do you care what others think of you? Is this something that compromises the decision to initiate the tattoo acquisition process?
- Is it a concern for you if the tattoo does not match your expectations?
- Imagine that after making a tattoo your friends do not like the result, despite the fact that you have loved it. Would that be a situation that would affect him?

4. Current perceptions

- From what we talked on the previous sections, is there any factor that worries you if you decide to go ahead with a tattoo?
- Are you afraid of regret? What makes you think of this situation?
- If you could change anything in the tattoo industry, what would you change?

D. PRESENTING THE SERVICE

“One of the goals of my dissertation is to study the attractability of inserting a service of temporary tattoos, like Momentary Ink, in the Portuguese market. This is a service which gives a chance to people to test-drive a future tattoo or just enjoy a new accessory without the permanent commitment. This brands, usually have e-commerce stores where the customer choose an available design or a customized design and order for her/his house. After applying the product it lasts 2 weeks more or less.”



- Did you already know this type of service?
- What's your opinion about this service? What do you like and dislike about it?
- Do you think this service could be a tool for those who are anxious about some of the risks mentioned above? What and why
- Would you change anything in this kind of service?"
- Would you buy this type of service considering that it has a reasonable price for the type of product that it is? If you did not buy why?

E. CONCLUSION:

- Would you like to add something that you find useful?

“Thank you for your time!”

Appendix 3: Online questionnaire

Dissertation Survey

Start of Block: Tattoo consumers

Thank you for your collaboration on this survey which is essential for my Master' dissertation at the Catolica Lisbon School of Business and Economics. There are no right or wrong answers and all information will be kept confidential. The information will be collected anonymously and used exclusively for this dissertation respecting the privacy of the respondents. The survey has an approximated time of 8 mins. Once again, thank you so much for your help! Best regards, Cláudia Mateus

Do you live in Portugal?

- Yes (1)
- No (2)

Skip To: End of Survey If Do you live in Portugal? = No

How familiar are you with the permanent tattoo industry?

- Extremely familiar (1)
 - Very familiar (2)
 - Moderately familiar (3)
 - Slightly familiar (4)
 - Not familiar at all (5)
-

(Q34) Do you have any tattoos?

- Yes (1)
- No (2)

Skip To: End of Block If Do you have any tattoos? = No

How many tattoos do you have on your body? _____

How much was your biggest tattoo made in Portugal?

- Less than 100 euros (1)
- Between 101 and 299 euros (2)
- More than 300 euros (3)

(Q7) Given your past experience with the traditional tattoos service, please indicate your level of agreement regarding the following situations.

	totally disagree (1)	disagree (2)	do not agree or disagree (3)	agree (4)	totally agree (5)
I already had to change a tattoo design for having a limited budget. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I already tried to negotiate the price of a tattoo for having a limited budget. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The budget was not an important variable to be considered. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The price of a tattoo was not a worrying variable. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

(Q39) Given your past experience with the traditional tattoos service, please indicate your level of agreement regarding the following situations.

	totally disagree (1)	disagree (2)	do not agree or disagree (3)	agree (4)	totally agree (5)
The probability of contraction a disease is a factor that has been considered, in the past, during a tattoo acquisition process. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In my past decisions I have looked for a reliable tattoo artist who works with materials associated with trust brands. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I often suffer from pain during the application of the tattoo. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The anticipation of pain is a variable that level up more my anxiety levels. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have already asked for advices to deal with the pain involved in the tattoo application. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

(Q10) Given your past experience with the traditional tattoos service, please indicate your level of agreement regarding the following situations.

	totally disagree (1)	disagree (2)	do not agree or disagree (3)	agree (4)	totally agree (5)
Before getting a tattoo I do not seek the opinion of others about my tattoo idea. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have already changed the way I see a tattoo on myself because of the way the others look at it and their opinions. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In the past, it has happened that the tattoo did not match my expectations after its application. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I already regretted a tattoo that I did. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

(Q8) Indicate your level of agreement relate to your present concerns regarding the permanent tattoos, from 1 to 5, being 1 not at all and 5 extremely concern?

