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The Use Of AI In Consumer Experience:
How Independent Self Construal and Attachment Influence Avoidance of Similarity in Beauty Industry

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Master in Marketing

Supervisor:
Doctor Sandra Maria Correia Loureiro, Associate Professor with aggregation at ISCTE-Instituto Universitário de Lisboa, Department of Marketing, Operation and Management, ISCTE-IUL

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Abstract

Digital transformation has been disrupting companies' operations, provoking significant changes in the value creation processes and on business models. The beauty industry is no exception.

The potential for Artificial Intelligence is enormous as it is a sector where there is a significant amount of data being produced across various distribution channels. Furthermore, the cosmetic consumers have several needs that must be fulfilled, hence there is a strong necessity for effective personalization and targeted marketing strategies.

Despite the relevance of the topic, there is a scarcity of theoretical and empirical research on customer experiences enabled by AI, which makes the present research questions: 1) does the relationship between a consumer and a beauty brand impacts consumer's willingness to experiment with new ways of shopping, powered by AI, and 2) does a shopping experience empowered by AI reinforces the uniqueness desired by consumers who perceive themselves as independents?

This dissertation has an exploratory nature and includes a literature review grounded on an originally developed framework and a qualitative empirical study based on a survey. The AI tool L'Oréal Paris Skin Genius was used as reference.

The result of this dissertation suggests that: 1) customers' attachment to an established beauty brand is a key measurement to assume the level of commitment and willingness to adopt a shopping experience endorsed by AI and 2) the use of AI during the shopping experience does not influence customers' view on the self, meaning they will still devaluate and avoid products that are perceived as commonplace.

Keywords: Artificial Intelligence; Cosmetic Industry; Emotional Attachment; Brand Attachment; Intimate Knowledge; AI-Enabled Customer Experience; Independent Self Construal; Avoidance of Similarity

JEL: M31, M39

Resumo

A transformação digital está a revolucionar as operações das empresas, provocando mudanças nos processos de criação de valor e nos modelos de negócios. A indústria da beleza não é exceção.

O potencial da Inteligência Artificial é enorme visto que existe uma quantidade significativa de dados produzidos através dos múltiplos canais de distribuição. Além disso, os consumidores têm várias necessidades que precisam de ser satisfeitas, o que resulta na forte necessidade de existir uma personalização eficaz e estratégias de marketing direcionadas.

Apesar da relevância, existe uma escassez de investigação teórica e empírica sobre as experiências dos clientes facilitadas pela IA, o que conduz às seguintes questões: 1) a relação entre um consumidor e uma marca de beleza tem impacto na vontade do consumidor de experimentar novas formas de comprar, alimentada pela IA, e 2) uma experiência de compra apoiada pela IA reforça a singularidade desejada pelos consumidores que se identificam como independentes?

Esta dissertação tem um carácter exploratório, e inclui uma revisão bibliográfica baseada num *framework* original e um estudo empírico qualitativo apoiado num questionário. A ferramenta 'L'Oréal Paris Skin Genius' foi usada como referência.

O resultado desta dissertação sugere que 1) o *attachment* dos clientes a uma marca é uma avaliação chave para atribuir o nível de compromisso face a uma experiência de compra apoiada pela IA e 2) o uso da IA durante a experiência de compra não influencia a perceção dos clientes sobre si, o que significa que continuarão a evitar produtos que são apreendidos como comuns.

Palavras-chave: Inteligência Artificial; Indústria Cosmética; *Emotional Attachment*; *Brand Attachment*; *Intimate Knowledge*; *AI-Enabled Customer Experience*; *Independent Self Construal*; *Avoidance of Similarity*

JEL: M31, M39

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1. Introduction

1.1. The Relevance of the Topic

With consumers hunting for more personalized solutions to their new online shopping experience, brands are also expanding their product line-ups to include AI-powered platforms. This technology is proving to be both popular and successful in the beauty industry as it offers shoppers a tailored experience, much more targeted and straightforward (Smith, 2022).

Previous studies have mainly focused on the use of AI from a technical and organisational perspective (Jarrahi, 2018). As a result, there is a lack of research on how customers perceive AI technology as part of their shopping experience, and how this leads to a more pleasant experience and stronger relationship with brands (Shank *et al*., 2019; Wang *et al*., 2020). Hence, this research aims to analyse how, in a customer experience powered by AI, attachment and an independent view of the self, influences the loss of interest in, or discontinued use of, beauty products that become commonplace to consumers that want to re-establish their uniqueness.

Given that the study was conducted considering only United States residents, it is also important to mention that North America is expected to dominate the growth of AI in the beauty and cosmetic market due to the expansion of the beauty and cosmetic industry itself (InsightAce, 2022). In 2018, the United States was considered the most valuable beauty and personal care market in the world, generating approximately US$89.5 billion in revenue that year. (Statista, 2021). In 2022, the country is still considered to be, in global comparison, the one that generates the biggest revenue – US$85.06 billion in 2022 (Statista, 2022).

1.2. Contextualization

The introduction of Artificial Intelligence has the potential to revolutionize the way businesses interact with their customers (McLean & Osei-Frimpong, 2019).

AI technologies supported by data analytics are increasingly embraced by companies as a response to sustained margin pressures, shorter strategy cycles, and increased expectations from customers (Ameen *et al.*, 2021). The adaptation to this new approach impacts how firms interact with their customers since there is a potential to achieve better customer-brand relationships specifically as AI increases companies' knowledge about customers' preferences and patterns of shopping (Evans, 2019).

The relevance of the topic under study is also statistically evident. Previous reports show that, within the retail sector, the deployment of AI can reach the top 1% of customers,

who are worth 18 times more than average customers to retailers (Solis, 2017). This is achieved through meticulous personalisation and increased engagement based on contextual and behavioural data.

Juniper Research (2019) predicts spendings in the global retail sector on AI services will reach US$12 billion by 2023, up from an estimated US$3.6 billion in 2019. Over the same period, it is expected that over 325.000 retailers will adopt AI technology across industries (Martin, 2019). The latest market intelligence research report by InsightAce Analytic (2022) states that the global Artificial Intelligence in Beauty and Cosmetics market size was valued at US$2.70 Billion in 2021, and it is expected to reach US$13.34 Billion in 2030, promising a record CAGR of 19.7% from 2021 to 2030.

Founded in 1909, the L'Oréal Group has become the largest cosmetics and beauty company in the world. In 2021, the brand was the global leader on personal care sector, with a brand value of US$38.3 billion (Statista, 2022). As so, the study will be based on the famous AI Beauty tool deployed by the subsidiary L'Oréal Paris: L'Oréal Paris Skin Genius. Based on 20 years of clinical data, L'Oréal Paris Skin Genius is a skin analysis tool powered by Artificial Intelligence technology that analyses skin's specific needs and helps create a tailored skincare routine (L'Oréal Paris, 2022). L'Oréal Paris (2022) states that the results are up to 95% accurate when compared to a dermatologist evaluation. Skin Genius can be accessed online or in a boots store where customers can scan a QR code on the L'Oréal skincare stand (Roberts, 2020).

Since there are gaps in the study on the deployment of Artificial Intelligence in the beauty sector, this dissertation aims to answer the following questions: 1) does the relationship between a consumer and a beauty brand impacts consumer's willingness to experiment with new ways of shopping powered by AI, and 2) does a shopping experience empowered by AI reinforces the uniqueness desired by consumers who perceive themselves as independent?

1.3. Dissertation Research Questions and Objectives Definition

The conceptualisation of service quality in different contexts is well understood (e.g., Parasuraman *et al.*, 1994; Collier & Bienstock, 2006; Scheidt & Chung, 2019; Suhartanto *et al.*,2019). What is less studied is the potential for AI-based shopping experiences to provoke shifts on how consumers interact with a brand depending on their overall AI-enabled experience.

Previous studies have mainly focused on the use of AI from a technical and organisational perspective (Jarrahi, 2018) which results in a lack of information on how customers perceive AI technology as part of their shopping experience, and how this leads to

a more pleasant experience and stronger relationships with brands (Shank *et al*., 2019; Wang, *et al.*, 2020).

Hence, this research aims to analyse how, in an experience empowered by AI, attachment and an independent view of the self might influence the loss of interest in, or discontinued use of, beauty products that become commonplace to consumers that want to re-establish their differentness. Accordingly, a new model is proposed that integrates AI-Enabled Customer Experience as a factor mediating the relationships between the Independent Self Construct and Avoidance of Similarity and Intimate Knowledge as a moderator between both Emotional Attachment and Brand Attachment, and AI-Enabled Customer Experience.

This research provides theoretical contributions and practical implications that will be discussed in the chapters ahead. In a broad sense, it responds to recent calls for research around consumer interaction with cutting-edge technologies (Ameen *et al.*, 2021). Therefore, the findings of this study can provide guidance for retailers aiming to provide and reinforce AI enabled experiences.

1.4. Structure of the Dissertation

The present research aims to analyse how, in an experience empowered by AI, attachment and an independent view of the self might influence the loss of interest in, or discontinued use of, beauty products that become commonplace to consumers that want to re-establish their differentness.

To address the research objectives, this dissertation will be organized into 5 parts (excluding the introduction). It will start with a Literature Review that seeks to contextualize the research problem, define the theoretical concepts related to the customer experience, AI, and the proposed variables for this study, followed by the conceptual framework, where the model will be presented, and hypothesis development. The subsequent section will be the Methodology, where the method for collecting the primary data will be presented, as well as the tools used to analyse the data in order to extract the results. The main results will be presented in a fifth part followed by the conclusion of this dissertation with the limitations and suggestions for future research.

2. Literature Review

2.1. Artificial Intelligence

Artificial intelligence (AI) is one of the main disruptive technologies that enables machines to mimic human cognitive and affective functions essential for performing intellectual tasks, such as problem-solving and reasoning, autonomously (De Bruyn, *et al*., 2020). Based on past experiences and existing knowledge, machines represent, learn, store, and refine their knowledge progressively to make real-time decisions (e.g., selecting marketing actions) and reasonings (e.g., predicting customer satisfaction) (Wirth, 2018). Learning occurs when machines assess the decisions made against correct answers, and in certain cases, against criteria when there is a lack of well-defined answers. The learned knowledge enables machines to adapt and respond to the ever-changing business environment, which is unachievable using the traditional approaches that generally use a predefined set of static rules (Kok-Lim, 2021).

Earlier this year, Stanford's Institute for Human-Centered Artificial Intelligence (HAI) released the 2022 AI Index report, its fifth annual study on the impact and progress of AI. The report states that AI is being integrated into the economy, and it is now transitioning from a research technology only deployed at scale in a relatively small number of leading-edge companies to a high-potential technology with real-world impact across a variety of sectors around the world (Stanford Institute for Human-Centered Artificial Intelligence, 2022). The report cites several studies by consultancies on AI's potential to contribute to global economic output. For example, the overriding finding of a 2018 study by PwC was that AI was the biggest commercial opportunity for companies, industries, and nations over the next decades. The study estimated that AI advances will increase global GDP by up to 14% between 2018 and 2030, the equivalent of an additional US$15.7 trillion contribution to the world's economy (PwC, 2018). Similarly, a second study by the McKinsey Global Institute (2018) concluded that AI has the potential to incrementally add 16% or around US$13 trillion by 2030 to current global economic output – an annual average contribution to productivity growth of about 1.2% between 2018 and 2030. Both the Mckinsey and PwC studies said that AI marketplace adoption would likely follow a typical S curve pattern, that is a slow start in the early stages, followed by a steep acceleration as the technology matures and firms learn how to best deploy it (Stanford Institute for Human-Centered Artificial Intelligence, 2022).

When it comes to its benefits, AI contributes largely to automating, optimizing, and augmenting three fundamental marketing processes: data collection, insights gathering through data analysis, and customer engagement (Mari, 2019). On one side, modern marketing builds on intelligence technologies to capture relevant user data from interactions

with the brand. On the other side, the benefit for the user is better assistance on immediately expressed needs and the anticipation of the unexpressed ones, from a longer-term perspective.

The process of personalization is thus a continuous loop that offers companies the chance to engage consumers one-to-one and to build self-reinforcing relationships (Vesanen & Raulas, 2006). Companies continuously improve their personalization processes through an iterative feedback loop, resulting in the “virtuous cycle of personalization” (Adomavicius & Tuzhilin, 2005).

2.2. Customer Experience

According to Bascur and Rusu (2020), customer experience is a multidimensional construct of what customers think and feel about products, systems, or services related to business. This construct can be divided into four elements of a customer experience: cognitive, emotional, physical and sensorial, and social elements (Ladhari *et al.*, 2017).

