



The impact of AI-generated advertisement on consumer trust, loyalty and emotional connection to a brand

*Examining the moderating role of transparency, brand familiarity and
the mediating role of perceived authenticity*

Emilia Solovjov

Dissertation written under the supervision of Professor Maria Estarreja

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Abstract

Artificial intelligence (AI) is taking an increasingly central position in advertising and has the potential to help brands develop and optimize their communications in new ways. As AI-generated content becomes more integrated into everyday life, companies are looking for ways to incorporate it. However, this shift raises questions about how consumers will respond to AI-made advertising. Although AI promises innovation and efficiency, it can damage the relationship between brands and consumers by triggering scepticism.

This study examines the impact of AI-generated advertising on trust, loyalty and emotional brand connection. As these factors are closely linked to the success of a brand, this paper examines whether the use of AI influences them positively or negatively. Using an experimental design, 238 participants were shown AI-generated adverts with variety in brand familiarity and AI transparency. The results show that AI-generated advertising increases brand loyalty but significantly reduces trust and emotional attachment. Contrary to expectations from previous literature, brand familiarity did not reduce these effects. While the manipulated transparency level showed no effect, perceived transparency strongly influenced consumers' positive reactions. Consumers who used AI more frequently responded more critical.

These results show that AI advertising is not necessarily negative, but that brands need to use it with caution. Trust and emotional connection can be damaged if authenticity is lacking, or the usage seems forced. To avoid negative effects, brands should focus on perceived transparency, ethical communication and thoughtful integration of AI that matches their identity and the consumers' expectations.

Resumo

A inteligência artificial (IA) está a assumir um papel cada vez mais central na publicidade e tem o potencial de ajudar as marcas a desenvolver e otimizar a sua comunicação. À medida que os conteúdos gerados por IA se tornam parte da vida quotidiana, as empresas procuram formas de os integrar nas suas estratégias. No entanto, esta mudança levanta questões sobre como os consumidores reagem à publicidade gerada por IA. Embora a IA prometa inovação, pode prejudicar a relação entre marca e consumidor ao gerar ceticismo.

Este estudo analisa o impacto da publicidade gerada por IA na confiança, lealdade e ligação emocional à marca. Dado que estes fatores estão diretamente ligados ao sucesso de uma marca, avalia-se se a IA os influencia de forma positiva ou negativa. Utilizando um modelo experimental, 238 participantes viram anúncios gerados por IA com diferentes níveis de familiaridade com a marca e transparência da IA. Os resultados mostram que a IA aumenta a lealdade, mas reduz significativamente a confiança e a ligação emocional. Contrariamente à literatura, a familiaridade com a marca não reduziu estes efeitos. A transparência percebida, e não a transparência manipulada, teve maior influência nas reações positivas. Participantes com maior experiência com IA responderam de forma mais crítica.

Os resultados mostram que a publicidade com IA não é necessariamente negativa, mas o seu sucesso depende da perceção de autenticidade, clareza na comunicação e adaptação à experiência do consumidor. Assim, a IA deve ser implementada com estratégia e foco na relação com o cliente.

Titel: The impact of AI-generated advertisement on consumer trust, loyalty and emotional connection to a brand

Examining the moderating role of transparency, brand familiarity and the mediating role of perceived authenticity

Author: Emilia Solovjov

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Table of content

Abstract	II
Acknowledgements	IV
Table of content.....	V
List of tables	VII
List of figures	VII
1. Introduction	1
1.1 Problem Definition and Relevance	1
1.2 Research aim and objectives	2
1.3 Thesis structure	3
2. Literature Review	4
2.1 Introduction to AI.....	4
2.1.1 Definition of AI.....	4
2.1.2 Usage of AI in Advertising	4
2.2 Importance of Consumer loyalty, trust and emotional connection	5
2.2.1 Definition consumer loyalty and trust.....	5
2.2.2 Definition of Emotional brand connection.....	5
2.2.3 Influence of consumer loyalty, trust and emotional connection on the success of brand.....	6
2.3 Influence of AI-generated advertising on customer loyalty, trust and emotional brand connection	7
2.3.1 Influence of AI-generated advertising on consumer loyalty	7
2.3.2 Influence of AI-generated advertising on consumer trust.....	8
2.3.3 Influence of AI-generated advertising on emotional brand connection.....	8
2.4 Mediating variables	9
2.4.1 Perceived Authenticity	10
2.5 Moderating variables.....	10
2.5.1 The role of transparency of AI disclosure.....	10
2.5.2 Role of Brand Familiarity	11
3. Conceptual Model and Hypothesis	12
4. Methodology and Data Collection	14
4.1 Research Design.....	14
4.2 Sampling.....	14
4.3 Research Instrument.....	14
4.3.1 Pilot study.....	15
4.3.2 Main study.....	15
4.4 Design and Procedure.....	16

4.5 Stimuli	17
4.6 Variables description.....	18
4.6.1 Manipulation check	18
4.6.2 Independent Variables.....	18
4.6.3 Dependant Variables	19
4.6.4 Covariates.....	19
4.6.5 Moderator	20
5. Analysis & Results	21
5.1 Sample Characteristics	21
5.2 Data Screening and Multivariate Outliers	21
5.3 Scales Reliability.....	22
5.4 Results Manipulation check	24
5.5 Main Results.....	25
5.5.1 Impact of AI Ads on consumer trust and loyalty	25
5.5.2 Impact on Emotional Brand Connection	26
5.5.3 Mediating role of perceived authenticity	27
5.5.4 Moderating role of transparency of AI disclosure	28
5.5.5 Moderating role of brand familiarity.....	30
5.5.6 Familywise error control	31
5.6 Further Analysis	32
5.6.1 Comparison responses AI ads versus traditional ads	32
5.6.2 Influence of AI Usage on response outcomes	33
5.6.3 Influence of age, employment status and gender	34
6. Conclusion and implications	34
6.1 Theoretical implications.....	37
6.2 Managerial implications.....	37
7. Limitations and further research	39
8. Appendix	41
9. References	71

List of tables

Table 1: Manipulation Scenarios.....	16
Table 2: Manipulation check - Transparency disclosure levels (One-way Anova)	24
Table 3: Manipulation check - High vs. low brand familiarity (Independent T-Test).....	25
Table 4: Consumer loyalty and trust towards AI ads (One sample t-test)	26
Table 5: Emotional brand connection towards AI ads (One sample t-test)	26
Table 6: Mediating role of perceived authenticity (PROCESS model 4)	27
Table 7: Transparency level recognition (Independent t-test)	28
Table 8: Impact of level of AI disclosure (One-way ANOVA).....	29
Table 9: Impact of perceived transparency (linear regression)	29
Table 10: Impact of brand familiarity (Two-way ANOVA).....	30
Table 11: Impact of brand familiarity x AI Ad (Independent samples t-test).....	31
Table 12: AI Ads vs. traditional Ads (Independent samples t-test)	32
Table 13: Impact of AI Usage on responses (linear regression)	33

List of figures

Figure 1. Conceptual Framework.....	12
Figure 2. Sample Characteristics.....	21

1. Introduction

1.1 Problem Definition and Relevance

The Artificial intelligence (AI) market size grew to 184 billion U.S. dollars in 2024. Compared to 2023, this is an increase of 50 billion U.S. dollars. The market is supposed to grow even more with an expectation to reach 826 billion U.S. dollars in 2030 (Statista, 2024).

But what does this market growth imply for businesses?

This drastic increase reflects how AI is one of the most transformative technologies for businesses and brand strategies. AI solutions are increasingly becoming the foundation of marketing, brand experiences and advertising, influencing the way brands interact with customers. With advances in AI's capabilities to generate text-to-image, video and voice content, brands are now able to create entire advertising campaigns with minimal human intervention. AI offers efficiency, creativity and personalization in a rapidly evolving, highly competitive digital landscape (Gao et al., 2023). Recent research shows that more and more companies are using AI to automate some or all of their creative activities, from copywriting to video editing (Davenport & Mittal, 2022).

However, this shift presents a key tension: while businesses embrace AI as an operational and strategic advantage, consumer attitudes towards AI-generated content are divided. AI driven advertising is generally seen as engaging, but at the same time there are concerns about authenticity, manipulation and the lack of a human touch (Shah et al., 2020). Consumer trust and emotional attachment to brands could be compromised if consumers know that the ad they are seeing was not created by a human (Bakpayev et al., 2020). These mixed feelings matter because trust, authenticity and emotional connection are the most important drivers for consumer loyalty and purchase intent. (Fournier, 1998). In a context where brand sincerity is increasingly expected, how ads are created is becoming a new influencing factor on brand perception (Lim et al., 2025).

Furthermore, the extent to which consumers notice the use of AI in advertising production has been found to moderate this effect (Aljarah et al., 2024). Open disclosure can create trust by promoting openness or create distrust by emphasizing the artificiality of the content. In addition, familiarity with the brand is likely to play an important role. Consumers are likely to be less sensitive or unaware of AI engagement when dealing with brands they already have experience with, while they may be stricter with unfamiliar brands (Kent & Allen, 1994).

Research reveals that perspectives on the usage of AI in ads are controversial and complex, highlighting the importance to integrate it wisely and carefully. However, research into the psychological and behavioural effects of AI-generated advertising is still relatively limited. There is particular interest in investigating the combination of transparency, familiar brands and consumer responses such as perceived authenticity, emotional attachment to a brand and trust.

This study attempts to fill this research gap by empirically investigating how AI ads influence consumer's responses, different levels of AI disclosure affect consumer sentiment towards AI-generated advertising and how these effects depend on whether the brand is known or unknown to the consumer. In doing so, this study contributes to a better understanding of the way consumers perceive and emotionally respond to AI driven marketing communications at a time when the difference between human-generated and machine-generated content is gradually fading

1.2 Research aim and objectives

The purpose of this study is to explore the impact of AI-generated advertising (ads and commercials) on consumer trust, customer loyalty, and emotional connection to the brand, and to explore the moderating roles of transparency and brand familiarity, as well as the mediating roles of perceived authenticity. The goal is to provide brands with strategic guidance on the use of AI in advertising to build customer relationships and business success. The study aims to answer three Research Questions (RQ). The first question focuses on the impact of AI ads on consumer responses.

RQ 1: How does the use of AI in advertising affect consumer trust, loyalty and emotional connection to a brand?

Throughout the research process, two moderating variables were identified that influence how consumer attitudes may shift in response to AI-generated advertisements. Consequently, the second research question examines the extent of this influence.

RQ 2: How does transparency of AI and brand familiarity positively (vs. negatively) impact consumer's responds of brand?

Building on the insights gained from answering Research Questions 1 and 2, the third research question explores how these findings can contribute to an effective AI strategy for advertising. **RQ 3:** How can brands integrate and implement AI in Ads without harming the consumer relationship?

By answering these research questions this paper can answer existing gaps in literature and offer valuable insights for future purposes.

1.3 Thesis structure

This thesis consists of six chapters, each dealing with a different part of the research process. The first chapter, which introduces the research topic, develops the problem and explains its relevance, is followed by a presentation of the objectives and research questions of the dissertation. Chapter two contains a critical examination of the literature on the research topic. The chapter addresses the theoretical foundation and key constructs behind the research, including AI-generated advertising, consumer trust, loyalty, emotional brand attachment, authenticity and the role of transparency and familiarity with the brand as moderators. Continuing to chapter three which presents the conceptual framework and the hypotheses of the study. It combines the findings obtained from the literature with the proposed model and specifies the expected relationships between the variables. Chapter four describes the research methodology and the data collection process. It discusses the experimental design, the structure of the survey, the sample population and the procedures used to measure and analyse the variables. After this, chapter five presents the results of the empirical analysis. It includes descriptive statistics, hypothesis testing and the interpretation of the results based on the conceptual model. Finally, chapter six summarizes the key results of the study and discusses their theoretical and economic implications. Chapter six also highlights the limitations of the study and makes recommendations for further research.

2. Literature Review

2.1 Introduction to AI

2.1.1 Definition of AI

In the literature, artificial intelligence (AI) is defined as the simulation of human intellect by machines enabling them to evaluate information, make decisions and learn to do things better over time. AI systems use techniques like machine learning and natural language processing to perform complex tasks once reliant on human intelligence. Kaplan and Haenlein explain that in marketing and business, AI is used to automate processes, understand consumer behaviour and support decision-making (Kaplan & Haenlein, 2019). Its use in marketing and branding has increased due to their ability to handle huge amounts of customer data, predict behaviour and create personal interactions (Tran, 2024). This understanding forms the basis for the following analysis.

2.1.2 Usage of AI in Advertising

The use of AI in advertising is a widely discussed topic in literature. Yaşar identified early that AI is changing the way companies operate. It optimizes processes, increases efficiency and improves decision-making (Yaşar, 2024). Especially, the use of AI in advertising has changed the way campaigns are developed, produced and delivered. While traditional marketing focuses on human creatives, companies increasingly turn to AI to create data driven advertising that can target the customers more precisely (Shah et al., 2020). Gao et al. describe in their research how the usage of AI systems can analyse huge amounts of data to identify the customer segments and the content which is the most attractive for this segment. With these procedures brands can guarantee that the advertising is reaching the right customers with appropriate content at the optimal time (Gao et al., 2023).

The creative aspects of advertising are also being fundamentally changed by AI. Advertisers are increasingly using tools that can write entire commercials and generate videos. AI systems are trained based on user behaviour, market trends and brand language to create engaging content that appeals to consumers (Nguyet, 2024). AI content is used across different media such as text, image, video and is often customized with user data. This allows for real-time optimization, with visual layouts, headlines and messages continuously tested and adjusted based on performance (Shah et al., 2020). Especially through AI, brands can work more efficient and save costs and time (Chen et al., 2024).

In addition, AI also enables emotionally intelligent advertising. Through behavioural analysis AI can capture individual tastes such as preferred music genres, favourite celebrities or vacation spots (Mogaji et al., 2020). AI-generated advertising can incorporate familiar sounds, images or cultural preferences to create the desired emotional responses, such as excitement (Bagozzi et al., 2022). Using these creative resources, AI produces emotionally appealing advertising that speaks to people. These advances highlight AI's growing role in content creation and strategic direction and its influence on the future of advertising.

2.2 Importance of Consumer loyalty, trust and emotional connection

2.2.1 Definition consumer loyalty and trust

Scientists describe consumer loyalty as a customer's tendency to favour a particular brand and plan to buy it repeatedly, even when other options are available (Oliver, 1999). The result of this loyalty is repeated purchases and a strong commitment for choosing a particular brand over others (Chaudhuri & Holbrook, 2001).

