

COMPARING THE INFLUENCE OF CREATIVITY, RELEVANCE &  
DIVERGENCE IN HUMAN-MADE VS. AI-MADE ADVERTISEMENTS

A THESIS SUBMITTED TO  
THE INSTITUTE OF GRADUATE PROGRAMS  
OF  
İSTANBUL BİLGİ UNIVERSITY

DENİZ TEKBAŞ

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS  
FOR  
THE DEGREE OF MASTER OF SCIENCE  
IN  
MARKETING

2024

**COMPARING THE INFLUENCE OF CREATIVITY, RELEVANCE &  
DIVERGENCE IN HUMAN-MADE VS. AI-MADE ADVERTISEMENTS**

Deniz TEKBAŞ  
122689001

Prof. Dr. Beril DURMUŞ  
Marmara University

Assoc. Prof. Dr. Esra ARIKAN  
Istanbul Bilgi University

Assoc. Prof. Dr. Neşenur ALTINIĞNE EKİCİ  
Istanbul Bilgi University

Date of Approval: 6/25/2024



I hereby declare that all information in this document has been obtained and presented in accordance with academic rules and ethical conduct. I also declare that, as required by these rules and conduct, I have fully cited and referenced all material and results that are not original to this work.

**Name Surname:** Deniz Tekbaş

**Signature:**

## **ABSTRACT**

In an era marked by rapid technological advancement, integrating artificial intelligence (AI) into business practices has become essential. This thesis explores the impact of AI-generated advertisements versus Human-Made advertisements, focusing on aspects such as creativity, relevance, and their effects on consumer behavior. The study highlights the necessity for companies to innovate and adapt by leveraging AI to enhance efficiency, reduce cost, and improve product quality.

The research involved creating two distinct advertisements: AI and Human-Made. Data was collected through an online survey distributed to 800 participants, with 253 valid responses. Variables such as attention, interest, comprehension, depth of processing, curiosity, ad divergence, and ad relevance were measured using a 5-point Likert scale.

This research has significant implications for both academia and industry. It contributes to theoretical advancements in advertisement creativity and consumer behavior in the context of AI-Driven advertising. Practically, it offers actionable insights for companies to refine their ad strategies, balancing innovative AI tools with human oversight to align with consumer expectations. The study underscores the importance of continuous adaptation and strategic use of AI to maintain a competitive edge in the dynamic market landscape.

**Keywords:** Digital Marketing; Artificial Intelligence; Advertising; Creativity; Consumer Behavior

## ÖZ

Hızla ilerleyen teknolojik gelişmelerin yaşandığı bir çağda, yapay zekanın (YZ) iş uygulamalarına entegrasyonu bir lüksten ziyade bir zorunluluk haline gelmiştir. Bu tez, YZ tarafından oluşturulan reklamların insan yapımı reklamlara kıyasla yaratıcılık, uygunluk ve tüketici davranışları üzerindeki etkilerini incelemektedir. Çalışma, şirketlerin verimliliği artırmak, maliyetleri düşürmek ve ürün kalitesini iyileştirmek için YZ'yi kullanarak yenilik yapmaları ve uyum sağlamaları gerektiğinin altını çizmektedir.

Araştırma, YZ ve insan yapımı olmak üzere iki farklı reklamın oluşturulmasını içermektedir. Veriler, 800 katılımcıya dağıtılan ve 253 geçerli yanıt alınan çevrimiçi bir anketle toplanmıştır. Dikkat, ilgi, anlama, işlem derinliği, merak, reklam farklılığı ve reklam uygunluğu gibi değişkenler 5 puanlık Likert ölçeği kullanılarak ölçülmüştür.

Bu araştırma, hem akademi hem de endüstri için önemli sonuçlar doğurmaktadır. YZ odaklı reklamcılık bağlamında reklam yaratıcılığı ve tüketici davranışları konusunda teorik ilerlemelere katkıda bulunur. Pratik olarak, şirketlerin yenilikçi YZ araçlarını insan denetimiyle dengeleyerek tüketici beklentilerine uyum sağlamak için reklam stratejilerini iyileştirmeleri konusunda uygulanabilir içgörüler sunar. Çalışma, dinamik pazar ortamında rekabet avantajını korumak için sürekli adaptasyon ve stratejik YZ kullanımının önemini vurgulamaktadır.

Anahtar Kelimeler: Dijital Pazarlama; Yapay Zeka; Reklamcılık; Yaratıcılık; Tüketici Davranışları

## **ACKNOWLEDGMENTS**

Throughout the development of this work, I would like to express my gratitude and respect to my esteemed advisor, Prof. Dr. Beril Durmuş, who has generously shared her knowledge, experience, and values, and has always encouraged me. Her invaluable support has been crucial to my research.

I want to express my deepest gratitude to my family for their steadfast support and encouragement throughout this journey. Their unwavering love, patience, and belief in me have consistently strengthened and motivated me.

## TABLE OF CONTENTS

|                                                                                                   |      |
|---------------------------------------------------------------------------------------------------|------|
| ABSTRACT .....                                                                                    | iv   |
| ÖZ.....                                                                                           | v    |
| ACKNOWLEDGMENTS .....                                                                             | vi   |
| TABLE OF CONTENTS .....                                                                           | vii  |
| LIST OF TABLES.....                                                                               | xi   |
| LIST OF FIGURES .....                                                                             | xiii |
| LIST OF ABBREVIATIONS .....                                                                       | xiv  |
| 1 INTRODUCTION .....                                                                              | 1    |
| 1.1. The Rationale for Technological Adaptation .....                                             | 2    |
| 1.2. The Focus of the Research.....                                                               | 3    |
| 1.3. Objectives of the Research .....                                                             | 3    |
| 1.4. Structure of the Thesis .....                                                                | 4    |
| 1.5. Significance of the Study.....                                                               | 4    |
| 2 LITERATURE REVIEW .....                                                                         | 5    |
| 2.1. AI's Transformative Journey in Advertising: Concepts, Tools, and Creative<br>Evolution ..... | 5    |
| 2.1.1. Evolution of AI in Advertising .....                                                       | 6    |
| 2.1.2. Understanding AI: Concepts and Applications .....                                          | 7    |
| 2.1.3. AI in Design and Visual Content Creation .....                                             | 9    |
| 2.1.4. AI Tools for Advertising .....                                                             | 10   |
| 2.1.5. Creative Image and Video Preparation with AI .....                                         | 11   |
| 2.2. The Uncanny Valley Theory in Advertising .....                                               | 12   |

|        |                                                                                                                                          |    |
|--------|------------------------------------------------------------------------------------------------------------------------------------------|----|
| 2.2.1. | Exploring the Humanness, Eeriness and Attractiveness Variables Influences on Advertisement Creativity .....                              | 14 |
| 2.2.2. | Navigating the Uncanny Valley: Implications for AI and Human Advertisements .....                                                        | 15 |
| 2.2.3. | Striking the Balance: Avoiding the Uncanny Valley in AI and Human Ad Campaigns .....                                                     | 18 |
| 2.3.   | Humanizing AI: Overcoming the Uncanny Valley in Advertising .....                                                                        | 19 |
| 2.3.1. | The Uncanny Valley Effect: Shaping Consumer Perception in the AI Era.....                                                                | 20 |
| 2.3.2. | Harmonizing Human and AI Elements: Mitigating Uncanny Valley Effects in Advertising .....                                                | 20 |
| 2.4.   | Advertising Creativity on the Hierarchy of Effects Theory .....                                                                          | 21 |
| 2.4.1. | Exploring the Awareness, Learning Ad Claims and Message Acceptance Stages and Its Variables Influences on Advertisement Creativity ..... | 22 |
| 2.4.2. | Bridging Creativity and Consumer Response: The Hierarchy of Effects Perspective.....                                                     | 24 |
| 2.4.3. | Crafting AI and Human Ads: Leveraging Creativity to Influence the Hierarchy of Effects.....                                              | 24 |
| 2.4.4. | From Attention to Action: Unpacking the Role of Creativity in AI and Human.....                                                          | 25 |
| 2.4.5. | Enhancing the Hierarchy of Effects: Strategies for Creative Excellence in AI-Driven Advertising .....                                    | 25 |
| 3      | METHODOLOGY .....                                                                                                                        | 28 |
| 3.1.   | Research Objectives .....                                                                                                                | 28 |
| 3.2.   | Sample Selection and Data Collection .....                                                                                               | 28 |
| 3.3.   | Questionnaire Design and Advertisements Preparation .....                                                                                | 28 |
| 4      | FINDINGS.....                                                                                                                            | 37 |
| 4.1.   | Descriptive Statistics for Demographic Variables.....                                                                                    | 37 |