Cognitive elements refer to higher mental processes that include perception, memory, language, problem-solving, and abstract thinking (American Psychological Association, 2016). According to Keiningham *et al*. (2017), these elements refer to the functionality, speed, and availability of a service. As for emotional elements, they can be positive or negative, taking the form of delight, regret, anger, outrage, joy or surprise among others (Keiningham *et al*., 2017). Previous studies highlighted these as being more complex in nature (Ladhari *et al*., 2017). In contrast, physical and sensorial elements are often differentiated between those in an offline and online context: offline experiences encompass features like lighting, layout, and signage (Lam, 2001), while online experiences encompass technology-related features, such as a friendly user interface and a clear design (Keiningham *et al*., 2017). Finally, the social elements of the customer experience refer to the influence of other people, such as family and friends (Verhoef *et al*., 2009). These elements also include customer’s social identity or the mental identity of how they view themselves (Keiningham *et al*., 2017).

Customer experience is, therefore, one of the most powerful forces to increase customer satisfaction, customer loyalty, service quality, and company profit, especially for the cosmetics retail industry which is strongly influenced by the hedonic aspects such as pleasure, emotion (Apaolaza-Ibanez *et al*., 2010), and satisfaction (Upamannyu & Bhakar, 2014; Alkhamis, 2018; Kuntonbutr & Sangperm, 2019).

According to a study by Gartner (2019), the use of AI technologies such as machine learning, natural-language understanding, and natural-language processing help analyse customer sentiment and customer feedback at scale, precision, and speed not achievable through human workforce. As so, businesses are now combining multiple AI, martech, and

back-office solutions connected through common-application programming interfaces to grow and to use personalization data to develop improved shopping experiences in order to remain competitive in the market (Edelman & Abraham, 2022).

2.3. AI-Enabled Customer Experience

Previous studies have shown that experiences of smart technology (e.g., AI, smart mobile phones, tablets, wearables, etc) enabled services differ from those in traditional shopping (Foroudi *et al.*, 2018). Accordingly, AI has the potential to become one of the main tools for retailers to continuously improve the customer experience and thus to remain competitive (Newman, 2019).

As discussed before, customer experience refers to the overall experience a customer has with a retailer, based on their interactions with and thoughts about the brand (Oh *et al.*, 2012; Verhoef *et al*., 2009). Previous studies distinguish four elements of a customer experience: cognitive, emotional, physical and sensorial, and social elements (Ladhari *et al.*, 2017). Accordingly, AI-Enabled Customer Experiences consist of hedonic and recognition aspects. The hedonic aspect refers to memorable, entertaining, exciting, comforting, educational, and novel experiences (Oh *et al*., 2012; Verhoef *et al*., 2009; Foroudi *et al*., 2018). The recognition aspect refers to a feeling of importance, respect, being welcome, safety, relation, and a sense of beauty (Foroudi *et al*., 2018; Oh *et al*., 2012; Otto & Ritchie, 1996). In AI-enabled services, both hedonic and recognition aspects of the customer experience can be improved in terms of time, efficiency, enjoyment, and personalisation (Saponaro *et al*., 2018).

2.4. Emotional Attachment

Although consumers interact with thousands of products and brands in their lives, they develop an intense emotional attachment to only a small subset of these objects (Schouten & McAlexander, 1995). The possibility that consumers can develop strong emotional attachments to brands is interesting as attachment theory in psychology (Bowlby, 1979) suggests that the degree of emotional attachment to an object predicts the nature of an individual's interaction with the object. Accordingly, consumers' emotional attachment to a brand might predict their commitment to it and their willingness to make sacrifices.

The pioneering work on attachment was conducted by Bowlby (1979, 1980) in the realm of parent-infant relationships, describing attachment as an emotion-laden target-specific bond between a person and a specific object. Accordingly, research in marketing suggests that consumers can develop attachment to gifts (Mick & DeMoss, 1990), collectables (Slater, 2000), places of residence (Hill & Stamey, 1990), or brands (Schouten & McAlexander, 1995). The notion that such attachments reflect an emotional bond is also suggested by research in

consumer behaviour as, for instance, Slater (2000) documented in his study were a variety of emotions (love, warm feelings) characterized collectors' emotional attachments to Coke and Hallmark.

Individuals' emotional attachments to a person predict their commitment to the relationship with this person (Drigotas & Rusbult, 1992; Rusbult, 1983). Here commitment is defined as the degree to which an individual views the relationship from a long-term perspective and has the willingness to stay in the relationship even when things are difficult (van Lange *et al.*, 1997). In a marketing context, a relevant indicator of commitment is the extent to which the individual remains loyal to the brand (Garbarino & Johnson, 1999). Respectively, one might propose that a valid measure of emotional attachment should predict consumers' commitment to a brand, such as their loyalty to that brand.

The strength of emotional attachment to an object may also be associated with an investment in the object, that is, the willingness to forego immediate self-interest to promote a relationship (van Lange *et al*., 1997). To this extent, a valid measure of emotional attachment should predict consumers' investment in a brand, such as their willingness to pay a premium price to obtain it (Thomson *et al.*, 2005).

Thomson *et al.* (2005) developed a three-factor model to measure the strength of consumers' emotional attachments to brands that characterizes brand attachment in terms of three emotional components: affection, characterized by the emotion items "affectionate," "loved," "friendly," and "peaceful"; passion, characterized by the items "passionate," "delighted," and "captivated"; and connection, characterized by the items "connected," "bonded," and "attached".

2.5. Brand Attachment

As a construct that describes the strength of the bond connecting the consumer with the brand, attachment is critical because it affects behaviours that foster brand profitability and customer lifetime value (Thomson *et al.*,2005). Park *et al.* (2010) empirically demonstrated that brand attachment is an accurately predictor of intentions to perform behaviours that use significant consumer resources (time, money, reputation) as well as a stronger predictor of actual consumer behaviours.

Park *et al.* (2010) defined brand attachment as the strength of the bond connecting the brand with the self. Consistent with attachment theory (Mikulincer & Shaver, 2007), this bond is exemplified by a rich and accessible mental representation that involves thoughts and feelings about the brand and the brand's relationship to the self. Two critical factors reflect the conceptual properties of brand attachment: brand-self connection and brand prominence (Park *et al.*, 2010).

The idea that attachment involves a bond suggests that attachment encompasses the cognitive and emotional connection between the brand and the self, defined as brand-self connection (Chaplin & John, 2005). By categorizing the brand as part of the self, a consumer develops a sense of cohesion with the brand, establishing cognitive links that are inherently emotional (Mikulincer & Shaver, 2007). This means that it involves complex feelings about the brand, including sadness and anxiety from brand-self separation, happiness and comfort from brand-self proximity, and pride from brand-self display (Park *et al.*, 2010).

Additionally, previous research suggests the extent to which positive feelings and memories about the attachment object are perceived as top of mind also serves as an indicator of attachment. According to Mikulincer (1998) and Collins (1996), positive memories about the attachment object are more prominent for people who are highly committed to an attachment object than for people who show weak attachment. Respectively, the notion that brand-self connections develop over time and through experience suggests that brand-related thoughts and feelings become part of a person's memory and vary in the ease with which they are brought to mind (Park *et al.*, 2010) – namely brand prominence. As so, consumers' attachment concerning two brands with the same degree of brand-self connection is greater for the brand that they perceive as more prominent.

2.6. Intimate Knowledge

Research conducted in marketing has considered the role of psychological ownership in affecting the perceptions and behavioural intentions of consumers, addressing its potential outcomes such as customer satisfaction, word-of-mouth, competitive resistance, customer loyalty, and willingness to pay (Brasel & Gips, 2014; Sinclair & Tinson, 2017).

According to Pierce *et al*. (2003), psychological ownership is defined as the state in which individuals feel as though the target of ownership or a piece of that target is "theirs". The conceptual core of the state of ownership is the feeling of possession, of being closely connected to an object, the object thereby becoming part of the individual's extended self (Brown e*t al.*, 2014; Furby, 1978). Pierce *et al*. (2001, 2003) have identified three potential antecedents of psychological ownership namely: investing the self into the target, intimately knowing the target, and controlling the target of ownership. For the present study, the antecedent Intimate Knowledge will be feature on the proposed conceptual framework.

Intimately knowing the target is understood as the broadness and depth of knowledge of the object (Pierce *et al*., 2001). As individuals establish a relationship with an object (e.g., brands), they come to know it intimately (James, 1890) and, consequently, they might consider it as part of the self, developing feelings of ownership. Thought intimate knowing an object, individuals also become more familiar with it, which contributes to the establishment of a sense

of home. As so, intimately knowing the target is considered to fulfil humans' innate need for “having a place” (Brown *et al*., 2014).

2.7. Independent Self-Construal

In 1991, Markus and Kitayama proposed that people in the West hold an independent view of the self that emphasizes the separateness, internal attributes, and uniqueness of individuals – the independent self-construal – and that non-Western peoples hold an interdependent image of self-stressing connectedness, social context, and relationships – the interdependent self-construal. Some years later, following the concepts introduced by these academics, Singelis (1994) developed a brief “paper-and-pencil instrument” to measure the strengths of an individual's independent and interdependent self-construals. For the present study, the construct of individual's independent self-construal will be feature on the proposed conceptual framework.

Self-construal is conceptualized as a constellation of thoughts, feelings, and actions concerning one's relationship to others, and the self as distinct from others. Markus and Kitayama (1991) come to define independent self-construal as a "bounded, unitary, stable" self that is separate from social context. The constellation of elements composing an independent self-construal includes: 1) an emphasis on internal abilities, thoughts, and feelings, 2) being unique and expressing the self, 3) realizing internal attributes and promoting one's own goals, and 4) being direct in communication.

When thinking about themselves, individuals with highly developed independent self-construals will have as a referent their abilities, attributes, characteristics, or goals rather than referring to the thoughts, feelings, or actions of others (Singelis, 1994). Similarly, when thinking about others, they will consider the other's individual characteristics and attributes rather than relational or contextual factors.

Those with well-developed independent self-construals will gain self-esteem through expressing the self and validating their internal attributes (Singelis, 1994). Accordingly, the independent self tends to express itself directly and it is one's inner attributes that are most salient in "regulating behaviour and that are assumed, both by the actor and by the observer alike, to be diagnostic of the actor" (Markus & Kitayama, 1991, p. 227).

2.8. Avoidance of Similarity

Consumers acquire and display material possessions to feel distinguished from other people and, thus, are targeted with a variety of marketing stimuli that attempt to enhance self-perceptions of uniqueness. Because the pursuit of differentness (or counterconformity

motivation) varies across individuals to influence consumer responses, Tian *et al.* (2001) developed and validated a trait measure of consumers' need for uniqueness.

The concept of consumers' need for uniqueness derives from Snyder and Fromkin's (1977) theory of uniqueness, which is defined as an individual's pursuit of differentness relative to others that are achieved through the acquisition, utilization, and disposition of consumer goods for the purpose of developing and enhancing one's personal and social identity. According to this theory, the need to see oneself as being different from other people is aroused and competes with other motives in situations that threaten the self-perception of uniqueness (Snyder & Fromkin, 1977).

According to Tian *et al.* (2001), and basing on the theory of uniqueness, consumers' need for uniqueness reflects individual differences in consumer counterconformity motivation. Individuals may fulfil their desire to be unique in more than one way meaning the effect on the individual ultimately depends on the consumer good being a publicly recognized symbol since a unique product can be used to gain desired evaluations from others further enhancing self-image (Tian *et al.*, 2001).

Based on the need for uniqueness theory, nonconformity research, and the consumer behaviour literature, Tian *et al.* (2001) state that consumers' need for uniqueness is reflected by three intercorrelated dimensions: creative choice counterconformity, unpopular choice counterconformity, and voidance of similarity. For the present study, the construct Avoidance of Similarity will be feature on the proposed conceptual framework.

Avoidance of Similarity refers to the loss of interest in, or discontinued use of, possessions that become commonplace in order to move away from the norm and re-establish one's differentness (Tian *et al.*, 2001). Because those individuals who possess a high need for uniqueness monitor others' ownership of goods in product categories where replacement is expected, avoiding similarity also refers to devaluing and avoiding the purchase of products that are perceived to be commonplace (Tian *et al.*, 2001). Because consumers' success in creating distinctive self-images and social images is often short-lived, disposition and discontinued product use or purchase happens so to avoid similarity to others.

Since consumer choices may establish one's uniqueness, such choices are likely to attract followers who also seek to develop their specialness or share a common link with early adopter groups (Fisher & Price, 1992). This suggests that even initially unpopular choices can gain widespread acceptance over time (Heckert, 1989).

3. Conceptual Framework and Hypotheses Development

In this chapter, the conceptual framework developed will be presented (see Figure 3.1), together with the hypotheses created to achieve the results and the conclusions of the research.