Consumer trust in a brand is the willingness of customers to trust a brand based on their reliable and ethical behaviour (Morgan & Hunt, 1994). Trust is built over time through positive interactions and is a critical component in building long-term relationships between consumers and brands (Chaudhuri & Holbrook, 2001). A meta-analysis of over 143 studies found that trust-based brand relationships are the highest indicator of consumer loyalty, highlighting the connection between loyalty and trust (Khamitov, 2018).

2.2.2 Definition of Emotional brand connection

Emotional brand connection is the strong psychological relationship between consumers and a brand in which consumers feel connected, engaged and identified. It goes beyond pure satisfaction and emphasizes the personal connection and emotional engagement with a brand. It determines how consumers experience a brand, interact with it and remain loyal to it in the long term (Vredevelde, 2018).

When individuals recognize their own beliefs or aspirations in a brand's message, visual identity or behaviours, they are likely to form an intense emotional connection with that brand (Rather et al., 2021). This connection may be the result of repeated positive experiences, nostalgic associations or the emotionality of brand's communication strategies. Emotional brand

connection can be built through storytelling, brand voice, community-building or shared values. In the context of advertising, creating emotional content through music, visuals, or relatable narratives can help consumers feel closer to the brand and strengthen their long term relationship with it (Rigby & Lee, 2024).

2.2.3 Influence of consumer loyalty, trust and emotional connection on the success of brand

The long-term success of a brand depends largely on consumer trust, loyalty and emotional connection which contribute to revenue, competitive advantage and market resilience. This means that customers who continuously buy a product increase a brand's customer lifetime value (CLV) and reduce acquisition costs (Oliver, 1999; Chaudhuri & Holbrook, 2001). In addition, Reichheld and Sasser explain that strong loyalty can stabilize brands during market fluctuations and recessions (Reichheld & Sasser, 1990).

In addition to loyalty, studies have shown that emotional connections have a similar effect on customer relationships including stronger brand loyalty and a higher willingness to forgive mistakes (Loureiro, Kaufmann, & Vrontis, 2012). Emotionally connected customers are more likely to spread positive word-of-mouth, brand messages and choose the brand over cheaper alternatives (Carroll & Ahuvia, 2006). Literature emphasizes that a positively perceived and emotionally engaging brand has a competitive advantage because customers associate it with trust and loyalty (Campbell & Keller, 2003). Malär et al. explain that emotional engagement is particularly strong when it is paired with authenticity and storytelling. For example, when a brand triggers feelings of happiness, nostalgia or inspiration, consumers start to see the brand as part of who they are (Malär et al., 2011). On the other hand, if a brand fails to create an emotional connection, consumers can view the brand as irrelevant. In such cases, customer loyalty decreases and purchasing decisions are based on price or convenience rather than relationship (Thomson et al., 2005).

Consumer trust is another important aspect of brand success, as it contributes directly to customer loyalty, approval and long-term stability (Morgan & Hunt, 1994). Trusted brands develop a stronger emotional bond with consumers and are therefore more crisis-resistant (Chaudhuri & Holbrook, 2001). Trust is particularly important in high-risk markets such as financial services, healthcare and luxury goods, where customers expect high reliability and credibility (Berry, 2000). Trusting customers are more confident and less anxious about their

purchases, which further encourages brand loyalty and positive word of mouth (Reichheld & Schefter, 2000). Meaning brands that fail to build trust risk customer loss, reputational damage and long-term financial losses, making trust a critical factor for sustainable business success.

From the literature and researches it can be summarized that consumer trust, loyalty and emotional brand connection together determine the success of a brand on the market. In balance, these components form the basis for sustainable brand growth and competitive advantage. However, any imbalance can have dramatic consequences for brand stability and profitability.

2.3 Influence of AI-generated advertising on customer loyalty, trust and emotional brand connection

Overall, the impact of AI-generated advertising depends on the structure and message of the ad. The differences in perception can significantly influence important consumer responses such as loyalty, trust and emotional brand connection. This section examines the impact of AI ads on these three dimensions by analysing findings from existing literature.

2.3.1 Influence of AI-generated advertising on consumer loyalty

Consumer loyalty is the foundation for the success and long-term growth of a brand (Chaudhuri & Holbrook, 2001). Literature is increasingly talking about the relationship between AI powered advertising and consumer loyalty.

While AI-generated advertising aims to strengthen consumer loyalty by making brand messages more relevant, effective and memorable, its actual impact remains controversial (Gao et al., 2023). AI systems can understand broad consumption patterns and use it to resonate with typical target consumers, enabling companies to increase the relevance of their messages to market demands. The ability to create meaningful, brand-specific content is the foundation for brand consistency, which is a key element of loyalty (Ojha, 2023). Such precise Ads can strengthen customer relations and therefore consumer loyalty. Furthermore, AI allows for more creative ads which can enhance brand perception and keep customers engaged with a brand (Campbell et al., 2022). For example, KitKat aimed to keep younger customers engaged and loyal by developing an AI-generated advertisement featuring the slogan “Have AI Break,” a modification on their “Have a break – have a KitKat!” slogan. The brand successfully

incorporated AI in a fun and engaging way while maintaining authenticity. The campaign resonated well with audiences and even earned an award (Strategy Awards, 2024).

On the other hand, if an ad appears inauthentic, it can lead consumers to favour more genuine competitors resulting in loyalty loss (Campbell et al., 2022). Despite its strategic benefits, research warns that AI-generated content may lack the depth to foster strong consumer relationships (Huang & Rust, 2023). Teepapal agrees that AI-driven advertising have a negative impact on customer loyalty, specifically because customers tend to feel disconnected with the brand or have privacy concerns (Teepapal, 2025). Researchers caution that AI does not always understand the emotional nuances required for a lasting connection (Gao et al., 2023).

2.3.2 Influence of AI-generated advertising on consumer trust

Consumer trust is at crucial, particularly when it comes to AI-generated advertising. As AI's role in advertising grows, concerns around credibility, transparency and control become central to consumer trust (Kaplan & Haenlein, 2019).

Trust in AI-generated advertising is often connected to whether the customer can understand and feel comfortable with the role AI plays in a brand's communication strategy. When consumers know that the advertisement was created by AI, they question whether its message is purely profit-driven (Wortel et al., 2024). Aljarah et al. point out that consumers are suspicious of non-human actors, especially if they feel that their data is being used without sufficient explanation. This can undermine trust in the brand, even if the advertising content itself is well adapted or affectionate (Aljarah et al, 2024). However, other research suggests that when AI advertising is perceived as relevant and useful, it can build long term trust. For example, if the advertising fits to consumer preferences without being too intrusive, consumers will see the brand as competent and responsive (Grigsby et al., 2025). Thus, there is a need for balance between privacy and personalization. Advertising that is overly personalized can raise concerns of exploitation of individual data, damaging trust (Sharma et al., 2023).

2.3.3 Influence of AI-generated advertising on emotional brand connection

Emotional connection is a vital component for successful long term brand building, especially in completely mature markets (Woods, 2004). Looking at AI advertising, AI can evaluate consumer information and behaviour and develop advertising content that matches the interests,

values and emotions of the target audience (Reddy, 2024). In addition, AI's ability to innovate visual storytelling and adapt messages to consumer tastes allows brands to create more personalized stories. For instance, AI can create images, soundtracks and voiceovers that mimic human emotions, which can boost the overall emotional appeal of a commercial. This can create brand stories that feel relevant and emotionally resonant, enhancing emotional engagement (Park et al., 2024). Chen specifically explains that AI advertisement raises positive associations among customers who are fascinated by AI. This helps brands stand out and develop an emotional connection in a more innovative way. On the other hand, this research also suggests that the emotional connection driven by advertising is highly dependent on personal experiences and individual perceptions of AI. For brands with a less tech-savvy customer base, this could potentially have a negative impact on the emotional brand connection (Chen, 2024).

Nonetheless, research also points to significant limitations. Emotional connection relies on authenticity, empathy and human warmth, qualities that are more difficult to replicate with AI (Seitz, 2024). If customers find out that the advertisement was created purely by AI, they might question the sincerity of the message, which would reduce the emotional impact (Brantner & Saurwein, 2021). Emotional brand relationships develop over time through experience and trust. If AI-powered advertising feels too calculated or lacks spontaneity, there is a risk that it will come across as emotionally superficial. Furthermore, if the content sounds generic or toneless, especially in sensitive or identity-based categories (e.g., social concerns, personal care), it will lead to emotional distancing. A study from Arango et al. discovered that when an Ad wants to address an emotional topic e.g. a charity for children, AI-generated pictures trigger weaker emotional responses from consumers (Arango et al., 2024).

A review of the existing literature reveals a clear gap in understanding the true impact of AI-generated advertising on consumer trust, loyalty, and emotional brand connection, as current research presents contradictory findings.

2.4 Mediating variables

Perceived authenticity plays an essential mediating role between AI-generated advertising and consumer responses. Literature suggest that optimizing AI-made Ads can influence how authentic a brand is perceived, which in turn affects consumer loyalty, trust and emotional brand connection (Yang & Battocchio, 2020).

2.4.1 Perceived Authenticity

Authenticity is central to the customer-brand relationship, shaping how consumers judge whether a brand aligns with their expectations (Chaudhuri & Holbrook, 2001).

AI-generated advertising presents a paradox when it comes to authenticity. On the one hand, AI can increase relevance by matching the content of the advertisement to consumers' lifestyles, desires or cultural references through data (Manoharan, 2024). If brands manage to present this content correctly, it can result in higher perceived authenticity (Ojha, 2023).

On the other hand, the automation of AI also poses significant challenges. Research shows that customers associate authenticity with human intention, creativity and emotional sincerity, elements that are difficult for machines to replicate. Once customers realize that the advertisement was generated entirely by AI, the brand's message may be perceived as less authentic (Kirk & Givi, 2025).

The effect of perceived authenticity is highly dependent on its context. For example, AI-generated content in categories where creativity, originality or emotional storytelling is expected (e.g. fashion, luxury or social) is likely to be more criticised than in utilitarian or technology-centric categories. This makes authenticity a crucial mediating variable in the relationship between AI-made advertising and consumer outcomes (Im & Lee, 2023).

2.5 Moderating variables

2.5.1 The role of transparency of AI disclosure

The transparency of AI-generated advertising has been identified as a key moderating factor that has a strong impact on how people respond to AI content. Transparency is related to how openly brands communicate the role of AI in the creation of advertising. Specifically, it concerns whether users are informed that the advert they are seeing has been partially or fully generated by AI (Yang & Battocchio, 2020). Moreover, consumer awareness of AI affects their willingness to trust and engage with brands who use it (Oyekunle & Boohene, 2024). Literature highlights both the benefits of transparency in building trust, loyalty and an emotional connection and the dangers of non-transparent AI applications.

On the positive side, clearly disclosing AI use can promote brand authenticity and innovation, which in turn leads to greater trust (Kirkby et al., 2023). When customers are informed that an

advertisement has been created using AI, they may perceive the brand as innovative, technologically advanced and forward-thinking (Wu & Wen, 2021).

Conversely, excessive or poorly communicated transparency can also be counterproductive. Overemphasizing the usage of AI in advertising can diminish perceptions of human creativity, emotional warmth and authenticity (Shukla, 2024). Overly technical or imprecise claims can also overwhelm or confuse consumers, in contrast to their clear understanding, and create mistrust (Kautsar et al., 2024).

A particular concern is the balance between information and alerting. While clear labelling such as “Created with AI” can build trust, studies show that disclosures can also raise privacy concerns, the impression of manipulation, or a general discomfort with the presence of AI in emotional or persuasive communication, harming consumer trust and loyalty (Lefkeli et al., 2023).

2.5.2 Role of Brand Familiarity

Brand familiarity describes the degree to which customers recognize and have prior experience or knowledge of a brand (Campbell & Keller, 2003). It serves as a key moderating factor in shaping how customers perceive and respond to AI-driven advertising.

Research suggests that consumers are more likely to accept and engage with AI-generated advertisements from brands they know and trust. Familiar brands have the advantage of having already established an emotional connection and trust, which can help reduce distrust of AI content (Aljarah et al., 2024). Thus, brand familiarity can ease potential concerns about the authenticity or ethics, allowing consumers to judge the message more positively and focus on content rather than its origin (Kirk & Givi, 2025).

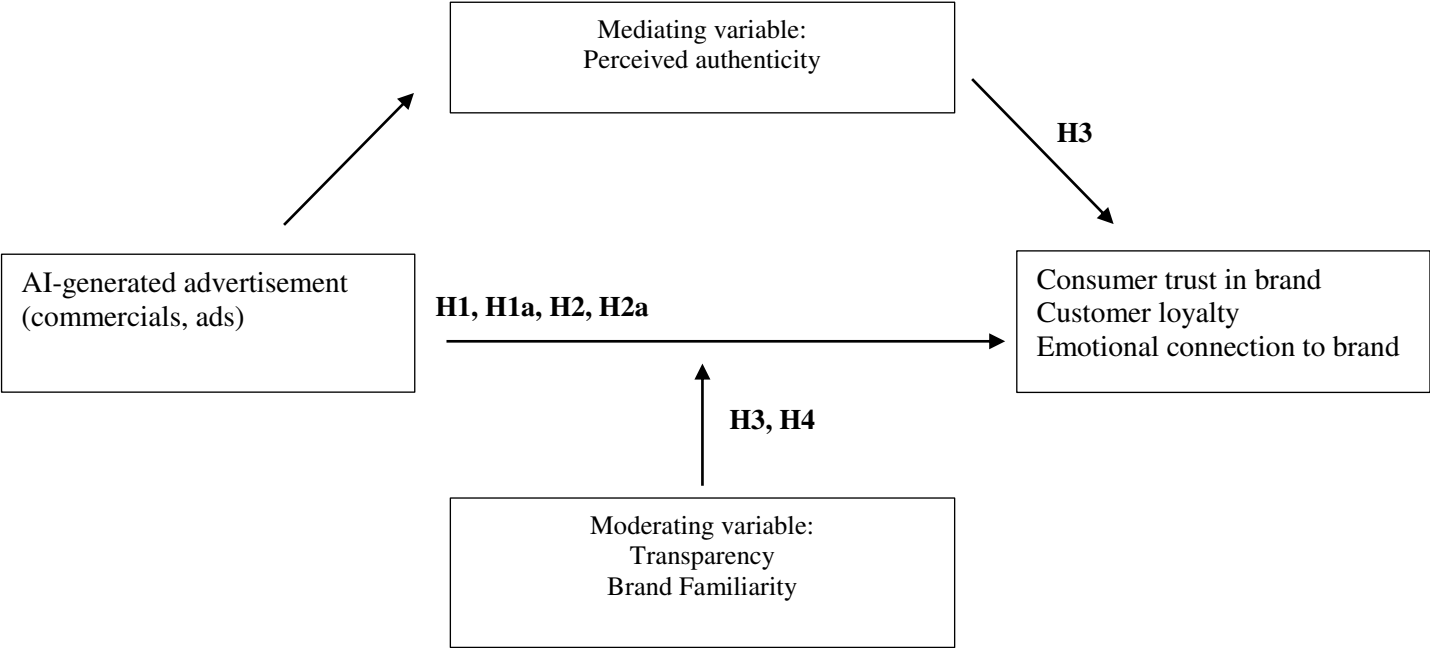
In contrast, unknown or recently launched brands could be subject to greater examination when using AI-generated advertising. In these cases, AI use might be seen as a cost-saving tactic or lacking identity, causing scepticism, lower emotional engagement, and weaker brand trust (Manoharan, 2024). In addition, the level of brand awareness also determines how consumers process AI information. For well-established brands, disclosing AI involvement is more likely to improve the brand connection. However, for lesser-known competitors, such disclosure is likely to risk reputation or create mistrust regarding credibility and data integrity (Arango et al., 2023).

