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Consumer Adoption of Innovation:

The impact of AI on E-satisfaction in the Cosmetic Sector with a focus on GenZ consumers

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ABSTRACT

Title: Consumer Adoption of Innovation: The impact of AI on E-satisfaction in the Cosmetic Sector with a focus on GenZ consumers

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In the highly competitive landscape of the cosmetic industry, the shift towards valuing the entire shopping experience has become paramount. Brands are forced to build interactive relationships with their consumers, which requires a new way of strategic thinking.
The rise of AI brings new opportunities to address this change. In fact, the integration of AI into E-commerce, is setting new standards of consumer expectations towards their shopping experience and shapes their E-satisfaction.
As digital natives, GenZ represents an important demographic population for analyzing the acceptance of AI, and consequently the impact of AI on GenZ's E-satisfaction when shopping online for cosmetics.

Through a comprehensive literature review on the topics of AI, marketing, shopping experience, and E-satisfaction, hypotheses were formulated, and variables were identified to form the basis of our conceptual framework.
A mono-method approach was chosen in which primary data was collected from 168 valid GenZ respondents via an online survey. Descriptive statistics and statistical tests (simple and multiple linear regression) using SPSS, were conducted to identify the variables impacting GenZs E-satisfaction.

The results indicate a positive correlation between the use of AI and GenZ E-satisfaction, especially in hedonic online shopping contexts where personalization promotes the inclusivity of cosmetic brands. In addition, the study shows a positive impact of AI on GenZ's emotions during the online shopping experience.
Overall, these findings provide important insights into the evolving landscape of online cosmetics shopping and underscore the need for brands to revise their strategies to provide experiences that go beyond the product's offering.

Keywords: *Artificial Intelligence (AI), Innovation, Consumer Behavior, Customer Centricity, Cosmetic Industry, Shopping Experience, E-satisfaction, GenerationZ (GenZ*

SUMÁRIO

Título: Adoção da inovação pelo consumidor: O impacto da IA na satisfação eletrônica no setor de cosméticos com foco nos consumidores da GenZ

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No panorama altamente competitivo da indústria cosmética, a mudança no sentido de valorizar toda a experiência de compra tornou-se primordial. As marcas são obrigadas a construir relações interactivas com os seus consumidores, o que exige uma nova forma de pensamento estratégico.
A ascensão da IA traz novas oportunidades para abordar esta mudança. De facto, a integração da IA no comércio eletrónico está a estabelecer novos padrões de expectativas dos consumidores em relação à sua experiência de compra e a moldar a sua satisfação com o comércio eletrónico.
Enquanto nativos digitais, a Geração Z representa uma população importante para analisar a aceitação da IA e, consequentemente, o impacto da IA na "E-satisfação" da Geração Z relativamente às compras online de cosméticos.

Através de uma revisão exaustiva da literatura sobre os temas da IA, marketing, experiência de compra e satisfação com o comércio eletrónico (E-satisfação), foram formuladas hipóteses e identificadas variáveis que constituem a base do nosso quadro concetual.
Optou-se por uma abordagem mono-método em que foram recolhidos dados primários de 168 inquiridos da GenZ através de um inquérito online. Foram realizadas estatísticas descritivas e testes estatísticos (regressão linear simples e múltipla) utilizando o SPSS, para identificar as variáveis com impacto na "satisfação eletrónica" dos GenZ.

Os resultados indicam uma correlação positiva entre a utilização da IA e a satisfação eletrónica da Geração Z, especialmente em contextos hedónicos de compras online em que a

personalização promove a inclusão de marcas de cosméticos. Além disso, o estudo mostra um impacto positivo da IA nas emoções da Geração Z durante a experiência de compra online. De um modo geral, estas conclusões fornecem informações importantes sobre a evolução do panorama das compras de cosméticos online e sublinham a necessidade de as marcas reverem as suas estratégias para proporcionar experiências que vão para além da oferta do produto.

Palavras-chave: *Inteligência Artificial (IA), Inovação, Comportamento do Consumidor, Centralidade do Cliente, Indústria Cosmética, Experiência de Compra, E-satisfação, GeraçãoZ (GenZ)*

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CHAPTER 1: INTRODUCTION

1.1 Background

The inauguration of innovations represents a central phenomenon in today's dynamic era of modern consumer behavior. An innovation is defined as “a new product, service, idea, or behavior that reinvents and deviates from pre-existing norms and leads to increased firm performance” (Rogers, 1998).
On the other hand, the process of adoption represents consumers’ willingness to accept innovation, including if they integrate it into their daily lives and how it shapes their preferences and purchase decisions (Bawack, 2022).

In the field of marketing, this understanding of consumer adoption is fundamental. To remain competitive in the marketplace, marketers must create consumer-centric business strategies to introduce innovations that accurately appeal to the target audience and enhance satisfaction (Philpot, 2024). Heed, research conducted by Deloitte and Touche found that customer-centric companies have 60% higher profits than non-customer-centric companies (Grimm, F. et al, 2017).

Customer centricity places the customer at the center of all decisions regarding the delivery of products, services, and experiences and requires that organizations understand the situation, perceptions, and expectations of their customers. Thus, customer satisfaction will be encouraged in the long term (Gartner Marketing Glossary, n.d.). Therefore, the success of introducing an innovation is dependent on fundamentally understanding consumers' needs and preferences, as well as the factors that lead to satisfaction. Marketers need to analyze exactly why, how, and to what extent the target audience adopts an innovation before launching it on the market (Bawack, 2022).

Besides physical products, today's consumers want memorable experiences when shopping online (Pine & Gilmore, 2013). And in the world of E-commerce, customers experience products or services through visual and verbal stimuli on the website (Lemon & Verhoef, 2016).
Innovative technologies such as Artificial Intelligence (AI) can nowadays enhance the entire E-commerce experience by providing those stimuli to customers. Furthermore, AI acts as a

two-sided engagement tool. On the business side, AI enables the compression and optimization of large data sets and thus optimizes customer-centric strategies and marketing performance. On the consumer side, AI enables direct interaction with businesses, providing an unparalleled experience and enhancing E-satisfaction (Thandekkattu & Kalaiarasi, 2022).

In the cosmetic industry, AI is already revolutionizing the approach of cosmetic brands and how they cater to their customers' individual needs. In fact, the growing demand for personalized shopping experiences is compelling cosmetic brands to redefine their consumer-centric strategies (Mangtani et al, 2020).

1.2 Relevance

There exists a lack of relevant literature regarding the impact of AI on E-satisfaction within the cosmetic industry. No research has yet been conducted into the role that AI plays in influencing online consumer shopping experience within the cosmetic industry. Furthermore, AI is associated with several challenges, such as understanding how and to what extent consumers are willing to adopt it and the extent to which consumers agree to disclose their personal data and insights to receive a more exciting shopping experience (Thandekkattu & Kalaiarasi, 2022).

On the other hand, digital transformation, highly competitive markets, and rising consumer expectations are forcing cosmetic businesses to change their strategies and focus more on attracting and retaining customers. Especially, providing unparalleled brand experiences for consumers to stand out. As a result, customer relationship management has returned to the forefront, a discipline focused on building customer satisfaction (Leachman, 2023).

This shift can be explained above all by the megatrend “Connectivity”. Megatrends, remaining for decades and pervading multiple aspects of society, politics, economy, and everyday life, have emerged as a cornerstone for business strategy decisions. "Connectivity" revolves around the increasing interconnectivity facilitated by digital infrastructure. Thus, the principle of networking based on digital infrastructure is at the forefront of customer centricity, emphasizing long-term relationships, value creation, and understanding customers' value propositions. One major facet of Connectivity is the rise of AI. AI not only enables businesses to identify specific customer needs and predict trends but also fosters customer-

centric relationships through optimized services, experiences, and products (Megatrend Konnektivität, 2023).

This notion is particularly pertinent in the cosmetic industry, where AI-driven innovations are reshaping the landscape and set new standards for consumer expectations.
For example, Sephora (owned by LVMH) launched its Sephora Virtual Artist tool, to enhance the shopping experience of makeup products, and gained already 11% in sales growth within the first quarter of the launch (Troyer, 2019). Furthermore, L'Oréals "Rouge Sur Mesure launched with Yves Saint Laurent Beauté" is an AI–powered at-home system that creates personalized lipstick on-demand (PERSO — Technology Incubator, n.d.). And Estée Lauder Companies announced "math and magic" during Cannes Lions - a major event in the marketing and advertising industry. It is about their ongoing commitment to driving innovation across all products, experiences, and campaign offerings using AI, data, and creative marketing (Lombardo, A. 2023).
In fact, the global market size of AI in cosmetics is expected to reach $13.34 billion by 2030 and promises a growth of 19.7% from 2021 until 2030 (Swift, 2023).

Therefore, it is necessary to rethink ways of creating unparalleled shopping experiences and new ways of connecting customers with brands to enhance E-satisfaction. Thus, understanding which impact AI has on consumers E-satisfaction and how AI can be used as a tool for cosmetic brands and customers holds value for both academia and the industry, as innovative customer-centric approaches remain critical for cosmetic businesses' success in the modern era.

1.3 Scope of Analysis

One generation that holds significant importance for understanding digital transformation within the cosmetic industry is Generation Z (GenZ). People born from 1995 onwards, know no world without technology and are therefore also referred to as "digital natives". Furthermore, they are projected to be the largest market segment of the next decade and have first-hand experience with shopping online (Betz, 2019).

Their tech-savvy nature makes them a crucial target for companies focusing on implementing digital services and products as they grew up with electronical devices and therefore provide a

deeper understanding as well as new perspectives (Kraus et al., 2021). GenZ shapes the future and has new expectations for cosmetic companies. They demand customized experiences, which companies must tailor to meet their demands because of their mobile-centric behavior (Banov, 2022).

GenZ'ers can be also referred to as "lead users", in other words, they are people who become general in the marketplace, represent strong needs, and expect to benefit significantly by obtaining a solution to those needs. Lead users provide relevant input to optimize designs and concepts of companies and contribute to shaping future opportunities (Hippel & Riggs, 1997, Betz, 2019).

For this reason, the scope of the following research will focus exclusively on GenZ to gain relevant and targeted insights.

1.4 Research Purpose

Consequently, the purpose of this thesis is to investigate the impact of AI on GenZ's E-satisfaction in the cosmetic sector. It specifically focuses on the effects of AI-powered online shopping experiences for GenZ consumers and aims to determine how it shapes their overall E-satisfaction when shopping online for cosmetic products.
The ultimate objective is to understand how AI can connect cosmetic brands with consumers to improve customer-centric approaches and create positive online shopping experiences.

Accordingly, this thesis aims to address the following research questions:

RQ1: *What is the impact of an AI-cosmetic service on GenZ's E-satisfaction when shopping online?*

RQ2: *What are the most and least important factors that influence GenZ's E-satisfaction when shopping online with the support of an AI-cosmetic service?*

1.5 Research Approach

This research is descriptive and follows a mono-method approach. Based on the conceptual framework created from the secondary data collected during the literature review, an online survey developed with Qualtrics was conducted to collect quantitative data and understand the impact of AI on GenZ E-satisfaction in the cosmetics industry.
The online survey included a mockup of an AI cosmetics service and aimed to gain holistic insights into how open GenZ consumers are to the use of such AI's in their online shopping decisions and how this shapes their emotions and thus influences their E-satisfaction.

Based on the findings, this paper provides guidance for marketers on how AI can be implemented in consumer-centric strategies to create an unparalleled shopping experience in the cosmetics sector for GenZ and increase E-satisfaction in the long run.