The conceptual framework was created through theory-based assumptions, and the positivistic method assigns the researcher the role of collecting data and interpreting the results objectively. The foundation of the framework and hypotheses is the previously done research, presented in the Literature Review (see Chapter 2).

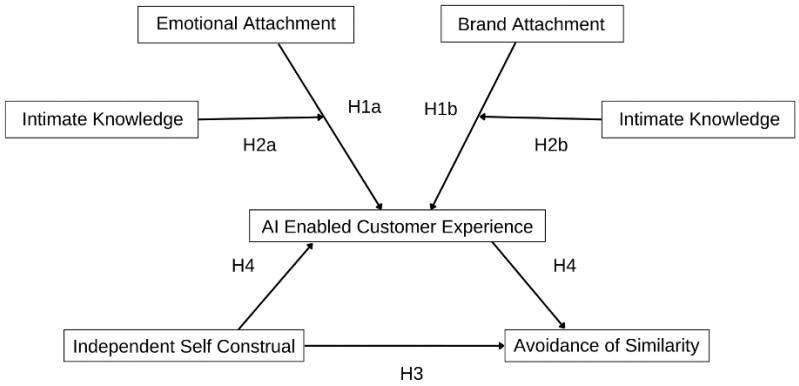

Figure 3.1. Proposed Model.
Source: Author's elaboration

Although consumers interact with thousands of products and brands in their lives, they develop an intense emotional attachment to only a small subset of these objects (Schouten & McAlexander, 1995). The possibility that consumers can develop strong emotional attachments to brands is interesting as attachment theory in psychology (Bowlby, 1979) suggests that the degree of emotional attachment to an object predicts the nature of an individual's interaction with the object. Accordingly, the degree of emotional attachments from consumers predict their commitment to the brand (e.g., brand loyalty) and their willingness to make sacrifices (Thomson *et al.*, 2005).

Since individuals with stronger attachment to a brand are more invested, thus, are more willing to devote resources to undergo the shopping experience offer by the brand, the following hypothesis is proposed:

H1a. Emotional Attachment has a positive and direct effect on AI-Enabled Customer Experience.

Self-expansion theory (Aron *et al*. 2005) suggests that people possess an inherent motivation for self-expansion, or a desire to incorporate others (here brands) into their conception of "self." Park *et al*. (2010) added that consumers who are attached to brands are not just recipients of the brand's resources (i.e., consumers come to regard the brand's resources as their own); they also actively invest their resources in the brand to maintain their brand relationship. As so, they treat the brand preferentially and engage in restorative behaviours that ensure brand relationship continuation (Aron *et al.,* 1992; Aron *et al*. 2005; Mikulincer 1998). The more attached a person is to the brand, the more likely he or she is to move from an egocentric to a more reciprocal brand relationship that involves sharing resources with the brand (Park *et al*., 2010). As such, one might propose that AI-enabled shopping experiences deployed by top-of-mind brands will be positively reinforced as consumers will ensure brand relationship continuation. As so, the following hypothesis is proposed:

H1b. Brand Attachment has a positive and direct effect on AI-Enabled Customer Experience.

Research conducted in marketing has measured the role of psychological ownership in affecting the perceptions and behavioural intentions of consumers, addressing the potential outcomes such as customer satisfaction, competitive resistance, and customer loyalty, among others (Brasel & Gips, 2014; Sinclair & Tinson, 2017). As individuals establish a relationship with objects, they come to know them intimately (James, 1890), considering them as part of the self and developing feelings of ownership towards them (Beaglehole, 1932).

An individual who gets to know the product intimately had to establish a relationship with the brand. Since consumers who are emotionally attached to a brand are also likely to have a favourable attitude toward it and are generally committed to preserving their relationship (Miller, 1997), the following hypothesis is proposed:

H2a. Intimate Knowledge moderates the relationship between Emotional Attachment and AI-Enabled Customer Experience.

On the other hand, the strength of the bond connecting the consumer with the brand, conceptualized as brand attachment, involve thoughts and feelings about the brand and the brand's relationship to the self (Mikulincer & Shaver, 2007) and affect behaviours that foster brand profitability and customer lifetime value (Thomson *et al.*, 2005).

Since an individual who gets to know the product intimately comes to establish a relationship with the brand, those who are highly attached to the brand will not only be

recipients of the brand's resources but will also actively invest their resources in the brand to maintain their brand relationship (Park *et al*., 2010). As so, the following hypothesis is proposed:

H2b. Intimate Knowledge moderates the relationship between Brand Attachment and AI-Enabled Customer Experience.

Independent Self-Construal is defined as a "bounded, unitary, stable" self that is separate from social context and includes being unique and expressive (Markus & Kitayama, 1991). When thinking about themselves, individuals with highly developed independent self-construals will have as a referent their own abilities, attributes, characteristics, or goals rather than referring to the thoughts, feelings, or actions of others (Markus & Kitayama (1991), gaining self-esteem through expressing themselves and validating their internal attributes.

In turn, Avoidance of Similarity refers to the loss of interest in, or discontinued use of, possessions that become commonplace in order to move away from the norm and re-establish one's differentness (Tian *et al.*, 2001). Since consumers who perceived themselves as independent want to establish one's uniqueness, it is presumed they will skip products that are perceived as common. As so, the following hypothesis is proposed:

H3. Independent Self Construal has a positive and direct effect on Avoidance of Similarity

Previous studies have shown that experiences of smart technology-enabled services differ from those in traditional shopping (Foroudi *et al.*, 2018). In AI, intelligence may be generally defined as the ability to process and transform data into information to inform goal-directed behaviour (Paschen *et al.*, 2019) by 'reading' customers' preferences and patterns of shopping (Evans, 2019), thus achieving a meticulous tailored journey for each customer, and increasing engagement based on contextual and behavioural data (Solis, 2017). As so, in AI-enabled services, both hedonic and recognition aspects of the customer experience are improved in terms of time, efficiency, enjoyment, and personalisation (Saponaro *et al*., 2018).

When thinking about themselves, individuals with highly developed independent self-construals will have as a referent their own abilities, attributes, characteristics, and will be eager to promote their own goals (Markus & Kitayama, 1991), gaining self-esteem through expressing themselves and validating their internal attributes. In turn, Avoidance of Similarity refers to the loss of interest in, or discontinued use of, possessions that become commonplace to move away from the norm and re-establish one's differentness (Tian *et al.*, 2001).

Since the independent self makes choices based on his internal abilities, thoughts, and feelings, promoting his own goals, which are unique to him, the more unique data AI the person

will provide to AI systems. Since AI aims to reach exceeding accuracy, it is possible to achieve extreme personalisation based on contextual and behavioural data (Solis, 2017). The adoption of AI tools might be the turning point for customers who want to establish their uniqueness by moving away from products that are perceived as common since this technology will highly personalize services and product recommendations by processing their past purchases and preferences, making the shopping experience exclusive and unalike for each customer. As so, the following hypothesis is proposed:

H4. AI-Enabled Customer Experience mediates the relationship between Independent Self-Construal and Avoidance of Similarity

These hypotheses presented will be tested, through the chosen methodology presented in chapter 4

4. Methodology

The purpose of the present study is to understand how, in a customer experience empowered by AI, attachment and an independent view of the self might influence the loss of interest in, or discontinued use of, beauty products that become commonplace to consumers that want to re-establish their differentness. Based on this, a conceptual framework and research hypotheses were developed. The present chapter explores the research methods employed to address the hypotheses previously presented (see Chapter 3).

For this study, consumers residing in the United States of America were targeted using the platform Amazon Mechanical Turk. A questionnaire was the chosen quantitative research method to test the hypotheses and address the research questions of the present study.

4.1. Construct Measurement

In the present study, all constructs and respective items were measured in the questionnaire by employing scales from prior research. The original measurement scales were selected from various articles, which were adjusted and adapted to the purpose of the present investigation.

The questionnaire focused on six constructs that constitute the conceptual framework: Emotional Attachment, Brand Attachment, Intimate Knowledge, AI-Enabled Customer Experience, Independent Self Construct and Avoidance of Similarity.

The construct of Emotional Attachment was measured using the scale developed by Thomson *et al.* (2005). The authors followed procedures for scale development advocated by Churchill (1979a, 1979b) and based on their study the final set of items reflected a three-factor solution – Affection, Passion, and Connection – with a total of ten items each formatted into a seven-point Likert-type response scale from “Strongly Disagree” (1) to “Strongly Agree” (7).

The construct Brand Attachment was measured using the scale developed by Park *et al.* (2010) with a total of ten items – five items reflecting brand-self connection and five items representing brand prominence. Each item was formatted into an eleven-point scale anchored by “Not at All” (0) and “Completely” (10). The authors did not include emotions as factors that indicate brand attachment since their two-factor model of attachment captures the emotions that accompany attachment.

The construct of Intimate Knowledge was assessed using items from the scales developed by Brown *et al*. (2014) with a total of four items. The construct was measured using a seven-point Likert-type response scale from “Strongly Disagree” (1) to “Strongly Agree” (7),

and the scale items were slightly modified to fit the context of the AI tool and brand chosen for the present study.

The construct AI-Enabled Customer Experience was measured using the scale developed by Foroudi *et al*. (2018), Oh *et al*. (2012) and Otto and Ritchie (1996). The final set of items reflected a two-factor solution – Hedonic and Recognition – with five items each. Each item was formatted into a seven-point Likert-type response scale from “Strongly Disagree” (1) to “Strongly Agree” (7).

The construct of Independent Self-Construal was measured using the scale developed by Cross and Markus (1991) and Yamaguchi (1994), including a total of ten items. The construct was measured using a seven-point Likert-type response scale, from “Strongly Disagree” (1) to “Strongly Agree” (7), and the scale items were slightly modified to focus on the individual's self-construal as well as to make them more suitable for this sample.

The construct Similarity of Avoidance was measured by adapting a pre-developed scale of Tian *et al.* (2001) – Need of Uniqueness – in which Avoidance of Similarity comprises nine items. Each item was formatted into a seven-point Likert-type response scale from “Strongly Disagree” (1) to “Strongly Agree” (7).

4.2. Questionnaire

The questionnaire was developed based on the literature review and all measurement items were adapted from existing instruments as mentioned above (see Chapter 4.1.). The survey was entitled “L’Oréal Paris Skin Genius || AI Skin Analysis Tool” and was developed in Qualtrics (Qualtrics.com), an online platform which presents several benefits, allowing the use of various Likert-type scales. Also, Qualtrics allows to create a unique code (four-digit random ID) for each participant presented at the end of the survey., making it possible for the use of the platform Amazon Mechanical Turk to collect data from USA citizens.

Regarding the design and structure of the questionnaire, all respondents were initially introduced to a brief explanation of the study and asked if they knew the brand L’Oréal Paris and if they have ever used the AI beauty tool ‘L’Oréal Paris Skin Genius’. Those who responded negatively to this last question were redirected to the end of the survey as their answer does not contribute to this study.

Forwardly, all six constructs under analysis were measured using multiple choice and matrix table question types. All items that constitute each construct were exposed as statements and respondents indicated the extent of their agreement accordingly to their scale. Four items named blue colour markers were also presented closely to the end of the survey so bias in the sample could be further analysed.

Lastly, sociodemographic questions were held, where gender, age, and employment status were the main requests so that a description of the sample could be made.

4.3. Data Collection and Procedures

The data was collected through an online survey developed in Qualtrics and published in Amazon Mechanical Turk, a crowdsourcing platform, that works as a marketplace owned by Amazon. In this platform, there are two types of users: the requesters, who share the projects (e.g., survey) and pay to get the data and the workers, who get tasks completed to get paid.

For the present study, a survey was shared with workers to collect answers virtually using an effective and reliable method to get data. With Amazon Mechanical Turk, filters can be applied to have a more selective sample, then allowing the eligible workers to participate and get paid when finishing the task, in this case, when submitting the questionnaire. Since the platform allows it, a location filter was added, since the target of the survey was only residents from the United States of America.

Once the worker decided to answer the survey, only after submitting it properly on both platforms (Amazon Mechanical Turk and Qualtrics) the requester can approve the answer and pay for the respective task. Qualtrics provided each respondent with a unique code by the end of the survey, allowing to match the participant's answer to the unique code and forwardly approve and pay the worker.

4.4. Sample Profile

The current study counts with the answers of two hundred and thirty-nine (239) participants from the United States of America. More than half (55.2%) are females and 44.8% are males (see Appendix B).