	1	2	3	4	5
Tattoo price is too high					
Possibility of getting health problems					
Pain involved in the tattoo application					
Negative reactions from others					
Not matching personal expectations					

End of Block: Tattoo consumers

Start of Block: No tattoos

Display This Question:
If Do you have any tattoos? = No

(Q27) Have you ever thought about getting a tattoo?

- Yes (1)
- No (2)

Skip To: End of Block If Have you ever thought about getting a tattoo? = No

Display This Question:
If Do you have any tattoos? = No

(Q28) Indicate your level of agreement relate to the influence of the following situations in the decision of not proceeding with the tattoo acquisition process, from 1 to 5 , being 1 no influence and 5 extreme influence?

	1	2	3	4	5
Tattoo price is too high					
Possibility of getting health problems					
Pain involved in the tattoo process					
Possibility of negative reactions from others					
Not matching expectations after the application and/or in in an uncertain future					

End of Block: No tattoos

Start of Block: Service

Apart from the permanent traditional tattoos, there are also available in the market temporary tattoos. One of the most known type of temporary tattoos are the transfers or stickers which lasts up to a maximum of 2 weeks These are produced on a paper backing and made from food coloring, works by peeling of the backing, transferring the design with spit or water, sticking to a body exposed area:



Momentary Ink is one of the most recent examples of a brand that produces this temporary tattoos. It was founded in 2015 by Jordan Denny, that was interested in getting a tattoo due to a commemorative event, but didn't know what and where to get it. After that situation, he came up with a solution for the ones that could be in the same situation as him, by giving a chance to people to test-drive a future tattoo or just enjoy a new accessory without the permanent commitment, through the creation of Momentary Ink. Momentary Ink has an e-commerce store where the customer choose an available design or a customized design and order for her/his house.

(Q13) Did you know this type of tattoos?

- Yes (1)
- No (2)

(Q14) Have you ever tried these types of products?

- Yes (1)
- No (2)

End of Block: Service

Start of Block: Service insights

(Q26) For what purpose would you use this service to order a temporary tattoo?

- Due to lack of confidence and commitment within the next permanent tattoo decision (1)
- As a test drive for a future tattoo (2)
- Just to enjoy a new accessory (3)
- Little celebrations (for example: Halloween, football match, birthday party) (4)
- I would not use (5)

(Q40) Indicate your level of agreement relate to your present concerns regarding the service of temporary tattoos previously presented, from 1 to 5, being 1 not at all and 5 extremely concern?

	1	2	3	4	5
Temporary tattoo price					
Health problems					
Temporary tattoo causing some kind of pain					
Negative reactions from others					
Not matching personal expectations					

(Q18) Is there any concern by you that could jeopardize a purchase (from 1 to 5, being 1 not concerned at all and 5 extremely concerned)?

	1	2	3	4	5
Too expensive for what it is ()					
Lack of possibility to negotiate ()					
Possibility of having to repeat the order and spend more money ()					
Fear to catch some infection or bad reaction on the skin ()					
Fear that temporary tattoo causes some kind of pain associated to the products used in the product ()					
Fear of negative reactions from those who see ()					
Extremely limited time of duration ()					
Design imperfection ()					
Design with low quality ()					
The probability of misapplying the product at home ()					
Custom request design misunderstanding ()					
Take a long time to send the product and arrive ()					
The product does not get home ()					

(Q41) Imagine that you have two options:
 1st - the option to order a pack which comes with a small CUSTOMIZED tattoo by you (size is 5x5cm) + instructions + special liquid for final touches (solution which erases the shine of the temporary tattoos to look the closest possible to the matifying look characteristic of the permanent tattoos).



2nd - the option to order only the small CUSTOMIZED tattoo + instructions and, if the customer wants, to order the special liquid apart or later on.