1.6 Outline

This dissertation is composed of five chapters.
The first chapter is an introduction to the topic of the thesis, which includes the problem statement and the research questions.
The second chapter is a literature review of the main themes identified in the problem statement. It highlights the rationale for each theme and formulates hypotheses to answer the research questions.
The third chapter presents the methodology used to collect and analyze the primary data.
Chapter four contains the analysis of the results obtained from the collected data, i.e. the validity of the formulated hypotheses.
Finally, the last chapter concludes the dissertation and summarizes the most important results and the resulting recommendations for action. It also points out the limitations of this study and provides recommendations for future research.

CHAPTER 2: LITERATURE REVIEW & FRAMEWORK

The second part of the paper is based on a systematic literature review, which includes secondary research and the analysis of studies that have already defined Artificial Intelligence (AI) and describes its possible applications in marketing and the cosmetics industry.

We also delved into the concept of shopping experience and how it affects E-satisfaction. We summarized the antecedents of E-satisfaction and formulated hypotheses based on the secondary data. These hypotheses will help us answer our research questions.
The antecedents and hypotheses and their relationship are explained in a self-built conceptual framework which serves as the foundation for our work and is presented in the last part of this chapter.

The literature on which our study is based comes from academic databases such as Journal of Brand Management (JBM), Journal of Business Research (JBR), Journal of Consumer Psychology (JCP), Journal of Consumer Research (JCR), Journal of Internet Commerce (JIC), Journal of Strategic Information Systems (JIS), Journal of Marketing (JM), Journal of Marketing Research (JMR), Journal of Retailing and Customer Services (JRCS), UCP Institutional Repository and more.

2.1 AI in a Nutshell

Megatrends are a global phenomenon and create evolutionary pressures. That is why megatrends are a crucial basis for decisions in business. The Zukunftsinstitut has defined a total of 12 megatrends. One such megatrend is "Connectivity," which refers to the increasing connectivity enabled by digital infrastructure. In this sense, the process of digital transformation is not entirely technical, but a socio-technical one where consumers are the center (Megatrend Konnektivität, 2023).
Interactions with customers are no longer seen as one-off transactions, but rather as an exchange and an offer to create value (Wieland & Kähler, 2022).
One major component of Connectivity is AI. The use of AI is at the forefront of digital transformation. It allows a more personalized interconnection between companies and consumers which can lead to unparalleled experiences and thus to higher customer retention (Ransbotham, 2019).

AI is a system of intelligent machines that perform tasks that require affective and cognitive functions of the human mind (Fetzer, 1990). The term artificial intelligence is broad and refers to any kind of machine that can continuously learn and solve problems by perceiving, observing, and reacting to changes in its environment (Norvig & Russell, 2016).
It is any technological artifact that interacts with other entities and can adapt to new situations by absorbing and learning from data as well as rapidly scaling it (Bawack, 2022).
Thus, complex data sets can be compressed to a manageable size, and valuable insights as well as results can be captured (Reim et al., 2020, Verma et al., 2021).

AI has three basic subsets: Deep learning, neural networks, and machine learning.
Deep learning can be compared to artificial neural networks and is able to imitate brain cells. Neural networks consist of three layers: input, hidden layer, and output, and are built from human-made codes (Verma et al., 2021, Lombardo, A. 2023).
When systems can learn from data without being explicitly told what to do, it is an automated learning process, which is called machine learning. As they learn from examples, they can automatically find patterns, make predictions, and become more adept at tasks. These subsets are leading to an advanced development of natural language processing, data mining, and driving software (Verma et al., 2021, Lombardo, A. 2023).
Furthermore, when computers can create new content for users, such as audio generation, image generation, 3D generation, text generation, voice conversion, audio synthesis, and even video prediction, it is called a generative AI, which is a type of machine learning (Lombardo, A. 2023).

2.2 Impact of AI in Marketing

The dynamic of today's business world has been greatly influenced by AI in various areas. One of the most significant applications of AI is in the field of marketing. Particularly in the field of developing consumer-centric strategies to enhance shopping experiences and boost E-satisfaction (Shaik, 2023).
Interviews conducted by Shaik, M. with marketing specialists who had between 2-9 years of first-hand experience with AI deployment in marketing, revealed that the main benefit of implementing AI is to gather direct consumer insights (Shaik, 2023).
For example, with insights, AI can help marketers structure segmentation, targeting, and positioning (STP). In addition to STP, AI can also help marketers envision the strategic

direction of the company and optimize services, products, and experiences as well as the exchange between various stakeholders (Huang & Rust, 2017).
Thus, gathering direct consumer insights leads to improved online services and increased company efficiency, which then leads to a higher degree of consumer satisfaction (Shaik, 2023).

However, with the power of owning direct consumer insights, comes a lot of responsibility. Consequently, research revealed that data is the most important ethical factor to examine when dealing with clients. It should be considered and protected throughout the entire process by being cumulated anonymously. In fact, before implementing new AI systems, dealing with ethical implications should be resolved. The negligent handling of direct consumer insights leads to customers' lack of trust in a company and therefore to low satisfaction (Verma et al., 2021, Shaik, 2023).

2.3 AI and the Cosmetic Industry

The cosmetic industry defines all products in the division of hair care, skincare, makeup, and fragrances. These products are being used daily by millions of people globally (Berg et al., 2023). The cosmetic industry is characterized as highly competitive due to the large variety of brands, products, and services. Furthermore, it is hedonic, innovative, fast-paced, and driven by the latest trends. Thus, cosmetic companies need to find strategies to differentiate themselves from their competitors and be aware of how technological software and hardware evolve, to stay relevant in the market (Haddara et al., 2019).

The three main players in this industry are L'Oréal, LVMH, and Estée Lauder Companies. They are driving the change and are already implementing AI in their strategies (Vieira & Lehmann, 2020). Advanced AI technologies have made hyper-realistic virtual cosmetic fittings possible. Avatars consult and assist anytime and anywhere, and virtual try-ons allow customers to "try" more products than ever before and help brands capture more data points to better understand their customers (Chang, 2020).

AI enhances a cosmetics brand's ability to uniquely identify consumers' individual styles, user profiles, and preferences and learn what consumers perceive as attractive. Which makes it

easier for marketers to create an inclusive space and allows emerging trends to be recognized more quickly (Chang, 2020, Mangtani et al., 2020).
On the other hand, consumers receive a personalized service and an individual shopping experience. Hence, in E-retail AI can promote products and services to the right target audience, offering the right price and personalize promotions to their individual needs (Bughin et al., 2017).

2.4 Shopping Experience

Overall, the evolution of consumer behavior today has shifted from simply buying products and services to valuing the experience around what is being sold. Because of this, companies need to originate a greater "adventure" that goes beyond the product or service they are selling, namely offering exceptional experiences (Brakus and Zarantonello., 2009).

The concept of consumer experience refers to three dimensions of experience: 1. Product experience, 2. Shopping experience and 3. Consumption experience (Havlena and Holbrook 1986). The shopping experience focuses on the consumer's interactions with the brand environment (Schmitt et al., 2009). Moreover, it involves providing customers with a complete experience that enables them to solve significant problems, enhances their sense of respect, connects with their emotions, emphasizes reasonable pricing, and saves their time and energy (Lewis & Mitchell, 1990).

In general, shopping experiences can be described as *feelings*, *cognitions*, *sensations*, and *behavioral responses* evoked by *brand-related stimuli* (Bagdare & Jain, 2013). Consumer and marketing research has proven that shopping experiences occur throughout the entire customer journey and decision-making process. In other words, when consumers search for products or services, shop for them, and consume them (Morrison and Crane, 2007). The shopping experience is therefore holistic in nature and can be roughly divided into three phases: 1. Pre-use, 2. Use, and 3. Post-consumption.

With pre-use, the shopping experience is analyzed before the actual purchase. For example, simulated service experiences can be offered to influence and understand the customer's perception.
In the second phase – use, the focus is on customer interaction. This phase analyzes the actual

consumption of products/services and consumer attitudes toward the shopping experience. In the final phase - post-consumption - the overall shopping experience perceived by the customer after the consumption is examined (O'Loughlin & Szmigin, 2004, Morrison and Crane 2007).

With AI, all three phases of the shopping experience can be analyzed and managed at once. Thus, on the consumer's side, an AI-service can be used to 1. Search for specific products and obtain information, 2. Purchase these products on the website, and 3. Provide feedback to the company. From the business perspective, relevant insights can be gathered all at once (Schmitt et al., 2009, Ameen et al., 2021).

2.5 E-satisfaction

As mentioned above, modern consumers are not specifically interested only in physical products when shopping online, but rather in the overall experience. This phenomenon has also been defined as E-satisfaction (Brakus and Zarantonello, 2009).

E-satisfaction, a crucial aspect of the evolving online customer landscape, can be defined as "the customer's holistic judgment of the extent to which a product or service provides a pleasant level of consumption-related fulfillment" (Quan et al., 2020). This judgment is essentially a comparison between the customer's expectations of the services offered by a service provider versus the actual experience provided (Al-Khayyal et al., 2020, Miao et al., 2021). It can therefore be concluded that E-satisfaction results from positive consumer shopping experiences. Thus, E-satisfaction emerges as a dependent variable, encapsulating customers' judgments on their online shopping experience.

In a study by Vasic et al. (2019), which examined the impact of the determinants of online shopping on customer satisfaction in the Serbian market, a quantitative analysis was used to measure E-satisfaction. This measurement was based on 1. Respondents' *perceived attractiveness for usage*; 2. *Likelihood of recommendation* to other consumers; and 3. Whether they *experience pleasure* when shopping online. These dimensions were measured using a five-point Likert scale (Vasic et al., 2019; Miao et al., 2021).
In our statistical analysis, we integrated and operationalized these measurements as one part

of our conceptual framework to analyze the impact of AI on GenZ's E-satifaction.

2.6 Antecedents of E-satisfaction

When conceptualizing E-satisfaction and in consequence shopping experience, consumer and marketing research has proposed four elements for the shopping experience: 1. Hedonic, 2. Emotional, 3. Physical and 4. Social elements (Schmitt, 1999). Yet, research has shown that customers' shopping experiences are characterized more by hedonic and emotional elements than by physical and social elements (Babin et al., 1994; Carpenter and Moore, 2009).

Hedonic elements refer to "higher mental processes, such as perception, memory, language, problem-solving, and abstract thinking" (Bridges & Florsheim, 2008). Emotional elements tend to be complex in nature. They include both positive and negative feelings such as joy, surprise, regret, anger, or delight that a consumer experiences (Bridges & Florsheim, 2008; Keiningham et al., 2017).
(Izard, 1977), (Mehrabian, 1980), and (Plutchik, 1982) used emotional measurement scales to find that positive emotions are strongly associated with successful shopping. Furthermore, earlier conceptualizations and characterizations of experiences have suggested that customers' shopping experiences are influenced by four emotional key factors: 1. *Mood*; 2. *Leisure*; 3. *Joy*; and 4. *Distinctive* (Richins, 1997, Havlena and Holbrook 1986, Bagdare and Jain, 2013).

In a study by Bagdare, S., & Jain, R. (2013) on measuring retail customer experience, the items and reliable measurement scales for *Mood*, *Leisure*, *Joy*, and *Distinctive* were created according to the already established measurement scale guidelines for marketing constructs of Nunnally (1978), Churchill (1979) and DeVellis (1991). The entire process involved the creation of the initial scale items, three refinements by review panels, and pre-testing. Ultimately, this resulted in a list of 12 items, representing four dimensions, which were then determined through exploratory factor analysis and used in a full survey.