To enhance the clarity of the results, five age groups were chosen (see Appendix C). The largest group is composed of participants between twenty-five (25) and thirty-four (34) representing 51% of the sample. The second major group is composed of respondents aged between thirsty-five (35) and forty-four (44), representing 29.3% of the sample. The rest is divided into three smaller groups: forty-five (45) to fifty-four (54) years old with 7.9%, fifty-five (55) or older with 7.1% and eighteen (18) to twenty-four (24) years old with 4.6%.

When it comes to the current employment status (see Appendix D), the majority of participants (84.8%) are employed full-time. Participants employed part-time count as 4.6%, followed by self-employed and those looking for new opportunities, both with 3.8%. Working students and retired people both count as 1.7% each. At the bottom, 1.3% of participants are students. A small percentage of 0.8% preferred not to disclose their current employment status.

All participants know the brand L’Oréal Paris and have used the AI Tool ‘L’Oréal Paris AI Skin Genius’.

5. Results and Discussion

This chapter will present the obtained results and findings of the research. An analysis of the data, collected from the questionnaire, will be presented, and fully explained. Afterwards, the results will be discussed, and the theoretical contributions and managerial implications will be proposed.

The main objective of the present chapter is to combine the theoretical knowledge with the results of the quantitative research, formulating conclusions about the topic of study.

5.1. Data Analysis

To analyse the collected data, IBM SPSS Statistics was used as it offers a fast-visual modelling environment that ranges from the smallest to the most complex models (William, 2022).

First, descriptive statistics were done to describe the basic features of the data in the study. To analyse the hypotheses deduced, several tests were made, including linear regressions. Then PROCESS macro, a special tool developed by Andrew Hayes, was used to test both mediation and moderation tests presented in the main model. PROCESS is an observed variable OLS and logistic regression path analysis modelling tool widely used through the social, business, and health sciences for estimating direct and indirect effects in single and multiple mediator models, two- and three-way interactions in moderation models, and conditional indirect effects in moderated mediation models with a single or multiple mediators or moderators (Hayes, 2012).

Lastly, Harman's one-factor test for Common Method Bias was conducted. The common method bias happens when variations in responses are caused by the instrument rather than the actual predispositions of the respondents that the instrument attempts to uncover. In other words, the instrument introduces a bias, hence variances, in the data that will be analysed and, consequently, contaminates the results by the 'noise' stemming from the biased instruments (Podsakoff *et al*., 2003).

5.1.1. Descriptive Statistics

The primary stage when analysing the data is to perform a descriptive statistical analysis for all the variables that constitute the conceptual framework, presented in chapter 3. In this first stage, the mean and standard deviation will be observed. Primarily, a new variable for all the questions of the survey was generated. Therefore, the calculation of the mean of each item

associated with the particular variable was performed in order to create the constructs. These means were computed using SPSS software.

Emotional Attachment

Table 5.1.1.1. Descriptive Statistics: Emotional Attachment

	Mean	Std. Deviation
Towards L'Oréal Paris I feel… - Affectionate	5.62	1.199
Towards L'Oréal Paris I feel… - Friendly	5.75	1.136
Towards L'Oréal Paris I feel… - Loved	5.81	1.201
Towards L'Oréal Paris I feel… - Peaceful	5.79	1.095
Towards L'Oréal Paris I feel… - Passionate	5.75	1.102
Towards L'Oréal Paris I feel… - Delighted	5.82	1.102
Towards L'Oréal Paris I feel… - Captivated	5.70	1.081
Towards L'Oréal Paris I feel… - Connected	5.86	1.138
Towards L'Oréal Paris I feel… - Bonded	5.86	1.160
Towards L'Oréal Paris I feel… - Attached	5.90	1.186
Construct: Emotional Attachment	5.79	0.903

Source: Author's creation based on SPSS outputs

The variable Emotional Attachment comprises ten items, as presented below in Table 5.1.1.1. All items have similar averages. The item 'Towards L'Oréal Paris I feel… - Attached' has the highest average value (Mean = 5.90), which means that this specific statement presents the highest agreement rate in the respondents' answers. In contrast, the item 'Towards L'Oréal Paris I feel… - Affectionate' presents the lowest agreement rate with an average value of 5.62. Regarding Standard Deviation, the item 'Towards L'Oréal Paris I feel… - Loved' corresponds to the higher level of disparity between responses, with a Standard Deviation of 1.201, closely followed by the item 'Towards L'Oréal Paris I feel… - Affectionate' (Std. Deviation = 1.199). The item 'Towards L'Oréal Paris I feel… - Captivated' presents the lowest Standard Deviation with 1.081, which means that respondents answered more equally to this item. The new construct has an average value of 5.79 and a Standard Deviation of 0.903.

Brand Attachment

Table 5.1.1.2. Descriptive Statistics: Brand Attachment

	Mean	Std. Deviation
To what extent is L'Oréal Paris part of you and who you are?	8.54	2.029
To what extent do you feel personally connected to L'Oréal Paris?	8.49	1.920
To what extent do you feel emotionally bonded to L'Oréal Paris?	8.54	1.862
To what extent is L'Oréal Paris part of you?	8.64	1.969

	Mean	Std. Deviation
To what extent does L'Oréal Paris say something to other people about who you are?	8.61	1.920
To what extent does the word L'Oréal Paris automatically evoke many good thoughts about the past, present, and future?	8.87	1.812
To what extent to you have many thoughts about L'Oréal Paris?	8.62	1.848
To what extent are your thoughts and feelings toward L'Oréal Paris often automatic, coming to mind seemingly on their own?	8.62	1.941
To what extent do your thoughts and feelings toward L'Oréal Paris come to your mind naturally and instantly?	8.68	1.803
To what extent do your thoughts and feelings toward L'Oréal Paris come to mind so naturally and instantly that you don't have much control over them?	8.58	2.062
Construct: Brand Attachment	8.62	1.620

Source: Author's creation based on SPSS outputs

The variable Brand Attachment comprises ten items, as presented below in Table 5.1.1.2. The items have close average values in general, with the highest average value being the item 'To what extent does the word L'Oréal Paris automatically evoke many good thoughts about the past, present, and future?' (Mean = 8.87), which means that this specific statement presents the highest agreement rate in the respondents' answers. In contrast, the item 'To what extent do you feel personally connected to L'Oréal Paris?' presents the lowest agreement rate with a mean of 8.49. Regarding Standard Deviation, the item 'To what extent do your thoughts and feelings toward L'Oréal Paris come to mind so naturally and instantly that you don't have much control over them?' presents the highest level of disparity between responses (Std. Deviation = 2.062). In turn, the item 'To what extent do your thoughts and feelings toward L'Oréal Paris come to your mind naturally and instantly?' presents the lowest Standard Deviation (Std. Deviation = 1.803), which means that respondents answered more equally to this item. The new construct has an average value of 8.62 and a Standard Deviation of 1.620.

Intimate Knowledge

Table 5.1.1.3. Descriptive Statistics: Intimate Knowledge

	Mean	Std. Deviation
I am intimately familiar with L'Oréal' Skin Genius service.	5.77	1.053
I have a depth of knowledge as it relates to L'Oréal' Skin Genius service.	5.63	1.137
I have a comprehensive understanding of L'Oréal' Skin Genius service's features.	5.79	1.036
I have a broad understanding of L'Oréal' Skin Genius service.	5.73	1.158
Construct: Intimate Knowledge	5.73	0.926

Source: Author's creation based on SPSS outputs

The variable Intimate Knowledge comprises four items, as presented below in Table 5.1.1.3. The item with the highest average value is 'I have a comprehensive understanding of L'Oréal' Skin Genius service's features', with a mean of 5.79, implying this specific statement presents the highest agreement rate in the respondents' answers. In contrast, the item 'I have a depth of knowledge as it relates to L'Oréal' Skin Genius service' presents the lowest agreement rate (Mean = 5.63). Regarding Standard Deviation, the item 'I have a broad understanding of L'Oréal' Skin Genius service' presents the highest level of disparity between responses (Std. Deviation = 1.036). On the other hand, the item 'I have a comprehensive understanding of L'Oréal' Skin Genius service's features' presents the lowest Standard Deviation (Std. Deviation = 1.036) which means that respondents answered more equally to this item. The new construct has an average value of 5.73 and a Standard Deviation of 0.926.

AI-Enabled Customer Experience

Table 5.1.1.4. Descriptive Statistics: AI-Enabled Customer Experience

	Mean	**Std. Deviation**
Using experience of using L'Oréal' Skin Genius technology is… - Memorable	5.68	1.123
Using experience of using L'Oréal' Skin Genius technology is… - Entertaining	5.68	1.096
Using experience of using L'Oréal' Skin Genius technology is… - Exciting	5.82	0.963
Using experience of using L'Oréal' Skin Genius technology is… - Comforting	5.98	1.006
Using experience of using L'Oréal' Skin Genius technology is… - Educational	5.81	1.125
When using L'Oréal' Skin Genius technology, I feel… - Important	5.83	1.064
When using L'Oréal' Skin Genius technology, I feel… - Respected	5.81	1.035
When using L'Oréal' Skin Genius technology, I feel… - Welcomed	5.90	1.059
When using L'Oréal' Skin Genius technology, I feel… - Safe	5.91	0.996
When using L'Oréal' Skin Genius technology, I feel… - A sense of beauty	5.97	0.956
Construct: AI-Enabled Customer Experience	5.84	0.812

Source: Author's creation based on SPSS outputs

The variable AI-Enabled Customer Experience comprises ten items, as presented below in Table 5.1.1.4. The item with the highest average value is 'Using L'Oréal' Skin Genius technology is… Comforting' (Mean = 5.98), closely followed by the item 'When using L'Oréal' Skin Genius technology, I feel… A sense of beauty' (Mean = 5.97). This means that these specific statements present the highest agreement rate in the respondents' answers. In turn, both items 'Using L'Oréal' Skin Genius technology is…Memorable' and 'Using L'Oréal' Skin Genius technology is… Entertaining' represented the lowest agreement rate, with an average value of 5.68. Regarding Standard Deviation, the item 'Using L'Oréal' Skin Genius technology is… Educational' and 'Using L'Oréal' Skin Genius technology is…Memorable' present similar values, 1.125 and 1.123 respectively, which correspond to a high level of disparity between responses. The item 'When using L'Oréal' Skin Genius technology, I feel… A sense of beauty'

presents the lowest Standard Deviation with a value of 0.956, meaning that respondents answered more equally to this item. Finally, the new construct has an average value of 5.84 and a Standard Deviation of 0.812.

Avoidance of Similarity

Table 5.1.1.5.Descriptive Statistics: Avoidance of Similarity

	Mean	**Std. Deviation**
When L'Oréal's AI Beauty Services I like become extremely popular, I lose interest in them.	3.56	1.132
I avoid L'Oréal's AI Beauty Services that have already been accepted and used by the average consumer.	3.56	1.248
When a L'Oréal's AI Beauty Service I own becomes popular among the general population, I begin using it less.	3.53	1.129
I often try to avoid L'Oréal's AI Beauty Services or other similar that I know are used by the general population.	3.59	1.195
	Mean	**Std. Deviation**
As a rule, I dislike L'Oréal's AI Beauty Services that are customarily used by everyone.	3.46	1.263
I give up on using L'Oréal's AI Beauty Services or similar once they become popular among the general public.	3.60	1.229
The more commonplace a L'Oréal's AI Beauty Services are among the general population, the less interested I am in using it.	3.51	1.202
L'Oréal's AI Beauty Services don't seem to hold much value for me when they are used regularly by everyone.	3.52	1.219
When a L'Oréal's AI Beauty Services I own becomes too commonplace, I usually quit using it.	3.64	1.183
Construct: Avoidance of Similarity	3.55	1.064

Source: Author's creation based on SPSS outputs

The variable Avoidance of Similarity comprises nine items, as presented below in Table 5.1.1.5. The item 'When a L'Oréal's AI Beauty Services I own becomes too commonplace, I usually quit using it' embodies the highest average value with an average value of 3.64, meaning this specific statement presents the highest agreement rate among respondents' answers. On the other hand, the item 'As a rule, I dislike L'Oréal's AI Beauty Services that are customarily used by everyone' presents the lowest agreement rate (Mean = 3.46) which means this was the question that was most disagreed with between respondents. Concerning the Standard Deviation values, we can see there is a higher discrepancy. The item 'As a rule, I dislike L'Oréal's AI Beauty Services that are customarily used by everyone' presents the highest value of deviations, with a standard deviation of 1.263, meaning there was a higher disparity between responses. In contrast, the item 'When a L'Oréal's AI Beauty Service I own becomes popular among the general population, I begin using it less' presents the lowest

Standard Deviation (Std. Deviation = 1.129) which means that respondents answered more equally to this item. The new construct has an average value of 3.55 and a Standard Deviation of 1.064.