|        |                                                                                                                                        |    |
|--------|----------------------------------------------------------------------------------------------------------------------------------------|----|
| 4.2.   | Factor Analysis .....                                                                                                                  | 38 |
| 4.2.1. | Factor and Reliability Analysis for Awareness (AI) .....                                                                               | 40 |
| 4.2.2. | Factor and Reliability Analysis for Learning Ad Claims (AI) .....                                                                      | 41 |
| 4.2.3. | Factor and Reliability Analysis for Message Acceptance (AI) .....                                                                      | 42 |
| 4.2.4. | Factor and Reliability Analysis for Ad Creativity (AI) .....                                                                           | 43 |
| 4.2.5. | Factor and Reliability Analysis for Humanness (AI) .....                                                                               | 44 |
| 4.2.6. | Factor and Reliability Analysis for Eeriness (AI) .....                                                                                | 45 |
| 4.2.7. | Factor and Reliability Analysis for Attractiveness (AI) .....                                                                          | 46 |
| 4.3.   | Regression Analysis and Results .....                                                                                                  | 51 |
| 4.3.1. | Multiple Linear Regression Analysis of H <sub>1</sub> (H <sub>1a</sub> and H <sub>1b</sub> ) .....                                     | 51 |
| 4.3.2. | Multiple Linear Regression Analysis of H <sub>2</sub> (H <sub>2a</sub> and H <sub>2b</sub> ) .....                                     | 53 |
| 4.3.3. | Multiple Linear Regression Analysis of H <sub>3</sub> (H <sub>3a</sub> and H <sub>3b</sub> ) .....                                     | 55 |
| 4.3.4. | Multiple Linear Regression Analysis of H <sub>4</sub> (H <sub>4a</sub> and H <sub>4b</sub> ) .....                                     | 57 |
| 4.3.5. | Multiple Linear Regression Analysis of H <sub>5</sub> (H <sub>5a</sub> , H <sub>5b</sub> , H <sub>5c</sub> and H <sub>5d</sub> ) ..... | 59 |
| 4.3.6. | Multiple Linear Regression Analysis of H <sub>6</sub> (H <sub>6a</sub> , H <sub>6b</sub> , H <sub>6c</sub> and H <sub>6d</sub> ) ..... | 63 |
| 4.4.   | Paired Sample T-Test Analysis .....                                                                                                    | 66 |
| 4.5.   | Summary of Hypothesis Results .....                                                                                                    | 68 |
| 5      | CONCLUSION .....                                                                                                                       | 71 |
| 5.1.   | Integrating Uncanny Valley and Advertising Creativity .....                                                                            | 71 |
| 5.2.   | The Role of Variables in Shaping Consumer Responses .....                                                                              | 72 |
| 5.3.   | Addressing Eeriness: A Challenge and an Opportunity .....                                                                              | 73 |
| 5.4.   | Practical Implications .....                                                                                                           | 74 |
| 5.5.   | Limitations and Suggestions for Future Research .....                                                                                  | 75 |
|        | REFERENCES .....                                                                                                                       | 77 |
|        | Appendix A. Result of the Evaluation by the Ethics Committee .....                                                                     | 84 |

|                                         |    |
|-----------------------------------------|----|
| Appendix B. Survey Questionnaires ..... | 85 |
|-----------------------------------------|----|



## LIST OF TABLES

|                                                                                                                          |    |
|--------------------------------------------------------------------------------------------------------------------------|----|
| Table 3.1. Measurement of Independent and Dependent Variables (Questioned After AI-Made Advertisement Watched) .....     | 31 |
| Table 3.2. Measurement of Independent and Dependent Variables (Questioned After Human- Made Advertisement Watched) ..... | 34 |
| Table 4.1. Demographic Characteristics of Survey Respondents (N=253).....                                                | 37 |
| Table 4.2. Factor Analysis for Awareness (AI).....                                                                       | 40 |
| Table 4.3. Factor Analysis for Learning Ad Claims Stage -Depth of Processing and Comprehension- (AI).....                | 41 |
| Table 4.4. Factor Analysis for Message Acceptance Stage -Memorable and Curiosity- (AI) .....                             | 42 |
| Table 4.5. Factor Analysis for Ad Creativity - Ad Divergence X Ad Relevance - (AI) ..                                    | 44 |
| Table 4.6. Factor Analysis for Humanness (AI).....                                                                       | 45 |
| Table 4.7. Factor Analysis for Eeriness (AI).....                                                                        | 46 |
| Table 4.8. Factor Analysis for Attractiveness (AI) .....                                                                 | 47 |
| Table 4.9. Human and AI Advertisement Reliability Analysis Results .....                                                 | 48 |
| Table 4.10. Simple Linear Regression of Humanness and Ad Divergence .....                                                | 52 |
| Table 4.11. Simple Linear Regression of Humanness and Ad Relevance .....                                                 | 53 |
| Table 4.12. Simple Linear Regression of Eeriness and Ad Divergence.....                                                  | 54 |
| Table 4.13. Linear Regression of Eeriness and Ad Relevance.....                                                          | 55 |
| Table 4.14. Simple Linear Regression of Attractiveness and Ad Divergence .....                                           | 56 |
| Table 4.15. Simple Linear Regression of Attractiveness and Ad Relevance .....                                            | 57 |
| Table 4.16. Simple Linear Regression of Ad Divergence and Awareness.....                                                 | 58 |
| Table 4.17. Simple Linear Regression of Ad Relevance and Awareness .....                                                 | 59 |
| Table 4.18. Simple Linear Regression of Ad Divergence and Comprehension .....                                            | 60 |
| Table 4.19. Simple Linear Regression of Ad Divergence and Depth of Processing.....                                       | 61 |
| Table 4.20. Simple Linear Regression of Ad Divergence and Memorable.....                                                 | 62 |
| Table 4.21. Simple Linear Regression of Ad Divergence and Curiosity .....                                                | 62 |
| Table 4.22. Simple Linear Regression of Ad Relevance and Comprehension.....                                              | 64 |

Table 4.23. Simple Linear Regression of Ad Relevance and Depth of Processing ..... 64

Table 4.24. Simple Linear Regression of Ad Relevance and Memorable ..... 65

Table 4.25. Simple Linear Regression of Ad Relevance and Curiosity ..... 66

Table 4.26. Independent Sample t-test Results for Constructs of Model ..... 67

Table 4.27. Summary of Hypotheses Results ..... 69



## LIST OF FIGURES

|                                                                                                               |    |
|---------------------------------------------------------------------------------------------------------------|----|
| Figure 2.1. Artificial Intelligence in Digital Marketing .....                                                | 7  |
| Figure 2.2. Ways AI Is Improving the Customer Experience .....                                                | 10 |
| Figure 2.3. Heinz Launches Its First Ad Campaign with Entirely AI-Generated Images<br>.....                   | 16 |
| Figure 2.4. El Salar Burgers Advertisement – Made with Midjourney AI Photo<br>Generation Tool.....            | 16 |
| Figure 2.5. Comparing DALL-E 2 and Midjourney Created Advertisements .....                                    | 17 |
| Figure 2.6. Conceptual Research Model .....                                                                   | 26 |
| Figure 3.1. Cover Scene from AI-Made Advertisement That Watched by Participants in<br>The Google Forms .....  | 29 |
| Figure 3.2. One Scene from Human-Made Advertisement That Watched by Participants<br>in The Google Forms ..... | 30 |
| Figure 4.1. Revised Conceptual Research Model.....                                                            | 50 |
| Figure 4.2. Multiple Linear Regression Model for $H_1$ .....                                                  | 52 |
| Figure 4.3. Multiple Linear Regression Model for $H_2$ .....                                                  | 54 |
| Figure 4.4. Multiple Linear Regression Model for $H_3$ .....                                                  | 56 |
| Figure 4.5. Multiple Linear Regression Model for $H_4$ .....                                                  | 58 |
| Figure 4.6. Multiple Linear Regression Model for $H_5$ .....                                                  | 60 |
| Figure 4.7. Multiple Linear Regression Model for $H_6$ .....                                                  | 63 |