Furthermore, when it comes to optimizing the characteristics of AI-powered shopping experiences and thus increasing E-satisfaction, this research takes into account three additional antecedents that GenZ has rated as important when shopping online: 1. *Service Design*, 2. *Personalization* and 3. *Privacy* (Al-Khayyal et al., 2020, Ameen et al., 2021). Al-Khayyal conducted qualitative research on the above-mentioned antecedents. However, in

the quantitative study by Ameen N. et al. (2021) about customer experiences in the age of artificial intelligence, the measurement items were adapted from previous studies of Wolfinbarger & Gilly, 2003; Chang & Wang, 2011 for *AI-service design*, Chellappa & Sin, 2005 for *Personalization* and, Poushneh, 2018; Cowan et al., 2021 for *Privacy*.

In the following subchapters, each factor and its measurement items will be elucidated, and the hypotheses related to our research questions formulated.

2.6.1 Mood and E-satisfaction

Mood is a temporary state of mind and is described as a light and generalized state. Mood plays a decisive role in explaining shopping experiences. Thereby, positive, or negative feelings reflect shopping experiences, and the quality of the shopping environment has a significant influence on the customer's mood and consequently their E-satisfaction (Arnold and Reynolds, 2009). Mood was examined by Bagdare, S., & Jain, R. (2013) as *good*, *happy*, and *exciting* (Bagdare and Jain, 2013; Havlena and Holbrook 1986).

That being so, we formulate the following hypothesis:

H1: "*Mood influences E-satisfaction so that, the better the Mood of GenZ's consumers as a result of shopping online with the support of an AI-cosmetic service, the higher will be their E-satisfaction."*

2.6.2 Leisure and E-satisfaction

Many studies describe shopping as a leisure activity. It leads to perceived freedom, enjoyment or pleasure and is associated with entertainment and customer satisfaction. Furthermore, shopping is seen as an escape from everyday life and is intended to reduce stress (Pine and Gilmore, 2013, Bäckström & Johansson, 2006).
In the aforementioned study, Leisure time is analyzed on the basis of respondents' perceived *relaxation*, *refreshment*, and *delightfulness* of Leisure time (Bagdare and Jain, 2013).

Hence, we hypothesize:

H2: *"Leisure influences E-satisfaction so that, the higher the perception of shopping for cosmetics online with the support of an AI service as being a Leisure activity, the higher will be GenZ's users' E-satisfaction."*

2.6.3 Joy and E-satisfaction

Furthermore, shopping is seen as a joyful experience that is dimensioned by expressions of pleasure (Jin and Sternquist, 2004). In addition, it has been observed that shopping leads customers to fall into a pleasurable state, especially when the customer is entertained throughout the process (Pine and Gilmore, 2013). Pleasure is also seen as a source of motivation to go shopping (Jin and Sternquist, 2004). In the study of Bagdare, S., & Jain, R. (2013), the level of Joy is scaled based on the respondents' perceptions of how *pleasurable*, *satisfying,* and *engaging* an experience is.

Therefore, we formulate the following hypothesis:

H3: "*Joy influences E-satisfaction so that, the higher the Joy of GenZ's consumers as a result of shopping online with the support of an AI-cosmetic service, the higher will be their E-satisfaction."*

2.6.4 Distinctive and E-satisfaction

If a customer describes an experience as memorable, positive, and lasting, then it was successful (Pine and Gilmore, 2013). The ability of a company to create unique and enjoyable experiences gives the business a high recognition value. This is also an important foundation for differentiation from the competition (Schmitt, 1999). Unique experiences result from the internal, subjective, and personal evaluation of the customer. Moreover, the atmosphere plays a fundamental role in this and gives a company a unique personality (Brengman & Willems, 2009). Bagdare, S., & Jain, R. (2013), have defined Distinctive as *unique*, *memorable*, and *wonderful.*

Thus, based on the above, we hypothesize:

H4: "*Distinctive influences E-satisfaction so that, the higher the perception of shopping for*

cosmetics online with the support of an AI service as being a Distinctive experience, the higher will be GenZ's users' E-satisfaction."

2.6.5 Service Design and E-satisfaction

In a study by Al-Khayyal et al. (2020) on the impact of electronic service quality dimensions on customers' E-shopping and E-loyalty via the impact of E-satisfaction and E-trust, the design of an AI service was found to be one of the most critical dimensions to determine E-satisfaction. Comprehensively, it is clarified as "all elements" of an online service, alike the organizational, informational, and aesthetical *quality* of the service, as well as its *system availability* (Wolfinbarger & Gilly, 2003; Chang & Wang, 2011; Al-Khayyal et al., 2020).

Quality plays a crucial role, especially for applications that interact directly with users. In general, user-friendly interfaces and intuitive interactions have a positive impact on E-satisfaction. For instance, the designed platform should be easy to use, and the desired outputs should be indistinguishable from human-generated content (Joshi et al., 2021; OECD, 2021). In fact, a design with an overall aesthetic appeal motivates consumers to stay on a brand website and many past studies found a positive association between web design and customer E-satisfaction (Kaya et al., 2019, Al-Khayyal et al., 2020, Ameen et al., 2021).

System availability relates to the possibility of integrating AI into the everyday life of GenZ by ensuring seamless integration with readily available technologies. Studies show that on average GenZ's multimedia use is approaching 8 hours daily. The transformation of smartphone platforms and AI services, which deliver multimedia content, has led to a strong desire for innovative and personalized experiences across multiple channels and devices (Turner, 2015, Chan, 2023). This means that an AI cosmetic service would have to be available on diverse electronic devices, parallel said laptops, tablets, and phones (Bencsik et al., 2016).

Consequently, we hypothesize:

H5: "The *AI-cosmetic Service Design influences GenZ's E-satisfaction when shopping online, so that the better the Service Design, the higher will be the user E-satisfaction."*

2.6.6 Personalization and E–satisfaction

Personalization has been defined as “the degree to which information is tailored to the needs of a single user” (Bilgihan et al., 2016). The possibility of receiving personalized content and product recommendations contributes to a user’s E-Satisfaction and is one of the key elements often associated with AI-enabled services (Zanker et al., 2019). On average, GenZ has an attention span of only 8 seconds (Glum, 2020). However, GenZ’s attention is captured if AI technologies offer interactive and engaging experiences that match their individual needs. Features like gamification, generative AI-driven content or interactive communication tools attract and retain the interest of GenZ. Moreover, previous studies have shown that consumers associate the possibility of receiving personalized content or recommendations with brand competence (Chellappa & Sin, 2005, Al-Khayyal et al., 2020; Hernández-De-Menéndez et al., 2020, Tulcanaza-Prieto et al., 2023).

That being so, we hypothesize:

H6: *“Personalization influences GenZ’s E-satisfaction when shopping online with the support of an AI-cosmetic service so that, the higher the level of Personalization, the higher will be the user E-satisfaction.”*

2.6.7 Privacy and E-satisfaction

Overall, GenZ’s perception of online services can be strongly influenced by their perception of privacy when shopping online. Privacy of an online service has been defined as “the willingness of consumers to share information over the internet that enables the completion of purchases” (Bélanger et al., 2002). This can be derived from the fact that consumers are uncertain about the control businesses have over their data and the policies companies follow when handling their information (Stewart & Segars, 2002, Malhotra et al., 2004, Cowan et al., 2021). As a result, consumers feel it is important that companies are transparent in the way they handle their customers' data. As it concerns confidential data such as location, email address, bank details, or personal preferences. The literature also found that consumers who attach great importance to the protection of their personal data feel that they have less control over their data when they share it with others (Stone et al., 1983, Poushneh, 2018, Cowan et al. 2021).

The level of Privacy is analyzed based on consumers' perceived level of *transparency* of online service decisions and companies' *privacy policies* (Al-Khayyal et al., 2020, Ameen et al., 2021).

Transparency indicates that a successful AI model should possess the ability to capture the less prevalent aspects of its data distribution. Thus, diversity ensures that an AI model captures minority modes in its data distribution and assists in reducing biases by operating transparently (Joshi et al., 2021, OECD, 2021).

Moreover, *privacy policy* refers to whether a company has established unalterable rules for handling AI-generated data in its structures (Al-Khayyal et al., 2020, Ameen et al., 2021). Overall, the literature found that the success of E-commerce can be increased with a high level of data protection (Turner, 2015, Seemiller & Grace, 2017, Tulcanaza-Prieto et al., 2023).

Based on the above, we formulate the following hypothesis:

H7: *Privacy influences GenZ's E-satisfaction when shopping online with the support of an AI-cosmetic service so that, the stronger the perception of personal data Privacy, the higher the user E-satisfaction."*

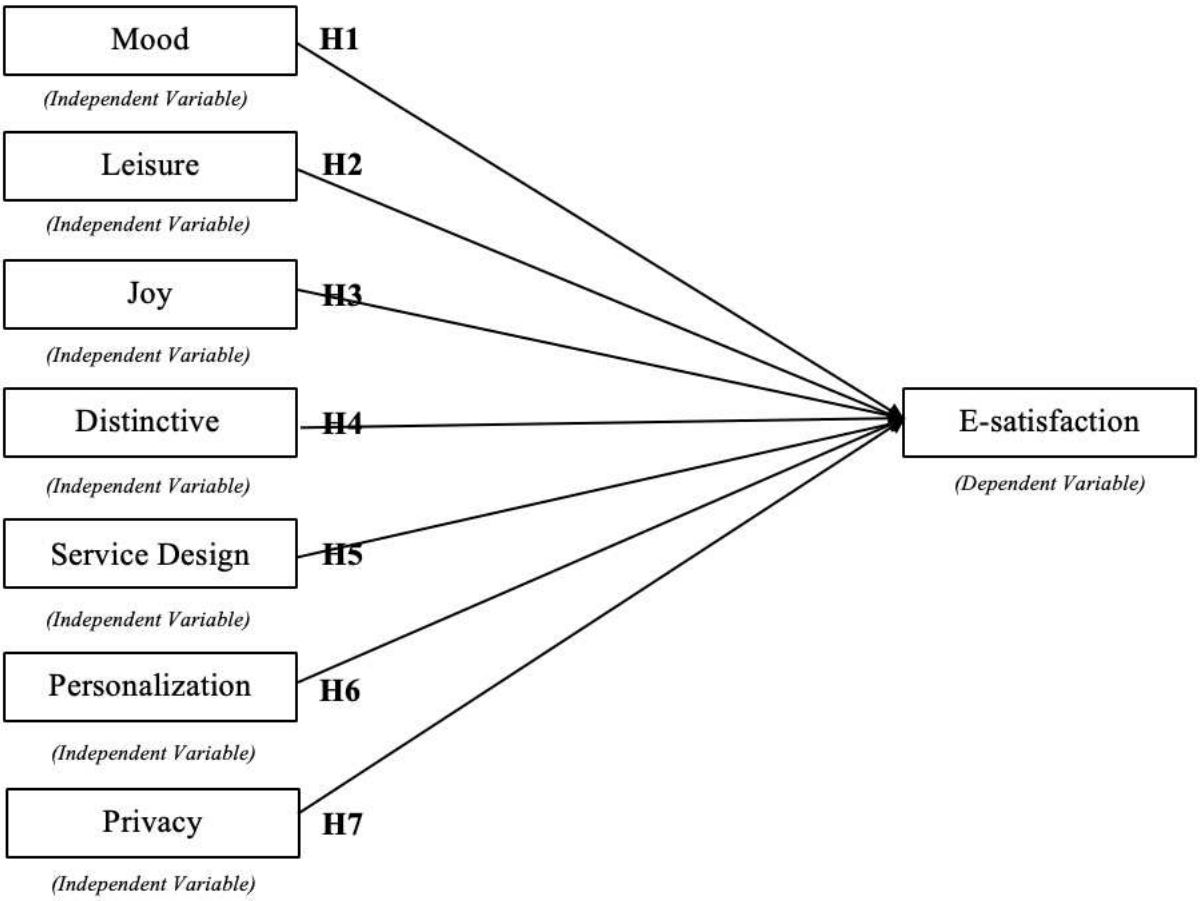
2.7 Summary and Conceptual Framework

In summary, to analyze the impact of AI on GenZs E-satisfaction in the cosmetic industry, we selected seven independent variables (*Mood*, *Leisure*, *Joy*, *Distinctive*, *Service Design*, *Personalization,* and *Privacy*) and one dependent variable (*E-satisfaction*) as the basis for our statistical analysis. Each variable is measured using scales that have already been used in previous studies and have proven to be reliable. In *Table 1* we summarize our variables, their measurement items, and the studies on which they are based.