These moderating variables are central to the experimental design of this study, as their impact on consumer trust, loyalty and emotional attachment in response to AI advertising is empirically tested.

3. Conceptual Model and Hypothesis

This study examines the effects of the use of AI-generated advertising content on consumer attitudes towards brands. In particular, the study aims to find out how AI ads influence brand loyalty, consumer trust and emotional attachment to a brand. While AI tools are widely used in marketing due to their efficiency and the quality of their content (Gao et al., 2023), previous studies show mixed consumer reactions to AI-made advertising. The theoretical model proposes that AI-generated advertising (independent variable) has an impact on consumer trust, brand loyalty and emotional brand attachment (dependent variables). Perceived authenticity acts as a mediator variable, while AI transparency and brand familiarity function as moderating variables.

Figure 1. Conceptual Framework



Hypotheses:

According to the literature, consumers feel more connected to brands that they trust and that are seen as authentic (Portal et al., 2019). However, using AI in advertising may lower

consumer perceptions and increase their scepticism, potentially harming consumer loyalty and the emotional connection (Gao et al., 2023). At the same time, AI can also be seen as a symbol of innovation, which can have a positive impact on brand loyalty and trust if the technology is perceived to be used ethically and transparently (Shah et al., 2020).

In light of this, the following hypotheses are proposed:

H1: AI-generated advertisements impact brand loyalty and consumer trust positively (vs. negatively).

H2: AI-generated advertisements have a positive (vs. negative) impact on the emotional brand connection.

Existing literature emphasizes that perceived authenticity influences how consumers evaluate AI-generated ads. As long as consumers perceive the content as authentic and consistent with the brand's values, their trust and loyalty will most likely remain high (Mogaji et al., 2020). Therefore:

H3: Perceived authenticity mediates the relationship between AI-generated advertisements and consumer trust, loyalty and emotional brand connection.

Transparency is a key factor in shaping consumer attitudes towards AI-generated content. Transparency in form of AI disclosure can reassure consumers and sustain trust. Misleading or undisclosed information causes consumers to question the brand and stop supporting a brand (Wang & Qiu, 2024). Therefore:

H4: Transparency of AI in advertisements impacts consumer trust, loyalty and emotional brand connection positively (vs. negatively).

Lastly, consumers will react positively to well-known brands if they use the existing emotional associations and brand equity (Park et al., 2010). Established brands will withstand mistrust towards AI advertising better than unknown brands, leading to following hypothesis:

H5: The impact of AI-generated advertisements on consumer trust, loyalty and emotional brand connection is stronger in the familiar brands than less known brands.

4. Methodology and Data Collection

4.1 Research Design

In the first part of this paper secondary data was examined and analysed, discovering gaps which were approached in the primary research. The primary research therefore adopts a quantitative experimental design to examine the effects of AI-generated advertisements on consumer trust, loyalty, and emotional brand connection. The study further considers the moderating role of transparency and brand familiarity, as well as the mediating role of perceived authenticity.

Data collection was conducted in two phases: a pilot test to ensure that participants understood the questions and to guarantee that the manipulations are valid, and a main study to test the hypothesized relationships. Data collection was conducted using Qualtrics. The survey software program has advanced features that allow randomization of questions and export of collected data for analysis using SPSS. Questionnaire distribution was carried out by anonymous links shared via social media, diverse channels across networks and in person. This enabled to reach participants easily and fast, offering flexibility to answer at a suitable moment and place.

4.2 Sampling

In this study, convenient sampling, a form of non-probability sampling, was used to capture respondents. Convenience sampling was used because it facilitates reaching respondents who are easily accessible, geographically close, and willing to participate within the time frame of data collection (Marshall, 1996). Although this method does not allow statistical generalization to the population, it is often used in experimental research when the primary aim is to investigate theoretical relationships (Peterson & Merunka, 2014).

4.3 Research Instrument

During this research two studies were conducted: A Pilot study and the main study. Each study represents an important step to evaluate the research conditions and survey questions.

4.3.1 Pilot study

Prior to the actual study, a pilot study was conducted to determine the design and manipulations of the survey and to ensure that it was understandable and efficient (Van Teijlingen & Hundley, 2002). The main objective of the pilot study was to test whether participants interpreted the moderating variables in relation to the different levels of transparency disclosure and brand familiarity as intended. In addition, the pilot experiment aimed to test whether the advertising stimuli used were understandable and identified as realistic and accurate representations of the brand communication.

21 participants took part in the pilot study. They were randomly assigned to one of three transparency levels (low, medium or high) and watched an advertisement from a well-known or an unknown brand. Participants were then asked to complete a series of questions to measure their perceptions and emotional reactions. The responses from this first sample were used to make changes to the wording of the questions, improve the logical flow of the questionnaire and monitor the effectiveness of the experimental manipulations. The pilot study showed that the participants had understood the questions well and that the experimental manipulation was effective. To achieve more reliable results, some positive adjustments were made. These included replacing the original Coca Cola advertisement, which was a festive holiday commercial, with a more general advertisement. As the study was conducted outside of the Christmas period, this change was considered appropriate to avoid seasonal bias in participants' responses and resonate better to the current timing.

4.3.2 Main study

Following the pilot study, several changes were made to the experimental design as a result of participant feedback. The main difference was the introduction of a control group for the manipulation of brand familiarity. This allowed for a 2×2 factorial design, i.e. AI-generated ads versus non-AI generated ads (control) for well-known and less well-known brands. This shift allowed for a more comprehensive examination of the effects of AI use.

The main study was conducted in English and distributed via social media and in person. 356 participants responded to the survey, from which 238 finished the survey and were used for further analysis. Participants were assigned to one of three levels of AI transparency (high, medium or low) and one of four brand scenarios (high familiarity with AI-generated advertising, high familiarity with human generated advertising, low familiarity with AI advertising or low familiarity with human generated advertising). The experimental design

provided for an equal number of participants in all seven experimental conditions. Each consumer was exposed to a single advertisement and then completed a standardized series of questions.

4.4 Design and Procedure

The main objective of this study is to explore the influence of AI-generated advertising on consumer trust, emotional connection to the brand and brand loyalty, with familiarity and transparency serving as moderator variables and perceived authenticity as a mediator variable. A quantitative, experimental Survey method was used to achieve this goal.

As previously mentioned, participants were randomly assigned to one of twelve experimental conditions resulting from the combination of three AI transparency levels and four brand familiarity conditions. This corresponds to a 3 (transparency) × 4 (brand familiarity) factorial design, enabling the examination of how these factors affect consumer responses and offering more meaningful insights for companies.

The level of transparency was manipulated through text statements shown along with the ad, and brand familiarity was manipulated by the use of the well-known brand (Coca Cola) and lesser-known brands (Path Water), as well as by how the ad was created (AI-generated vs. human-generated). To separate the response from AI-generated vs. human-generated ads, the AI involvement in the advertising was specified.

Table 1: Manipulation Scenarios

		1	2	3	4
AI Involvement in Ad	Made by AI	x	x		
	None: Made by human			x	x
Brand Familiarity	Well known Brand (Coca Cola)	x		x	
	Less known Brand (Path Water)		x		x
		1	2	3	
Transparency Disclosure	High and in detail	x			
	Medium, only mentioning AI		x		
	No disclosure			x	

The survey began with some general questions about participants’ exposure to AI tools, their prior knowledge and their views on the use of AI in advertising. Participants were then shown samples of AI-generated image ads to familiarize them with the concept of AI-powered content.

In the experimental part, they were then presented with an ad that matched their condition, a video ad created by AI or a human and asked to respond to a series of statements measuring brand trust, emotional affection, purchase intent and perceived authenticity. A manipulation check was then conducted, measuring whether participants recognized the AI used in the ad and how clearly the claims were perceived. Perceived transparency was also measured. The survey ended with demographic data, including employment status, gender and age, for the purpose of further segmentation and analysis.

4.5 Stimuli

The stimuli used in this study aimed to manipulate two fundamental factors: the degree of disclosure of AI transparency and the level of brand awareness from the ad (Appendix 8.3). To analyse transparency, three variants of an AI-generated ad for the brand Dove were developed. All three had the same visual content, but differed in the AI disclosure:

- In the high transparency variant, the ad included a clear note describing AI's role in creating the ad, specifically how AI learned from previous interactions and used personal data to customize the content.
- The medium transparency condition had a brief mention of AI involvement without further explanation.
- There was no reference to AI in the low transparency condition.

To manipulate brand familiarity, two brands within the same product category, namely beverage brands, were selected to consider possible biases due to different industry contexts. Coca Cola was used as the very well-known beverage company since it has a high level of familiarity. Path Water, a relatively unknown water brand, was used as an unknown brand. Two commercial videos were selected for each of the two brands:

- One commercial created by AI that was clearly labelled as being created by AI.
- A commercial created by humans that contained no reference to AI.

This resulted in four conditions for brand familiarity:

- Familiar brand (Coca Cola), AI-generated
- Familiar brand (Coca Cola), human created
- Unfamiliar brand (Path), AI-generated
- Unfamiliar brand (Path), human created

The advertisements were displayed directly in the survey interface as embedded YouTube videos. Participants were shown a standardized instruction page describing the situation's context beforehand, followed by a set of questions measuring their responses to the stimuli.

4.6 Variables description

All independent and dependent variables were measured after participants were exposed to the experimental stimuli. All constructs were measured using 5-point Likert scales ranging from 1 (“strongly disagree”) to 5 (“strongly agree”).

4.6.1 Manipulation check

To ensure that Coca Cola counts as the well-known brand, participants were asked about their familiarity and usage of the brand.

To test the manipulation of brand familiarity, participants were shown one of two brands (Coca Cola or Path Water) and then asked the question “how familiar are you with the brand”. Answer options ranged from “I’ve never heard of this brand before” to “I know this brand very well, including its values and image”. This manipulation is based on the idea that brand familiarity influences consumer trust and emotional response more positively, as noted by Keller (1993). To assess consumers’ actual engagement with the brands, participants also answered the following questions: “How often do you buy from this brand?”. This helped to confirm Coca Cola as the known brand and Path Water as the unknown brand, consistent with prior research using brand recognition as an indicator for trust (MacInnis et al., 1991).

To understand how AI involvement and its transparency was perceived, participants rated the authenticity and disclosure of AI use. The following was used to assess this question:

- “I believe the brand clearly disclosed the role of AI in creating the advertisement.”
- “The brand appears honest and transparent to me.”
- “The AI disclosure affects my brand perception positively.”

4.6.2 Independent Variables

AI-generated ads: This variable was represented by showcasing different AI-generated ads and understanding consumers preferences for its usage. Through displaying fully AI-driven Ads and human created Ads the preference and change of consumer perceptions got discovered.

4.6.3 Dependant Variables

Participants' responses to each ad were assessed using a 5 Likert scale aligned with previous research.

Consumer Trust: Consumers were asked about their personal perception towards a brand and if they think the ad is trustworthy. This was measured by ranking their agreement with statements such as "I perceive this brand as trustworthy." This method was adapted from Ohanian Scale to measure trustworthiness (Ohanian, 1990).

Consumer loyalty: To understand what impact AI -Ads have on consumers' loyalty, participants ranked their "likeliness to stay loyal to this brand ", "consideration to purchase again from this brand" or "likeliness to prefer this brand over competition" from strongly disagree to strongly agree in a five scale, adapted from Yoo & Donthu (2001).

Emotional Brand Connection: Throughout the survey participants were asked about their emotional engagement through statements such as "I felt personally engaged and emotionally connected during the advertisement" or "I feel emotionally closer to the brand". This was developed with inspiration from the emotional brand attachment Scale by Thomson et al. (2005).

Perceived Authenticity: To assess perceived authenticity the brand authenticity scale by Napoli et al. (2014) was used as a foundation. Adapting it to this research, statements about the genuinity, authenticity of AI-generated Ads and the content shown were ranked by consumers. It included statements i.e. "the AI-generated ad feels genuine" or "the advertisement reflects authentic brand values".

4.6.4 Covariates

In addition to the core variables, participants' prior experience and openness toward AI were measured to understand if previous experience might change the responses towards the ads. These included following questions:

- "How often do you use AI-powered tools (e.g., ChatGPT, Copilot, Google Assistant)?"
- "I feel comfortable using technologies that are powered by artificial intelligence."
- "I actively choose products or services that incorporate AI."

These questions were used to consider AI affinity and user behaviour, based on approaches from Unified Theory of Acceptance and Use of Technology (UTAUT) (Venkatesh et al., 2003).

4.6.5 Moderator

Transparency: As mentioned before, participants were exposed to one of three transparency scenarios. After reviewing the ad consumers evaluated it by answering questions about authenticity of the brand, if the disclosure seemed to be transparent and if their attitude towards consuming this brand changed. Questions were elaborated by using previous data on transparency from the Persuasion Knowledge Model (Friestad & Wright, 1994).