## **LIST OF ABBREVIATIONS**

|        |                                                |
|--------|------------------------------------------------|
| AI:    | Artificial Intelligence                        |
| CV:    | Computer Vision                                |
| DL:    | Deep Learning                                  |
| ML:    | Machine Learning                               |
| NLP:   | Neuro Linguistic Programming                   |
| SPSS:  | Statistical Package for the Social Science     |
| KPI:   | Key Performance Indicator                      |
| ROI:   | Return On Investment                           |
| CPC:   | Cost-Per-Click                                 |
| B2B:   | Business-to-Business                           |
| SMBs:  | Small-to-Medium Sized Business                 |
| SEO:   | Search Engine Optimization                     |
| AI-MC: | Artificial Intelligence Mediated Communication |
| VI:    | Virtual Influencers                            |
| U&G:   | Uses and Gratification                         |
| GAN:   | Generative Adversarial Networks                |
| RNN:   | Recurrent Neural Network                       |

## INTRODUCTION

In an era defined by rapid technological advancement, the integration of technology into various facets of life has become not just a luxury, but a necessity. Industries and companies worldwide are increasingly embracing Artificial Intelligence (AI) and its accompanying tools to stay ahead in the global and local competition. The imperative to innovate and adapt stems not only from a desire to be at the forefront of progress but also from practical considerations such as cost reduction, product quality improvement, and enhanced efficiency across various processes.

The competitive landscape demands constant vigilance and innovation, prompting companies to explore new avenues for technological integration. AI's increasing adoption across various management and marketing stages revolutionizes how companies understand, predict, and engage with customers (Campbell C. S.-Y., 2019) (Stone, 2020). In addition, AI technologies have enhanced an organization's capability to utilize data for forecasting purposes and have significantly lowered the expenses associated with prediction activities. Moreover, the adoption of AI tools offers multifaceted benefits, including streamlining job processes, enhancing product or service quality, optimizing transportation logistics, minimizing raw material costs, and amplifying the effectiveness of marketing, digital marketing, and advertising initiatives. Central to this paradigm shift is the imperative to secure a competitive edge and sustain growth in an increasingly dynamic marketplace.

The DataProt article, which is named '55 Fascinating AI Statistics and Trends for 2024', on AI statistics highlights the substantial impact of artificial intelligence on businesses, noting its expected global market value of \$267 billion by 2027 and its pivotal role in various sectors. Especially, real-life examples of AI marketing usage in businesses include Netflix's recommendation engine, which contributes significantly to customer engagement and satisfaction; the use of AI in healthcare for diagnosis assistance, improving efficiency and accuracy; and the deployment of AI-Driven chatbots by telephone companies, enhancing customer service and operational efficiency. These

applications demonstrate the versatility and value of AI in transforming business operations and customer experiences. Moreover, the projection that the AI industry will generate \$126 billion annually by 2025 underscores the crucial importance for businesses to adopt AI technologies (Schrage, 2024). This growth not only highlights the rapid advancement and integration of AI across various sectors but also indicates the substantial economic impact AI is set to have, making it a pivotal tool for businesses aiming to stay competitive and innovative in the evolving market landscape.

### **1.1. The Rationale for Technological Adaptation**

The driving force behind the widespread adoption of AI and its tools lies in the pursuit of excellence and market leadership. Companies aspire not only to maintain relevance but also to excel in their respective domains, necessitating a proactive approach to technological integration. This imperative extends beyond mere survival in the competitive landscape; it encompasses the overarching goal of achieving operational efficiency, product innovation, and customer satisfaction.

Moreover, the contemporary business environment demands agility and responsiveness to evolving consumer preferences and market trends. AI-Driven tools can enhance market efficiency by influencing market dynamics, including optimizing pricing and product offerings, through their impact on price setting and market strategies (Abrardi, 2022). Plus, AI offers unparalleled capabilities in data analysis, predictive modeling, and personalized targeting, empowering companies to tailor their strategies to the ever-changing needs and expectations of consumers. By harnessing the power of AI-Driven insights, companies can gain a competitive advantage and unlock new avenues for growth and expansion. Recent reports show us the essence of technological improvements and AI usage importance in businesses. For example, "The Future of Strategic Measurement: Enhancing KPIs with AI" is a comprehensive report by "MIT Sloan Management Review and Boston Consulting Group" in 2024 that explores the integration of AI with KPIs to improve strategic outcomes. Based on a global survey and interviews with executives, the study reveals that organizations adopting AI-enhanced KPIs achieve significantly better financial results. It introduces smart KPIs—descriptive, predictive, and prescriptive—as

essential tools for leveraging performance data effectively. Case studies from companies like Wayfair and Maersk illustrate the practical benefits of this approach (Jovanovic, 2024). This report advocates for a shift towards dynamic and AI-Driven KPI management to uncover new strategic performance dimensions and the importance of AI adoption to drive organizational success.

## **1.2. The Focus of the Research**

Against this backdrop of technological transformation and market dynamism, this research endeavors to explore the intricate interplay between advertisement creativity, relevance, and the divergence effect. By contiguous Human-Made and AI-generated advertisements, this study seeks to elucidate the differential impact of these approaches on consumer behavior and decision-making processes.

## **1.3. Objectives of the Research**

The primary objective of this research is to provide actionable insights to companies seeking to optimize their advertisement strategies in the context of the burgeoning AI landscape.

Specifically, the research aims to:

Evaluate the effectiveness of advertisement creativity, relevance, and divergence in influencing consumer intention.

Compare and contrast the efficacy of Human-Made and AI-generated advertisements in driving consumer engagement and conversion.

Identify key determinants and success factors for leveraging AI tools in advertisement creation and deployment.

Offer strategic recommendations for companies looking to fully leverage the capabilities of Artificial Intelligence in their advertising endeavors.

#### **1.4. Structure of the Thesis**

This thesis is divided into various sections to ensure a detailed examination of the research subject. Starting with this introduction, the literature review will investigate the theoretical bases of advertisement creativity, relevance, and the divergence effect, framing these ideas within the context of AI-powered advertising. Subsequent chapters will elaborate on the research methodology, present the findings, and discuss their implications for theory and practice. The thesis will conclude with a summary of key findings, contributions to knowledge, and avenues for future research.

#### **1.5. Significance of the Study**

This study carries important implications for both academic circles and the industry. Academically, it contributes to theoretical advancements by exploring the influence of advertisement creativity, relevance, and the divergence effect on consumer intention within the context of AI-Driven advertising. Methodologically, it presents an opportunity for innovation in advertisement effectiveness assessment through a comparative analysis of Human-Made and AI-generated advertisements. This study also stimulates academic discourse and interdisciplinary collaborations, fostering further research inquiries into the intersection of technology, creativity, and consumer behavior. For industry, the findings offer actionable guidance to optimize advertisement strategies in the digital age, enabling companies to tailor approaches for maximum engagement, conversion, and ROI. By showcasing the potential of AI in enhancing advertisement effectiveness and driving consumer engagement, this research serves as a catalyst for innovation within the advertising industry, empowering companies to differentiate themselves in the marketplace and stay ahead of the competition.

## **LITERATURE REVIEW**

### **2.1. AI's Transformative Journey in Advertising: Concepts, Tools, and Creative Evolution**

The evolution of AI in advertising has initiated in a new era of innovation and creativity, revolutionizing the way marketers conceptualize, create, and deliver advertisements. From its inception, AI has been instrumental in streamlining advertising processes and enhancing campaign effectiveness. The evolution of AI in advertising has been marked by significant advancements in technology, enabling marketers to leverage AI-powered tools and platforms to enhance their creative endeavors and campaign effectiveness. Understanding AI's concepts and applications is crucial for navigating its transformative impact on advertising practices. Concepts such as “CV (Computer Vision)”, “DL (Deep Learning)”, “ML (Machine Learning)”, and “NLP (Neuro Linguistic Programming)” underpin the capabilities of AI in advertising, empowering marketers to analyze vast amounts of data, personalize content, and automate processes. Artificial Intelligence (AI) in advertising heralds a new phase of intelligent advertising, characterized by “consumer-centered, data-driven, and algorithm-mediated brand communications”, necessitating further research into its adoption, impact, and the development of new models (Li, 2019).