Please indicate how much you would be willing to pay for this products to order them through a service like Momentary Ink? Numbers are shown in euros.

0 3 6 9 12 15 18 21 24

PACK: Customized 5X5cm tattoo + instructions + special liquid (1)	
Customized 5X5cm tattoo + instructions (2)	
Special liquid + instructions (3)	

End of Block: Service insights

Start of Block: Demographic

This is the last sept to finish the survey. Please answer to some demographic questions:

What is your gender?

- Male (1)
 - Female (2)
-

How old are you?

- 17 or younger (1)
 - 18-22 years old (2)
 - 23-26 years old (3)
 - 27-39 years old (4)
 - Older than 40 (5)
-

What is your occupation?

- Full-time employed (1)
 - Full-time student (2)
 - Working students (3)
 - Retired (4)
 - Part time employed (5)
 - Unemployed (6)
 - Unable to work (7)
-

Please indicate your monthly net personal income (or allowance):

- < 500€ (1)
- 500 - 1000€ (2)
- 1001 - 1500€ (3)
- 1501 - 2000€ (4)
- 2001 - 2500€ (5)
- >2500€ (6)

End of Block: Demographic

Appendix 4: Socio-Demographic Characteristics (N=231)

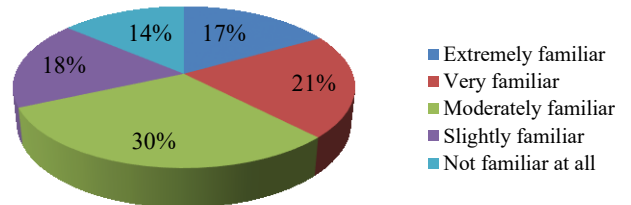
	Tattooed (N = 100)		Non-users of tattoos (N = 131)		Total		Sig.
	N	%	N	%	N	%	
Gender							.063
Male	18	18.0	38	29.0	56	24.2	
Female	82	82.0	93	71.0	175	75.8	
Age							.001***
17 or younger	1	1.0	7	5.3	8	3.5	
18-22 years old	30	30.0	75	57.3	105	45.5	
23-26 years old	34	34.0	33	25.2	67	29.0	
27-39 years old	26	26.0	7	5.3	33	14.3	
Older than 40	9	9.0	9	6.9	18	7.8	
Occupation							.001***
Full-time							
employed	52	52.0	21	16.0	73	31.6	
Full-time student	22	22.0	86	65.6	108	46.8	
Working students	14	14.0	17	13.0	31	13.4	
Retired	0	0.0	0	0.0	0	0.0	
Part time							
employed	4	4.0	3	2.3	7	3.0	
Unemployed	7	7.0	4	3.1	11	4.8	
Unable to work	1	1.0	0	0.0	1	0.4	
Monthly income							.001***
< 500€	37	37.4	87	67.4	124	54.4	
500 - 1000€	51	51.5	21	16.3	72	31.6	
1001 - 1500€	7	7.1	13	10.1	20	8.8	
1501 - 2000€	0	0.0	4	3.1	4	1.8	
2001 - 2500€	0	0.0	1	0.8	1	0.4	
>2500€	4	4.0	3	2.3	7	3.1	

*** $p < .001$

Appendix 5: Level of familiarity with the permanent tattoo industry (N=231)

How familiar are you with the permanent tattoo industry?

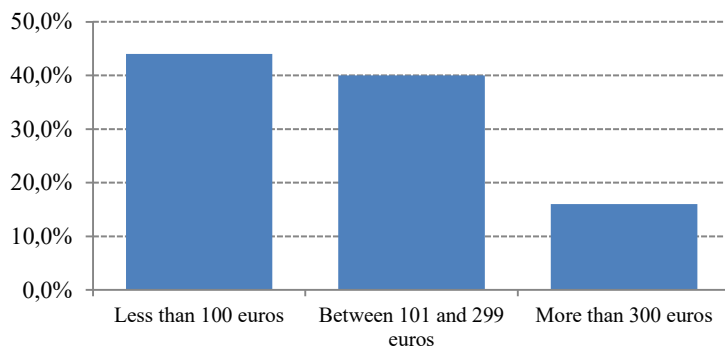
	Frequency	Percent
Extremely familiar	39	16,9
Very familiar	48	20,8
Moderately familiar	71	30,7
Slightly familiar	41	17,7
Not familiar at all	32	13,9
Total	231	100,0



Appendix 6: Additional information about tattoo consumption (N=100)

How much was your biggest tattoo made in Portugal?