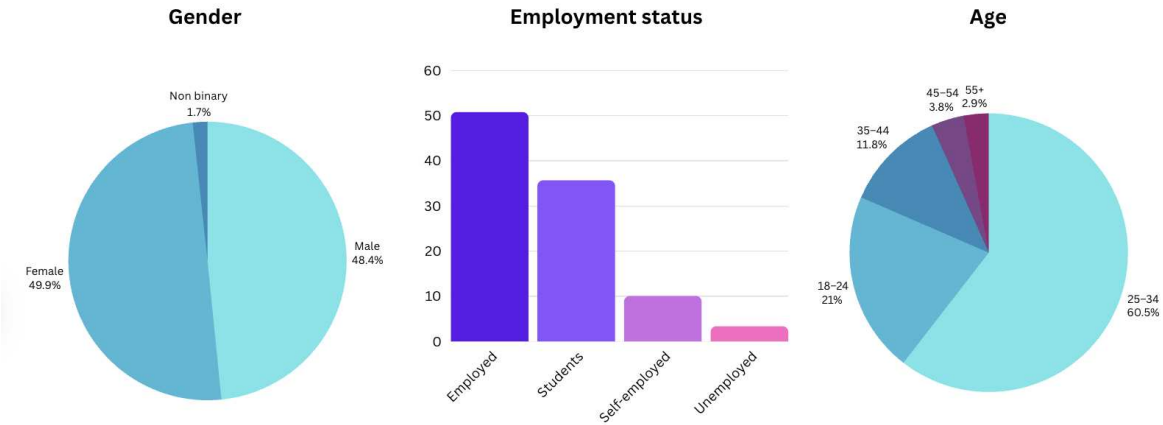
Brand Familiarity: Through comparing consumers responses to the ads from Coca Cola (well known) and Path water (less known) brand familiarity and its influence got researched, based on the Brand Equity Theory (Keller, 1993). To understand the impact of familiarity, consumers had to rank statements such as “I felt personally engaged and emotionally connected during the advertisement”, “the advertisement increased my trust in this brand” or “the AI-generated ad feels genuine”.

5. Analysis & Results

5.1 Sample Characteristics

In the survey, 356 participants, from which 238 were included and 118 were excluded due to incompleteness, were questioned about their perceptions of AI-generated advertisements. The final part of the survey covered the demographical characteristics of participants.

Figure 2. Sample Characteristics



The sample was balanced in terms of gender: 48.4% male, 49.9% female, and 1.7% non-binary, indicating a significant representation across male and female participants. Regarding employment status, the majority were employed (50.8%), followed by students (35.7%), self-employed individuals (10.1%), and unemployed participants (3.4%). In terms of age distribution, the largest group was between 25–34 years old (60.5%), followed by 18–24 years old (21.0%) and 35–44 years old (11.8%). Smaller portions of the sample included participants aged 45–54 (3.8%) and 55+ (2.9%). Each participant was presented with two different scenarios: one AI-generated ad focusing on transparency and AI disclosure, and one ad from either Coca Cola or Path Water. This design resulted in a total of 476 observations.

5.2 Data Screening and Multivariate Outliers

Prior to conducting the main analyses, data screening was performed to determine multivariate outliers. Mahalanobis distance was calculated for several variables reflecting participants’ general attitudes towards AI powered advertising (e.g., trust, loyalty, perceived authenticity).

This method evaluates how much an individual participant's response deviate from the average responses (Verardi & Vermandele, 2016).

With 11 variables used, the critical chi-square at $p < .001$ was set at 26.76. There were a few cases with Mahalanobis distances greater than this value. However, upon closer inspection, the responses of these respondents varied across items and did not provide evidence of overall extreme or systematic bias. No carelessness or random responding was observed either. In this case, it was not necessary to exclude participants based on Mahalanobis distance scores. This approach avoided the unnecessary removal of valid responses that showcased meaningful variation within the sample (Osborne & Overbay, 2004). Since the responses appeared thoughtful and varied, these participants were retained as they contributed to the diversity of perspectives.

5.3 Scales Reliability

Prior to the main analysis, participants' general attitudes towards AI-generated advertising were analysed using a factor analysis. This method helps to group related questions into broader categories or factors. Next, reliability tests (Cronbach's alpha) confirmed that these groups of items were reliable and coherent (Taber, 2017). Each analysis was conducted separately for the general consumer attitude measures and for the experimental settings (transparency and brand familiarity), to ensure all functioned correctly under each condition.

The first analysis concerned the participants' general attitude towards AI ads. A factor analysis was conducted with the following items: Trust in the ad, honesty and authenticity, brand value communication, emotional connection, loyalty, engagement, preference for AI services and overall openness to AI (Appendix 8.5). The data met the criteria for factor analysis, as indicated by a high Kaiser-Meyer-Olkin (KMO) value of .862 and a significant result from Bartlett's test of sphericity (Tabachnick & Fidell, 2013). Based on this, three factors were retained that explained approximately 69% of the total variance.

The three factors are as follows:

Emotional connection: Measures of emotional attachment and interest in the AI ad.

Perceived authenticity & loyalty: Measures brand-specific trust, loyalty and purchase intention.

General AI open-mindedness: Measures openness and acceptance towards AI advertising.

To assess how consistently the items on the perceived authenticity scale measure the same concept, a reliability analysis was conducted using Cronbach's alpha. The scale consisted of six items reflecting consumers' attitudes towards AI-generated advertising, including perceived honesty, authenticity, brand values and trust. The reliability coefficient ($\alpha = 0.878$) indicates very good internal consistency. According to DeVellis (1991), values above 0.80 is considered very good, suggesting the items reliably measure the same construct (DeVellis, 1991). All corrected item-total correlations exceeded the recommended threshold of 0.5, and no single item significantly increased Cronbach's alpha when deleted. Therefore, all six items were retained for further analysis. The same procedure was applied for emotional connection scale, including variables such as 'emotional connection with AI ad' and 'emotional bond with brand'. The internal consistency of this scale was excellent (Cronbach's $\alpha = .872$), indicating a strong and reliable measure for emotional attachment. A reliability test was then performed for loyalty and emotional connection. The resulting Cronbach's alpha of 0.514 was below the acceptable threshold of 0.6 (DeVellis, 1991), indicating low internal consistency. For this reason, and in line with previous research confirming single-item measures in well-defined constructs, the two items were separated and retained in further analysis as individual single-item measures of loyalty and commitment (Diamantopoulos et al., 2012; see Appendix 8.6).

A factory analysis was performed on the ten transparency-related variables to examine their underlying structure, see Appendix 8.7. The results revealed a two-factor solution, which explained over 60% of the total variance. These two components were labelled "Relational Trust & Engagement" and "Transparency Disclosure." Based on this, two distinct subscales were formed (Appendix 8.8). The trust and engagement subscale consisted of eight items and demonstrated excellent internal consistency ($\alpha = .874$). These items measured aspects such as trust, purchase intention, emotional connection, and overall positive response to transparency. The Transparency Disclosure subscale, composed of only two items (awareness and disclosure), had a Cronbach's alpha of .653 (Appendix 8.8). While slightly below the ideal threshold, this value is still considered acceptable for a two-item scale in exploratory research (Eisinga et al., 2013).

In the AI brand familiarity condition, trust-related values were measured (e.g. trust in brand values, trust development) (Appendix 8.9). This scale showed good internal consistency ($\alpha = .811$). The loyalty subscale, consisting of purchase intention and brand preference, also showed good internal consistency ($\alpha = .866$). The same trust and loyalty subscales were tested for the control group (non-AI advertising). The trust subscale again showed very good internal consistency ($\alpha = .860$), and the loyalty subscale also showed high reliability ($\alpha = .834$). This

confirmed that all scales measure a similar construct and function well together. The emotional connection scale for brand familiarity showed good internal consistency for both AI-generated ads ($\alpha = .800$) and control ads ($\alpha = .848$), indicating reliable measurement across groups. The two-item scales (emotional connection and emotional closeness) were strongly correlated ($r = .667$ for AI ads; $r = .736$ for control), supporting their combination into a single construct (Appendix 8.9).

5.4 Results Manipulation check

To test whether the manipulation of perceived transparency was successful, a one-way ANOVA was conducted. Participants were divided into three experimental groups based on how transparent the AI-generated ad was. The aim was to determine whether participants perceived the transparency of the advertisement differently across conditions. A factor score combining several items measuring perceived disclosure and transparency was used as the dependent variable. These items had previously been grouped via factor analysis and reflected the participants' overall perception of how clearly the involvement of AI in advertising was communicated.

Table 2: Manipulation check - Transparency disclosure levels (One-way Anova)

Transparency Condition	Mean (M)	Standard Deviation (SD)	Condition Comparison	p-value
Low	0.33	0.96	Low vs. Medium	< .001
Medium	-0.52	0.95	High vs. Medium	< .001
High	0.23	0.88	Low vs. High	.772

The test revealed a statistically significant difference in perceived transparency between the three conditions, $F(2, 235) = 20.14$, $p < .001$. Levene's test confirmed that the assumption of homogeneity of variances was met, $p = .630$, and robust tests (Welch and Brown-Forsythe) supported the ANOVA results. Post-hoc Tukey HSD tests showed that individuals in the low-transparency condition ($M = .33$, $SD = .96$) perceived significantly more transparency than participants in the medium-transparency condition ($M = -.52$, $SD = .95$), $p < .001$. The high-transparency condition ($M = .23$, $SD = .88$) also differed from the medium condition, $p < .001$. However, there was no significant difference between the high and low transparency condition ($p = .772$), these two groups were therefore considered equivalent. This indicates the

manipulation of transparency was successful. Participants perceived significant differences between the disclosure levels of the ads, particularly between the medium-transparency group and both the low- and high-transparency groups.

An independent samples t-test was used to test whether the manipulation of brand familiarity was successful.

Table 3: Manipulation check - High vs. low brand familiarity (Independent T-Test)

	High Brand Familiarity		Low Brand Familiarity	t-test
	Mean	SD	Mean	SD
Brand Familiarity	4.51	1.27	1.27	0.61
t = -17.48*** Note: ***p < .001, **p < .01, *p < .05, +p ≤ .1				

Respondents with low familiarity (Path Water) reported significantly lower familiarity (M = 4.51, SD = 1.27) compared to those with high familiarity (Coca Cola; M = 1.27, SD = 0.61), $t(79,41) = 17.48, p < .001$. Levene's test for equality of variance was significant ($F = 69.12, p < .001$), so equal variances were not assumed.

5.5 Main Results

5.5.1 Impact of AI Ads on consumer trust and loyalty

H1: AI-generated advertisements impact brand loyalty and consumer trust positively (vs. negatively).

To determine whether consumer trust and brand loyalty are influenced by AI-generated ads, two one-sample t-tests were conducted. A scale mean of 3 was used as the test value, representing a neutral point of evaluation.

Table 4: Consumer loyalty and trust towards AI ads (One sample t-test)

	Mean	SD	t-test
Trust (vs. neutral = 3)	2.36	0.95	-10.42***
Loyalty (vs. neutral = 3)	3.60	1.27	7.24***
Note: ***p < .001			

The variable trustworthiness and likeliness to stay loyalty were tested. Trust in AI-made advertising was significantly lower than neutral ($M = 2.36$, $SD = 0.95$), $t(238) = -10.42$, $p < .001$. The large effect size (Cohen's $d = -0.68$) and the confidence interval of the mean difference of $[-0.76, -0.52]$ indicate a negative influence on trust. On the other hand, brand loyalty was rated significantly above the neutral mean ($M = 3.60$, $SD = 1.27$), $t(237) = 7.24$, $p < .001$. The confidence interval $[0.43, 0.76]$ and the mean effect size ($d = 0.47$) indicate a positive effect on loyalty. Taken together, these results provide partial support for H1: while consumers indicated a higher likelihood of remaining loyal to a brand after seeing an AI ad, their trust towards a brand is negatively influenced.

5.5.2 Impact on Emotional Brand Connection

H2: AI-generated advertisements have a positive (vs. negative) impact on the emotional brand connection.

Table 5: Emotional brand connection towards AI ads (One sample t-test)

	Mean	SD	t-test
Emotional Attachment (vs. neutral = 3)	2.16	0.99	-13.11***
Note: ***p < .001			

A one-sample t-test was conducted to examine the effect of AI-generated advertising on consumers' emotional connection to a brand. The average rating on the emotional attachment scale was 2.16 ($SD = 0.99$), compared to the neutral midpoint of the 5-point Likert scale (value = 3). The results showed a clear and significant difference from this neutral point, $t(237) = -13.11$, $p < .001$. On average, participants reported feeling significantly less emotionally connected to the brands (mean difference = -0.84 , 95% CI $[-0.97, -0.71]$). In addition, the effect size was substantial with Cohen's $d = -0.849$, indicating a negative effect of AI-generated ads on emotional attachment.

The results clearly support H2, indicating that consumers feel less emotionally connected when viewing AI-generated ads.

5.5.3 Mediating role of perceived authenticity

H3: Perceived authenticity mediates the relationship between AI-generated advertisements and consumer trust, loyalty and emotional brand connection.

To confirm H3, the study examined whether perceived authenticity mediates the relationship between AI-created advertising and consumer trust, loyalty and emotional brand attachment. Following PROCESS model 4 with 5,000 bootstrap samples and a 95% confidence interval, three separate analyses were conducted (Hayes, 2022). In all three models, the independent variable (X) was exposure to an AI-generated ad, the mediator (M) was perceived authenticity, and the dependent variables (Y) were tested for trust, loyalty, and emotional brand attachment.

Table 6: Mediating role of perceived authenticity (PROCESS model 4)

Dependent Variable	Direct Effect of AI Ad (p-value)	Effect of Authenticity on Outcome (p-value)	Indirect Effect via Authenticity (p-value)
Trust	.009	< .001	.009
Loyalty	.494	< .001	.098
Emotional Attachment	.320	< .001	.057

In the case of trust, exposure to an AI advertisement influenced perceived authenticity ($p = .009$), and perceived authenticity had a strong and significant effect on trust ($p < .001$). The indirect effect of exposure to an AI advertisement on trust remained significant ($p = .009$), meaning that AI-generated advertisement reduces trust in the brand, because it makes the ad feel less authentic. This supports perceived authenticity as a mediator.

For loyalty, perceived authenticity again had a strong positive effect on the outcome ($p < .001$), but the direct effect of AI ad exposure was not significant ($p = .494$). This explains that that loyalty may be influenced by factors other than perceived authenticity, as AI exposure alone did not have a significant impact on loyalty. The indirect effect via authenticity was not significant as well, emphasizing that perceived authenticity is not a mediating factor in the relationship between exposure to AI advertising and loyalty.

Perceived authenticity also strongly increased emotional brand attachment ($p < .001$), while exposure to AI advertising had no significant direct effect ($p = .320$). The indirect effect of AI advertising on emotional attachment through perceived authenticity was also only modestly significant ($p = .057$), indicating a possible but not definitive mediation effect.

Taken together, these results provide partial support for H3. Perceived authenticity was an important predictor of trust, loyalty and emotional brand attachment. While perceived authenticity significantly influences trust, it does not fully mediate the effects on loyalty or emotional attachment. This suggests that consumers are likely to trust AI-generated advertising less if they perceive it as inauthentic, although their loyalty and emotional attachment may remain unaffected.