AI technologies and the importance of usage in marketing and advertisement have got crucial role and the significance is getting wider and bigger day by day. The study by Huh, Nelson, and Russell (2023) claims that generative AI technologies, like ChatGPT, are profoundly transforming advertising research and practice, necessitating comprehensive investigation into their implications for consumer experiences, ethical considerations, and industry practices (Huh, 2023). Plus, most leaders foresee frequent use of gen AI solutions in the coming years, indicating a widespread recognition of its potential to revolutionize marketing and sales strategies.

AI's influence extends to design and visual content creation, revolutionizing how advertisements are conceptualized and produced. Commercial leaders express cautious

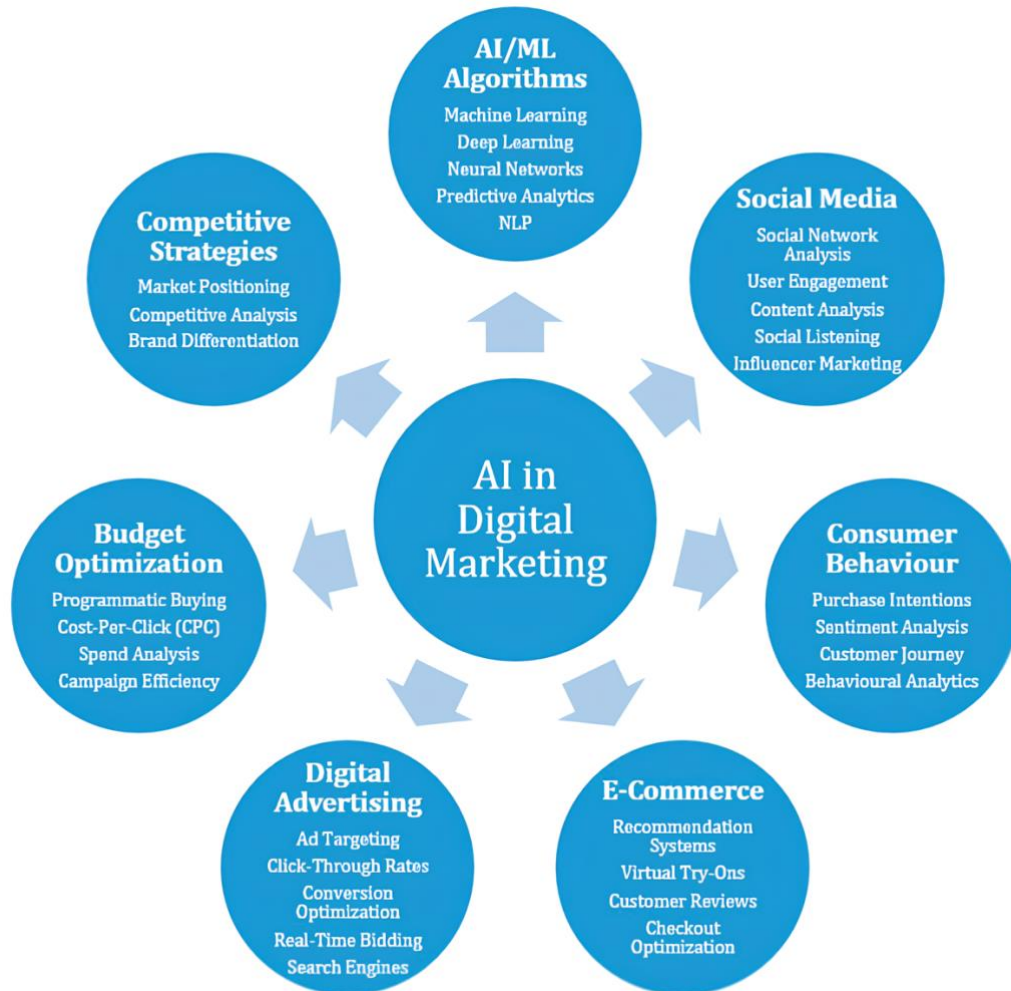
optimism about the role of gen AI in marketing and sales, expecting moderate to significant impacts across various use cases. In McKinsey and Co. report in May 2023 researched and reported that there is a strong interest in early-stage customer journey aspects like lead identification, marketing optimization, and personalized outreach (Richelle Deveau, 2023).

AI-Driven tools enable marketers to generate compelling images and videos with ease, leveraging algorithms to analyze visual trends, enhance aesthetics, and optimize engagement (Luo, 2019). Moreover, AI tools tailored specifically for advertising offer a myriad of functionalities to streamline campaign management, optimize targeting, and measure performance (Kaplan, 2019). Creative image and video preparation with AI represents a paradigm shift in advertising, offering unprecedented opportunities for experimentation and innovation (Ronanki, 2018). As advertisers embrace AI-Driven creative solutions, they can unlock new possibilities for storytelling, engagement, and brand differentiation in the competitive advertising landscape.

#### **2.1.1. Evolution of AI in Advertising**

The evolution of AI in advertising represents a significant paradigm shift, revolutionizing the way marketers conceptualize and execute their campaigns. One of the key aspects of this transformation is the evolution of AI tools and their integration into advertising processes. The Evolution of AI in Advertising has been a gradual process, beginning with rudimentary applications and evolving into sophisticated tools capable of analyzing vast amounts of data and generating actionable insights (Huang, 2020). As AI technology continues to advance, it has become an indispensable tool for advertisers, enabling them to optimize their campaigns, personalize content, and enhance targeting strategies. Today's prospects of AI in digital marketing can be clustered with Figure 2.1. above.

**Figure 2.1. Artificial Intelligence in Digital Marketing**



### **2.1.2. Understanding AI: Concepts and Applications**

Understanding AI: Concepts and Applications is crucial for navigating its transformative impact on advertising practices. “AI encompasses a broad range of concepts and applications, including machine learning, natural language processing, computer vision, and deep learning” (Khurana, 2022), (Kontopoulou, 2023). These concepts underpin the capabilities of AI in advertising, empowering marketers to analyze data, extract valuable insights, and automate various aspects of their campaigns. By understanding the fundamentals of AI and its applications in advertising, marketers can leverage this technology to drive innovation and achieve their campaign objectives more effectively.

In addition, companies need to shape well-organized AI tools schema and tasks into their marketing and advertising activities. The study by De Bruyn et al. in the *Journal of Interactive Marketing* shows that the integration of Artificial Intelligence into marketing presents both significant opportunities and notable challenges, with an emphasis on the importance of knowledge creation and transfer, including the need to manage technological pitfalls (De Bruyn, 2020). Leverage AI for predictive tasks while addressing the limitations in tacit knowledge transfer between AI models and marketing organizations. The 2024 report on the application of AI in small business content marketing reveals a transformative shift in marketing practices, where AI tools are employed to significantly enhance SEO outcomes, content quality, and marketing ROI, as evidenced by the positive experiences of over 2,600 surveyed small and medium-sized businesses (SMBs) (Semrush, 2024). This study underscores the utility of AI in democratizing content marketing, allowing SMBs to compete effectively with larger counterparts by leveraging AI for targeted content creation, strategic SEO optimization, and efficient content production workflows. Moreover, in project management solutions with AI, ClickUp utilizes Surfer SEO's AI and machine learning tools to enhance content optimization by identifying strategic opportunities, advising on keyword density and selection, and determining optimal article structures, including image count and subheading length (Norris, 2024). Plus, Artificial Intelligence (AI) is revolutionizing marketing, with 90% of marketers using it to automate customer interactions, 88% for personalizing the customer journey, and over 80% incorporating AI in online marketing strategies. Furthermore, the exploration of AI-generated versus human-written content suggests the imperative of integrating AI with human oversight to achieve optimal content resonance and effectiveness. In contrast, the same report indicates that AI's role is not as a replacement but as an augmentation of human creativity and strategic planning in content marketing. Low trustworthiness and security concerns about AI are hot topics too. However, IBM Co. reports that “A majority of organizations haven’t taken key steps to ensure their AI is trustworthy and responsible, such as reducing bias (74%), tracking performance variations and model drift (68%), and making sure they can explain AI-powered decisions (61%)” (IBM, 2022). From the B2B trustworthiness perspective between AI and companies, it looks trustworthy to the analysis of the IBM report. All in