Independent Self Construct

Table 5.1.1.6. Descriptive Statistics: Independent Self Construal

	Mean	Std. Deviation
I'd rather say "no" directly, than risk being misunderstood.	5.13	1.426
Speaking up during a reunion is not a problem for me.	5.49	1.236
Having a lively imagination is important to me.	5.68	1.080
I'm comfortable with being singled out for praise or rewards.	5.64	1.136
I'm the same person at home that I'm at work.	5.52	1.334
Being able to take care of myself is a primary concern for me.	5.68	1.065
I act the same way no matter who I am with.	5.60	1.197
I feel comfortable using someone's first name soon after I meet them, even when they are much older than I am.	5.49	1.347
I prefer to be direct and forthright when dealing with people I've just met.	5.64	1.063
I enjoy being unique and different from others in many respects.	5.67	1.083
My personal identity independent of others, is very important.	5.79	1.033
I value being in a good health above everything.	5.84	0.967
Construct: Independent Self Construal	5.60	0.815

Source: Author's creation based on SPSS outputs

The variable Independent Self Construal comprises twelve items, as presented below in Table 5.1.1.6. The item 'I value being in a good health above everything' has the highest average value (Mean = 5.84) which means that this specific statement presents the highest agreement rate in the respondents' answers. In contrast, the item 'I'd rather say "no" directly, than risk being misunderstood' presents the lowest agreement rate with an average value of 5.13. This item is also the highest in terms of Standard Deviation values (Std. Deviation = 1.426), meaning there was a higher level of disparity between responses. The item 'I value being in a good health above everything' presents by far the lowest Standard Deviation among the items, with a value of 0.967. This means that respondents answered more equally on this item. The new construct has an average value of 5.60 and a Standard Deviation of 0.815.

5.2. Results

An analysis of the data collected from the questionnaire will be presented and fully explained in the next sub-chapters.

5.2.1. Relationship between Emotional Attachment and AI-Enabled Customer Experience

To take conclusions on the impact of Emotional Attachment on AI-Enabled Customer Experience, a linear regression was conducted.

Table 5.2.1.1. Linear Regression Analysis: Model Summary for Dependent Variable AI-Enabled Customer Experience

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.787[a]	0.619	0.617	0.502

a Predictors: (Constant), Emotional Attachment

Source: Author's creation based on SPSS outputs

First, an analysis of the Model Summary (see Table 5.2.1.1) was done. R refers to the correlation variables. Correlation is important for regression analysis because it is presumed that one variable affects another one if both variables are correlated. If two variables are not correlated, it is probably pointless to look for a cause-and-effect relationship. The R-value ranges from -1 to +1 where -1 is a perfect negative correlation, +1 is a perfect positive correlation and 0 represents no linear correlation between variables. Here, R = 0.787 which shows the variables Emotional Attachment and AI-Enabled Customer Experience are correlated. In turn, R Square measures, in percentage, the total influence of independent variables on the dependent variable. From Table 5.2.1.1 it is possible to see that R-sq = 0.619 which means 61.9% per cent of AI-Enabled Customer Experience is influenced by Emotional Attachment.

Lastly, the Standard Error of the Estimate refers to how accurate the prediction around the regression line is. If the Standard Error value is between -2 and +2, which is the case (Std. Deviation = 0.502), then the regression line is considered to be closer to the true value.

Table 5.2.1.2. Linear Regression Analysis: ANOVA for Dependent Variable AI-Enabled Customer Experience

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	97.024	1	97.024	384.498	0.000[b]
	Residual	59.804	237	0.252		
	Total	156.828	238			

a Dependent Variable: AI-Enable Customer Experience

b Predictors: (Constant). Emotional Attachment

Source: Author's creation based on SPSS outputs

The ANOVA test shows if the linear regression results can be generalized to the population the sample represents or not. For a linear regression analysis to be valid, the

ANOVA result should be significant, that is, Sig. value ≤ 0.05. Here, Sig. = 0.000 (see Table 5.2.1.2) which means the null hypothesis is rejected and therefore significant, meaning the results can be generalized.

Table 5.2.1.3. Linear Regression Analysis: Coefficients for Dependent Variable AI-Enabled Customer Experience

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.747	0.211		8.27	0.000
	EmoAttac	0.707	0.036	0.787	19.609	0.000

a Dependent Variable: AI-Enabled Customer Experience

Source: Author's creation based on SPSS outputs

Similar to ANOVA, in the Coefficients if the Sig. value is less than 0.05, the null hypothesis is rejected, accepting there is a significance between the dependent and independent variables in the linear regression. Here, Sig. = 0.000 (see Table 5.2.1.3) which shows a strong significance between the independent variable (Emotional Attachment) and dependent variable (AI-Enabled Customer Experience).

The Unstandardized B (Beta) represents the slope of the regression line between independent and dependent variables. It tells how much, for one unit increase in the independent variable, the dependent variable will increase. Looking at Table 5.2.1.3, for every one-unit increase in Emotional Attachment, AI-Enabled Customer Experience will increase by 0.707.

Lastly, Standardized Coefficients Beta value ranges from -1 to +1 with 0 meaning no relationship; 0 to -1 meaning a negative relationship and 0 to +1 a positive relationship. The closed the Standardized Coefficient Beta value to -1 or +1, the stronger the relationship between variables. Here, the Standardized Coefficient Beta has a value of 0.787 (see Table 5.2.1.3), showing a positive relationship between the independent variable (Emotional Attachment) and the dependent variable (AI-Enabled Customer Experience).

From the linear regression, it is possible to conclude there is a positive and direct impact of Emotional Attachment on AI-Enabled Customer Experience, which means the hypothesis H1a is valid.

5.2.2. Relationship between Brand Attachment and AI-Enabled Customer Experience

To gather conclusions on the impact of Brand Attachment on AI-Enabled Customer Experience, a linear regression was conducted.

Table 5.2.2.1. Linear Regression Analysis: Model Summary for Dependent Variable AI-Enabled Customer Experience

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.773[a]	0.598	0.596	0.516

a Predictors: (Constant), Brand Attachment

Source: Author's creation based on SPSS outputs

On Table 5.2.2.1 it is established not only the variables Brand Attachment and AI-Enabled Customer Experience are correlated, since R-value is between +1 and -1 (R-value = 0.773), but also confirmed that 59.8% per cent of AI-Enabled Customer Experience is influenced by Brand Attachment (R-sq = 0.598). As for the Standard Error of the Estimate, it stays between -2 and +2 (Std. Error = 0.516) which shows the regression line is closer to the true value.

Table 5.2.2.2. Linear Regression Analysis: ANOVA for Dependent Variable AI-Enabled Customer Experience

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	93.766	1	93.766	352.390	0.000[b]
	Residual	63.062	237	0.266		
	Total	156.828	238			

a Dependent Variable: AI-Enabled Customer Experience

b Predictors: (Constant). Brand Attachment

Source: Author's creation based on SPSS outputs

The ANOVA test tells if generalizations can be taken from the population the sample represents. Table 5.2.2.2. shows Sig. = 0.000. Since Sig. value ≤ 0.05, the null hypothesis is rejected and, therefore, significant, which means the results can be generalized.

Table 5.2.2.3. Linear Regression Analysis: Coefficients for Dependent Variable AI-Enabled Customer Experience

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.500	0.181		13.812	0.000
	BraAttac	0.387	0.021	0.773	18.772	0.000

a Dependent Variable: AI-Enabled Customer Experience

Source: Author's creation based on SPSS outputs

Similar to ANOVA, if the Sig. value is less than 0.05, the null hypothesis is rejected, concluding there is a significance between the variables in the linear regression. On Table 5.2.2.3., shows Sig. = 0.000 meaning there is a strong significance between the independent

variable (Brand Attachment) and dependent variable (AI-Enabled Customer Experience). Also, the Unstandardized B (Beta) indicates that for every one-unit increase in Emotional Attachment, the AI-Enabled Customer Experience will increase by 0.387. Standardized Coefficients Beta value ranges from -1 to +1 with 0 meaning no relationship. Here, Standardized Coefficient Beta has a value of 0.773 (see Table 5.2.2.3.), showing there is a positive relationship between the independent variable (Brand Attachment) and the dependent variable (AI-Enabled Customer Experience).

From the linear regression, it is possible to conclude there is a positive and direct impact of Brand Attachment on AI-Enabled Customer Experience, which means the hypothesis H1b is valid.

5.2.3. Relationship between Emotional Attachment and AI-Enabled Customer Experienced moderated by Intimate Knowledge

To analyse if Intimate Knowledge works as a moderator in the relationship between Emotional Attachment and AI-Enabled Customer Experience, a moderation analysis was done using PROCESS Macro.

Table 5.2.3.1. Moderation Analysis: Model & Model Summary for Independent Variable Emotional Attachment and Intimate Knowledge

OUTCOME VARIABLE:
AICusExp

Model Summary

R	R-sq	MSE	F	df1	df2	p
0.847	0.717	0.189	198.449	3.000	235.000	0.000

Model

	coeff	se	t	p	LLCI	ULCI
constant	5.832	0.031	189.793	0.000	5.771	5.892
EmoAttac	0.425	0.045	9.433	0.000	0.336	0.513
IntKnow	0.399	0.045	8.825	0.000	0.310	0.488
Int_1	0.012	0.021	0.591	0.555	-0.029	0.054

Source: Author's creation based on SPSS outputs

Taking a look at the Model Summary (Table 5.2.3.1.), it shows R-sq=0.717 meaning that the independent variable Emotional Attachment explains 71% per cent of the variation in the dependent variable AI-Enabled Customer Experience. It is also disclosed that P-values for

Emotional Attachment and Intimate Knowledge are significant (P-value ≤ 0.05) but the Intercept (Int_1) is not significant (P-value = 0.555 > 0.05).

Table 5.2.3.2. Moderation Analysis: Conditional Effects of the Focal Predictors at Values of the Moderator for Independent Variable Emotional Attachment and Intimate Knowledge

Focal predict: EmoAttac (X)
Mod var: IntKnow (W)

Conditional effects of the focal predictor at values of the moderator(s):

IntKnow	Effect	se	t	p	LLCI	ULCI
-0.926	0.413	0.046	8.911	0.000	0.322	0.504
0.000	0.425	0.045	9.433	0.000	0.336	0.513
0.926	0.436	0.052	8.471	0.000	0.335	0.537

Source: Author's creation based on SPSS outputs

In Table 5.2.3.2., it is shown that the conditional effects of the independent variable Emotional Attachment at values of the moderator Intimate Knowledge are significant (P-value ≤ 0.05) at levels -0.926, 0.000, and 0.926 (SD, Mean, +SD).

From the moderator analysis, it is possible to conclude Intimate Knowledge does not moderate the relationship between Emotional Attachment and AI-Enabled Customer Experience, which means the hypothesis H2a is rejected.

5.2.4. Relationship between Brand Attachment and AI-Enabled Customer Experienced moderated by Intimate Knowledge

To analyse if Intimate Knowledge works as a moderator in the relationship between Brand Attachment and AI-Enabled Customer Experience, a moderation analysis was conducted using PROCESS Macro.

Table 5.2.4.1. Moderation Analysis: Model Summary for Independent Variable Brand Attachment and Intimate Knowledge

OUTCOME VARIABLE:
AICusExp
Model Summary

R	R-sq	MSE	F	df1	df2	p
0.823	0.677	0.215	164.472	3.000	235.000	0.000

Source: Author's creation based on SPSS outputs

Looking at the Model Summary (Table 5.2.4.1.), R-sq = 0.677 meaning that the independent variable Brand Attachment explains 67.7% per cent of the variation in the dependent variable AI-Enabled Customer Experience.

Table 5.2.4.2. Moderation Analysis: Model for Independent Variable Brand Attachment and Intimate Knowledge

OUTCOME VARIABLE:

AICusExp

Model

	coeff	se	t	p	LLCI	ULCI
BraAtt	0.205	0.033	6.219	0.000	0.140	0.270
IntKnow	0.465	0.061	7.564	0.000	0.344	0.586
Int_1	0.040	0.012	3.417	0.001	0.017	0.063

Source: Author's creation based on SPSS outputs

Looking at Table 5.2.4.2., it is also disclosed that P-values for Brand Attachment, Intimate Knowledge, and Intercept (Int_1) are significant since all P-value = 0.00 which is less than 0.05 (P-value ≤ 0.05).