	Frequency	Valid Percent
Less than 100 euros	44	44,0
Between 101 and 299 euros	40	40,0
More than 300 euros	16	16,0
Total	100	100,0



How many tattoos do you have on your body?

	Minimum	Maximum	Mean	Std. Deviation
How many?	1	45	6,63	8,39

Appendix 7: Additional information about non-tattooed consumers (N=131)

Have you ever thought about getting a tattoo?

	Frequency	Valid Percent
Yes	102	77,9
No	29	22,1
Total	131	100,0

Appendix 8: Tattooed people past experiences

Financial section (Q7)

	1	2	3	4	5	M	SD
-I already had to change a tattoo design for having a limited budget.	31,0%	26,0%	23,0%	15,0%	5,0%	2,37	1,21
-I already tried to negotiate the price of a tattoo for having a limited budget.	27,0%	25,0%	16,0%	27,0%	5,0%	2,58	1,28
-The budget was not an important variable to be considered.	15,0%	30,0%	26,0%	16,0%	13,0%	2,82	1,25
-The price of a tattoo was not a worrying variable.	18,0%	32,0%	20,0%	20,0%	10,0%	2,72	1,26

Legend: 1 - totally disagree 2 – disagree 3 - do not agree or disagree 4 – agree 5 - totally agree

Physiological section (Q39)

	1	2	3	4	5	M	SD
-The probability of contraction a disease is a factor that has been considered, in the past, during a tattoo acquisition process.	23,0%	17,0%	14,0%	30,0%	16,0%	2,99	1,43
-In my past decisions I have looked for a reliable tattoo artist who works with materials associated with trust brands.	3,0%	4,0%	9,0%	30,0%	54,0%	4,28	1,00
-I often suffer from pain during the application of the tattoo.	15,0%	21,0%	25,0%	31,0%	8,0%	2,96	1,21
-The anticipation of pain is a variable that level up more my anxiety levels.	24,0%	22,0%	22,0%	27,0%	5,0%	2,67	1,25
-I have already asked for advices to deal with the pain involved in the tattoo application.	41,0%	27,0%	11,0%	19,0%	2,0%	2,14	1,21

Legend: 1 - totally disagree 2 – disagree 3 - do not agree or disagree 4 – agree 5 - totally agree

Psychological section (Q10)

	1	2	3	4	5	M	SD
-Before getting a tattoo I do not seek the opinion of others about my tattoo idea.	12,0%	35,0%	12,0%	22,0%	19,0%	3,01	1,35
-I have already changed the way I see a tattoo on myself because of the way the others look at it and their opinion	61,0%	26,0%	5,0%	7,0%	1,0%	1,61	0,94
-In the past, it has happened that the tattoo did not match my expectations after its application.	29,0%	26,0%	10,0%	21,0%	14,0%	2,71	1,03
-I already regretted a tattoo that I did.	44,0%	26,0%	4,0%	16,0%	10,0%	2,22	1,27

Legend: 1 - totally disagree 2 – disagree 3 - do not agree or disagree 4 – agree 5 - totally agree

	Cronbach's Alpha	N of Items
Financial concerns	,723	4
Health concerns	,637	2
Pain concerns	,768	3
Social expectations	,681	2
Personal expectations	,752	2