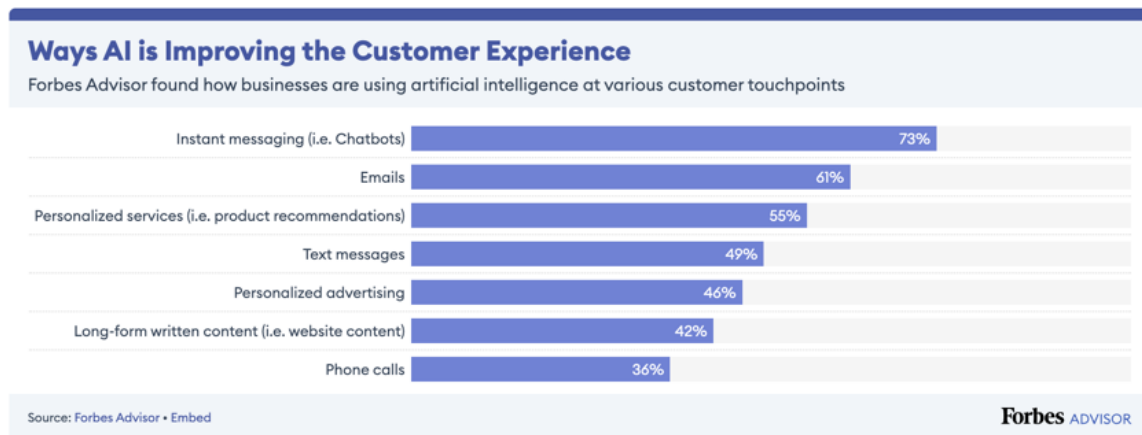
all, this widespread adoption reflects AI's transformative role in enhancing efficiency, engagement, and strategic insights in the digital marketing landscape.

### **2.1.3. AI in Design and Visual Content Creation**

AI's integration into design and visual content creation has revolutionized the way advertisements are conceptualized and produced. AI-powered tools enable marketers to generate compelling visuals, including images and videos, with unprecedented speed and precision. There are various types of Generative AI Models to create something new. These models can be listed as: text-to-text, image-to-text, speech-to-text, text-to-image, text-to-text, image-to-image, text-to-audio, text-to-video models (Kniberg, 2024). These tools leverage advanced algorithms to analyze visual trends, enhance aesthetics, and optimize engagement, enabling advertisers to create visually stunning content that resonates with their target audience.

In the context of customer experience, Artificial Intelligence (AI) has been effectively utilized to compose extensive written materials such as web content and customized advertisements. AI technologies have been incorporated into telephonic communication, with 36% of organizations reporting the use or prospective use of AI for handling phone calls, and 49% applying AI to optimize text messaging interactions (Haan, 2023), (McGill, 2023). This integration of AI across diverse customer interaction channels has substantially enhanced the efficiency and personalization of the online customer experience. Higher customer experience is indeed for effective marketing and advertising activities (Novak, 2020), (Rose, 2012). Ways AI is improving the customer experience is demonstrated in Figure 2.2.

**Figure 2.2. Ways AI Is Improving the Customer Experience**



(Source: <https://www.forbes.com/advisor/business/software/ai-in-business/> )

The study by Vakratsas, D., and Wang, X. (2021) shows that a creative advertising system based on artificial intelligence principles can systematically generate and evaluate novel advertising ideas, redefining advertising creativity as a structured process that leverages computational methods to enhance human creativity (Vakratsas, 2021). Additionally, AI-Driven design tools streamline the creative process, allowing marketers to iterate and experiment with different concepts and styles more efficiently than ever before.

#### **2.1.4. AI Tools for Advertising**

AI Tools for Advertising offer a plethora of functionalities to streamline campaign management, optimize targeting, and measure performance. Programmatic advertising platforms, powered by AI algorithms, enable real-time ad placement and optimization, ensuring maximum reach and effectiveness (Simester, 2020), (Balasundaram, 2019), (Tea, 2023). Chatbots and virtual assistants enhance the customer experience by offering customized assistance and recommendations that cater to personal preferences. There are various tools for creating different assets, too. For example, Prezi is a tool for creating personalized PowerPoint through different aims and areas (Inc., 2023). When we back into marketing and digital marketing AI tools by harnessing the power, advertisers can achieve greater efficiency, effectiveness, and ROI in their advertising endeavors. For

example, companies can optimize e-mail marketing activities. Farfetch company, optimizing email subject lines and personalizing email body with AI, and it's led to a 7% increase in open rates for promotional emails and a substantial rise in click rates (Wilt, 2024). Moreover, the study by Wahid, Mero, and Ritala shows that generative AI significantly transforms content marketing by enhancing creative efficiency and engagement, while also posing challenges related to content quality, intellectual property, and the adaptation of marketing practices, necessitating a comprehensive research agenda to explore its multifaceted impact (Wahid, 2023). According to recent research and findings in the reports, both academic and managerial areas need to be supported with extra sources in the marketing and advertising fields. So, I will make a comparison between AI-Made and Human-Made ads to be supportive and useful.

#### **2.1.5. Creative Image and Video Preparation with AI**

Creative image and video preparation with AI represents a transformative shift in advertising, offering unprecedented opportunities for experimentation and innovation. AI-powered content generation tools leverage advanced algorithms to produce visually stunning assets, from photo-realistic images to immersive virtual experiences (Genie, 2024). The study by Hancock, Naaman, and Levy claims that "Artificial Intelligence-Mediated Communication (AI-MC)", highlights that AI-MC systems not only suggest or generate textual content but also extend to modifying or creating images and videos, thereby transforming nonverbal communication (Hancock, 2020). By utilizing AI technologies to automatically enhance visual attractiveness, and trustworthiness, or even synthesize completely new visual content, these systems are advancing the capabilities for personalized and optimized visual communication. Automating labor-intensive tasks such as image editing, color correction, and video production, AI streamlines the creative process, freeing up time and resources for strategic decision-making and ideation. In addition, Jessica Apotheker who is "Manager Director and Partner in the Paris office of Boston Consulting Group", mentioned in the "What Will Happen to Marketing in the Age of AI?" conference, AI is predicted to revolutionize marketing more than any other function, potentially boosting productivity by up to 50%. This means marketing tasks will

become more efficient and effective, significantly enhancing overall performance (TED, 2023). As advertisers embrace AI-Driven creative solutions, they can unlock new possibilities for storytelling, engagement, and brand differentiation in the competitive advertising landscape.

In the recent past, Google unveiled its latest model, Gemini 1.5 Pro, and shortly after, OpenAI responded with a playful "Hold my beer" as it introduced Sora, its innovative text-to-video model. However, the launch process didn't happen yet (AI, 2024). Because of this reason, while I was preparing the video-type advertisements, I used the last launched AI-generated video preparation model which can be called the text-to-image model then the image-to-motion model to create the AI-Made advertisement. In this text-to-image model, I used the Midjourney AI tool for creating the scene images (Midjourney, 2024). Then, I use the Runway ML program for motioning the images to small videos (Runway ML, 2024). Finally, I edited the small videos and added some transactions with the CapCut program (CapCut, 2024). The detailed advertisement preparation methods are explained in the methodology part of the thesis.