Table 5.2.4.3. Moderation Analysis: Conditional Effects of the Focal Predictors at Values of the Moderator for Independent Variable Brand Attachment and Intimate Knowledge

Focal predict: BraAttac (X)

Mod var: IntKnow (W)

Conditional effects of the focal predictor at values of the moderator(s):

IntKnow	Effect	se	t	p	LLCI	ULCI
-0.926	0.167	0.035	4.856	0.000	0.100	0.235
0.000	0.205	0.033	6.219	0.000	0.140	0.269
0.926	0.242	0.035	6.946	0.000	0.173	0.310

Source: Author's creation based on SPSS outputs

On Table 5.2.4.3., it is revealed that the conditional effects of the independent variable Brand Attachment at values of the moderator Intimate Knowledge are significant (P-value ≤ 0.05) at levels -0.926, 0.000, and 0.926 (SD, Mean, +SD).

From the moderator analysis, it is possible to conclude the construct of Intimate Knowledge does moderate the relationship between Brand Attachment and AI-Enabled Customer Experience, which means the hypothesis H2b is valid.

5.2.5. Relationship between Independent Self Construal and Avoidance of Similarity

To gather conclusions on the impact of Independent Self Construal on Avoidance of Similarity, a linear regression was conducted.

Table 5.2.5.1. Linear Regression Analysis: Model Summary for Dependent Variable Avoidance of Similarity

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.421[a]	0.178	0.174	0.967

a Predictors: (Constant), Independent Self Construal

Source: Author's creation based on SPSS outputs

On Table 5.2.5.1. it is verified not only the variables Independent-Self Construal and Avoidance of Similarity are correlated since R-value is between +1 and -1 (R = 0.421) but also confirmed that 17.8% per cent of Avoidance of Similarity is influenced by the Independent Self Construal (R-sq = 0.178). As for the Standard Error of the Estimate, it stays between -2 and +2 (Std. Error = 0.967) which proved the regression line is closer to the true value.

Table 5.2.5.2. Linear Regression Analysis: ANOVA for Dependent Variable Avoidance of Similarity

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	47.863	1	47.863	51.172	0.000[b]
	Residual	221.677	237	0.935		
	Total	269.541	238			

a Dependent Variable: Avoidance Similarity

b Predictors: (Constant). Independent Self Construal

Source: Author's creation based on SPSS outputs

The ANOVA test shows if generalizations can be taken from the population the sample represents. On Table 5.2.5.2. shows Sig. = 0.000. Since Sig. value ≤ 0.05, the null hypothesis is rejected and, therefore, significant, which means the results can be generalized.

Table 5.2.5.3. Linear Regression Analysis: Coefficients for Dependent Variable Avoidance of Similarity

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.472	0.435		1.084	0.280
	IndSefCo	0.550	0.077	0.421	7.153	0.000

a Dependent Variable: Avoidance of Similarity

Source: Author's creation based on SPSS outputs

Similar to ANOVA, if the Sig. value is less than 0.05 in Coefficients, the null hypothesis is rejected, concluding there is a significance between the variables in the linear regression. Table 5.2.5.3., shows Sig. = 0.000 meaning there is a strong significance between the independent variable (Independent Self-Construal) and dependent variable (Avoidance of Similarity). Also, the Unstandardized B (Beta) evidence that for every one-unit increase in Independent Self-Construal, Avoidance of Similarity will increase by 0.550. Standardized

Coefficients Beta value ranges from -1 to +1 with 0 meaning no relationship. Here, the Standardized Coefficient Beta has a value of 0.421, showing there is a positive relationship between the independent variable (Independent Self-Construal) and the dependent variable (Avoidance of Similarity).

From the linear regression, it is possible to conclude there is a positive and direct impact of Independent Self Construal on Avoidance of Similarity, which validates the hypothesis H3.

5.2.6. Relationship between Independent Self Construal and Avoidance of Similarity mediated by AI-Enabled Customer Experience

In the section above, it was proven there is a positive and direct impact of Independent Self Construal on the Avoidance of Similarity. Now, to analyse if the construal AI-Enabled Customer Experience mediates the relationship between Independent Self-Construal and Avoidance of Similarity, a mediation analysis will be conducted using PROCESS Macro.

Table 5.2.6.1. Mediation Analysis: Model, Model Summary and Std. Coefficients Model for Independent Variable Independent Self Construal

OUTCOME VARIABLE:
AICusExp

Model Summary

R	R-sq	MSE	F	df1	df2	p
0.678	0.460	0.358	201.455	1.000	237.000	0.000

Model

	coeff	se	t	p	LLCI	ULCI
constant	2.059	0.033	173.798	0.000	5.724	5.855

OUTCOME VARIABLE:
AICusExp

Model

	coeff	se	t	p	LLCI	ULCI
IndSefCo	0.205	0.033	6.219	0.000	0.140	0.269

Standardized coefficients

	coeff
IndSefCo	0.678

Source: Author's creation based on SPSS outputs

On Table 5.2.6.1., it is disclosed that the direct effect between the predictor variable Independent Self Construal (P-value = 0.000) and the outcome variable AI-Enabled Customer Experience is significant since P-value ≤ 0.05.

Table 5.2.6.2. Mediation Analysis: Model, Model Summary and Std. Coefficients Model for Independent Variable Independent Self Construal and Avoidance of Similarity

OUTCOME VARIABLE:

AvoidSim

Model Summary

R	R-sq	MSE	F	df1	df2	p
0.433	0.188	0.928	27.287	2.000	236.000	0.000

Model

	coeff	se	t	p	LLCI	ULCI
constant	0.843	0.484	1.743	0.083	-0.110	1.797
IndSefCo	0.672	0.104	6.451	0.000	0.137	0.878
AICusExp	-0.181	0.105	-1.725	0.086	0.140	0.026

Standardized coefficients

	coeff
IndSefCo	0,515
AICusExp	-0.138

Source: Author's creation based on SPSS outputs

On Table 5.2.6.2., it is showed that the effect between the predictor Independent Self Construal (P-value = 0.000) on the outcome Avoidance of Similarity is significant (P-value ≤ 0.05) but the effect between predictor AI-Enabled Customer Experience (P-value = 0.086) on the outcome Avoidance of Similarity is not significant (P-value > 0.05).

Table 5.2.6.3. Mediation Analysis: Total, Direct, and Indirect effects of X on Y for Independent Variable Independent Self Construal and Avoidance of Similarity

TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y

Indirect effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
AICusExp	-0.122	0.102	-0.337	0.066

Completely standardized indirect effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
AICusExp	-0.093	0.079	-0.257	0.051

Source: Author's creation based on SPSS outputs

Accordingly, the indirect effect of X on Y via mediator variable M with a negative point effect is calculated at -0.122 (see Table 5.2.6.3.).

The mediation analysis indicates that, on the mediation model, paths A and C are significant, but path B is not significant meaning AI-Enabled Customer Experience does not work as a mediator in the relationship between Independent Self-Construal and Avoidance of Similarity.

5.2.7. Common Method Bias

Lastly, Harman's one-factor test for common method bias was conducted to analyse if the results were not contaminated by the 'noise' stemming from the biased instruments. If the total variance extracted by one factor exceeds 50%, common method bias is present in the study.

Looking at table set in Appendix E, where the blue colour markers are present, the percentage of variance is 40.85%. On the second test, the blue colour markers were excluded, and the percentage of variance increased to 42.06% (table set in Appendix F). Both percentages are under 50%, which means there is no issue with common method bias in the data of this study since the total variance extracted by one factor was less than the recommended threshold of 50%.

5.3. Discussion

The present study was developed to determine how, in a customer experience empowered by AI, attachment and an independent view of the self influence the loss of interest in, or discontinued use of, beauty products that become commonplace to consumers that want to re-establish their differentness. Through a sample of 239 participants, it was possible to obtain the results presented above, to address the main questions of the research, and to achieve the proposed objectives in the conceptual model and hypotheses (see Chapter 3). The results of the study will be discussed in the following paragraphs.

Regarding the Descriptive Statistics, the most important insights to be extracted are related to the constructs with the highest and lowest rate of agreement (mean) of respondents. The construct with the highest mean is Brand Attachment, with a value of 8.62 meaning this construct presented the highest agreement rate in the respondents' answers. However, this construct has a Standard Deviation value of 1.62, the biggest of all the constructs. This means this construct had the highest level of disparity between responses. This means that, despite respondents being attached to the brand L'Oréal Paris, the responses to each item were not similar among participants, possible because each participant 'feels' the brand differently. In contrast, Avoidance of Similarity has the lowest agreement rate of 3.55 meaning this construct presented the highest disagreement rate among participants' answers which express that

there's a significant differentiation between those who avoid products because they are commonplace and those who do not. As for the lowest Standard Deviation, it goes to AI-Enabled Customer Experience meaning this construct had the lowest level of disparity between responses meaning participants feel more or less the same when using AI technology. In the next paragraphs the relationship among the variables under study will be explained in detail.

From the linear regression, it was established that there is a positive and direct impact of Emotional Attachment on AI-Enabled Customer Experience (P-value ≤ 0.05), which means the hypothesis H1a is valid. Although consumers interact with thousands of brands in their lifetime, they only develop an intense emotional attachment to a small subset of these (Schouten & McAlexander, 1995). The attachment theory in psychology (Bowlby, 1979) suggests that the degree of emotional attachment to an object predicts the nature of an individual's interaction with the object: individuals with stronger attachments to a brand are more invested, thus, are more willing to devote resources to undergoing the shopping experience (powered by AI) offered by the brand. Since there is a strong emotional attachment from the consumers to the brand L'Oréal Paris, consumers are keener on committing to the AI-enabled experience offered by L'Oréal Paris, that is, the use of L'Oréal Paris Skin Genius during their shopping experience

Also from the linear regression, it was recognized that there is a positive and direct impact of Brand Attachment on AI-Enabled Customer Experience (P-value ≤ 0.05), which means the hypothesis H1b is valid. Self-expansion theory (Aron *et al*. 2005) suggests that people possess an inherent motivation for self-expansion, or a desire to incorporate brands into their conception of "self." The more attached a person is to the brand, the more likely he or she is to move from an egocentric to a more reciprocal brand relationship that involves sharing resources. As such, consumers who are highly attached to a brand treat it preferentially and engage in restorative behaviours that ensure brand relationship continuation (Aron *et al.*, 1992; Aron *et al*. 2005; Mikulincer, 1998). Since there is a strong connection between the brand L'Oréal and its consumers, they actively invest their own resources to maintain this relationship thus, they are more willing to invest in the AI-enabled experience provided by L'Oréal Paris, that is the use of L'Oréal Paris Skin Genius during their shopping experience.

Since there was a positive relationship between Emotional Attachment and AI Enabled Customer Experience, a moderation analysis was calculated in SPSS with PROCESS macro extension. This test showed that the P-values for Emotional Attachment and Intimate Knowledge are significant (P-value ≤ 0.05) but Intercept (Int_1) is not significant which means that Intimate Knowledge does not work as a moderator for the relationship between Emotional Attachment and AI-Enabled Customer Experience, rejecting the hypothesis H2a. This

proposes that intimately knowing the object and creating a feeling of ownership towards it does not reinforce the AI experience provided by L'Oréal Paris. However, when the same test is applied to the construct Brand Attachment, it was disclosed that all P-values for Brand Attachment, Intimate Knowledge and Intercept are significant, making the hypothesis H2b valid. An individual who gets to know the product intimately, in this case the AI tool L'Oréal Paris Skin Genius, establishes a relationship with the brand. Since, consumers who are emotionally attached are also likely to have a favourable attitude toward the brand and are generally committed to preserving their relationship (Miller, 1997), it is possible to conclude Intimate Knowledge works as a moderator for the relationship between Brand Attachment and AI-Enabled Customer Experience, reinforcing the customer experience empowered by AI.

To evaluate the effect of Independent Self Construal on Avoidance of Similarity a linear regression was conducted. From this test, it was revealed that there is a positive and direct impact of Independent Self Construal on Avoidance of Similarity (P-value ≤ 0.05), which makes the hypothesis H3 valid. When thinking about themselves, individuals with highly developed independent self-construals will have as reference their own abilities, attributes, characteristics, or goals rather than referring to the thoughts, feelings, or actions of others (Markus & Kitayama, 1991), gaining self-esteem through expressing themselves and validating their internal attributes. Accordingly, these consumers want to establish their uniqueness which makes them skip on products that become commonplace in order to depart from the norm and re-establish their differentness (Tian *et al.*, 2001).