5.5.4 Moderating role of transparency of AI disclosure

H4: Transparency of AI in advertisements impacts consumer trust, loyalty and emotional brand connection positively (vs. negatively).

The first step was to explore how participants perceived the different transparency levels of the AI ads. Therefore, a chi-square independence test was conducted.

Table 7: Transparency level recognition (Independent t-test)

Test	df	N	p-value
$\chi^2 = 24.95$	4	238	< .001

The relationship was statistically significant, $\chi^2(4, N = 238) = 24.95, p < .001$. Participants who saw ads with low transparency rated them as less transparent, while participants who saw ads with high transparency rated them as medium to very transparent. This suggests that the manipulated transparency level effectively influences the perceived transparency.

To further test H4, it was examined whether the level of AI disclosure in the ad had a significant impact on trust, brand loyalty and emotional brand attachment. In this context, one-way ANOVAs were conducted.

Table 8: Impact of level of AI disclosure (One-way ANOVA)

Dependent Variable	F	df	p-value
Trust (<u>Trans_Trust</u>)	0.395	2, 235	.471
Loyalty (<u>Loyalty_Composite</u>)	1.402	2, 235	.551
Emotional Attachment (<u>Emotional_Connect_Composite</u>)	0.653	2, 235	.309

The results for all three dependent variables were not significant ($p > .05$), indicating no measurable difference in trust, loyalty or emotional connection based on whether the ad disclosed its AI origin with low, medium or high transparency. The group means, even prior the post hoc testing, reveal similar responses across all conditions. For instance, the loyalty mean for low transparency was 2.52 for both low and high transparency. These results suggest that the level of disclosure of AI use in advertising alone has no impact on how consumers responses towards trust, loyalty or emotional attachment to the brand.

However, a subsequent linear regression using the transparency variable, which represents how transparent participants actually perceived the ad to be, revealed a significant positive correlation with trust, loyalty and emotional brand connection.

Table 9: Impact of perceived transparency (linear regression)

Dependent Variable	Beta (β)	p-value
Trust	.428	< .001
Loyalty	.482	< .001
Emotional Connection	.397	< .001

The more transparent participants perceived the ad to be, the greater the reported levels of trust ($\beta = .428$, $p < .001$), loyalty ($\beta = .482$, $p < .001$) and emotional attachment to the brand ($\beta = .397$, $p < .001$). These findings suggest that although predefined levels of transparency do not reveal strong differences in consumer responses, individual perceptions of transparency have strong influence on it. The more transparent consumers perceived the ad to be, the more positively they responded. This supports the hypothesis, that perceived transparency influences consumer trust, loyalty and emotional brand connection.

5.5.5 Moderating role of brand familiarity

H5: The impact of AI-generated advertisements on consumer trust, loyalty and emotional brand connection is stronger in the familiar brands than less known brands.

To test whether AI-generated ads influence consumers' trust, loyalty and emotional brand attachment differently depending on the level of brand familiarity, a series of analyses were conducted.

First, a two-way ANOVA was conducted using the combined trust variables (Trust Mean AI + Control) as the dependent variable, with AI level (AI-generated vs. control) and brand familiarity (high vs. low) as between-subjects factors. In this context, the combined variables included the mean responses from participants exposed to an Ad made by AI and those exposed to human-made ads.

Table 10: Impact of brand familiarity (Two-way ANOVA)

Dependent Variable	Factor	F	df	p-value
Trust	Brand Familiarity	0.087	1, 233	.768
Trust	AI Level * Familiarity	0.828	1, 233	.364
Loyalty	Brand Familiarity	0.128	1, 233	.720
Loyalty	AI Level * Familiarity	0.840	1, 233	.360
Emotional Connection	Brand Familiarity	3.382	1, 233	.067
Emotional Connection	AI Level * Familiarity	0.539	1, 233	.464

With respect to trust, the main effect of brand familiarity was not significant, $F(1, 233) = 0.087$, $p = 0.768$, meaning that familiar brands were not trusted more than unfamiliar brands. The level of brand familiarity had no effect on how the AI or human ad influenced trust, as shown by the non-significant result from the interaction effect of AI level x brand familiarity $F(1, 233) = 0.828$, $p = .364$. Similar results were found for loyalty. The main effect of brand familiarity was not significant, $F(1, 233) = 0.128$, $p = .720$. The interaction effect of AI level and brand familiarity was also not significant, $F(1, 233) = 0.840$, $p = .360$. For emotional brand attachment, there was again no main effect of brand familiarity, although it approached significance, $F(1, 233) = 3.382$, $p = .067$. The interaction between AI level and brand awareness also showed no significant effect, $F(1, 233) = 0.539$, $p = .464$. Taken together, these results show that consumer responses in terms of trust, loyalty and emotional brand attachment were not significantly influenced by brand awareness. The fact that there were no significant interaction effects also

suggests that the interaction between ad type and brand awareness did not have differential effects on the dependent variables.

The same analysis was repeated with participants who were exposed to AI advertisements to exclude the control group and to review a possible moderating effect of familiarity specifically for the AI condition. Independent samples t-tests were conducted.

Table 11: Impact of brand familiarity x AI Ad (Independent samples t-test)

Dependent Variable	T (df)	p-value	Mean (High Familiarity)	Mean (Low Familiarity)
Trust	-0.828 (114)	.409	2.96	3.10
Loyalty	-0.871 (114)	.386	2.89	3.04
Emotional Connection	0.746 (114)	.457	2.97	2.82

For trust, the analysis again revealed no significant difference between high and low familiarity brands $t(114) = -0.83, p = .409$, even when the average trust for low familiarity brands was higher ($M = 3.10$) than that for high familiarity brands ($M = 2.96$). The same was true for brand loyalty. The independent t-test, comparing the effect of brand familiarity on loyalty, showed no significant effect, $t(114) = -0.87, p = .386$. Lastly, emotional brand connection was also not influenced by brand familiarity in the AI condition, $t(114) = 0.75, p = .457$, with comparable mean scores ($M = 2.97$ for high familiarity and $M = 2.82$ for low familiarity). For all three dependent variables trust, loyalty and emotional brand attachment, there was a consistent pattern in which AI-generated ads for lesser-known brands generated slightly higher average responses than well-known brands. However, these differences were not significant, emphasizing that consumer did not feel more loyal, trusting or emotionally connected to well-known brands compared to less known brands. Therefore, hypothesis 5 cannot be supported.

5.5.6 Familywise error control

As this study included more than one statistical test, the probability of a significant result by chance is greater. To reduce this error, a Bonferroni correction was applied. In this procedure, the standard significance level ($\alpha = .1$) is divided by the number of tests performed. In this study, 10 primary tests were performed, so the new significance level was calculated as follows:

$$.1 / 10 = .01$$

This means that only the results with a p-value of less than 0.01 pass the tests for statistical significance after correction. Including this adjustment, all important results such as the effect

of AI-made advertising on trust ($p < .001$), emotional impact ($p < .001$) or the indirect effect of perceived authenticity on trust ($p = .009$) were retained (Appendix 8.10).

5.6 Further Analysis

5.6.1 Comparison responses AI ads versus traditional ads

To determine how participants react to AI-generated advertising compared to traditionally generated advertising, a series of t-tests were conducted for trust, loyalty and emotional brand connection.

Table 12: AI Ads vs. traditional Ads (Independent samples t-test)

Dependent Variable	t(df)	p-value	Mean (AI Ads)	SD (AI Ads)	Mean (Control Ads)	SD (Control Ads)	Cohen's d
Trust	$t(235) = -1.64$	.103	3.03	.85	3.21	.82	-0.21
Loyalty	$t(235) = -1.26$	.208	2.97	.97	3.12	.92	-0.16
Emotional Brand Connection	$t(235) = 0.089$	.929	2.90	1.09	2.88	1.03	0.01

No statistically significant differences were found between the groups for any of the dependent measures. For trust, participants who viewed AI-generated ads gave a slightly lower average rating ($M = 3.03$, $SD = .85$) than participants exposed to standard ads ($M = 3.21$, $SD = .82$), but the difference was not significant, $t(235) = -1.64$, $p = .103$. In terms of loyalty, respondents who saw AI ads also reported slightly lower brand loyalty ($M = 2.97$, $SD = .97$) than the control group ($M = 3.12$, $SD = .92$), and although the difference was again not statistically significant, it was examined: $t(235) = -1.26$, $p = .208$. When focusing on emotional brand attachment ratings, the two groups were almost identical, $M = 2.90$ (AI) and $M = 2.88$ (control), with virtually no difference observed, $t(235) = .089$, $p = .929$.

Overall, participant's perception of trust, loyalty or emotional connection showed no substantial difference between the type of ad (human-made vs. AI-made). Even though regular advertising

performed slightly better in terms of trust and loyalty, the lack of statistical significance suggests that AI content appeals to consumers in the same way.

5.6.2 Influence of AI Usage on response outcomes

As an additional part of the analysis, AI usage emerged as an interesting determinant factor influencing participant’s responses. To investigate whether participants’ overall use of AI has an impact on how they rate AI-generated advertising, a series of simple linear regressions were conducted. For all models, AI usage was used as an independent variable, while trust, loyalty and emotional brand connection towards AI-generated advertising were examined as separate dependent variables.

Table 13: Impact of AI Usage on responses (linear regression)

Dependent Variable	β (Beta)	p-value	R²
Trust	-0.207	.001	.043
Emotional Connection	-0.177	.006	.031
Loyalty	-0.184	.004	.034

The results showed a significant negative correlation between all three dependent variables. In terms of trust in AI ads, AI usage significantly predicted lower trust ($\beta = -0.207$, $p = .001$), meaning that participants with higher AI experience reported less trust in AI ads. Although the overall effect was small ($R^2 = .043$), the result was statistically significant and theoretically interesting as it indicates a distrustful attitude among experienced AI users. The test for brand loyalty showed similar results. Greater use of AI was associated with significantly lower levels of brand loyalty in ads produced by AI ($\beta = -0.184$, $p = .004$). The model explained 3.4% of the variance ($R^2 = .034$) which may support the interpretation that AI awareness can be related to more criticising consumer responses. Finally, this was confirmed by emotional brand connection. The regression test showed a significant negative correlation ($\beta = -0.177$, $p = .006$), meaning that frequent use of AI resulted in slightly lower emotional attachment to the brands shown in AI-generated advertising. Overall, the low R^2 limits the validity of the results. While the findings indicate a tendency for more critical responses toward AI advertising among

consumers who use AI more frequently, it is likely that additional factors also influence these outcomes.

5.6.3 Influence of age, employment status and gender

Across gender, employment status, and age, no significant differences were found in how participants responded to AI-generated ads in terms of trust, loyalty, or emotional connection. While trust showed a slight gender-related difference ($p = .032$) and loyalty varied slightly by employment status ($p = .027$), neither effect remained statistically significant (Appendix 8.11).

6. Conclusion and implications

The main objective of this dissertation was to explore how the use of AI in advertising affects the consumer-brand relationship, with a particular focus on trust, loyalty and emotional attachment. The study also investigated the moderating effects of transparency in AI disclosure and brand familiarity and attempted to gain practical insights into how AI-generated advertising can be used without compromising the consumer-brand relationship.

Starting with RQ 1, the results show that AI-generated advertising has different effects on trust, loyalty and emotional brand attachment. Although participants were more willing to remain loyal to a brand after seeing an AI-created ad, their trust in a brand was significantly lower. Emotional attachment was also lower, suggesting that AI content can undermine consumers' psychological attachment to a brand. These results confirm earlier concerns expressed in the literature. Researchers such as Kaplan and Haenlein (2019) and Aljarah et al. (2024) emphasized that trust is likely to be based on human warmth and perceived sincerity, qualities that AI has difficulties to replicate. This distrust is also likely when customers feel that the message has been created by a machine for purely business purposes and lacks emotional depth (Wortel et al., 2024). As already outlined in section 2.2.3, emotional brand connection is a key factor for long-term brand success and is often built through elements like storytelling and empathy (Rigby & Lee, 2024). At the same time, the results from the study revealed a contrast between trust and emotional brand connection, a positive impact on loyalty. This can be explained by reviewing chapter 2.3.1 where Gao et al. (2023) and Ohja (2023) point out in their theory that AI systems have the ability to offer highly specific, relevant and customized content. With this technology, brands can create ads that attract and reach their consumers more

efficiently. This allows brands to effectively satisfy consumers' needs, which encourages repeat purchases, even if the bond is less emotional (Campbell, 2022).

Concerning RQ 2, the two possible moderators transparency and brand familiarity were examined in this study. When reconsidering chapter 2.5., research revealed diverse opinions and perspectives on transparency and the appropriate level of disclosure. However, this study revealed a more important aspect that helps resolve the confusion around the appropriate transparency level: The results showed that consumers' perception of how transparent and honest the brand is in relation to the use of AI significantly influences trust, loyalty and emotional commitment. However, the experimental manipulation of different levels of transparency (low, medium, high) had no significant impact on consumer responses. This is a crucial difference. It suggests that it is not enough for a brand to label an advertisement as "AI-generated" but moreover, the question is whether the consumer feels that the brand is acting respectfully and truthfully. This supports earlier arguments by Yang and Battocchio (2020), who insisted that transparency works best when it is meaningful. This is further supported by Lefkeli et al. (2023), who warn that technical or ambiguous claims can confuse consumers and promote scepticism rather than trust. Therefore, transparency is an essential factor, but it must be disclosed in an understandable way to increase consumer trust. The results regarding familiarity with brands were unexpected. Contrary to the literature discussed in section 2.5.2 from e.g. Campbell & Keller, 2003 or Aljarah et al., 2024, this study found no significant difference between familiar and less familiar brands in terms of consumer response to AI ads. Consumers did not trust familiar brands more, nor did they say that they felt a stronger emotional connection when seeing the AI Ad. There was even a non-significant trend for lesser-known brands to be rated slightly higher in terms of trust and loyalty. One possible explanation is that people already have preconceptions about famous brands, and if these brands use AI in an unpredictable or impersonal way, this may lead to a mismatch between brand image and brand behaviour. Consumers may have fewer preconceptions about unknown brands and therefore be more sincere in their evaluation of advertising content (Kirk & Givi, 2025; Manoharan, 2024). More importantly, the results can be explained by considering it in the specific context of AI-generated content. As outlined in the literature review, attitudes towards AI also outweigh traditional brand familiarity, especially when the ad does not integrate human elements such as warmth, imagination or honesty (Seitz, 2024; Brantner & Saurwein, 2021). In these circumstances, the usual benefits of familiarity with a brand can be diminished or even reversed. Furthermore, the literature suggests that customers' preference for AI and their

personal sense of authenticity play a greater role in shaping responses than brand familiarity alone (Chen, 2024). In conclusion to RQ 2, while transparency can improve consumer responses if done well, brand familiarity does not automatically lead to more positive attitudes in AI advertising.