## **2.2. The Uncanny Valley Theory in Advertising**

The "Uncanny Valley" theory, initially proposed by Masahiro Mori, posits that humanoid entities elicit increasing empathy as they become more human-like, until a point where slight imperfections cause a sense of eeriness or discomfort (Christoph Bartneck, 2009). This theory was enhanced in 2017 and the study refines and validates indices for perceived humanness, attractiveness, and eeriness in anthropomorphic characters, using a card sorting task, interviews, and surveys to better align with untrained observers' perceptions, facilitating more accurate plotting of characters on the uncanny valley graph (Ho & MacDorman, 2017). The Uncanny Valley Theory has significant implications and importance to advertisement creativity, as advertisements featuring human-like characters or visuals may inadvertently trigger the Uncanny Valley effect, thereby diminishing the advertisement's effectiveness. For example, the findings from "Authentically Fake? How Consumers Respond to the Influence of Virtual Influencers" delve into the complex dynamics between consumers and virtual influencers (VIs),

utilizing the “Uses and Gratification (U&G) Approach” and “Uncanny Valley Theory”. The findings underscore the importance of creativity in advertising for attracting consumer interest and enhancing brand image yet highlight the necessity of authenticity and relatability in converting this interest into intentions. Plus, emphasizes the importance of addressing the Uncanny Valley phenomenon to enhance advertising campaigns (Lou, 2023). All in all, we can clearly understand that the Uncanny Valley Theory has got important impact on shaping advertisement creativity.

Navigating the Uncanny Valley in advertising presents unique challenges and opportunities for marketers in the AI era. As advertisers strive to strike a balance between human-like and AI-Driven elements in their campaigns, they must be mindful of the potential pitfalls of the “Uncanny Valley” effect. Humanizing AI in advertising can help overcome the Uncanny Valley by imbuing AI-Driven content with relatable and authentic human characteristics (Tinwell et al., 2014). Shaping consumer perception in the AI era requires harmonizing human and AI elements to mitigate Uncanny Valley effects and foster positive consumer experiences (Zhang et al., 2020).

The study by Ho and MacDorman presents “new measures for evaluating human perceptions of anthropomorphic characters”, highlighting the importance of distinct indices for attractiveness, eeriness, humanness, and warmth, which demonstrate reliability and validity across various stimuli (Ho & MacDorman, 2017). Moreover, there are some other reasons for feeling fear emotion through technological developments like individual differences. For example, the study by MacDorman and Entezari explores individual variations in response to the uncanny valley, revealing that traits such as religious fundamentalism and anxiety predict a heightened sense of eeriness and reduced warmth toward androids (MacDorman, 2015).

In addition, technological developments are getting wider and wider nowadays. When we are exposed to these technological developments, we are getting used to them and the eeriness and fear are diminishing naturally. The study by Złotowski et al. demonstrates that “repeated interactions with robots can diminish the experience of eeriness, irrespective of the robot's human likeness”, suggesting that exposure may mitigate the ‘Uncanny Valley’ effect in human-robot interaction (Złotowski, 2015).

### **2.2.1. Exploring the Humanness, Eeriness and Attractiveness Variables Influences on Advertisement Creativity**

The perception of humanness in advertisement visuals plays a crucial role in shaping consumer responses and attitudes. The study named “Artificial Intelligence in Utilitarian vs. Hedonic Contexts: The “Word-of- Machine” Effect”, published in the Journal of Marketing (2020) examines the effect of perceived humanness in advertising on consumer engagement and creativity, highlighting that advertisements featuring human-like qualities can significantly enhance emotional connections, thereby improving ad creativity and effectiveness. The research underscores the importance of incorporating elements of humanness into advertisements to boost their appeal and impact on consumers (Cian, 2020). So, humanness is one of the variables in this research that has a positive effect on ad creativity.

Eeriness, a key component of the Uncanny Valley phenomenon, can significantly impact consumer perceptions and attitudes toward advertisements. Research by Tinwell, Grimshaw, and Abdel Nabi (2014) suggests that advertisements perceived as eerie, or unsettling may elicit negative emotional responses and diminish brand perceptions. Understanding the role of eeriness in advertisement creativity is essential for mitigating its adverse effects on consumer engagement and purchase intention (Louise Connell, 2014). Eeriness can be the dependent variable as negatively affects ad creativity.

Attractiveness, both in terms of visual aesthetics and content appeal, plays a critical role in driving consumer engagement and response to advertisements. For instance, a virtual influencer is a character produced through digital graphic software, featuring a distinct personality and viewpoint, shared on social media with the goal of influencing others (Christopher, 2020). Virtual influencers are designed to be relatable and appealing to their followers. This involves creating characters that are not only visually attractive but also have engaging personalities. The attractiveness of these virtual influencers can significantly impact their ability to connect with audiences and influence their purchasing decisions (Vale, 2021).

"The Uncanny Valley Theory" provides important insights into the complexities of advertisement creativity and its effects on consumer behavior. Investigating the relevance of the Uncanny Valley phenomenon in advertising allows researchers to better understand how to enhance advertisement design and content for maximum effectiveness while avoiding potential drawbacks.

### **2.2.2. Navigating the Uncanny Valley: Implications for AI and Human Advertisements**

Navigating the uncanny valley, implications for AI and Human Advertisements elucidates the challenges and opportunities presented by the "Uncanny Valley" phenomenon in advertising. In the context of digital marketing and advertisement video editing, advanced AI tools are revolutionizing video creation and editing, streamlining the production process for content creators by providing options such as direct idea input, text-based scripts, full AI generation, and voice-over integration (Master, 2023). These tools not only automate the creation of engaging voiceovers with selectable emotions but also facilitate the editing of existing footage to produce new video content efficiently. The future of AI in video editing promises enhancements in contextual comprehension and multimodal interaction, potentially reducing the costs associated with video production and making sophisticated editing tools more accessible to businesses. Besides being a cost-effective solution, AI video editing and video generating as advertisement can be used to increase creativity for creating more attractive and memorable advertisements. "The Uncanny Valley Theory" suggests that as artificial beings, like robots or digital avatars, grow more human-like in their appearance and behavior, they reach a stage where they provoke feelings of discomfort or uneasiness in those who observe them. Let's look at some examples of AI-generated advertisements with generated with text-to-image methods.

**Figure 2.3. Heinz Launches Its First Ad Campaign with Entirely AI-Generated Images**



(Source: <https://blog.socialmediastrategiessummit.com/10-examples-of-ai-in-marketing/> )

**Figure 2.4. El Salar Burgers Advertisement – Made with Midjourney AI Photo Generation Tool**



(Source: <https://www.adsoftheworld.com/campaigns/ai-models> )

**Figure 2.5. Comparing DALL-E 2 and Midjourney Created Advertisements**



(Source: <https://www.rkh.co.uk/news-views/can-ai-create-an-advertising-campaign/> )

As we can clearly see in the examples of the AI-Made image advertisements which is shown at Figure 2.3., Figure 2.4., and Figure 2.5., current AI technologies and their uses in the creative sectors, emphasizing progress in image creation, style transfer, and the

production of novel digital artworks (A. Owens, 2016) (Dong, 2018). The use of machine learning methods, such as GANs and RNNs, to create new forms of art and transform images, emphasizing the importance of large, diverse datasets and advanced computational power (P. Isola, 2017) (Y. Lifchitz, 2019). Additionally, the role of AI in enhancing and analyzing content across various creative fields, while noting that AI remains a tool to augment rather than replace human creativity due to its limitations in understanding external context and long chains of inference (Anantrasirichai, 2021). Despite significant advancements, AI faces limitations in achieving human-level creativity, as it excels in well-defined tasks but struggles with the nuanced and context-dependent nature of human creativity. However, ongoing research and development in AI and AI tools have the potential to challenge and reshape our understanding of creative capabilities, suggesting a future where AI's role in creative sectors continues to evolve and expand (Stefano Puntoni, 2021). Thanks to this research, the AI-generated video advertisements' level of creativity will be analyzed and understood.

### **2.2.3. Striking the Balance: Avoiding the Uncanny Valley in AI and Human Ad Campaigns**

Striking the balance avoiding “the Uncanny Valley in AI and Human” ad campaigns explores strategies for avoiding the Uncanny Valley in advertising, particularly in the context of AI and human-driven campaigns. Achieving the right balance between human-like and artificial elements is essential for creating ads that resonate with consumers without triggering feelings of discomfort or aversion. The Uncanny Valley phenomenon is increasingly relevant as AI technologies become more involved in creating personalized ad experiences. For example, the article by Nair and Gupta (2021) examines the role of AI in modern digital marketing, highlighting how it revolutionizes strategies through predictive analytics, personalized content, and enhanced customer service. AI's capabilities improve customer engagement and streamline marketing efforts by analyzing data patterns and automating responses (Nair, 2021). As AI begins to appear more human-like in these interactions, it can sometimes lead to discomfort among consumers, especially when they feel deceived by AI's human-like capabilities or when

personalization becomes excessively intrusive. This response, rooted in the Uncanny Valley, highlights the delicate balance advertisers must navigate to maintain consumer trust and engagement without crossing into discomfort (Contributor, 2017). By employing techniques such as stylization, caricature, and transparency about AI technologies, advertisers can minimize the risk of encountering the Uncanny Valley and create ads that effectively engage and persuade their target audience. By understanding the implications of the Uncanny Valley for both AI and human advertisements, marketers can develop strategies to mitigate its negative effects and leverage its potential benefits in creative storytelling and brand communication.