Variables	**Measurement Items**	**Previous Studies**
Mood	Good Happy Exciting	Bagdare and Jain, 2013;
Leisure	Refreshing Relaxing Delightful	Bagdare and Jain, 2013;
Joy	Pleasurable Satisfying Engaging	Bagdare and Jain, 2013;
Distinctive	Unique Memorable Wonderful	Bagdare and Jain, 2013;
Service Design	Quality System Availability	Wolfinbarger & Gilly, 2003; Chang & Wang, 2011, Al-Khayyal et al., 2020; Ameen et al., 2021
Personalization	Level of Personalization	Chellappa & Sin, 2005, Al-Khayyal et al., 2020, Ameen et al., 2021
Privacy	Transparency Privacy Policies	Poushneh, 2018, Al-Khayyal et al., 2020, Ameen et al., 2021, Cowan et al., 2021
E-satisfaction	Attractiveness for Usage Likelihood of Recommendation Pleasure of Usage	Vasic et al. 2019

(Table 1: Authors summary of the variables used for this study.)

This is followed by *Figure 1*, which represents our conceptual framework that illustrates the interplay between the variables that we have considered and the hypotheses we have developed. Accordingly, we propose that E-satisfaction is the result of the emotions a consumer feels during their online shopping experience, as well as the hedonic and utilitarian characteristics of an AI cosmetic service.



(Figure 1: Authors conceptual framework based on the literature review.)

CHAPTER 3: METHODOLOGY

After a thorough literature review and the collection of secondary data, the following chapter deals with a detailed description of the method used to obtain primary data and thus to test the hypotheses formulated in Chapter 2, so that the research questions can be answered.
It therefore begins with a description of the methodological approach, followed by a detailed description of the data collection and data analysis method used.

3.1 Methodological Approach

Overall, this research is descriptive and follows a mono-method approach. Descriptive research was chosen because it answers *What* questions, hence it enables us to adress our composed research questions.
Descriptive research is conventionally defined as quantitative research and aims to describe an associated phenomenon and the related population accurately and systematically. In our case, the impact of AI on GenZ's E-satisfaction. Quantitative research moves from deductive theory to hypothesis formulation, as in Chapter 2, to observation, and finally to confirmation. To execute an observation, we selected an online survey as the research design. Online surveys capture a wide variety of information, allow to include stimuli, and offer the opportunity to reach out to specific samples, such as GenZ. Furthermore, online surveys allow a higher flexibility of the data collected and more diversity of the questions that can be asked (*The Dissertation*, o. D., White & Rayner, 2014, Field, 2017).

3.2 Data Collection Methodology and Survey Design

The online survey was conducted with Qualtrics and published from March 18th to 23rd, 2024. The online survey was available in English and in Portuguese to ensure the participation of respondents from different countries to gain more holistic insights. A total of 221 responses were collected, of which 168 were considered valid.
Before launching the final survey, a pre-questionnaire was created with 4 to 6 sentences for each variable. Thus, in total the pre-questionnaire consisted of one screening question at the beginning, to make sure that only GenZ will answer the questions, and 48 questions about Mood, Leisure, Joy, Distinctive, Service Design, Personalization, Privacy, and E-satisfaction. Moreover, the pre-questionnaire included 8 questions for validity and demographics. The

structure of the pre-questionnaire was familiar to the researches of (Bagdare and Jain, 2013), (Vasic et al., 2019), (Al-Khayyal et al., 2020) and (Ameen et al., 2021), but already modified to our study purpose.

Based on the pre-questionnaire a pilot test was conducted among ten test respondents. The purpose of the pilot test was to identify errors and biases in the pre-questionnaire. By considering the feedback from the test respondents, necessary adjustments were made to ensure the validity and reliability of the survey instrument. Consequently, sentences per construct were removed or rewritten because they were not well understood by the test participants.

For that reason, the final questionnaire was modified to 3 to 4 questions per variable. Totaling in 36 questions for all variables, validity, demographics, and screening question. The final survey was created with Qualtrics and was distributed via e-mail and social media networks, such as LinkedIn, Instagram, and WhatsApp. Furthermore, the survey was released through Prolific.

The whole questionnaire design adopted a structured approach, employing exclusively closed-end questions to simplify data collection and analysis. Each section had a short introduction and clear language was used and double-barred questions avoided, to ensure clarity.

Throughout the survey, respondents were instructed to rate their level of agreement with each statement using a five-point Likert scale, ranging from “strongly disagree” (1) to “strongly agree” (5). This choice of scale was intended to allow higher correlations between responses, which was in line with the intended aims of the data analysis and increased the validity of Cronbach's alpha coefficient.

The outline of the final questionnaire can be observed in *Table 2* and the final written questionnaire with all items and scales is included in *Appendix 1*.

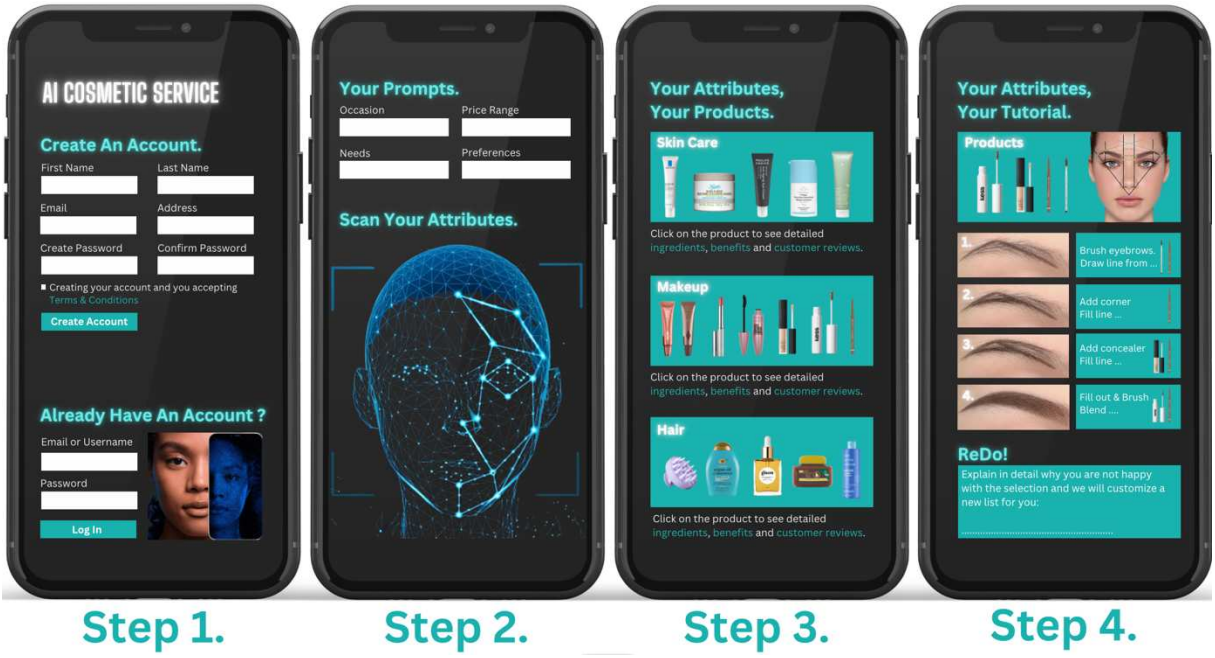
Survey Outline	**No. Questions**	**Type/ Scale**	**Scaling Technique**	**Classified as**
1.Introduction	-	-	-	-
2. Screening Question	1	Dichotomous	Nominal	1 = Yes 2 = No
3. AI Explanation	1	7. Likert	Ordinal	1 = Extremely bad 7 = Extremely good

4. Scenario & Stimuli	-	-	-	-
5. AI Characteristics	11	5. Likert	Ordinal	1 = Strongly disagree 5 = Strongly agree
6. Shopping Experience	12	5. Likert	Ordinal	1 = Strongly disagree 5 = Strongly agree
7. Validity	1	5. Likert	Ordinal	1 = Strongly disagree 5 = Strongly agree
8. E-satisfaction	4	5. Likert	Ordinal	1 = Strongly disagree 5 = Strongly agree
9. Demographics	6	Multiple Choice	Nominal	*Appendix 1. (9.1 – 9.6)*
10. End	-	-	-	-

(Table 2: Authors illustration of the questionnaire developed for the analysis.)

To summarize, section 1 served as an introductory part in which the purpose of the study was explained, and the anonymity of the respondents was guaranteed to prevent response bias. Informed consent was also obtained from respondents.
Subsequently, section 2 contained a screening question as to whether the respondents were born after 1995 to reach only GenZ respondents.
Section 3 aimed to bridge knowledge gaps by providing a concise explanation of AI concepts to respondents who stated they were unfamiliar with the technology.
Section 4 then presented a fictional scenario along with a mockup as a stimulus, which can be seen in *Figure 2*. Respondents were asked to immerse themselves in a simulated cosmetics shopping experience and imagine encountering a new AI-powered service on the website of a cosmetics retailer of their choice when shopping for new cosmetics products online. To avoid preference bias, no specific cosmetics brand was deliberately selected. Respondents were told that this service presents customized product recommendations based on their physical attributes and personal preferences. To do this, users need to create an account and enter details such as occasion to wear, price range and personal preferences, including scanning their physical attributes. The AI then creates a personalized product list with detailed information and instructions on how to use them properly. Finally, respondents were told that

they can provide feedback for refinement and access the personalized advice across all devices at any time.



(Figure 2: Stimuli used in the online questionnaire.)

Based on this, section 5 discussed the characteristics of the AI service with 11 questions on Service Design, Personalization, and Privacy.

Section 6 asked respondents to rate their emotional reactions to the potential online shopping experience, with 12 questions on Mood, Leisure, Joy, and Distinctive.

Section 7 included an attention check question to ensure respondents' engagement and check the validity of responses.

This was immediately followed by Section 8, which analyzed perceived E-satisfaction with the cosmetic service using 4 questions.

Section 9 then focused on demographic information and included 6 questions to gather pertinent data to help characterize the sample.

Finally, Section 10 concluded the questionnaire by thanking the respondents for their contributions.

3.3 Data Analysis Methodology

The data analysis was carried out using SPSS (Statistical Package for the Social Sciences) version 28 for Windows.
Prior to the analysis, the collected data set was carefully prepared by removing missing values and outliers. Outliers were identified using the "outlier identification rule" (Hoaglin and Iglewicz 1987). This rule states that all values outside the calculated range with a modified z-score greater than a predefined threshold (typically 2.5 or 3) are considered outliers (Field, 2017). To improve the quality of the quantitative data, screening processes were also carried out to exclude incomplete and invalid responses and to refine the quality of the dataset.