Descriptive Statistics

	N	Minimum	Maximum	Mean	SD
Financial concerns	100	1,00	5,00	2,62	,92
Health concerns	100	1,00	5,00	3,63	1,01
Pain concerns	100	1,00	5,00	2,59	,89
Social expectations	100	1,00	5,00	2,30	,91
Personal expectations	100	1,00	5,00	2,43	1,27

Legend: 1 not concerned at all; 5 extremely concern

Appendix 9: Tattooed people present concerns

Descriptive Statistics (Q8)

	N	Minimum	Maximum	Mean	SD
Tattoo price is too high	100	1	5	2,87	1,228
Possibility of getting health problems	100	1	5	2,37	1,631
Pain involved in the tattoo application	100	1	5	1,76	1,016
Negative reactions from others	100	1	5	1,24	,668
Not matching personal expectations	100	1	5	2,38	1,434

Legend: 1 not concerned at all; 5 extremely concern

Appendix 10: Non-users of tattoos present concerns

Descriptive Statistics (Q28)

	N	Minimum	Maximum	Mean	SD
Tattoo price is too high	95	1	5	2,88	1,27
Possibility of getting health problems	89	1	5	2,67	1,42
Pain involved in the tattoo process	96	1	5	2,70	1,37
Possibility of negative reactions from others	85	1	5	1,92	1,24
Not matching personal expectations	97	1	5	3,30	1,43

Legend: 1 no influence; 5 extreme influence

Appendix 11: Additional questions about the temporary tattoo service

Did you know this type of tattoos?

	Frequency	Percent
Yes	190	82,3
No	41	17,7
Total	231	100,0

Have you ever tried these types of products?

	Frequency	Percent
Yes	116	50,2
No	115	49,8
Total	231	100,0

For what purpose would you use this service to order a temporary tattoo?

	N	%
Due to lack of confidence and commitment within the next permanent tattoo decision	18	7,8
As a test drive for a future tattoo	91	39,4
Just to enjoy a new accessory	27	11,7
Little celebrations (for example: Halloween, football match, birthday party)	49	21,2
I would not use	46	19,9
Total	231	100,0

Descriptive Statistics (Q41)

	N	Minimum	Maximum	Mean	SD
PACK: Customized 5X5cm tattoo + instructions + special liquid	231	,00€	24,00€	13,37€	6,08€
Customized 5X5cm tattoo + instructions	231	,00€	24,00€	8,59€	4,79€
Special liquid + instructions	231	,00€	24,00€	5,95€	4,03€

Appendix 12: Temporary tattoo concerns

Descriptive Statistics (Q40)

	N	Minimum	Maximum	Mean	SD
Temporary tattoo price	231	1	5	2,43	1,42
Health problems	231	1	5	2,28	1,50
Temporary tattoo causing some kind of pain	231	1	5	2,22	1,48
Negative reactions from others	231	1	5	2,68	1,59
Not matching personal expectations	231	1	5	3,35	1,47

Legend: 1 not concerned at all; 5 extremely concern

Appendix 13: Possible threats to the temporary tattoo service

Rotated Component Matrix Table (Q18)

	Component			
	1	2	3	4
Design with low quality	.896			
Design imperfection	.884			
Custom request design misunderstanding	.662	.486		
The product does not get home		.841		
Take a long time to send the product and arrive		.693		
Extremely limited time of duration	.540		.426	
Lack of possibility to negotiate			.762	
Too expensive for what it is			.638	
Possibility of having to repeat the order and spend more money		0.534	.557	
Fear that temporary tattoo causes some kind of pain associated to the products used in the product				.856
Fear of negative reactions from those who see				.722
Fear to catch some infection or bad reaction on the skin		.417		.613
The probability of misapplying the product at home	,434	,515		
Variance explained	39.1	11.2	8.0	7.8
Internal Consistency	.873	.763	.683	.672

Descriptive Statistics

	N	Minimum	Maximum	Mean	SD
Design concerns	231	1,00	5,00	3,01	1,29
Delivery concerns	231	1,00	5,00	2,29	1,29
Price concerns	231	1,00	5,00	2,41	1,04
Reactions concerns	231	1,00	5,00	1,84	,86