Finally, RQ 3 asked how brands can integrate AI into advertising without compromising the relationship with the consumer. The results show that integrating AI into advertising is not just about using AI effectively, but rather about doing it in a way that maintains authenticity, emotional relevance and transparency. As explained in section 2.4, perceived authenticity plays a central role in shaping reactions to AI content. Surprisingly, additional analysis comparing AI created ads to control ads found no statistically significant differences in consumer ratings of trust, loyalty or emotional connection. Most researchers have claimed that proper use of AI does not necessarily lead to poorer consumer behaviour (Gao et al., 2023; Tran, 2024). However, the success of AI-generated advertising depends largely on how the content is interpreted in terms of emotional depth and authenticity. Secondly, the analysis also showed a strong negative correlation between the use of AI and reactions to AI advertising: the more frequently consumers use AI, the more negative their reaction. This aligns with Brantner & Saurwein (2021) and Aljarah et al. (2024), who explain that tech-savvy consumers are likely to question the emotional and moral value of AI content, especially if they perceive a lack of human intention or empathy. This means that brands need to carefully design AI content for different audiences. For very AI-savvy consumers, extremely generic AI content can negatively impact the customer relationship, while less savvy consumers may accept AI commercials and its possibilities in a better way (Seitz, 2024; Chen, 2024). In short, research shows that AI can be used effectively in marketing, but with the understanding that human values must be considered in its implementation. It can increase loyalty by increasing relevance but can also undermine trust and emotional engagement if it is perceived as insincere or artificial. Authenticity and honesty are critical to maintaining customer relationships, while familiarity with brands no longer has the same protective effect it once did. These insights are crucial for marketers who want to use AI in an ethical way and build long-term relationships between brands and consumers.

6.1 Theoretical implications

This study adds to the growing literature on AI in marketing by considering the impact of AI-generated advertising on key determinants of brand success: Consumer trust, loyalty and emotional brand connections. Previous research has emphasized their role in building sustainable relationships (Chaudhuri & Holbrook, 2001; Campbell & Keller, 2003), but there is little consensus on the impact of AI on these processes. By bringing together current brand theory with current discourses on AI-generated advertising, this study attempts to bridge this theoretical gap. To start with, although previous research has suggested authenticity as an explanatory variable for emotional engagement and trust (Malär et al., 2011; Yang & Battocchio, 2020), the current study provides evidence of its continued relevance. The results show that perceived authenticity is a key driver in the evaluation of AI-generated content. Although it does not fully mediate the effect on loyalty or affective commitment, its large influence on trust prediction supports existing theory but extends it to the AI context.

Furthermore, this research focuses on the moderating variables of transparency and brand familiarity. While studies tend to claim that transparency builds trust (Kirkby et al., 2023), this research shows that it is perceived and not manipulated transparency that truly creates positive consumer reactions. The proposed moderating effect of brand familiarity was also not statistically confirmed, suggesting that even well-known brands find it difficult to remain emotionally familiar when using AI content. This calls for a re-evaluation of previous assumptions about the power of the brand as a shield in new technological environments.

Additionally, the topic is still relatively new and in an exploratory phase. This study contributes by helping to bridge existing gaps and identifying areas where further research is both necessary and valuable. Overall, the study illustrates how differentiated consumers react to AI driven advertising. While maintaining trust, loyalty and emotional connection, it shows that emerging technology such as AI requires changing models with the inclusion of psychological mediators and attitudes towards transparency.

6.2 Managerial implications

The results of this research are valuable recommendations for brand managers, marketers and communication planners who want to use AI technologies in their campaigns.

First, the study confirms that especially emotional engagement and consumer trust can be negatively affected by AI powered advertising. Therefore, especially for campaigns where

emotional engagement is key, such as seasonal adverts or social communications, brands need to ensure that human creativity is part of the storytelling. AI can then help with execution and optimisation but cannot replace the creative essence.

Secondly, companies that choose to use AI in their campaigns need to ensure that it aligns with the company's core values and emotional tone of voice. To leverage this, brands should focus on humanising AI-generated content through relatable storytelling, culturally sensitive imagery or even by showing the behind-the-scenes creation processes. For example, showing that humans have been involved in the creation of AI-generated content can build trust. This aligns with the findings of Ojha (2023) and Kirk & Givi (2025).

Thirdly, although transparency about the use of AI is generally important, this study shows that disclosure alone does not lead to greater consumer trust or loyalty. What matters is not how much information is disclosed, but how transparent the advertising is perceived to be. This means that the message must be formulated to highlight consumer benefit: e.g. 'Made with AI to better reflect your tastes' as opposed to a cold, technical 'Made by AI'. Engaging language and consumer-orientated messages are crucial to maintain the humanity.

Moreover, especially established brands should not rely solely on their existing brand awareness when implementing AI in advertising. The findings suggest that even well-known brands may experience a decline in consumer trust or emotional engagement if the AI-made content lacks authenticity or is seen as impersonal.

Another important conclusion from the study is that AI is becoming an integral part of consumers' life with more people using it and becoming more familiar with AI tools. For this target group, generic AI-generated content can appear superficial. Brands could instead offer personalised or collaborative AI experiences in form of e.g. interactive ad formats that increase control and engagement (Chen et al., 2024).

However, the study also concluded that traditional advertising is not directly connected to more positive responses towards the ads. This finding was clarified by the result that traditional and AI-made ads were ranked in the same way. Brands have the freedom to use AI but need to take sufficient time to design AI ads so that the creative idea is well thought out, reflects the brand values and presents high-quality work. A good example of this is Coca Cola. The AI-generated commercials used in this study were well received by participants because the work and engagement with customers was evident. In contrast, Coca Cola's AI-generated Christmas commercial triggered negative reactions. Customers felt it was rushed and lacked emotional depth, which is especially unsuitable for the Christmas season (Horvath, 2024). These

arguments speak in favour of using AI where it is properly placed, especially where the emotional storytelling is not the focus.

In summary, while AI offers exciting opportunities for advertising, it cannot be adopted everywhere. This study makes it clear that brands need to adopt a consumer-centric, strategic approach that balances innovation, emotional intelligence and openness to maintain trust and emotional engagement in the age of AI.

7. Limitations and further research

The results of this study offer important scientific and business insights into the impact of AI-generated advertising on consumers' trust, loyalty and emotional attachment to their brand, but there are some limitations.

To begin with, the number of respondents that made up the sample of 238 is not representative of the whole population. Although the study managed to capture quite diverse demographic characteristics, it is not able to effectively represent the full range of cultural, behavioural or psychological considerations that may influence consumers' response to AI-generated advertising. Second, due to convenience sampling, participants were primarily recruited through available digital media, and therefore the sample may not represent the overall population in terms of demographics, cultural background, or attitudes towards advertising and AI. Since participation was voluntary and communicated primarily through online surveys, there is the possibility of self-selection bias, such that only those most concerned about advertising or AI participate in the study.

The second limitation is connected to online surveys. Participants complete these questionnaires in an unsupervised environment, and it is difficult to assess their attentiveness, honesty and understanding while answering (Teo, 2013). Furthermore, the effect of social desirability bias must be considered. Participants may give their answers according to socially accepted norms instead of expressing their actual opinion (Krumpal, 2011).

Another limitation concerns the discrepancy between consumers' attitudes and their actual behaviour. Although the study captured intentions and perceptions, actual consumer behaviour, including actual purchase or brand contact after advertising exposure, was not recorded. The discrepancy between attitude and behaviour indicates that self-reported preferences in a survey do not always match actual actions in the real world (Bhattacharjee & Sanford, 2009).

Furthermore, due to time and resource constraints, only two brands were examined in this study: one very well-known (Coca Cola) and one less well-known (Path Water). While this allowed

for a control comparison, follow-up studies need to use a more diverse sample of brands and sectors to compare the performance of AI advertising in different circumstances. The study also only used one type of AI-generated advertising for one brand. However, AI advertising can vary greatly in terms of style, tone and structure of the message. Experiments could be conducted to present different types of AI advertising to respondents and then analyse the most reliable styles that can build loyalty, emotional connections or trust. Experimental approaches could be taken with video, photo or audio-based AI ads with different emotional or rational messages.

In addition, consumer segments are very different in the way they perceive and interact with brands and technology. Future research therefore needs to target specific segments, e.g. tech-savvy consumers, digital natives or sceptical shoppers to examine segment-level differences in AI advertising acceptance. This would provide more precise and actionable insights into how different consumers respond to AI powered brand communications.

In conclusion, while this study is an efficient starting point for determining the impact of AI on advertising, future studies need to examine actual consumer behaviour, advertising variation, and segment impact in more detail. This will help companies refine their methods and better utilize AI to strengthen brand-consumer relationships.

8. Appendix

8.1 Appendix 1: Survey Pilot Study

Introduction

Dear Participant,
thank you for taking part in this survey, which is part of my Master's thesis at Católica Lisbon School of Business and Economics. I am conducting a research study in the field of retail innovation to understand what impact AI-generated advertisements (commercials and ads created by artificial intelligence) have on consumer trust, loyalty, and emotional connection to brands.

AI-generated advertisements refer to commercials or ads entirely designed and produced by artificial intelligence, without direct human creative input.

The survey takes less than 6 minutes to complete, and your participation is completely voluntary. It is anonymous, and the data collected will be kept strictly confidential. Only aggregated results will be included in any reports. You have the right to decline participation or withdraw at any time during the study.

Please answer as honestly as possible! If you have any questions or comments, please contact me at s-esolovjov@ucp.pt. By proceeding with this survey, you are agreeing to voluntarily participate in this study.

Thank you for your time!

Part 1: Personal experience with AI

How often do you use AI-powered tools (e.g., ChatGPT, Google Assistant, Copilot)?

- Every day
- A few times a week
- About once a week
- A few times a month
- Never

I think the use of AI in advertising is...

- Innovative and useful (1)
- Acceptable, if disclosed (2)
- Concerning due to lack of human touch (3)
- Invasive or manipulative (4)

How likely are you to engage with a brand that create their advertisements using AI?

- Extremely unlikely (1)
- Somewhat unlikely (2)
- Neither likely nor unlikely (3)
- Somewhat likely (4)
- Extremely likely (5)

Please rate your agreement with the following statements: (1 = Strongly disagree, 5 = Strongly agree)

w

	1 - Strongly disagree	2 - Somewhat disagree	3 - Neither agree nor disagree	4 - Somewhat agree	5 - Strongly agree
I have a positive attitude towards AI-generated advertisements.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
AI-generated ads are capable of effectively communicating brand messages.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
AI generated advertisement increases my trust in brands.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Brands using AI in advertisement retain my loyalty.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

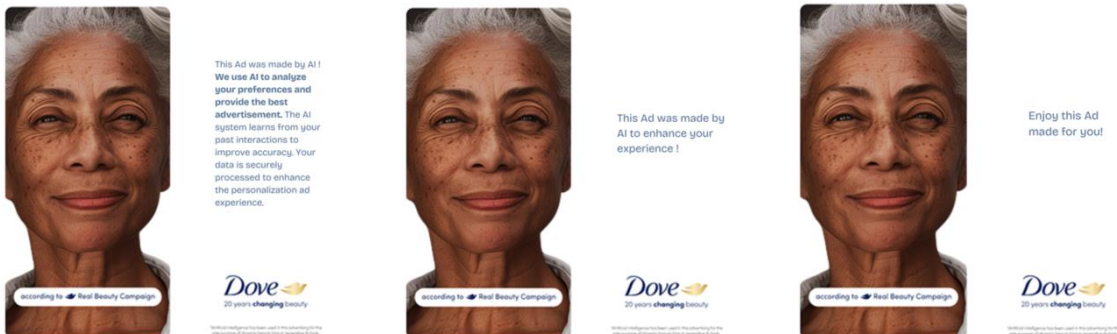
AI generated ads help me feel emotionally connected to brands.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel a stronger emotional bond with brands when their ads are AI-made.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Evaluate your perception of authenticity in AI generated advertisements: (1 = Strongly disagree, 5 = Strongly agree)

	1 - Strongly Disagree	2 - Somewhat disagree	3 - Neither agree nor disagree	4 - Somewhat agree	5 - Strongly agree
I feel that advertisements created by AI are genuine.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
AI-generated ads appear sincere and honest.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
AI-generated advertisements reflect authentic brand values.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Part 3: Transparency conditions

In this section, you will be shown an Ad of a brand which was made by AI. Please read the description carefully. Based on this scenario, answer the following questions about your perception of the brand.



Knowing the Ad was made by AI, how authentic do you perceive the company to be?

- Not authentic at all (1)
- Slightly not authentic (2)
- Neither not authentic nor authentic (3)
- Slightly authentic (4)
- Very authentic (5)

To what extent do you agree with the following statement (1 = Strongly disagree, 5 = Strongly agree):

	1 - Strongly disagree	2 - Somewhat disagree	3 - Neither agree nor disagree	4 - Somewhat agree	5 - Strongly agree
I believe the brand clearly disclosed the role of AI in creating the advertisement.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I was aware that AI played a role in generating this ad.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The brand appears honest and transparent to me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The AI disclosure affects my brand perception positively.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The level of transparency impacts my willingness to engage with the brand.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I trust this brand more after seeing this advertisement.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would consider purchasing from this brand in the future.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This advertisement makes me more likely to stay loyal to this brand.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

This advertisement made me feel emotionally connected to the brand.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel this advertisement resonates with my values or identity.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Part 4: Brand Familiarity condition

In this section, you will be shown a 30 second Ad from a brand which used AI to generate the whole video. Please watch the Ad carefully. Based on this scenario, answer the following questions about your perception of the brand.

Link: <https://youtu.be/4RSTupbfGog>



Link: https://youtu.be/Ymzb_zCu7VM



How is your familiarity with the brand shown in the advertisement?

- I've never heard of this brand before (1)
- I've heard of this brand but know little about it (2)
- I know what this brand offers (3)

- I'm familiar with this brand and its values (4)
- I know this brand very well, including its values and image (5)

How often do you purchase from this brand?