Since there was a positive relationship between Independent Self Construal on Avoidance of Similarity, a mediation analysis was calculated in SPSS with PROCESS macro extension. Conclusions of the test dictate that the effect between predictor Independent Self Construal (P-value = 0.000) on the outcome Avoidance of Similarity is significant (P-value ≤ 0.05) but the effect between predictor AI Customer Experience (P-value = 0.086) on the outcome Avoidance of Similarity is not significant. This rejects the fourth and last hypothesis H4: the shopping experience empowered by AI does not reinforce the consumers' need to be unique over the devaluation and avoidance of L'Oréal's products that are perceived as commonplace. The 'new' way of experiencing shopping with the use of AI tools will not change consumer's perception: those who hold an independent view of the self will continue to look for uniqueness and separateness on the products they consume. However, this does not necessarily mean AI tools are not relevant to the shopping experience. In fact, it might be the contrary. People that hold an independent view of the self tend to emphasize their internal attributes, thoughts, and feelings (Markus & Kitayama, 1991). With Artificial Intelligent being integrated in the shopping experience, costumers will be exposed to personalized products and tailored recommendations that will fit the unique individual, nurturing the customer's need to distance himself from the norm. Also, they will have the possibility of doing their shopping

autonomously without having the need to interact with an assistant or employee. Hence, customers will feel satisfied and valued, while the brand will be capable of addressing their needs and meeting their expectations.

Lastly, Harman's one-factor test for common method bias was conducted to analyse if the results were not contaminated by the 'noise' stemming from the biased instruments. It was proven there was no issue with common method bias in the data of this study since the total variance extracted by one factor was less than the recommended threshold of 50% on both tests.

5.4. Theoretical Contributions

The major theoretical contributions of the present study are to the research area of Artificial Intelligence in the field of shopping experience. The study of the interaction between humans and AI has several antecedents in multiple fields, however, the present research brings some theoretical contributions to consider.

The concepts of Intimate Knowledge and Attachment were for the first time studied together as reinforces of the shopping experience empowered by AI, considering not consumers and brands in general, but rather humans and a particular AI-powered beauty tool, a technology that delivers hyper-personalised beauty experiences to consumers, providing education and guiding throughout their shopping journey.

The relationship studied between Emotional Attachment, Brand Attachment and AI-Enabled Customer Experience comes as a confirmation of how an individual with strong attachment to an established brand is willing to spend his resources in new experiences provided by the brand. These first two variables can work as key measurements for brands to test the level consumers will dedicate to interacting and learning about a new experience that employs emerging technologies. Since these are relatively new, a good relationship between the consumer and the brand is essential as, at the beginning, consumers will find the technology unfamiliar and therefore will need incentives to spend their resources with it.

From this study, it was also concluded that intimately knowing the product reinforces the shopping experience empowered by AI when there is a strong link connecting the brand and the consumer. Consumers who are emotionally attached to a brand are likely to have a favourable attitude toward it and are generally committed to preserving their relationship (Miller, 1997). Accordingly, it was proven that knowing the product intimately, and establish a feeling of ownness, reinforced the shopping experience powered by AI.

As expected, consumers' perception of an independent self that wants to be different and unique from others has a direct impact on the avoidance of products that are perceived as commonplace, as it devalues their status of having a unique lifestyle. On the other hand,

however, it was proven the use of AI does not interfere with these circumstances: for individuals that perceive themselves as independent, the AI enabled shopping experience do not dissuade them from skipping on products that do not reinforce their uniqueness and social status. This might be a turning point for the brand not to (re)introduce a product that is already 'famous' on the mainstream but rather help personalize and customise consumers' journey, offering a unique experience.

5.5. Managerial Implications

From this study, two important practical implications need to be considered. From the retail point of view, it was confirmed, as proposed many times by several researchers in different industries, that creating a positive and solid relationship with consumers is critical for having their acceptance and willingness to sacrifice their resources into being opened to learn and educate themselves on new experiences provided by the brand. Without this relationship, consumers will be more reluctant to give it a try and commit to the new technological approaches since they will be unfamiliar with the technology. This means brands must ensure they nurture their relationship with consumers regularly and ensure they educate their audience on the portfolio of technological tools employed in the different channels. This awareness guarantee, on one side, consumers will keep pace with the brand's journey, and, on the other side, the brand remains top-of-mind in the large ocean of offers that are now available to consumers.

Also, it was confirmed that a shopping experience powered by AI does not change consumers' perception of avoiding commonplace products to maintain their differentness. This means independent consumers will still look for a spark of uniqueness in a brand portfolio. Artificial intelligence is one of the main disruptive technologies that enables machines to mimic human cognitive and affective functions essential for performing intellectual tasks (De Bruyn *et al.*, 2020) based on past experiences and existing knowledge (Wirth, 2018). As so, brands must deploy AI tools to hoop on the already recognized need for differentiation, creating hyper-personalised, high-level online experiences that will serve customers in any channel they prefer to shop. The pandemic has been a catalyst for brands to adopt and implement these digital experiences so one should not miss the momentum.

6. Conclusions and Recommendations

This dissertation aimed to answer two large research questions: 1) does the relationship between a consumer and a beauty brand impacts consumer's willingness to experiment with new ways of shopping, powered by AI, and 2) does a shopping experience powered by AI reinforces the uniqueness desired by consumers who perceive themselves as independent? As so, an original conceptual framework was developed to map and clarify how, in a customer experience powered by AI, attachment and an independent view of the self, influence the loss of interest in, or discontinued use of, beauty products that become commonplace to consumers that want to re-establish their differentness.

The beauty industry has been evolving throughout the past decade essentially due to the deployment of new technologies into business models so they can meet the always-evolving consumers' expectations (Vieira, 2020). As so, AI is gaining ground in the beauty sector, offering new ways of engaging with consumers and bringing efficiency and tailored solutions to the beauty client. Both online and offline, beauty companies have been integrating advanced technologies to stay competitive in the market and to find opportunities to improve their shopping experiences, expecting results not only in sales but also in process efficiency (Vieira, 2020).

It is also important to mention that the last three years were marked by uncertainty with the Convid-19 pandemic impacting every sector. The beauty industry was no exception and brands had to push the creation and adoption of tools that would allow customers to still experience shopping but in the safety of their homes. As so, having shopping experiences powered by new technologies is, more than ever, a reality that must be studied and understood. Despite being a world crisis, it was an opportunity for beauty brands to increase their investment in digital solutions to fill in this gap (Vieira, 2020) since all the related AI mechanisms offer clear advantages in this domain, exploring new e-commerce solutions and online engaging experiences.

The extensive research in this study made it possible to draw some conclusions intrinsically related to the originally proposed framework. The relationship studied between Emotional Attachment, Brand Attachment and AI-Enabled Customer Experience comes as a confirmation of how a customer with a solid relationship with a brand is willing to sacrifice their resources (e.g., time and money) to learn and engage in new experiences and concepts delivered by the brand. Additionally, intimately knowing the product, and developing a sense of ownership, in a customer who has an emotional link with the brand, reinforces the positive aspect of a shopping experience powered by AI.

From this study, it was also reassured that, as expected, the need to be unique makes consumers skip products that are perceived as common. Since independent individuals look for a lifestyle that reflects uniqueness and differentiation, they are not interested in consuming goods that are commonly used by the mainstream; they depart from the norm and re-establish their differentness. However, it was proven that a shopping experience powered by AI does not change consumers' perception of avoiding commonplace products to maintain one's differentness. This does not necessarily mean that AI is not relevant to the shopping experience. In fact, it might be the contrary as the use of AI tools allows the creation of ultra-personalized shopping experiences that fit the unique individual. Customers will feel valued as their needs are met and brands will be able to generate value by meeting expectations.

Despite these contributions to the scarcely available literature, there are limitations to this research. It is an emergent topic which is constantly changing due to market oscillations regarding consumer needs and technological evolvement. AI offers multiple advantages but there is still an opportunity to grow. Further questions for research could be, for instance: will beauty companies base their decision-making only on AI outputs? Will the beauty stores eventually disappear making the shopping experience online-only? Will AI-enabled brand experiences improve so much that they will weigh as much as product portfolio on brand attachment to independent individuals' choice?

Limitations and Further Research suggestions

This study is among the first to focus on how, in a customer experience empowered by AI, attachment and an independent view of the self might influence the loss of interest in, or discontinued use of, beauty products that become commonplace to consumers that want to re-establish their differentness. Researchers are encouraged to conduct further interdisciplinary studies to examine additional factors that have the potential to provide an even more nuanced perspective on the success factors of AI-enabled services among different consumer segments and in a cross-national context.

Data was collected based on 239 responses which were included in the analysis. Future research can collect and analyse data using a larger sample size to increase the opportunity of generalising the findings. Additionally, this sample only considered North American beauty users. To address potential cultural differences, future research might apply the given model in other cultural environments to draw a more comprehensive picture of consumer experience empowered by AI. The consumption of these devices is growing worldwide, namely in Europe. Thus, it is recommended that future research considers extending the study to other countries, with different cultures and economic realities.

This study focuses on customers using the AI-enabled services of one pioneering brand in the beauty industry – L'Oréal Paris. Future studies could also investigate different retailers and even different industries.

While this research identifies critical success factors of AI-enabled customer experiences from the perspective of consumers, future studies should consider how each of these success factors can and should be implemented within a retail organisation.

Finally, investigating the ethics and security of AI technology from a consumer perspective provides additional opportunities for future research.

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8. Appendixes

Appendix A. Questionnaire

L'Oreal Paris Skin Genius || AI Skin Analysis Tool

This questionnaire was developed to collect information for a dissertation in the scope of the master's in Marketing at ISCTE. The goal is to understand how the use of artificial intelligence (AI) in the Consumer Experience affects Consumer Engagement with Beauty Companies.

The questionnaire should only take around 9 minutes to complete. Individual responses will never be known, as the analysis we will make is of all individuals together. Please read each question carefully and answer honestly and sincerely.

Thank you very much for taking your time and assisting me with this research!

If you have any questions, you can send an e-mail to: laurasofiamarques@gmail.com

Section 1
Do you know the brand L'Oreal Paris?

- □ Yes
- □ No

Do you know L'Oreal Paris 'Skin Genius' AI Tool?

- □ Yes
- □ No

Have you ever used L'Oreal Paris 'Skin Genius' AI Tool?

- □ Yes
- □ No

Section 2

To what extent is L'Oréal Paris part of you and who you are?

Not at All (0)	1	2	3	4	5	6	7	8	9	Completely (10)
□	□	□	□	□	□	□	□	□	□	□

To what extent do you feel personally connected to L'Oréal Paris?

Not at All (0)	1	2	3	4	5	6	7	8	9	Completely (10)
□	□	□	□	□	□	□	□	□	□	□

To what extent do you feel emotionally bonded to L'Oréal Paris?

Not at All (0)	1	2	3	4	5	6	7	8	9	Completely (10)

□ □ □ □ □ □ □ □ □ □ □

To what extent is L’Oréal Paris part of you?

Not at All (0)	1	2	3	4	5	6	7	8	9	Completely (10)
□	□	□	□	□	□	□	□	□	□	□

To what extent does L’Oréal Paris say something to other people about who you are?

Not at All (0)	1	2	3	4	5	6	7	8	9	Completely (10)
□	□	□	□	□	□	□	□	□	□	□

To what extent does the word L’Oréal Paris automatically evoke many good thoughts about the past, present, and future?

Not at All (0)	1	2	3	4	5	6	7	8	9	Completely (10)
□	□	□	□	□	□	□	□	□	□	□

To what extent to you have many thoughts about L’Oréal Paris?

Not at All (0)	1	2	3	4	5	6	7	8	9	Completely (10)
□	□	□	□	□	□	□	□	□	□	□

To what extent are your thoughts and feelings toward L’Oréal Paris often automatic, coming to mind seemingly on their own?

Not at All (0)	1	2	3	4	5	6	7	8	9	Completely (10)
□	□	□	□	□	□	□	□	□	□	□

To what extent do your thoughts and feelings toward L’Oréal Paris come to your mind naturally and instantly?

Not at All (0)	1	2	3	4	5	6	7	8	9	Completely (10)
□	□	□	□	□	□	□	□	□	□	□

To what extent do your thoughts and feelings toward L’Oréal Paris come to mind so naturally and instantly that you don’t have much control over them?

Not at All (0)	1	2	3	4	5	6	7	8	9	Completely (10)
□	□	□	□	□	□	□	□	□	□	□

Section 3

Towards L'Oréal Paris I feel…

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
Affectionate	□	□	□	□	□	□	□
Friendly	□	□	□	□	□	□	□
Loved	□	□	□	□	□	□	□
Peaceful	□	□	□	□	□	□	□
Passionate	□	□	□	□	□	□	□
Delighted	□	□	□	□	□	□	□
Captivated	□	□	□	□	□	□	□
Connected	□	□	□	□	□	□	□
Bonded	□	□	□	□	□	□	□
Attached	□	□	□	□	□	□	□

Section 4

I am intimately familiar with L'Oréal' Skin Genius service.

Strongly disagree	Somewhat agree	Disagree	Agree	Somewhat disagree	Strongly agree	Neither agree nor disagree
□	□	□	□	□	□	□

I have a depth of knowledge as it relates to L'Oréal' Skin Genius service.