The primary analysis technique was a simple linear regression that focused on the dependent variable of E-satisfaction versus our seven independent variables (Mood, Leisure, Joy, Distinctive, Service Design, Personalization, and Privacy). This approach allowed for a comprehensive examination of the relationship between E-satisfaction and the various factors that influence it.
In addition, the data set was subjected to a series of statistical tests, including Cronbach's alpha, one-sample t-tests, Pearson correlation, and simple and multiple linear regression analyses. These analyses were conducted in compliance with the assumptions of multiple linear regression. In particular, the linearity of the relationship between the independent variables and the dependent variable was checked using a graphical analysis.
Moreover, the independence of the residuals was assessed using the Durbin-Watson test, while the normality of the residuals was examined using the Kolmogorov-Smirnov test.
In addition, tests for multicollinearity (using variance inflation factor and tolerance) and homogeneity of variances (using graphical analysis) were performed to ensure the robustness of the regression models. A confidence level of $\alpha < 0.05$ was used throughout the analysis to determine statistical significance (White & Rayner, 2014, Field, 2017).

CHAPTER 4: RESULTS

Having described the data analysis methodology in the previous chapter, this chapter will summarize the results of our analysis. It will summarize the numerical data found to analyze patterns, relationships, and trends. In doing so, we will first characterize our sample and then test the hypotheses formulated in Chapter 2 to assess whether they were accepted or rejected. All tables can be seen in *Appendix 2*.

4.1 Sample Characterization

As already mentioned in Chapter 3.2, a total of 168 valid responses were collected with the online survey. Regarding the demographics, descriptive statistics have shown that the majority of the respondents were female (84.5%), between 24-29 years old (69.6%), hold a bachelor's degree (59.5%), are employed (41.7%), and have an annual income up to $30.000 (57.7 %) followed by $31.000 – 60.000 (30.4%).
The nationalities of our sample are quite diverse, but the majority is German (33.3%), followed by South African (14.9%) and Portuguese (8.9%).
A detailed overview of the demographic values is shown in *Table 3*.

Demographics (N = 168)

	N	%
Gender		
Male	23	13,7
Female	142	84,5
Non-binary / third gender	3	1,8
Age		
18 - 23	51	30,4
24 - 29	117	69,6
Education		
Less than secondary education	2	1,2
Secondary education	24	14,3
Bachelors degree	100	59,5
Masters degree	42	25,0

Employment status		
Employed	70	41,7
Freelancer	11	6,5
Unemployed	14	8,3
Student	50	29,8
Worker and student	23	13,7
Annual income		
$0 - $30.000	97	57,7
$31.000 - $60.000	51	30,4
$61.000 - $90.000	11	6,5
$91.000 - $120.000	7	4,2
$120.000 +	2	1,2
Nationality		
German	56	33,3
South African	25	14,9
Portuguese	15	8,9
Other	72	42,9

(Table 3: Demographics)

As this study focused on GenZ consumers and the impact of AI cosmetic services, it can be summarized that the sample is an accurate representation of the population, especially in terms of age, gender, education, national distribution, and annual income.
GenZ women are the main target group for the implication of an AI cosmetic service, even though males or non-binary are not excluded. Our sample also has an above-average education and annual income, which proves that it is an accurate representation of the population of hedonic and E-commerce consumption.

4.2 Descriptives

To obtain a general overview of the trends, descriptive statistics were analyzed. *Table 4* shows the descriptive statistics of the variables under analysis. In it, we indicate the minimum and maximum values, mean, and respective standard deviations, measured with a 5-point Likert scale. Overall, participants gave higher scores for quality (4.53) and lower scores for

Privacy (3.70). All values are significantly higher than the midpoint of the scale assessment (3 - Neither agree nor disagree). A $p < .001$ indicates that the values obtained are relatively high.

Descriptives

	Minimum	Maximum	Average	Std. Deviation
Mood	1,33	5,00	3,90	,76
Leisure	1,00	5,00	3,82	,73
Joy	2,00	5,00	3,92	,72
Distinctive	1,00	5,00	3,95	,81
Quality	2,00	5,00	4,53	,57
Personalization	1,50	5,00	3,83	,68
Transparency	1,50	5,00	3,89	,80
Privacy Policies	1,50	5,00	3,70	,88
System Availability	2,00	5,00	4,32	,84
E-satisfaction	1,75	5,00	4,12	,74

Note: 1 - Strongly disagree 5 - Strongly agree

(Table 4: Descriptives)

4.3 Measures Reliability

The internal consistency of the constructs were assessed using the Cronbach's alpha coefficient, which ranged from a minimum of .622 (poor but acceptable) for Quality to a maximum of .858 (good) for Mood, as shown in *Table 5*. This means that the reliability of our questionnaire is slightly low for Quality, but it is reliable for the remaining variables. The categorization of the alpha values refers to Taber (2017).

Reliability

	Cronbach´s Alpha	Nr of items
Mood	.858	3
Leisure	.764	3
Joy	.755	3

Distinctive	.792	3
Quality	.622	2
Personalization	.718	4
Transparency	.796	2
Privacy Policies	.817	2
System Availability	--	1
E-satisfaction	.847	4

(Table 5: Reliability)

4.4 Correlations

Pearson's correlation coefficients are, in general, statistically significant, positive, and weak to moderate. The highest correlation occurs between Leisure and Mood (r = .751, $p < .001$) and E-satisfaction and Mood (r =.757, p < .001). Which means there is a linear relationship between the variables. All the correlations can be observed in *Table 6*.

Correlations

		1	2	3	4	5	6	7	8	9
1	Mood	--								
2	Leisure	,751**								
3	Joy	,742**	,741**							
4	Distinctive	,576**	,525**	,662**						
5	Quality	,161*	,167*	,126	,185*					
6	System Availability	,221**	,134	,216**	,209**	,102				
7	Personalization	,640**	,537**	,543**	,381**	,186*	,137			
8	Transparency	,042	,051	,174*	,264**	,213**	,241**	0,127		
9	Privacy Policies	,165*	,100	,289**	,187*	,214**	,200**	,258**	,413**	
10	E-satisfaction	,757**	,678**	,678**	,646**	,204**	,164*	,590**	,136	,110

* $p < .05$ ** $p < .01$ *** $p < .001$

(Table 6: Correlations)

4.5 Results from the Hypotheses Testing

4.5.1 Mood

A simple linear regression model with Mood as the independent variable and E-satisfaction as the dependent variable explains 57.4% of the variance in the latter variable, being statistically significant, F ((1, 166) = 223.387, $p < .001$). Consequently, Mood (B = .739, $p < .001$) proved to be a significant predictor of E-satisfaction.

Since the coefficient is positive, it means that as Mood increases, E-satisfaction also increases, when shopping online with the support of an AI service. Thus, *H1 is confirmed.* The coefficient can be seen in *Table 7*.

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1,241	,197		6,307	,000
	Mood	,739	,049	,757	14,946	,000***

a. Dependent Variable: E-satisfaction * $p < .05$ ** $p < .01$ *** $p < .001$

(Table 7: Coefficients Mood)

4.5.2 Leisure

A simple linear regression model with Leisure as the independent variable and E-satisfaction as the dependent variable explains 45.9% of the variance in the latter variable, being statistically significant, F ((1, 166) = 140.883, $p < .001$). Thus, Leisure (B = .688, $p < .001$) proved to be a significant predictor of E-satisfaction.

Since the coefficient is positive, it means that as Leisure increases, E-satisfaction also increases, when shopping online with the support of an AI service. Thus, *H2 is confirmed*. The coefficient of Leisure can be seen in *Table 8*.

Coefficients

Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.

		B	Std. Error	Beta		
1	(Constant)	1,498	,226		6,638	,000
	Leisure	,688	,058	,678	11,869	,000***

a. Dependent Variable: E-satisfaction * $p < .05$ ** $p < .01$ *** $p < .001$

(Table 8: Coefficients Leisure)

4.5.3 Joy

A simple linear regression model with Joy as the independent variable and E-satisfaction as the dependent variable explains 45.9% of the variance in the latter, being statistically significant, F ((1, 166) = 141.050, p < .001). That being so, Joy (B = .692, p < .001) proved to be a significant predictor of E-satisfaction.

Since the coefficient is positive, it means that as Joy increases, E-satisfaction also increases, when shopping online with the support of an AI service. Thus, H3 is confirmed. The coefficient of Joy can be regarded in *Table 9.*

Coefficients

		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	1,411	,233		6,063	,000
	Joy	,692	,058	,678	11,876	,000***

a. Dependent Variable: E-satisfaction * p < .05 ** p < .01 *** p < .001

(Table 9: Coefficients Joy)

4.5.4 Distinctive

A simple linear regression model with Distinctive as the independent variable and E-satisfaction as the dependent variable explains 41.7% of the variance in the latter variable, being statistically significant, F ((1, 166) = 118.629, $p < .001$). Hence, Distinctive (B = .586, $p < .001$) proved to be a significant predictor of E-satisfaction.

Since the coefficient is positive, it means that as Distinctive increases, E-satisfaction also increases, when shopping online with the support of an AI service. Thus, *H4 is confirmed*.

The coefficient of Distinctive can be observed in *Table 10*.

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1,810	,217		8,328	,000
	Distinctive	,586	,054	,646	10,892	,000***

a. Dependent Variable: E-satisfaction * $p < .05$ ** $p < .01$ *** $p < .001$

(Table 10: Coefficients Distinctive)

4.5.5 Service Design

A multiple linear regression model with Quality and System Availability as independent variables and E-satisfaction as the dependent variable explains 5.1% of the variance in the latter variable, being statistically significant, F ((2, 165) = 5.455, $p = .005$). Quality (B = .245, $p = .014$) and System Availability (B = .127, $p = .059$, < .10) proved to be significant predictors of E-satisfaction.

Since the coefficients are positive, it means that as Service Design increases, E-satisfaction also increases, when shopping online with the support of an AI service. Accordingly, *H5 is confirmed*. The coefficients of Service Design (Quality & System Availability) can be observed in *Table 11*.

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	2,468	,509		4,850	,000
	Quality	,245	,098	,189	2,491	,014**
	System Availability	,127	,067	,144	1,903	,059*

a.Dependent Variable: E-satisfaction * $p < .10$ ** $p < .05$

(Table 11: Coefficients Quality and System Availability)

4.5.6 Personalization

A simple linear regression model with Personalization as the independent variable and E-satisfaction as the dependent variable explains 34.8% of the variance in the latter variable, being statistically significant, F ((1, 166) = 88.417, $p < .001$). Personalization (B = .639, p < .001) proved to be a significant predictor of E-satisfaction.

Since the coefficient is positive, it means that as Personalization increases, E-satisfaction also increases, when shopping online with the support of an AI service. Thus, *H6 is confirmed*.

The coefficient of Personalization can be observed in *Table 12*.

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1,678	,265		6,343	,000
	Personalization	,639	,068	,590	9,403	,000***

a. Dependent Variable: E-satisfaction* $p < .05$ ** $p < .01$ *** $p < .001$

(Table 12: Coefficients Personalization)

4.5.7 Privacy

A multiple linear regression model with Transparency and Privacy Policies as independent variables and E-satisfaction as the dependent variable explains 1% of the variance in the latter variable, not being statistically significant, F ((2, 165) = 1.853, $p = .160$). Consequently, Transparency (B = .101 $p = .199$) and Privacy Policies (B = .054 $p = .444$) are not significant predictors of E-satisfaction.

Therefore, we must conclude that *H7 is not confirmed*. For that reason, our Null hypothesis comes into effect, which means that Privacy has no impact on GenZ's E-satisfaction when purchasing cosmetic products online with the help of AI. The coefficients of Privacy (Transparency & Privacy Policies) can be observed in *Table 13*.

Coefficients

Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.