- I have never purchased from this brand (1)
- I have purchased once or twice (2)
- I purchase occasionally (a few times per year) (3)
- I purchase regularly (about once a month) (4)
- I purchase very frequently (multiple times a month) (5)

To what extent do you agree with the following statement (1 = Strongly disagree, 5 = Strongly agree): **After watching the AI-generated advertisement...**

	1 - Strongly disagree	2 - Somewhat disagree	3 - Neither agree nor disagree	4 - Somewhat agree	5 - Strongly agree
I perceive this brand as trustworthy.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel more confident in the values this brand communicates.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The advertisement increased my trust in this brand.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am more likely to consider purchasing from this brand.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am more likely to choose this brand over competitors in the future.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I feel emotionally closer to the brand.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I felt personally engaged and emotionally connected during the advertisement.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

To what extent do you agree with the following statement (1 = Strongly disagree, 5 = Strongly agree):

	1 - Strongly disagree	2 - Somewhat disagree	3 - Neither agree nor disagree	4 - Somewhat agree	5 - Strongly agree
The AI-generated ad feels genuine.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The AI-generated advertisement reflects authentic brand values.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The content in the AI-generated ad matches the actual characteristics of the brand.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Part 6: Demographics

What is your age?

- Under 18 (1)
- 18 - 24 (2)
- 25 - 34 (3)
- 35 - 44 (4)
- 45 - 54 (5)
- 55 + (6)

What is your gender?

- Male (1)
- Female (2)
- Non-binary / third gender (3)
- Prefer not to say (4)

What is your employment status?

- Student (1)
- Employed (2)
- Self-employed (3)
- Unemployed (4)

Part 7: End

Thank you for your time spent taking this survey.

Your response has been recorded.

8.2 Appendix 2: Main survey

Introduction

Dear Participant,
thank you for taking part in this survey, which is part of my Master's thesis at Católica Lisbon School of Business and Economics. I am conducting a research study in the field of retail innovation to understand what impact AI-generated advertisements have on consumer trust, loyalty, and emotional connection to brands.

AI-generated advertisements refer to commercials or ads entirely designed and produced by artificial intelligence, without direct human creative input.

The survey takes **less than 6 minutes** to complete, and your participation is completely voluntary. It is anonymous, and the data collected will be kept strictly confidential.

Please answer as honestly as possible! If you have any questions or comments, please contact me at s-esolovjov@ucp.pt. By proceeding with this survey, you are agreeing to voluntarily participate in this study.

Thank you for your time!

Part 1: Personal experience with AI

How often do you use AI-powered tools (e.g., ChatGPT, Google Assistant, Copilot)?

- Every day
- A few times a week
- About once a week
- A few times a month
- Never

To what extent do you agree with the following statement: (1 = Strongly disagree, 5 = Strongly agree)

	1 – Strongly disagree	2 – Somewhat disagree	3 – Neither agree nor disagree	4 – Somewhat agree	5 – Strongly agree
I feel comfortable using technologies that are powered by artificial intelligence.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I actively choose products or services that incorporate AI.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Part 2: General perception of AI Ads



This section will explore your general opinion on AI made advertisement. The following image shows an example of an AI-generated advertisement. Please note, this is just one possible version. For the next questions, think broadly about AI-generated advertisements in general, not just the one shown here.

Have you ever seen an advertisement made by AI?

- Yes (1)
- No (2)
- I don't remember (3)

I think the use of AI in advertising is...

- Innovative and useful (1)
- Acceptable, if disclosed (2)
- Concerning due to lack of human touch (3)
- Invasive or manipulative (4)

How likely are you to engage with a brand that create their advertisements using AI?

- Extremely unlikely (1)
- Somewhat unlikely (2)
- Neither likely nor unlikely (3)
- Somewhat likely (4)
- Extremely likely (5)

Please rate your agreement with the following statements: (1 = Strongly disagree, 5 = Strongly agree)

	1 - Strongly disagree	2 - Somewhat disagree	3 - Neither agree nor disagree	4 - Somewhat agree	5 - Strongly agree
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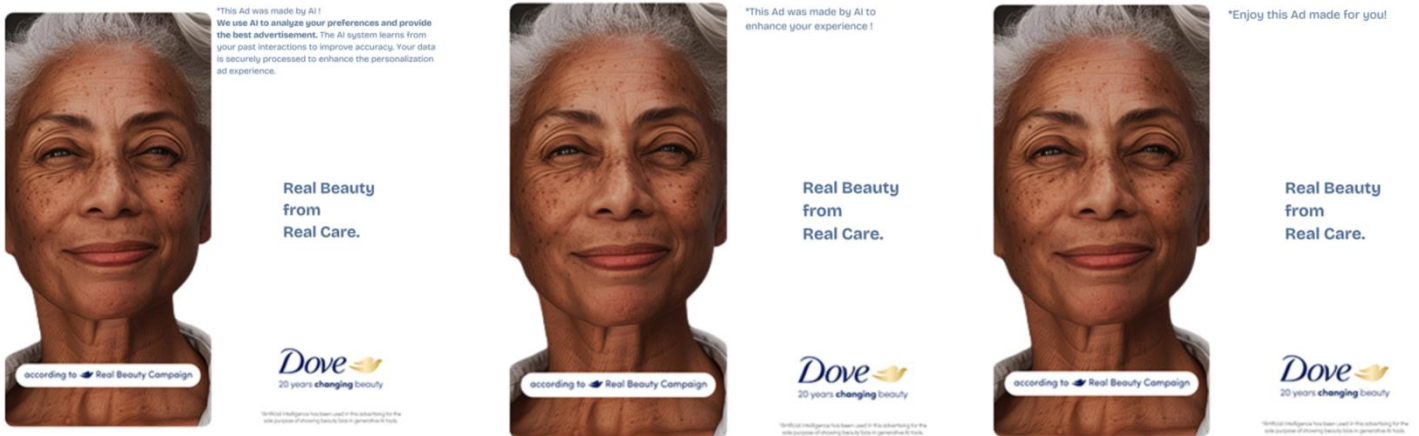
I have a positive attitude towards AI-generated advertisements.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
AI-generated ads are capable of effectively communicating brand messages.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
AI generated advertisement increases my trust in brands.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would continue using my favorite brands if they are using AI in advertisement.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
AI generated ads help me feel emotionally connected to brands.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel a stronger emotional bond with brands when their ads are AI-made.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Evaluate your perception of authenticity in AI generated advertisements: (1 = Strongly disagree, 5 = Strongly agree)

	1 - Strongly Disagree	2 - Somewhat disagree	3 - Neither agree nor disagree	4 - Somewhat agree	5 - Strongly agree
I feel that advertisements created by AI are genuine.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
AI-generated ads appear sincere and honest.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
AI-generated advertisements reflect authentic brand values.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Part 3: Transparency condition

In this section, you will be shown an Ad of a brand which was made by AI. Please read the description carefully. Based on this scenario, answer the following questions about your perception of the brand.



Knowing the Ad was made by AI, how authentic do you perceive the company to be?

- Not authentic at all (1)
- Slightly not authentic (2)
- Neither not authentic nor authentic (3)
- Slightly authentic (4)
- Very authentic (5)

To what extent do you agree with the following statement (1 = Strongly disagree, 5 = Strongly agree):

	1 - Strongly disagree	2 - Somewhat disagree	3 - Neither agree nor disagree	4 - Somewhat agree	5 - Strongly agree
I believe the brand clearly disclosed the role of AI in creating the advertisement.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I was aware that AI played a role in generating this ad.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The brand appears honest and transparent to me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

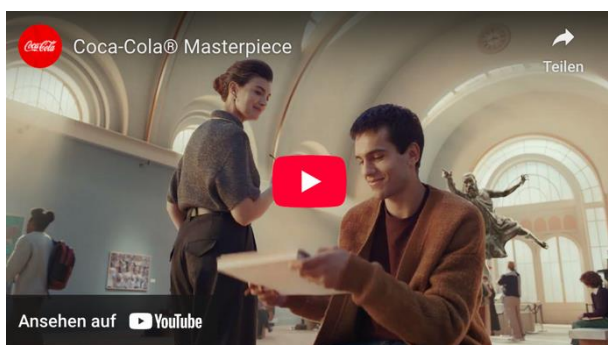
The AI disclosure affects my brand perception positively.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The level of transparency impacts my willingness to engage with the brand.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I trust this brand more after seeing this advertisement.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would consider purchasing from this brand in the future.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This advertisement makes me more likely to stay loyal to this brand.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This advertisement made me feel emotionally connected to the brand.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel this advertisement resonates with my values or identity.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Part 4: Brand Familiarity condition (AI vs. human)

In this section, you will be shown an Ad from a brand which **used AI to generate the whole video**. Please watch the Ad carefully. Based on this scenario, answer the following questions about your perception of the brand.

Scenario 1: Made by AI

Link: <https://youtu.be/VGalimApfdg>



Link: https://youtu.be/Ymzb_zCu7VM



How is your familiarity with the brand shown in the advertisement?

- I've never heard of this brand before (1)
- I've heard of this brand but know little about it (2)
- I know what this brand offers (3)
- I'm familiar with this brand and its values (4)
- I know this brand very well, including its values and image (5)

How often do you purchase from this brand?

- I have never purchased from this brand (1)
- I have purchased once or twice (2)
- I purchase occasionally (a few times per year) (3)
- I purchase regularly (about once a month) (4)
- I purchase very frequently (multiple times a month) (5)

To what extent do you agree with the following statement (1 = Strongly disagree, 5 = Strongly agree): **After watching the AI-generated advertisement...**

	1 - Strongly disagree	2 - Somewhat disagree	3 - Neither agree nor disagree	4 - Somewhat agree	5 - Strongly agree
I perceive this brand as trustworthy.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I feel more confident in the values this brand communicates.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The advertisement increased my trust in this brand.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am more likely to consider purchasing from this brand.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am more likely to choose this brand over competitors in the future.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel emotionally closer to the brand.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I felt personally engaged and emotionally connected during the advertisement.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

To what extent do you agree with the following statement (1 = Strongly disagree, 5 = Strongly agree):

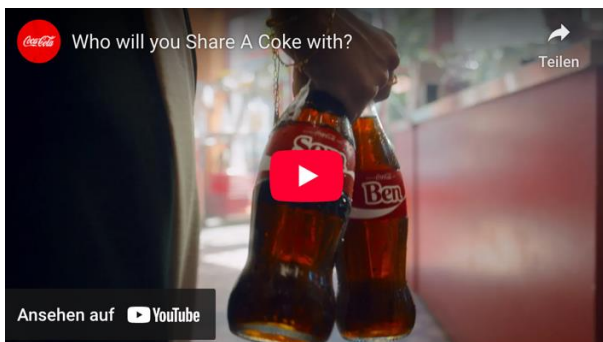
	1 - Strongly disagree	2 - Somewhat disagree	3 - Neither agree nor disagree	4 - Somewhat agree	5 - Strongly agree
The AI-generated ad feels genuine.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The AI-generated advertisement reflects authentic brand values.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The content in the AI-generated ad matches the actual	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

characteristics of the brand.					
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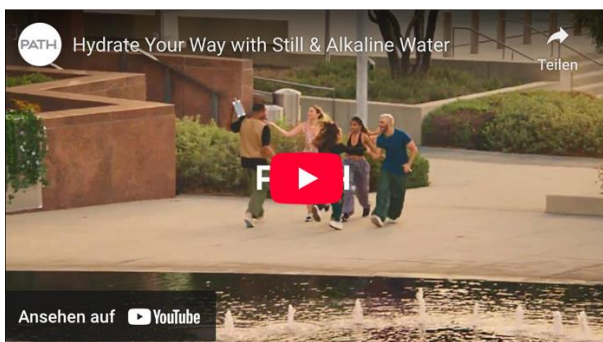
Scenario 2: Human made Ad

In this section, you will be shown a 30 second Ad from a brand. Please watch the Ad carefully. Based on this scenario, answer the following questions about your perception of the brand.

Link: <https://youtu.be/0Ab-F7Y3IXc>



Link: <https://youtu.be/eUXtrKK6PbU>



How is your familiarity with the brand shown in the advertisement?

- I've never heard of this brand before (1)
- I've heard of this brand but know little about it (2)
- I know what this brand offers (3)
- I'm familiar with this brand and its values (4)
- I know this brand very well, including its values and image (5)

How often do you purchase from this brand?

- I have never purchased from this brand (1)

- I have purchased once or twice (2)
- I purchase occasionally (a few times per year) (3)
- I purchase regularly (about once a month) (4)
- I purchase very frequently (multiple times a month) (5)

To what extent do you agree with the following statement (1 = Strongly disagree, 5 = Strongly agree): **After watching the advertisement...**

	1 - Strongly disagree	2 - Somewhat disagree	3 - Neither agree nor disagree	4 - Somewhat agree	5 - Strongly agree
I perceive this brand as trustworthy.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel more confident in the values this brand communicates.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The advertisement increased my trust in this brand.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am more likely to consider purchasing from this brand.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am more likely to choose this brand over competitors in the future.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel emotionally closer to the brand.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I felt personally engaged and emotionally connected during the advertisement.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

To what extent do you agree with the following statement (1 = Strongly disagree, 5 = Strongly agree):

	1 - Strongly disagree	2 - Somewhat disagree	3 - Neither agree nor disagree	4 - Somewhat agree	5 - Strongly agree
The ad feels genuine.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The advertisement reflects authentic brand values.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The content in the ad matches the actual characteristics of the brand.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Part 6: Demographics

What is your age?

- Under 18 (1)
- 18 - 24 (2)
- 25 - 34 (3)
- 35 - 44 (4)
- 45 - 54 (5)
- 55 + (6)

What is your gender?

- Male (1)
- Female (2)
- Non-binary / third gender (3)
- Prefer not to say (4)

What is your employment status?