### **2.3. Humanizing AI: Overcoming the Uncanny Valley in Advertising**

It is crucial to examine how the integration of human-like attributes in AI-Driven advertisements can mitigate the unsettling effects known as the Uncanny Valley. This phenomenon describes how humanoid entities that closely, yet not perfectly, resemble human beings can provoke unease among viewers, which can be particularly detrimental in advertising contexts.

Incorporating human-like characteristics such as emotional expressions, personality traits, and cultural nuances into AI-generated content helps create advertisements that are not only more natural and engaging but also resonate more profoundly with consumers on an emotional level. This practice enhances consumer engagement by promoting familiarity and relatability, which is vital for overcoming initial discomfort or skepticism.

Recent scholarly research highlights the efficacy of this approach. For example, a study detailed in the *Journal of Advertising Research* explored how aligning the emotional expressions of AI characters within advertisements with those expected by viewers could significantly boost empathy and engagement, thereby augmenting the ad's overall effectiveness (Tran, 2013).

Furthermore, the employment of storytelling, character development, and empathetic communication can amplify the humanization of AI-Driven advertisements. A 2015 study published in *Computers in Human Behavior* discusses how narrative techniques can

effectively bestow human-like qualities on AI entities, suggesting that well-crafted stories can foster a robust connection between consumers and AI characters (Kneer J. E., 2016). In conclusion, effectively leveraging human-like elements in AI advertisements requires a sophisticated blend of technological innovation and human insight. By understanding and applying these principles, advertisers can craft more effective and appealing ads that overcome the challenges presented by “The Uncanny Valley”.

### **2.3.1. The Uncanny Valley Effect: Shaping Consumer Perception in the AI Era**

“The Uncanny Valley Effect”: Shaping Consumer Perception in the AI Era examines how the Uncanny Valley phenomenon influences consumer perception and behavior in the context of the AI era. In an increasingly digitized and automated world, consumers are exposed to a growing number of AI-Driven advertisements across various channels and platforms. Understanding how the Uncanny Valley affects consumer attitudes, preferences, and intentions is crucial for advertisers seeking to maximize the effectiveness of their AI-Driven campaigns.

The degree of anthropomorphism in AI can affect user experience and engagement negatively if not designed carefully. Incorporating findings from neuroscience, Taffou and Viaud-Delmon (2014) have analyzed neural responses to humanoid robots, providing insights into physiological and psychological reactions to human-like AI that can guide more effective advertisement design (Carvalho, 2014).

By studying the Uncanny Valley effect, marketers can develop strategies to harmonize human and AI elements in their ads and create experiences that resonate with consumers and increase the overall customer experience.

### **2.3.2. Harmonizing Human and AI Elements: Mitigating Uncanny Valley Effects in Advertising**

Contrary to the conventional perspective that AI primarily excels in generating advertisements based on cognitive and rational elements, recent advancements suggest

that AI can effectively engage in the emotional aspects of advertising as well. It becomes evident that integrating emotional intelligence capabilities into AI systems can enhance their effectiveness in the advertising sector. The chapter "Emotion AI: Integrating Emotional Intelligence with Artificial Intelligence" highlights how Emotion AI has begun to bridge the gap by fostering more intuitive and responsive interactions, which are critical in marketing and advertising domains (Singh, 2021). This integration not only augments the interaction quality between users and AI but also suggests that AI can indeed resonate emotionally with consumers. By strategically harmonizing human and AI contributions, and addressing the uncanny valley phenomenon, AI-Driven advertisements can achieve a balance that maximizes engagement and effectiveness without evoking discomfort among users. Thus, Emotion AI holds the promise of transforming AI from purely cognitive machines to entities capable of meaningful emotional connections, redefining the potential and applicability of AI in emotionally charged sectors like advertising. Therefore, when employed judiciously in advertising, AI has the potential not only to target ads more effectively but also to touch the hearts of consumers, creating emotionally resonant campaigns that forge deeper connections and loyalty.

#### **2.4. Advertising Creativity on the Hierarchy of Effects Theory**

“The Hierarchy of Effects Theory” posits that consumers move through a series of cognitive and affective stages in response to advertising stimuli, culminating in a desired behavioral outcome. This framework provides a valuable lens for assessing the impact of advertisement creativity on consumer responses at various stages of the decision-making process. Research by “Smith, R. E., Chen, J., and Yang, X. (2008)” laid the groundwork for the Hierarchy of Effects model, highlighting the sequential nature of consumer response to advertising and the importance of creative elements in driving desired outcomes (Smith R. E., 2008). That’s why, this research focuses on three main stages which are message acceptance, learning ad claims, and awareness stages.

Creative elements play a pivotal role in shaping consumer response at each stage of the hierarchy, from capturing attention to eliciting desired actions (MacKenzie, 1986).

Bridging creativity and consumer response, advertisers can effectively capture attention, evoke emotions, and influence attitudes towards their brands and products. Crafting AI and human ads requires a nuanced understanding of audience preferences, behaviors, and psychographics, enabling marketers to tailor creative elements to resonate with diverse audience segments (Brinberg, 1986).

Moreover, examining the impact of creative advertising on awareness, attitude, and action underscores the multifaceted nature of consumer response to advertisements. From attention to action, the role of creativity in AI and human ads evolves as consumers progress through the decision-making journey (Eric Zhou, 2024). By enhancing the hierarchy of effects through creative strategies, advertisers can foster meaningful connections with their target audience and drive desired outcomes, ultimately maximizing the effectiveness and impact of their advertising campaigns.

#### **2.4.1. Exploring the Awareness, Learning Ad Claims and Message Acceptance Stages and Its Variables Influences on Advertisement Creativity**

In the awareness stage of the Hierarchy of Effects model, consumers are exposed to advertisements and begin to form initial impressions and perceptions. These impressions and the perceptions of consumers' minds can be shaped positively with creative advertisements by the creative advertiser. The article by Sara Rosengren, Micael Dahlén, and Erik Modig (2013) demonstrates that creative advertising captures consumer attention and interest and enhances their creativity and perception of media value, which can be seen as contributing to a broader, more engaged awareness (Rosengren, 2013).

In the stage of learning ad claims, the engagement of consumers in cognitive processing to decode and assess the information within advertisements is crucial. The employment of creative strategies, including storytelling, humor, and visual metaphors, plays a pivotal role in enhancing comprehension and deepening the processing of ad claims, thereby improving retention and recall. Recent research by Torres, Augusto, and Matos (2020) illustrates that creativity in advertising significantly bolsters consumers' comprehension and ability to remember ad claims by fostering a more profound engagement with the ad

content (Kerr, 2020). Moreover, the study "Stimulus Complexity Can Enhance Art Appreciation: Phenomenological and Psychophysiological Evidence for the Pleasure-Interest Model of Aesthetic Liking" by Tammy-Ann Husselman provides insights into how the complexity and conceptual fluency of an advertisement can support comprehension and depth of processing in learning ad claims (Kong, 2023). Specifically, creatively complex ads that also provide clear and meaningful information could engage consumers in a reflective process, enhancing their understanding and retention of the ad's message. This reflective processing might be akin to the flow-like experiences noted in the study, where engagement with the content is deep and focused. According to the findings of the theoretical framework for relevance between the learning ad claim stage and advertisement creativity and influences parts of it.