		B	Std. Error	Beta		
1	(Constant)	3,535	,314		11,265	,000
	Transparency	,101	,078	,109	1,290	,199
	Privacy Policies	,054	,071	,065	,768	,444

a. Dependent Variable: E-satisfaction * $p < .10$ ** $p < .05$

(Table 13: Coefficients Transparency and Privacy Policies)

CHAPTER 5: DISCUSSION AND CONCLUSIONS

This thesis aims to investigate the impact of AI cosmetic services on GenZ's E-satisfaction and to identify the key factors influencing GenZ's E-satisfaction with the support provided by such a service. Through a comprehensive review of the relevant literature and subsequent primary data collection and respective statistical analysis, several key insights were gained that shed light on the complex dynamics of online shopping experiences and the role of AI in shaping GenZ's customer satisfaction.

Accordingly, this final chapter focuses on the discussion and interpretation of those findings. The first part of this chapter compares findings of previous studies identified in the literature review with our findings and answers the initial research questions. This is followed by a second part which outlines the theoretical contributions and implications for management. Lastly, the third part will highlight the limitations and suggestions for further research.

5.1 Results Interpretation and Discussion

Jumping back to Chapter 2, the literature of Morrison and Crane (2007), Brakus & Zarantonello (2009), Bagdare & Jain (2013), and Thandekkattu & Kalaiarasi (2022), emphasized the importance of providing exceptional shopping experiences that go beyond the product being sold and encompass all phases of purchase making. These studies showed that shopping experiences can be described as feelings, cognitions, sensations, and behavioral responses evoked by brand-related stimuli. Positive emotions are therefore automatically associated with positive experiences, which creates a strong long-term relationship between the company and the customer.

Our study was based on these findings and found that the implementation of AI was seen as promising. This is based on the discovery, that our statistical analysis confirmed a significant influence on the emotional factors of GenZ consumers through the integration of AI cosmetic services. Leading to improved experiences and higher E-satisfaction. In other words, the integration of AI is accepted by GenZ consumers and has a positive impact on their overall online shopping experience when buying cosmetic products online.

Consequently, **RQ1:** "*What is the impact of an AI-cosmetic service on GenZ's E-satisfaction when shopping online?"* can be answered as follows:

The inclusion of AI cosmetics services in the cosmetic online shopping landscape contributes significantly to the E-satisfaction of GenZ. In particular, their emotional states, such as their Mood, sense of Joy, perception of shopping as being a Leisure activity, and perception of a Distinctive shopping experiences, are positively influenced by the use of AI cosmetics services. Thus, AI creates positive emotions which leads to a higher E-satisfaction.

Moreover, the literature, as outlined by Poushnee (2018), Al-Khayyal et al. (2020), Ameen et al. (2021), Cowan et al. (2021), Chan (2023) and Tulcanaza-Prieto et al. (2023), emphasizes the importance of Service Design, through Quality resolutions such as user-friendly interfaces and an aesthetically pleasing appeal. As well as providing System Availability through seamless integration into everyday life and the availability on diverse devices. The literature also emphasizes the importance of Personalization by providing customized content and Privacy by handling data transparently and establishing strong privacy policies. The authors stated, that consumers attach a great importance to the protection of their personal data, because they feel that they have less control over their data when they share it with others. Thus, Privacy was seen as an influencing factor.

Our statistical analysis confirmed these findings for Service Design and Personalization and proved a positive relationship to E-satisfaction, but it contradicted the statement for Privacy.

Therefore, **RQ2**: *"What are the most and least important factors that influence GenZ's E-satisfaction when shopping online with the support of an AI-cosmetic service?"* can be answered as follows:

The possibility of Personalization was found to be the most crucial aspect in increasing E-satisfaction with AI, which is consistent with the emphasis on customized content, recommendations, and customer-centricity. Consequently, customized content, recommendations, and interactive experiences are key elements in enhancing E-satisfaction and therefore attracting and retaining GenZ consumers in the long-term.
However, while the literature emphasizes the importance of Privacy, our study found in contradiction, no significant relationships between Privacy-related factors and E-satisfaction among GenZ consumers using AI cosmetics services. Transparent handling of customer-

based data is nevertheless important, but it is not influential for GenZ E-satisfaction, when buying new cosmetic products online.

5.2 Theoretical and Managerial Implications

This study provides significant theoretical implications for understanding the role of AI cosmetic services in the context of GenZ's E-satisfaction in online shopping. In Chapter 1.2, it was mentioned that there is a research gap in the literature regarding the implementation of AI cosmetic services in E-commerce and their impact on GenZ's E-satisfaction, which we have now addressed with our study. Our study thus provides a foundational framework to advance understanding in this emerging field.
By identifying influential factors on E-satisfaction and empirically validating the conceptual framework, this study provides insights into the complex interplay of various factors that influence E-satisfaction in the context of AI cosmetic services. It thus serves as a theoretical foundation for marketing and consumer behavior theories.
The main findings of this study follow Brakus & Zarantonello (2009), Bagdare & Jain (2013), Poushnee (2018), Al-Khayyal et al. (2020), Ameen et al. (2021) and Cowan et al. (2021). We confirmed the need to build comprehensive shopping experiences. Moreover, we underlined this with the fact that Personalization is the most crucial factor. In other words, we found relevant theoretical insights to shape the landscape of cosmetics E-commerce and shaping hedonic experiences.

Moreover, in the introduction we mentioned that marketers must create consumer-centric business strategies to introduce innovations that accurately appeal to the target audience and enhance satisfaction (Pine & Gilmore, 2013).
This study proves, that by integrating AI-cosmetic services into consumer-centric business strategies, brands can gain a clear advantage in the competitive landscape, offering GenZ consumers exceptional shopping experiences tailored to their individual preferences and needs and addressing exactly what they are asking for.
Moreover, the study suggests that, when building customer-centric strategies, brands may not need to actively communicate privacy policies, implying that focusing on delivering seamless and personalized experiences may outweigh concerns about data Privacy and transparency for GenZ consumers in the context of AI-enabled cosmetic services.

5.3 Limitations and Further Research

The study conducted has provided valuable insights into the area of innovative cosmetic services and their influence on GenZ when shopping online, but it also has its limitations.

Firstly, although the study includes a sample of 168 valid responses in total and therefore provides a holistic overview of the topic, future research could benefit from expanding the sample and achieving a more diverse demographic representation. After all, the larger the sample, the more meaningful the results. Moreover, our study is slightly biased as there is a clear dominance of respondents who identify as female. However, cosmetic AI services could also be interesting for other genders or be perceived differently. Thus, a further expansion of the demographic spectrum could focus on the inclusion of different age groups. Millennials and Generation Y are not identified as digital natives, but many of them are still familiar with online shopping and could be interested in AI services. A larger sample and more demographic scope would therefore make future research more comprehensive and reflect the different consumer perspectives.

Additionally, the scarcity of relevant and up-to-date sources posed a challenge during this study, as the topic is relatively unexplored, and services of this type are not yet available on the market. Therefore, there is an opportunity for researchers to explore this area in more depth by using new innovative research models to gain new insights. The development and testing of novel methods could potentially revolutionize the understanding of AI cosmetic services and thus close existing gaps in the literature.

Another limitation of this study is the stimulus used, which is only based on a mockup and described scenario. The respondents had no opportunity to physically interact with the service. Consequently, responses were based solely on imagination and not on actual experience, which can lead to bias and limited understanding. For this reason, future research could consider implementing real test applications, clickable mockups, or field experiments with authentic service interactions. Such approaches would provide more reliable data and enable a deeper understanding of consumer preferences and behaviors.
Moreover, the internal consistency of the constructs analyzed with Cronbach's alpha revealed that our questionnaire for Quality was relatively weak, i.e. it contained too few questions to analyze the factor thoroughly. As a result, future research should include more questions per

variable.

Finally, this study is based solely on quantitative analysis and thus neglects insights that qualitative methods, such as focus groups or expert interviews, can provide. Especially in the context of designing AI cosmetic services and planning the market launch, qualitative analysis allows for a more precise investigation of user preferences that contribute to the refinement of application features and aesthetics. Future research efforts should therefore incorporate qualitative methods alongside quantitative analysis to ensure a deeper understanding of consumer needs and preferences and to be able to accurately predict how a service should be introduced into the market landscape.

In summary, while this study has provided valuable insights, its limitations must be recognized and can be used as a base for future research. Thus, researchers can improve the understanding of cosmetic AI services in the future and ultimately enrich the landscape of consumer-centric strategies with the support of AI cosmetic designs.

Total: 9979 words.

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APPENDIX 1 – Online Questionnaire

1. Introduction

Dear participant,
Thank you very much for taking part in my survey about the impact of AI on GenZ's E-satisfaction in the cosmetics industry.
I am Kiara Petri and I am conducting this study as part of my Master Thesis at Católica Lisbon School of Business and Economics, under the supervision of Prof. Mónica Borges.

The following survey consists of a fictive scenario with a mock-up of an AI-powered cosmetic service and multiple questions related to it. The aim is to gain relevant insights into GenZ's perception towards using an AI – consulting service while shopping online for cosmetics.

While filling out this survey, I kindly ask you to answer as honestly as possible to all questions and take the study in one go, without any interruptions. It will take around 6 minutes to complete.
Your participation is voluntary and anonymous. The data collected will be used for research purposes only. If you have any questions regarding this study, please do not hesitate to reach out to me: s-kpetri@ucp.pt.

Okeeey lets go! Please click the arrow below to proceed to the survey questions if you consent to participate in this study.

Kiara Petri ☺

2. Screening Question

2.1 Were you born after 1995?

- Yes
- No → "Unfortunately, you do not fit into the scope of this research. Thank you for participating and all the best ☺" (Participant will be kicked out)

3. AI Explanation

3.1 How would you rate your understanding of AI?

1. Extremely bad
2. Moderately bad
3. Slightly bad
4. Neither good nor bad
5. Slightly good
6. Moderately good
7. Extremely good

If respondent answers between **"Extremely bad – Slightly good",** he/she will receive an **introduction to AI:**

Artificial Intelligence, or AI, is a technology that enables computers to perform tasks that typically require human intelligence. These tasks can include things like understanding language, recognizing patterns, solving problems, and making decisions. AI allows machines to learn from data, adapt to new information, and improve over time, making them increasingly capable of completing complex tasks without explicit programming

4. Scenario & Stimuli

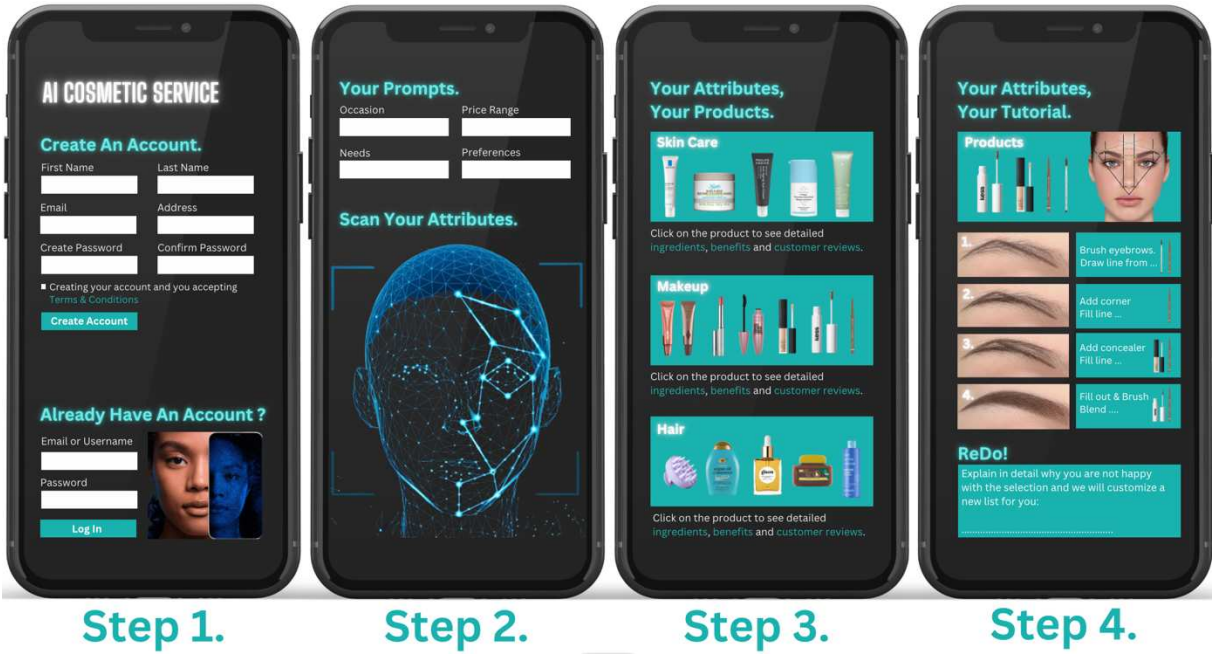
We are now proceeding to the fictive scenario; therefore, I kindly ask you to fully immerse yourself into the situation described below:

Please imagine a situation where you want to buy a new cosmetic product (skincare, haircare or makeup). As you are browsing online, you are looking for inspiration and reviews and suddenly you come across a new AI-supported cosmetic-service on the website of the retailer of your choice. The AI promises to find the ideal products for you based on your individual physical attributes and personal needs/preferences.