- Student (1)
- Employed (2)
- Self-employed (3)
- Unemployed (4)

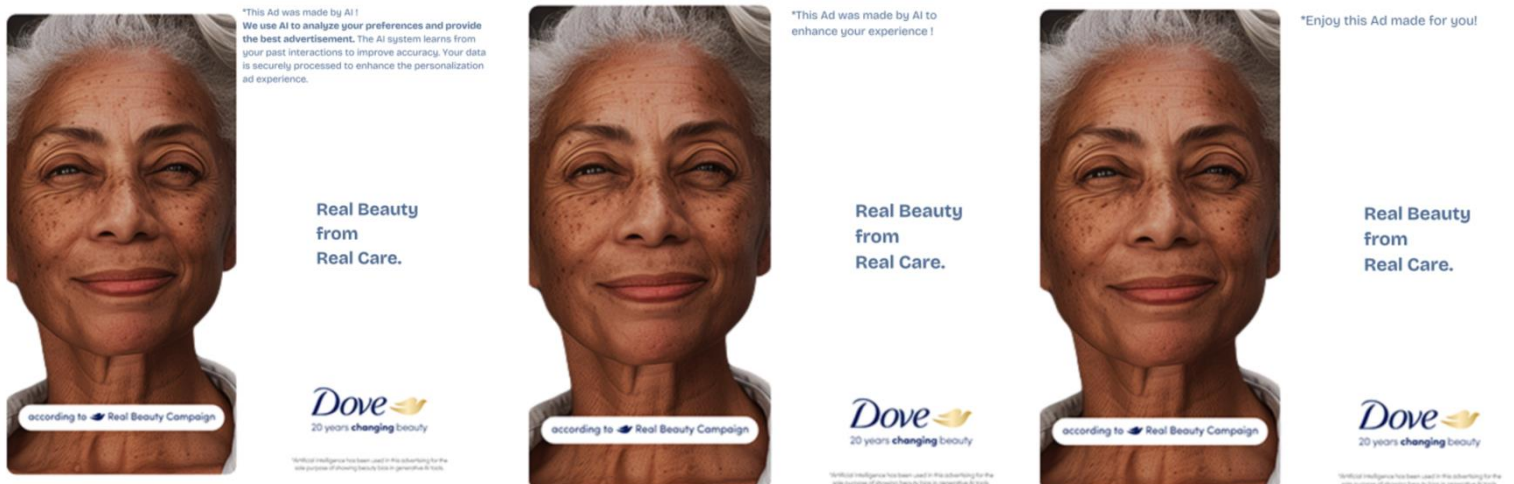
Part 7: End

Thank you for your time spent taking this survey.

Your response has been recorded.

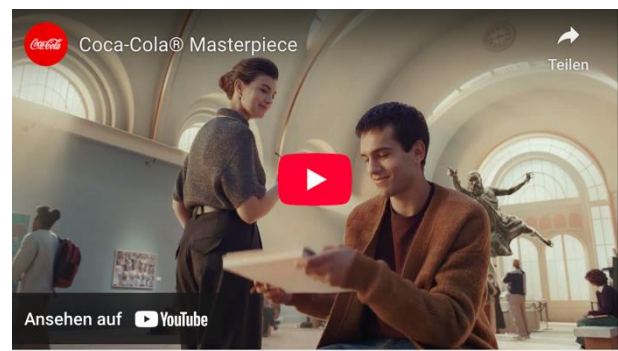
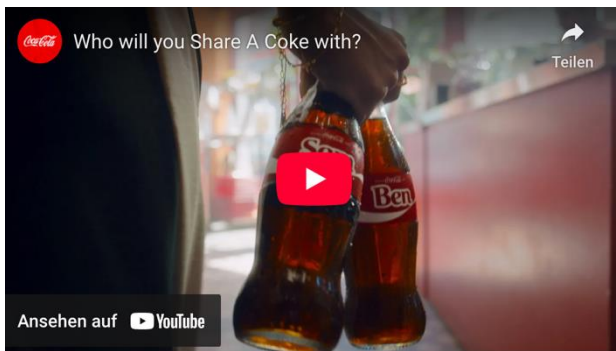
8.3 Appendix 3: Stimuli presented in the main survey

A: Dove commercial



Dove is a British multinational consumer goods company that is part of the group Unilever. Dove was founded in 1957 and has expanded its product range to include body washes, lotions, deodorants, hair care and facial cleansers. The company is well known for genuine beauty and body friendliness. Dove is known for breaking conventional beauty norms, such as its “Real Beauty” campaign, which features women of different ages, body shapes and ethnicities. It was chosen as a stimuli due to its established reputation for emotional and values-driven advertising.

B: Coca Cola commercials



Coca Cola is one of the world's most recognizable and iconic beverage brands from The Coca-Cola Company, headquartered in Atlanta, Georgia. Originally launched in 1886, it has grown into a multinational brand that produces a huge range of beverages, from sodas to juices, waters and teas. Coca Cola is famous for its strong heritage, consistent branding and emotional story associated with happiness, conventionality and shared times. The company's successful marketing strategies aim to create emotional resonance and cultural relevance to enable high brand recall and intergenerational trust.

It was used as the well-known brand in the experiment due to its high brand awareness and consumer base.

C: Path Water



Path Water is a California-based bottled water company founded in 2015 with the goal of reducing single-use plastic packaging waste. The company sells purified water in refillable, recyclable aluminum cans as an eco-friendly, sustainable choice in the beverage market. Path Water targets environmentally conscious consumers and has a message of reuse, responsibility and innovation. Although the company is still very new and less well known than the long-

established drinks giants, it has won high praise for its current, minimalist branding and commitment to sustainability in both its products and its intentions.

It was used as the less-known brand because their name and image is still very unfamiliar, especially in Europe. This made it possible to identify the differences in responses properly.

8.4 Appendix: Manipulations

Transparency Condition



***This Ad was made by AI !
We use AI to analyze your preferences and provide the best advertisement. The AI system learns from your past interactions to improve accuracy. Your data is securely processed to enhance the personalization ad experience.**

**Real Beauty
from
Real Care.**



*Artificial Intelligence has been used in this advertising for the sole purpose of choosing beauty icons in generative AI tools.

High transparency with proper explanation of AI's role.



***This Ad was made by AI to enhance your experience !**

**Real Beauty
from
Real Care.**



*Artificial Intelligence has been used in this advertising for the sole purpose of choosing beauty icons in generative AI tools.

Medium transparency due to only mentioning AI.



*Enjoy this Ad made for you!

**Real Beauty
from
Real Care.**



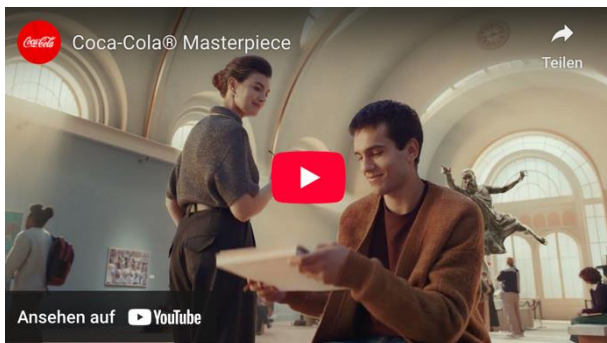
Vertical Intelligence has been used in this advertising for the sole purpose of showing beauty ads in generative AI tools.

Low transparency since there is no AI disclosure.

Brand Familiarity condition

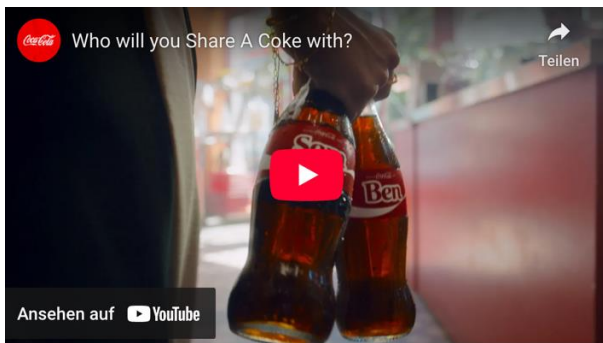
Well-known brand x AI made

Link: <https://youtu.be/VGa1imApfdg>



Well-known brand x human made

Link: <https://youtu.be/0Ab-F7Y3IXc>



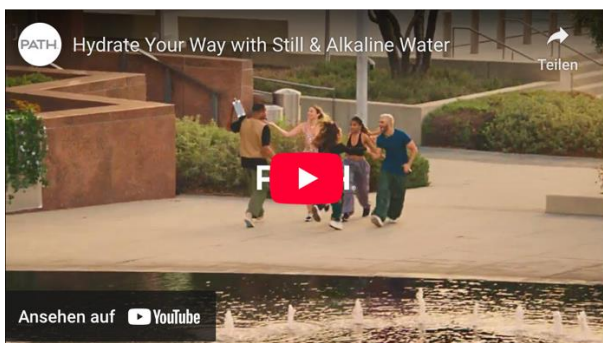
Less-known brand x AI made

Link: https://youtu.be/Ymzb_zCu7VM



Less-known brand x human made

Link: <https://youtu.be/eUXtrKK6PbU>



8.5 Appendix 5: Factor Analysis – General perception towards AI

Item	Component 1	Component 2	Component 3
Engagement_AI Ads	.496	.434	.292
Positive attitude_AI Ads	.560	.527	.336
Communication Brand Values_AI Ads	.302	.763	.175
Trust_AI Ads	.776	.169	.140
Loyalty_AI Ads	.039	.826	.168
Emotional Connection_AI Ads	.835	.005	.262
Emotional Bond_AI Ads	.784	-.067	.299
AI Usage	-.148	-.072	-.803
Comfortability with AI	.053	.312	.744
AI Ads_Genuine	.719	.425	.020
AI Ads_Honest	.722	.367	-.143
AI Ads_Authentic Brand values	.743	.364	-.054

8.6 Appendix 6: Cronbach's Alpha – General perception towards AI

Scale	Components	Initial Items	Dived into (X) Scales	Cronbach's Alpha	Alpha if Items Deleted	Final Items

General AI Perceptions	3	11	3	–	–	–
Emotional & Authentic Engagement	1	8	1	0.88	–	6
Brand Fit & Loyalty	1	3	1	0.81	–	3
General AI Openness	1	2	1	0.83	–	2
AI Ad Perceptions	0	0	1	–	–	–
Perceived Authenticity & Attitude	1	6	1	0.878	–	6
Engagement (Single Item)	0	1	1	–	–	1
Preference for AI Services	0	1	1	–	–	1
Transparency	2	10	2	–	–	–
Transparency: Trust & Engagement	1	8	1	0.874	–	8
Transparency: Disclosure	1	2	2	0.653	–	2
Brand Familiarity (AI Ad Condition)	0	0	2	–	–	–
Trust	1	3	1	0.811	0.703	3
Loyalty	1	2	2	0.866	–	2
Brand Familiarity (Control Group)	0	0	0	–	–	–

Trust (Control)	1	3	1	0.86	0.777	3
Loyalty (Control)	1	2	2	0.834	–	2

8.7 Appendix 7: Factor Analysis – Transparency variables

Item	Component 1 (Relational Trust & Engagement)	Component 2 (Transparency Disclosure)
Trans_Disclosure	.165	.829
Trans_Awareness	-.110	.838
Trans_Honesty	.564	.554
Trans_PositiveImpact	.644	.257
Trans_EngageWillingness	.578	.189
Trans_Trust	.793	.046
Trans_Purchaseintention	.682	.164
Trans_Loyalty	.821	.033
Trans_Emotional connection	.824	-.020
Trans_Resonance	.816	-.059

8.8 Appendix 8: Cronbach's Alfa- Transparency variables

Subscale	Initial number of items	Cronbach's alpha	Cronbach's alpha if item deleted	Items deleted	Final number of items
Transparency: Trust & Engagement	8	.874	.876	-	8
Transparency: Disclosure	2	.653	.653	-	2

8.9 Appendix 9: Cronbach's Alfa- Brand familiarity variables

Scale	Initial number of items	Cronbach's alpha	Cronbach's alpha if item deleted	Items deleted	Final number of items
Brand Familiarity x Trust (AI Ad)	3	0.811	0.703–0.792	-	3
Brand Familiarity x Trust (Control)	3	0.860	0.777–0.853	-	3
Brand Familiarity x Loyalty (AI Ad)	2	0.866	-	-	2
Brand Familiarity x Loyalty (Control)	2	0.834	-	-	2
Brand Familiarity (AI) - Emotional Connection	2	0.8	-	-	2
Brand Familiarity (Control) - Emotional Connection	2	0.848	-	-	2

8.10 Appendix 10: Familywise error correction

Hypothesis	p-value	Bonferroni Threshold (α/n)	Significant after Correction

H1 Trust	0.001	0.01	Yes
H1 Loyalty	0.001	0.01	Yes
H2 Emotional Connection	0.001	0.01	Yes
H3 Trust (Indirect Effect)	0.009	0.01	Yes
H3 Loyalty (Indirect Effect)	0.098	0.01	No
H3 Emotional Connection (Indirect Effect)	0.057	0.01	No
H4 Trust	0.471	0.01	No
H4 Loyalty	0.551	0.01	No
H4 Emotional Connection	0.309	0.01	No

8.11 Appendix 11: Further analysis

Due to word limiting further analysis was placed in the appendix.

Impact of gender on responses

Dependent Variable	Sum of Squares (Between Groups)	df (Between Groups)	Mean Square	F	Sig. (p-value)
Trust in AI Ads	7.915	3	2.638	2.986	0.032
Loyalty in AI Ads	6.695	3	2.232	1.387	0.248
Emotional Connection in AI Ads	3.425	3	1.142	1.169	0.322

A one-way ANOVA was used to test whether gender has an impact on participants' responses to AI-generated advertising in terms of trust, loyalty and emotional attachment. Four gender groups were compared: male, female, non-binary/third gender and prefer not to say.

For trust in AI advertising, the ANOVA showed a significant effect with $p = .032$, revealing some differences between the gender groups. This effect lost significance when the Bonferroni correction (adjusted $\alpha = .01$) was applied to control for family-specific errors. There were no

significant differences between the gender groups for loyalty ($p = .248$) and emotional attachment ($p = .322$). Thus, after applying the adjusted significance level, there were no significant differences between the gender groups in terms of trust, loyalty or emotional attachment to AI-generated ads.

Impact of employment status on responses

Dependent Variable	F	df	p-value
Trust	1.433	5, 232	.211
Loyalty	2.565	5, 232	.027
Emotional Connection	2.062	5, 232	.072

A one-way ANOVA was conducted to examine the influence of employment status on participants' responses to AI-generated advertising. There were no significant differences in trust, loyalty and emotional attachment between the four groups (students, employees, self-employed, unemployed), with all p-values well above the adjusted significance level of .01. Although unemployed participants reported slightly higher levels of trust and emotional attachment, the differences were not significant. In general, employment status had no significant effect on how participants viewed the ads generated by the AI.

Impact of age on responses

	Age	Trust_AI Ads	Loyalty_AI Ads	Emotional_Connection_AI Ads
Age	1.0	0.072	-0.155	0.066
Trust_AI Ads	0.072	1.0	0.217	0.647
Loyalty_AI Ads	-0.155	0.217	1.0	0.206
Emotional_Connection_AI Ads	0.066	0.647	0.206	1.0

Pearson and Spearman correlations show no significant relationship between age and trust or emotional attachment to AI advertising. There is a negative correlation (Pearson $r = -.155$, $p = .017$) between age and loyalty, which is insignificant, suggesting that younger participants are slightly more loyal to AI ads.

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