Appendix 14: Correlations between lived experiences and present concerns

Correlations between the financial variables

	Tattoo price is too high (Q8)
Lived financial experiences (Q7)	,441***

***. Correlation is significant at the.001 level

Correlations between the physiological variables

	Health problems (Q8)	Pain (Q8)
Lived health concerns experiences (Q39– 1,2)	,387***	--
Lived experiences related to the pain involved in the tattoo process (Q39– 3,4, 5)	--	,479***

***. Correlation is significant at the.001 level

Correlations between the psychological variables

	Social expectations (Q8)	Personal Expectations (Q8)
Lived experiences related to social expectations (Q10- 1,2)	,184*	
Lived experiences related to personal expectations (Q71– 3,4)		.141

*. Correlation is significant at the.10 level

Appendix 15: Correlations between permanent tattoo present concerns and perceived temporary tattoo service concerns

Financial variables group

Correlations between financial variables inside the tattooed people group

	Temporary tattoo price (Q40)
Permanent tattoo price (Q8)	,351*

*. Correlation is significant at the.001 level

Correlations between financial variables inside the non-users of permanent tattoos group

Temporary tattoo price (Q40)	
Permanent tattoo price (Q28)	,338*

*. Correlation is significant at the.001 level

Psychological variables group

Correlations between social expectations variables inside the tattooed people group

Negative reactions from others (Q40)	
Negative reactions from others (Q8)	,221*

*. Correlation is significant at the.05 level

Correlations between social expectations variables inside the non-users of permanent tattoos group

Negative reactions from others (Q40)	
Negative reactions from others (Q28)	,391***

***. Correlation is significant at the.001 level

Correlations between personal expectations variables inside the tattooed people group

Not matching personal expectations (Q40)	
Not matching personal expectations (Q8)	,393***

***. Correlation is significant at the.0015 level

Correlations between personal expectations variables inside the non-users of permanent tattoos group

Not matching personal expectations (Q40)	
Not matching expectations (Q28)	,066

Physiological variables group

Correlations between health problems variables inside the tattooed people group

	Health problems (Q40)
Possibility of getting health problems (Q8)	,485***

***. Correlation is significant at the.001 level

Correlations between health problems variables inside the non-users of permanent tattoos group

	Health problems (Q40)
Possibility of getting health problems (Q28)	,422***

***. Correlation is significant at the.001 level

Correlations between pain variables inside the tattooed people group

	Temporary tattoo causing some kind of pain (Q40)
Pain involved in the tattoo application (Q8)	,270**

** . Correlation is significant at the.01 level

Correlations between pain variables inside the non-users of permanent tattoos group

	Temporary tattoo causing some kind of pain (Q40)
Pain involved in the tattoo process (Q28)	,297**

** . Correlation is significant at the.01 level

Appendix 16: Correlation coefficients between concerns and willingness to order

	PACK (Q41-1)	Customized temporary tattoo (Q41-2)	Special liquid (Q41-3)
Design concerns	,021	,082	,007
Delivery concerns	,045	,064	,139*
Price concerns	-,077	,001	,028
Reactions concerns	-,012	,084	,210***

*. Correlation is significant at the.05 level ***. Correlation is significant at the.001 level

Appendix 17: Correlation coefficients between willingness to order and drivers

Table – Drivers and Price

	Paralell drivers (Q26-1,2)		Other drivers (Q26-3,4)		Sig.
	M	SD	M	SD	
PACK (Q41-1)	15,38€	5,35€	12,08€	5,53€	.001***
Customized temporary tattoo (Q41-2)	9,80€	4,47€	7,56€	4,14€	.001***
Special liquid (Q41-3)	6,57€	3,78€	5,41€	3,46€	.037*

*. Correlation is significant at the.05 level ***. Correlation is significant at the.001 level

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