To do this, you must create an account with your name and e-mail. Then you provide specific information regarding the product you are looking for. E.g.: The occasion, price range, product benefits and your personal needs/preferences. Then, you scan your physical features (facial attributes, skin, hair etc.).

Based on your personal information provided, the AI processes the data and customizes a list of products that seamlessly align with your unique features. The AI has also put together an overview, where you can find all product information (ingredients, benefits, customer reviews, etc.). It has also put together a tutorial for you in which it explains how to use these products correctly. If you are not pleased with the selection, you can provide feedback via a chat function and the AI will put together a new list for you until you feel confident with the selection provided.

Because you created an account, you can now always come back to it and receive personal advice at any time from any device. The AI service is available on cell phones, laptops and tablets via the website of the retailer.



5. Characteristics of the AI

Please keep the described scenario and mock-up in mind. In the following part I will ask you to indicate your level of agreement from 1 = strongly disagree to 5 = strongly agree, to each statement, based on your perceptions towards using an AI cosmetic service, as described.

5.1 Service Design

5.1.1 Quality – "For me to use such an AI- service, it would be important to be easy to use, by having user-friendly interfaces."

1 – Strongly disagree

2 – Disagree

3 – Neither agree nor disagree

4 - Agree

5 – Strongly agree

5.1.2 Quality – “For me to use such an AI- service, it would be important that it has a clean design.”

1 – Strongly disagree

2 – Disagree

3 – Neither agree nor disagree

4 - Agree

5 – Strongly agree

5.1.3 System Availability - “"For me to use a service like this, it would be important for it to be available on smartphones, laptops and tablets."

1 – Strongly disagree

2 – Disagree

3 – Neither agree nor disagree

4 - Agree

5 – Strongly agree

5.2 Personalization

5.2.1 Personalization - “Receiving personalized product recommendations from such an AI-service would make me feel confident when shopping online”

1 – Strongly disagree

2 – Disagree

3 – Neither agree nor disagree

4 - Agree

5 – Strongly agree

5.2.2 Personalization - “The cosmetic products recommended by such an AI-service, would fit me better than products recommended by a sales advisor in the store”

1 – Strongly disagree

2 – Disagree

3 – Neither agree nor disagree

4 - Agree

5 – Strongly agree

5.2.3 Personalization – "The cosmetic products ordered online with the support of such an AI service, would have the same quality as cosmetic products purchased in a store"

1 – Strongly disagree

2 – Disagree

3 – Neither agree nor disagree

4 - Agree

5 – Strongly agree

5.2.4 Personalization - "Such an AI-service would offer me the possibility to find cosmetic products that truly fit me."

1 – Strongly disagree

2 – Disagree

3 – Neither agree nor disagree

4 - Agree

5 – Strongly agree

5.3 Privacy

5.3.1 Transparency - "I would feel more comfortable shopping for cosmetic products online if the AI-service guiding my choices provided clear explanations of how it uses my personal data"

1 – Strongly disagree

2 – Disagree

3 – Neither agree nor disagree

4 - Agree

5 – Strongly agree

5.3.2 Transparency - "While purchasing cosmetic products online with such an AI service, I believe that there is a risk of identity theft"

1 – Strongly disagree

2 – Disagree

3 – Neither agree nor disagree

4 - Agree

5 – Strongly agree

5.3.3 Privacy Policies – "Well communicated privacy policies and data usage practices would positively influence my satisfaction when shopping online for cosmetic products with such an AI service"

1 – Strongly disagree

2 – Disagree

3 – Neither agree nor disagree

4 - Agree

5 – Strongly agree

5.3.4 Privacy Policies – "While purchasing cosmetic products online with such an AI service, I would hestitate to provide my credit/debit card number"

1 – Strongly disagree

2 – Disagree

3 – Neither agree nor disagree

4 - Agree

5 – Strongly agree

6. Shopping Experience

We are half-way done! ☺ Please keep the described scenario and mock-up in mind. In the following part I will ask you to indicate your level of agreement from 1 = strongly disagree to 5 = strongly agree, to each statement, based on your emotions towards using an AI cosmetic service, as described.

6.1 Mood

6.1.1 Mood - "Using such an AI-service while shopping online for cosmetic products would make me feel good"

1 – Strongly disagree

2 – Disagree

3 – Neither agree nor disagree

4 - Agree

5 – Strongly agree

6.1.2 Mood - "Using such an AI-service while shopping online for cosmetic products would make me feel happy"

1 – Strongly disagree

2 – Disagree

3 – Neither agree nor disagree

4 - Agree

5 – Strongly agree

6.1.3 Mood - "Using such an AI-service while shopping online for cosmetic products would make me feel excited"

1 – Strongly disagree

2 – Disagree

3 – Neither agree nor disagree

4 - Agree

5 – Strongly agree

6.2 Leisure

6.2.1 Leisure - "Shopping online with the support of such an AI-powered cosmetic service would be relaxing"

1 – Strongly disagree

2 – Disagree

3 – Neither agree nor disagree

4 - Agree

5 – Strongly agree

6.2.2 Leisure - "Shopping online with the support of such an AI-powered cosmetic service would be refreshing"

1 – Strongly disagree

2 – Disagree

3 – Neither agree nor disagree

4 - Agree

5 – Strongly agree

6.2.3 Leisure - "Shopping online with the support of such an AI-powered cosmetic service would be delightful"

1 – Strongly disagree

2 – Disagree

3 – Neither agree nor disagree

4 - Agree

5 – Strongly agree

6.3 Joy

6.3.1 Joy - "Shopping online with the support of such an AI-powered cosmetic service would be pleasurable"

1 – Strongly disagree

2 – Disagree

3 – Neither agree nor disagree

4 - Agree

5 – Strongly agree

6.3.2 Joy - "Shopping online with the support of such an AI-powered cosmetic service would be satisfying"

1 – Strongly disagree

2 – Disagree

3 – Neither agree nor disagree

4 - Agree

5 – Strongly agree

6.3.3 Joy - "Shopping online with the support of such an AI-powered cosmetic service would be engaging"

1 – Strongly disagree

2 – Disagree

3 – Neither agree nor disagree

4 - Agree

5 – Strongly agree

6.4 Distinctive

6.4.1 Distinctive - “Shopping online with the support of such an AI-powered cosmetic service would be a unique experience”

1 – Strongly disagree

2 – Disagree

3 – Neither agree nor disagree

4 - Agree

5 – Strongly agree

6.4.2 Distinctive - “Shopping online with the support of such an AI-powered cosmetic service would be memorable”

1 – Strongly disagree

2 – Disagree

3 – Neither agree nor disagree

4 - Agree

5 – Strongly agree

6.4.3 Distinctive - “Shopping online with the support of such an AI-powered cosmetic service would be wonderful”

1 – Strongly disagree

2 – Disagree

3 – Neither agree nor disagree

4 – Agree

5 – Strongly agree

7. Checking Attention

To check that you are paying attention to this survey, click on "Neither agree nor disagree"

1 – Strongly disagree

2 – Disagree

3 – Neither agree nor disagree

4 – Agree

5– Strongly agree

8. E-satisfaction

Almost done! :-)

Just before the end, rate your agreement with each of the statements on a scale from "strongly disagree" to "strongly agree". Keep in mind the scenario described and the mockup presented.

8.1 “Shopping online with the support of such an AI-powered cosmetic service, would make the purchasing process interesting”

1 – Strongly disagree

2 – Disagree

3 – Neither agree nor disagree

4 - Agree

5 – Strongly agree

8.2 “I can imagine myself to recommend such an AI-powered cosmetic service to other consumers”

1 – Strongly disagree

2 – Disagree

3 – Neither agree nor disagree

4 - Agree

5 – Strongly agree

8.3 “If such an AI-powered cosmetic service would exist, I would enjoy shopping for cosmetics online”

1 – Strongly disagree

2 – Disagree

3 – Neither agree nor disagree

4 - Agree

5 – Strongly agree

8.4 “If cosmetics brands offered a service like this, I would be very satisfied with online shopping."

1 – Strongly disagree

2 – Disagree

3 – Neither agree nor disagree

4 - Agree

5 – Strongly agree

9. Demographics

We have reached the end! ☺ As a conclusion of this survey, I kindly ask you to answer the following questions regarding your demographics.

9.1 What is your gender?

– Male

- Female

- Other

- Prefer not to say

9.2 How old are you?

- Under 18

- 18 - 23

- 24 – 29

9.3 What is your highest level of education?

- Less than secondary education

- Secondary education

- Bachelor's degree

- Master's degree

- Doctoral degree

- Other: _____

9.4 What is your current employment status?

- Employed

- Freelancer

- Unemployed

- Student

- Worker and student

- Other: _____

9.5 What is your total annual income?

- $0 - $30,000
- $31,000 - $60,000
- $61,000 - $90,000
- $91,000 - $120,000
- $120,000 +

9.6 What is your Nationality?

_____ (open end)

10. END

Thank you very much for participating and all the best ☺

(please click on the blue arrow below right to submit your inquiry)

APPENDIX 2 – SPSS Outputs

Frequencies

What is your gender?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	23	13,7	13,7	13,7
	Female	142	84,5	84,5	98,2
	Non-binary / third gender	3	1,8	1,8	100,0
	Total	168	100,0	100,0	

How old are you?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18 - 23	51	30,4	30,4	30,4
	24 - 29	117	69,6	69,6	100,0
	Total	168	100,0	100,0	

What is your highest level of education?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than secondary education	2	1,2	1,2	1,2
	Secondary education	24	14,3	14,3	15,5
	Bachelors degree	100	59,5	59,5	75,0
	Masters degree	42	25,0	25,0	100,0
	Total	168	100,0	100,0	

What is your current employment status?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Employed	70	41,7	41,7	41,7
	Freelancer	11	6,5	6,5	48,2
	Unemployed	14	8,3	8,3	56,5
	Student	50	29,8	29,8	86,3
	Worker and student	23	13,7	13,7	100,0
	Total	168	100,0	100,0	