Strongly disagree	Somewhat agree	Disagree	Agree	Somewhat disagree	Strongly agree	Neither agree nor disagree
□	□	□	□	□	□	□

I have a comprehensive understanding of L'Oréal' Skin Genius service's features.

Strongly disagree	Somewhat agree	Disagree	Agree	Somewhat disagree	Strongly agree	Neither agree nor disagree
□	□	□	□	□	□	□

I have a broad understanding of L'Oréal' Skin Genius service.

Strongly disagree	Somewhat agree	Disagree	Agree	Somewhat disagree	Strongly agree	Neither agree nor disagree
□	□	□	□	□	□	□

Section 5

Using L'Óreal Skin Genius technology is…

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
Memorable	□	□	□	□	□	□	□
Entertaining	□	□	□	□	□	□	□
Exciting	□	□	□	□	□	□	□
Conforting	□	□	□	□	□	□	□
Educational	□	□	□	□	□	□	□

When using L'Óreal Skin Genius technology, I feel…

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
Important	□	□	□	□	□	□	□
Respected	□	□	□	□	□	□	□
Welcomed	□	□	□	□	□	□	□
Safe	□	□	□	□	□	□	□
A sense of beauty	□	□	□	□	□	□	□

Section 6

When L'Oréal's AI Beauty Services I like become extremely popular, I lose interest in them.

Strongly disagree	Agree	Disagree	Strongly agree	Neither agree nor disagree
□	□	□	□	□

I avoid L'Oréal's AI Beauty Services that have already been accepted and used by the average consumer.

Strongly disagree	Agree	Disagree	Strongly agree	Neither agree nor disagree
□	□	□	□	□

When a L'Oréal's AI Beauty Service I own becomes popular among the general population, I begin using it less.

Strongly disagree	Agree	Disagree	Strongly agree	Neither agree nor disagree
□	□	□	□	□

I often try to avoid L'Oréal's AI Beauty Services or other similar that I know are used by the general population.

Strongly disagree	Agree	Disagree	Strongly agree	Neither agree nor disagree
□	□	□	□	□

As a rule, I dislike L'Oréal's AI Beauty Services that are customarily used by everyone.

Strongly disagree	Agree	Disagree	Strongly agree	Neither agree nor disagree
□	□	□	□	□

I give up on using L'Oréal's AI Beauty Services or similar once they become popular among the general public.

Strongly disagree	Agree	Disagree	Strongly agree	Neither agree nor disagree
□	□	□	□	□

The more commonplace a L'Oréal's AI Beauty Services are among the general population, the less interested I am in using it.

Strongly disagree	Agree	Disagree	Strongly agree	Neither agree nor disagree
□	□	□	□	□

L'Oréal's AI Beauty Services don't seem to hold much value for me when they are used regularly by everyone.

Strongly disagree	Agree	Disagree	Strongly agree	Neither agree nor disagree
□	□	□	□	□

When a L'Oréal's AI Beauty Services I own becomes too commonplace, I usually quit using it.

Strongly disagree	Agree	Disagree	Strongly agree	Neither agree nor disagree
□	□	□	□	□

Section 7

I'd rather say "no" directly, than risk being misunderstood.

Strongly disagree	Somewhat agree	Disagree	Agree	Somewhat disagree	Strongly agree	Neither agree nor disagree
□	□	□	□	□	□	□

Speaking up during a reunion is not a problem for me.

Strongly disagree	Somewhat agree	Disagree	Agree	Somewhat disagree	Strongly agree	Neither agree nor disagree
□	□	□	□	□	□	□

Having a lively imagination is important to me.

Strongly disagree	Somewhat agree	Disagree	Agree	Somewhat disagree	Strongly agree	Neither agree nor disagree
□	□	□	□	□	□	□

I'm comfortable with being singled out for praise or rewards.

Strongly disagree	Somewhat agree	Disagree	Agree	Somewhat disagree	Strongly agree	Neither agree nor disagree
□	□	□	□	□	□	□

I'm the same person at home that I'm at work.

Strongly disagree	Somewhat agree	Disagree	Agree	Somewhat disagree	Strongly agree	Neither agree nor disagree
□	□	□	□	□	□	□

Being able to take care of myself is a primary concern for me.

Strongly disagree	Somewhat agree	Disagree	Agree	Somewhat disagree	Strongly agree	Neither agree nor disagree
□	□	□	□	□	□	□

I act the same way no matter who I am with.

Strongly disagree	Somewhat agree	Disagree	Agree	Somewhat disagree	Strongly agree	Neither agree nor disagree
□	□	□	□	□	□	□

I feel comfortable using someone's first name soon after I meet them, even when they are much older than I am.

Strongly disagree	Somewhat agree	Disagree	Agree	Somewhat disagree	Strongly agree	Neither agree nor disagree
□	□	□	□	□	□	□

I prefer to be direct and forthright when dealing with people I've just met.

Strongly disagree	Somewhat agree	Disagree	Agree	Somewhat disagree	Strongly agree	Neither agree nor disagree
□	□	□	□	□	□	□

I enjoy being unique and different from others in many respects.

Strongly disagree	Somewhat agree	Disagree	Agree	Somewhat disagree	Strongly agree	Neither agree nor disagree
□	□	□	□	□	□	□

My personal identity independent of others, is very important.

Strongly disagree	Somewhat agree	Disagree	Agree	Somewhat disagree	Strongly agree	Neither agree nor disagree
□	□	□	□	□	□	□

I value being in a good health above everything.

Strongly disagree	Somewhat agree	Disagree	Agree	Somewhat disagree	Strongly agree	Neither agree nor disagree
□	□	□	□	□	□	□

I like the blue color.

Strongly disagree	Somewhat agree	Disagree	Agree	Somewhat disagree	Strongly agree	Neither agree nor disagree
□	□	□	□	□	□	□

The blue color is nice.

Strongly disagree	Somewhat agree	Disagree	Agree	Somewhat disagree	Strongly agree	Neither agree nor disagree
□	□	□	□	□	□	□

I love the blue color.

Strongly disagree	Somewhat agree	Disagree	Agree	Somewhat disagree	Strongly agree	Neither agree nor disagree
□	□	□	□	□	□	□

I hope to buy a car in blue color.

Strongly disagree	Somewhat agree	Disagree	Agree	Somewhat disagree	Strongly agree	Neither agree nor disagree
□	□	□	□	□	□	□

Section 8

What's your gender?

- □ Male
- □ Female
- □ Other
- □ Prefer not to say

How old are you?

- □ Under 18
- □ 18 - 24
- □ 25 - 34
- □ 35 - 44
- □ 45 - 54
- □ 55 or older

What is your current employment status?

- Student
- Working student
- Employed full-time
- Employed part-time
- Self-employed
- Seeking opportunities
- Retired
- Prefer not to say

Thank you for participating.

Your validation code is: loreal99

Appendix B. Descriptive Statistics of the Sample: Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	107	44.6	44.8	44.8
	Female	132	55	55.2	100
	Total	239	99.6	100	
Missing	System	1	0,4		
Total		240	100		

Source: Author's creation based on SPSS outputs

Appendix C. Descriptive Statistics of the Sample: Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18-24	11	4.6	4.6	4.6
	25-34	122	50.8	51	55.6
	35-44	70	29.2	29.3	84.9
	45-54	19	7.9	7.9	92.9
	55 or older	17	7.1	7.1	100.0
	Total	239	99.6	100	
Missing	System	1	0.4		
Total		240	100		

Source: Author's creation based on SPSS outputs

Appendix D. Descriptive Statistics of the Sample: Employment Status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Student	3	1.3	1.3	1.3
	Working student	4	1.7	1.7	2.9
	Employed full-time	201	83.8	84.1	87
	Employed part-time	11	4.6	4.6	91.6
	Self-employed	9	3.8	3.8	95.4
	Seeking opportunities	5	2.1	2.1	97.5
	Retired	4	1.7	1.7	99.2
	Prefer not to say	2	0.8	0.8	100
	Total	239	99.6	100	
Missing	System	1	0.4		
Total		240	100		

Source: Author's creation based on SPSS outputs

Appendix E. Total Variance Explained with Blue Colour Markers

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	24.102	40.851	40.851	24.102	40.851	40.851
2	6.754	11.447	52.298			
3	3.659	6.202	58.501			
4	1.776	3.009	61.51			
5	1.522	2.579	64.089			
6	1.303	2.208	66.298			
7	1.166	1.977	68.274			
8	1.034	1.753	70.027			
9	0.867	1.47	71.497			
10	0.818	1.386	72.883			
11	0.768	1.302	74.185			
12	0.741	1.256	75.441			
13	0.697	1.182	76.624			
14	0.681	1.154	77.778			
15	0.656	1.111	78.889			
16	0.613	1.038	79.927			
17	0.605	1.026	80.953			
18	0.575	0.974	81.927			
19	0.549	0.93	82.857			
20	0.531	0.9	83.757			
21	0.513	0.87	84.627			
22	0.481	0.815	85.442			
23	0.454	0.769	86.211			
24	0.43	0.729	86.94			

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
25	0.409	0.693	87.634			
26	0.398	0.675	88.309			
27	0.396	0.671	88.98			
28	0.381	0.645	89.625			
29	0.363	0.615	90.24			
30	0.357	0.606	90.846			
31	0.333	0.565	91.411			
32	0.302	0.511	91.922			
33	0.297	0.503	92.426			
34	0.289	0.491	92.916			
35	0.284	0.482	93.398			
36	0.272	0.461	93.859			
37	0.271	0.459	94.317			
38	0.253	0.429	94.746			
39	0.226	0.382	95.129			
40	0.219	0.372	95.5			
41	0.215	0.364	95.864			
42	0.203	0.344	96.208			
43	0.188	0.319	96.527			
44	0.183	0.31	96.837			
45	0.177	0.301	97.138			
46	0.17	0.287	97.425			
47	0.163	0.276	97.701			
48	0.162	0.275	97.976			
49	0.149	0.252	98.228			
50	0.144	0.244	98.472			
51	0.133	0.225	98.697			
52	0.127	0.215	98.912			
53	0.115	0.195	99.108			
54	0.11	0.186	99.294			
55	0.097	0.165	99.458			
56	0.092	0.155	99.613			
57	0.085	0.144	99.758			
58	0.075	0.128	99.885			
59	0.068	0.115	100			

Extraction Method: Principal Component Analysis.

Source: Author's creation based on SPSS outputs

Appendix F. Total Variance Explained without Blue Colour Markers

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	23.133	42.06	42.06	23.133	42.06	42.06
2	6.707	12.195	54.256			
3	3.221	5.856	60.112			
4	1.603	2.915	63.027			
5	1.289	2.344	65.371			
6	1.177	2.139	67.51			
7	1.043	1.896	69.406			
8	0.874	1.589	70.995			
9	0.811	1.475	72.47			
10	0.763	1.388	73.858			
11	0.698	1.27	75.128			
12	0.686	1.247	76.375			
13	0.666	1.211	77.585			
14	0.644	1.171	78.756			
15	0.604	1.098	79.855			
16	0.591	1.074	80.928			
17	0.581	1.057	81.985			
18	0.526	0.956	82.941			
19	0.511	0.93	83.871			
20	0.479	0.872	84.742			
21	0.454	0.825	85.567			
22	0.43	0.782	86.349			
23	0.429	0.779	87.128			
24	0.411	0.746	87.874			
25	0.397	0.722	88.596			
26	0.389	0.707	89.303			
27	0.369	0.671	89.974			
28	0.361	0.656	90.63			
29	0.331	0.601	91.231			
30	0.321	0.583	91.815			
31	0.302	0.549	92.363			
32	0.293	0.533	92.896			
33	0.284	0.517	93.413			
34	0.278	0.506	93.919			
35	0.258	0.469	94.388			
36	0.25	0.454	94.843			
37	0.239	0.434	95.277			
38	0.225	0.408	95.685			
39	0.209	0.38	96.066			
40	0.203	0.369	96.435			
41	0.188	0.342	96.777			

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
42	0.183	0.333	97.111			
43	0.178	0.323	97.433			
44	0.166	0.301	97.734			
45	0.155	0.281	98.015			
46	0.154	0.280	98.295			
47	0.138	0.251	98.546			
48	0.133	0.243	98.789			
49	0.122	0.221	99.010			
50	0.111	0.201	99.211			
51	0.100	0.181	99.392			
52	0.093	0.168	99.560			
53	0.087	0.158	99.719			
54	0.085	0.154	99.872			
55	0.070	0.128	100.000			

Extraction Method: Principal Component Analysis.

Source: Author's creation based on SPSS outputs