What is your total annual income?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	$0 - $30.000	97	57,7	57,7	57,7
	$31.000 - $60.000	51	30,4	30,4	88,1
	$61.000 - $90.000	11	6,5	6,5	94,6
	$91.000 - $120.000	7	4,2	4,2	98,8
	$120.000 +	2	1,2	1,2	100,0
	Total	168	100,0	100,0	

What is your Nationality?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Algerian	1	,6	,6	,6
	Austrian	2	1,2	1,2	1,8
	Belgian	1	,6	,6	2,4
	Brazil	6	3,6	3,6	6,0
	British	4	2,4	2,4	8,3
	canadian	1	,6	,6	8,9
	CH	1	,6	,6	9,5
	Chilean	5	3,0	3,0	12,5
	Deutsch	3	1,8	1,8	14,3
	Egyptian	1	,6	,6	14,9
	Estonian	1	,6	,6	15,5
	French	2	1,2	1,2	16,7
	German	56	33,3	33,3	50,0
	greek	2	1,2	1,2	51,2
	Irish	1	,6	,6	51,8
	Israeli	1	,6	,6	52,4
	Italian	3	1,8	1,8	54,2
	Latvian	1	,6	,6	54,8
	Luxembourgish	1	,6	,6	55,4
	Luxemburgish	1	,6	,6	56,0
	Malaysian	2	1,2	1,2	57,1
	mexican	1	,6	,6	57,7
	Mexican	9	5,4	5,4	63,1
	Mexicana	1	,6	,6	63,7
	nigerian	1	,6	,6	64,3
	Polish	7	4,2	4,2	68,5
	Portuguese	15	8,9	8,9	77,4
	Ru	1	,6	,6	78,0
	South African	25	14,9	14,9	92,9
	Spanish	2	1,2	1,2	94,0
	Swedish	4	2,4	2,4	96,4
	Swiss	2	1,2	1,2	97,6
	Turkish	1	,6	,6	98,2
	White	1	,6	,6	98,8
	White british	1	,6	,6	99,4
	Zimbabwean	1	,6	,6	100,0
	Total	168	100,0	100,0	

Reliability

Case Processing Summary

		N	%
Cases	Valid	168	100,0
	Excluded[a]	0	,0
	Total	168	100,0

[a] Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
,858	3

Case Processing Summary

		N	%
Cases	Valid	168	100,0
	Excluded[a]	0	,0
	Total	168	100,0

[a.] Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
,764	3

Case Processing Summary

		N	%
Cases	Valid	168	100,0
	Excluded[a]	0	,0
	Total	168	100,0

[a.] Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
,755	3

Case Processing Summary

		N	%
Cases	Valid	168	100,0
	Excluded[a]	0	,0
	Total	168	100,0

[a.] Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
,792	3

Case Processing Summary

		N	%
Cases	Valid	168	100,0
	Excluded[a]	0	,0
	Total	168	100,0

[a]. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
,622	2

Case Processing Summary

		N	%
Cases	Valid	168	100,0
	Excluded[a]	0	,0
	Total	168	100,0

[a]. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
,718	4

Case Processing Summary

		N	%
Cases	Valid	168	100,0
	Excluded[a]	0	,0
	Total	168	100,0

[a] Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
,796	2

Case Processing Summary

		N	%
Cases	Valid	168	100,0
	Excluded[a]	0	,0
	Total	168	100,0

[a] Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
,817	2

Case Processing Summary

		N	%
Cases	Valid	168	100,0
	Excluded[a]	0	,0
	Total	168	100,0

[a] Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
,847	4

Descriptives

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Mood	168	1,33	5,00	3,9067	,76075
Leisure	168	1,00	5,00	3,8254	,73135
Joy	168	2,00	5,00	3,9246	,72655
Distinctive	168	1,00	5,00	3,9563	,81777
Quality	168	2,00	5,00	4,5327	,57163
Personalization	168	1,50	5,00	3,8348	,68497
Transparency	168	1,50	5,00	3,8929	,80445
PrivacyPolicies	168	1,50	5,00	3,7054	,88624
Esatisfaction	168	1,75	5,00	4,1280	,74222
Valid N (listwise)	168				

One-Sample Test

	Test Value = 3					
					95% Confidence Interval of the Difference	
	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
Mood	15,449	167	<,001	,90675	,7909	1,0226
Leisure	14,628	167	<,001	,82540	,7140	,9368
Joy	16,495	167	<,001	,92460	,8139	1,0353
Distinctive	15,158	167	<,001	,95635	,8318	1,0809
Quality	34,754	167	<,001	1,53274	1,4457	1,6198
SystemAvailability	20,321	167	<,001	1,32143	1,1930	1,4498
Personalization	15,797	167	<,001	,83482	,7305	,9392
Transparency	14,386	167	<,001	,89286	,7703	1,0154
PrivacyPolicies	10,316	167	<,001	,70536	,5704	,8403
Esatisfaction	19,698	167	<,001	1,12798	1,0149	1,2410

Correlations

Correlations

		Mood	Leisure	Joy	Distinctive	Quality	SystemAvailability	Personalization	Transparency	PrivacyPolicies	Esatisfaction
Mood	Pearson Correlation	1	,751**	,742**	,576**	,161*	,221**	,640**	,042	,165*	,757**
	Sig. (2-tailed)		<,001	<,001	<,001	,037	,004	<,001	,586	,033	<,001
	N	168	168	168	168	168	168	168	168	168	168
Leisure	Pearson Correlation	,751**	1	,741**	,525**	,167*	,134	,537**	,051	,100	,678**
	Sig. (2-tailed)	<,001		<,001	<,001	,031	,084	<,001	,510	,196	<,001
	N	168	168	168	168	168	168	168	168	168	168
Joy	Pearson Correlation	,742**	,741**	1	,662**	,126	,216**	,543**	,174*	,289**	,678**
	Sig. (2-tailed)	<,001	<,001		<,001	,103	,005	<,001	,024	<,001	<,001
	N	168	168	168	168	168	168	168	168	168	168
Distinctive	Pearson Correlation	,576**	,525**	,662**	1	,185*	,209**	,381**	,264**	,187*	,646**
	Sig. (2-tailed)	<,001	<,001	<,001		,017	,007	<,001	<,001	,015	<,001
	N	168	168	168	168	168	168	168	168	168	168
Quality	Pearson Correlation	,161*	,167*	,126	,185*	1	,102	,186*	,213**	,214**	,204**
	Sig. (2-tailed)	,037	,031	,103	,017		,187	,016	,006	,005	,008
	N	168	168	168	168	168	168	168	168	168	168
SystemAvailability	Pearson Correlation	,221**	,134	,216**	,209**	,102	1	,137	,241**	,200**	,164*
	Sig. (2-tailed)	,004	,084	,005	,007	,187		,077	,002	,009	,034
	N	168	168	168	168	168	168	168	168	168	168
Personalization	Pearson Correlation	,640**	,537**	,543**	,381**	,186*	,137	1	,127	,258**	,590**
	Sig. (2-tailed)	<,001	<,001	<,001	<,001	,016	,077		,102	<,001	<,001
	N	168	168	168	168	168	168	168	168	168	168
Transparency	Pearson Correlation	,042	,051	,174*	,264**	,213**	,241**	,127	1	,413**	,136
	Sig. (2-tailed)	,586	,510	,024	<,001	,006	,002	,102		<,001	,079
	N	168	168	168	168	168	168	168	168	168	168
PrivacyPolicies	Pearson Correlation	,165*	,100	,289**	,187*	,214**	,200**	,258**	,413**	1	,110
	Sig. (2-tailed)	,033	,196	<,001	,015	,005	,009	<,001	<,001		,156
	N	168	168	168	168	168	168	168	168	168	168
Esatisfaction	Pearson Correlation	,757**	,678**	,678**	,646**	,204**	,164*	,590**	,136	,110	1
	Sig. (2-tailed)	<,001	<,001	<,001	<,001	,008	,034	<,001	,079	,156	
	N	168	168	168	168	168	168	168	168	168	168

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

*. Correlation is significant at the 0.05 level (2-tailed).

Regression

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,757[a]	,574	,571	,48607	1,815

a. Predictors: (Constant), Mood

b. Dependent Variable: Esatisfaction

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	52,778	1	52,778	223,387	<,001[b]
	Residual	39,220	166	,236		
	Total	91,999	167			

a. Dependent Variable: Esatisfaction

b. Predictors: (Constant), Mood

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1,241	,197		6,307	<,001
	Mood	,739	,049	,757	14,946	<,001

a. Dependent Variable: Esatisfaction

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,678[a]	,459	,456	,54753	1,595

a. Predictors: (Constant), Leisure

b. Dependent Variable: Esatisfaction

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	42,234	1	42,234	140,883	<,001[b]
	Residual	49,764	166	,300		
	Total	91,999	167			

a. Dependent Variable: Esatisfaction

b. Predictors: (Constant), Leisure

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1,498	,226		6,638	<,001
	Leisure	,688	,058	,678	11,869	<,001

a. Dependent Variable: Esatisfaction

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,678[a]	,459	,456	,54738	1,837

a. Predictors: (Constant), Joy

b. Dependent Variable: Esatisfaction

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	42,261	1	42,261	141,050	<,001[b]
	Residual	49,737	166	,300		
	Total	91,999	167			

a. Dependent Variable: Esatisfaction

b. Predictors: (Constant), Joy

Coefficients[a]

		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	1,411	,233		6,063	<,001
	Joy	,692	,058	,678	11,876	<,001

a. Dependent Variable: Esatisfaction

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin–Watson
1	,646[a]	,417	,413	,56853	1,856

a. Predictors: (Constant), Distinctive

b. Dependent Variable: Esatisfaction

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	38,343	1	38,343	118,629	<,001[b]
	Residual	53,655	166	,323		
	Total	91,999	167			

a. Dependent Variable: Esatisfaction

b. Predictors: (Constant), Distinctive

Coefficients[a]

		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	1,810	,217		8,328	<,001
	Distinctive	,586	,054	,646	10,892	<,001

a. Dependent Variable: Esatisfaction

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,249[a]	,062	,051	,72318	1,850

a. Predictors: (Constant), SystemAvailability, Quality

b. Dependent Variable: Esatisfaction

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5,706	2	2,853	5,455	,005[b]
	Residual	86,293	165	,523		
	Total	91,999	167			

a. Dependent Variable: Esatisfaction

b. Predictors: (Constant), SystemAvailability, Quality

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	2,468	,509		4,850	<,001		
	Quality	,245	,098	,189	2,491	,014	,990	1,011
	SystemAvailability	,127	,067	,144	1,903	,059	,990	1,011

a. Dependent Variable: Esatisfaction

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,590[a]	,348	,344	,60134	1,881

a. Predictors: (Constant), Personalization

b. Dependent Variable: Esatisfaction

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	31,972	1	31,972	88,417	<,001[b]
	Residual	60,026	166	,362		
	Total	91,999	167			

a. Dependent Variable: Esatisfaction

b. Predictors: (Constant), Personalization

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	1,678	,265		6,343	<,001		
	Personalization	,639	,068	,590	9,403	<,001	1,000	1,000

a. Dependent Variable: Esatisfaction

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,148[a]	,022	,010	,73845	1,741

a. Predictors: (Constant), PrivacyPolicies, Transparency

b. Dependent Variable: Esatisfaction

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2,021	2	1,011	1,853	,160[b]
	Residual	89,977	165	,545		
	Total	91,999	167			

a. Dependent Variable: Esatisfaction

b. Predictors: (Constant), PrivacyPolicies, Transparency

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	3,535	,314		11,265	<,001		
	Transparency	,101	,078	,109	1,290	,199	,829	1,206
	PrivacyPolicies	,054	,071	,065	,768	,444	,829	1,206

a. Dependent Variable: Esatisfaction