In the message acceptance stage, consumers evaluate the persuasive appeal of advertisements and form attitudes toward the advertised product or brand. Creative elements such as memorable slogans, distinctive visuals, and intriguing narratives can enhance message acceptance by eliciting positive emotional responses and fostering curiosity. The research named "Creative Strategies in Social Advertising: An Attributional Perspective" by White, A., and Smith, B.L. (2001) investigates social advertising campaigns to understand how creative strategies affect viewer response in terms of memorability and curiosity. It discusses how creativity leads to more effective social advertising by engaging viewers' emotions and cognitive processes, making messages more memorable, and stimulating curiosity about the issues presented (White, 2001). Plus, advertisement creativity enhances memorability and curiosity, which are crucial for message acceptance. The research by Braun-Latour, K. A., and Zaltman, G. (2006) standing out through novelty, evoking emotions, engaging senses, and connecting with the audience on a personal level, creative ads can significantly impact the effectiveness of advertising campaigns (Braun-Latour, 2006). Understanding these dynamics offers valuable insights for advertisers aiming to craft messages that not only capture attention but also resonate deeply with the audience, leading to acceptance and action.

#### **2.4.2. Bridging Creativity and Consumer Response: The Hierarchy of Effects Perspective**

According to the Hierarchy of Effects Theory, consumers progress through sequential stages—awareness, interest, desire, and action—in response to advertising stimuli. Creative elements are pivotal in influencing each stage, from capturing initial attention to eliciting final actions. For instance, facial recognition software used in mobile devices, social media, and physical spaces demonstrates how AI can personalize consumer interactions, thereby enhancing engagement and response (Stefano Puntoni, 2021). By integrating creativity with consumer response mechanisms, advertisers can shape perceptions and drive outcomes, ultimately maximizing the effectiveness of their campaigns. Effective advertising leverages creative strategies to navigate these stages, ensuring that consumers are not only aware of a product but are also driven to act upon that awareness, thus enhancing overall campaign success.

#### **2.4.3. Crafting AI and Human Ads: Leveraging Creativity to Influence the Hierarchy of Effects**

AI provides unparalleled opportunities for creative experimentation and personalized content delivery, enabling advertisers to tailor messages to specific audience segments with high precision. However, the human touch in creativity remains indispensable, especially in crafting campaigns that resonate emotionally and culturally with audiences. Recent studies indicate that AI-Driven ads can significantly enhance engagement through personalization, while human-driven creativity excels in developing narratives that evoke deep emotional responses (Smith J. &, 2023) (Campbell C. P., 2022). By integrating the strengths of both AI and human creativity, advertisers can design compelling advertisements that engage diverse audience segments and foster meaningful connections. This integrated approach can significantly enhance the effectiveness of advertising campaigns, driving consumer engagement and business outcomes.

#### **2.4.4. From Attention to Action: Unpacking the Role of Creativity in AI and Human**

The interplay between attention and creativity in both artificial intelligence (AI) and human cognition has garnered significant interest in recent literature. Attention, a foundational cognitive process, plays a pivotal role in filtering and prioritizing information, which in turn impacts creative output. In humans, the ability to focus selectively on relevant stimuli while inhibiting distractions is essential for the creative process, facilitating the generation of novel and valuable ideas (Henriksen, 2024). Recent advancements in AI have sought to emulate this selective attention mechanism through various computational models, such as attention-based neural networks (Vaswani, 2017). These models have shown promise in enhancing the creative capabilities of AI by allowing for more nuanced and context-aware generation of content, whether in text, art, or music. However, the translation from attention to creative action in AI is not merely a replication of human processes but involves distinct algorithmic strategies that leverage vast datasets and computational power. This divergence raises intriguing questions about the nature of creativity itself and whether AI-Driven creative outputs can be considered genuinely innovative or merely derivative of human creativity. Thus, exploring the dynamics of attention in both AI and human contexts not only deepens our understanding of creativity but also highlights the unique pathways through which each entity can achieve creative expression.

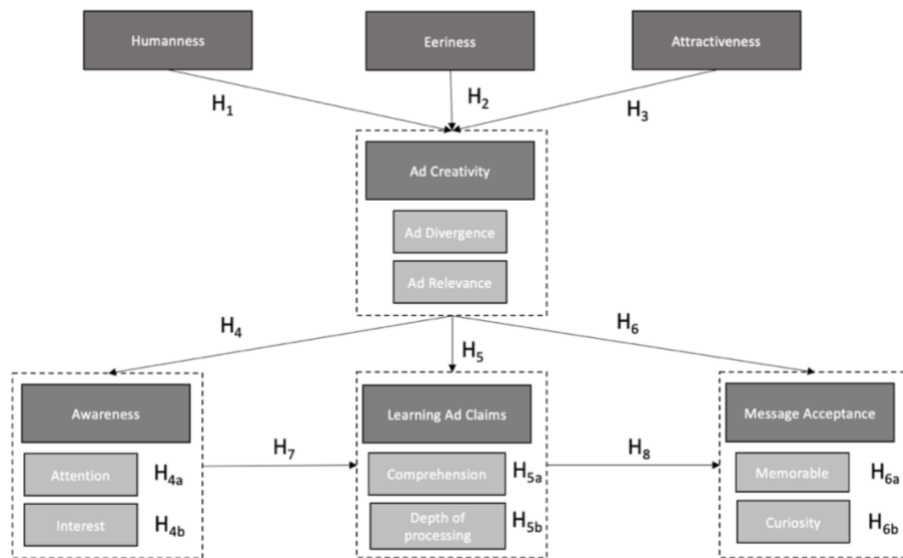
#### **2.4.5. Enhancing the Hierarchy of Effects: Strategies for Creative Excellence in AI-Driven Advertising**

The study by Duan, Edwards, and Dwivedi (2019) shows that the evolution of artificial intelligence (AI) in decision-making, fueled by advancements in computing power and Big Data, presents both challenges and opportunities for research, necessitating a reevaluation of AI's roles, the development of new theoretical frameworks, and the examination of technology-human interaction and implementation strategies to fully leverage AI's potential in enhancing decision-making processes (Duan, 2019). Strategies

for creative excellence in AI-Driven advertising proposes strategies for optimizing creative excellence in AI-Driven advertising campaigns. From leveraging data-driven insights to personalizing content and optimizing ad placement, there are various tactics advertisers can employ to enhance the effectiveness of their AI-Driven campaigns. By adopting a strategic approach to creativity in AI-Driven advertising, advertisers can maximize the impact of their campaigns and achieve their advertising objectives more effectively.

After I explained my theories and variables which interplays in my study in the Literature Review section, we will take a look into Figure 2.6. Conceptual Research Model and Hypothesis above.

**Figure 2.6. Conceptual Research Model**



Hypothesis can be summarized and listed above:

- *H<sub>1</sub>*: Humanness has an effect on ad creativity.
- *H<sub>2</sub>*: Eeriness has an effect on ad creativity.
- *H<sub>3</sub>*: Attractiveness has an effect on ad creativity.
- *H<sub>4</sub>*: Ad creativity has a positive effect on awareness.

*H<sub>4a</sub>*: Ad creativity has a positive effect on attention.

*H<sub>4b</sub>*: Ad creativity has a positive effect on interest.

- *H<sub>5</sub>*: Ad creativity has a positive effect on learning ad claims.

*H<sub>5a</sub>*: Ad creativity has a positive effect on comprehension.

*H<sub>5b</sub>*: Ad creativity has a positive effect on depth of processing.

- *H<sub>6</sub>*: Ad creativity has a positive effect on message acceptance.

*H<sub>6a</sub>*: Ad creativity has a positive effect on memorable.

*H<sub>6b</sub>*: Ad creativity has a positive effect on curiosity.

- *H<sub>7</sub>*: Awareness has an effect on learning ad claims.

- *H<sub>8</sub>*: Learning ad claims has an effect on message acceptance.

In essence, this model provides a comprehensive understanding of the intricate dynamics shaping advertisement creativity and its impact on consumer behavior. By comparing Human-Made vs AI-Made ads within this model, I aim to discern the unique strengths and limitations of each approach, ultimately guiding advertisers in crafting more effective and resonant campaigns.

## **METHODOLOGY**

### **3.1. Research Objectives**

As I explained in the introduction section, the main objective of this research is to provide companies with practical guidance for refining their advertising strategies within the rapidly evolving AI environment. It aims to assess how creative, relevant, and divergent ads impact consumer behavior, compare human and AI-generated ads in terms of their ability to engage and convert consumers, identify crucial factors for effectively using AI in ad creation, and suggest strategies for maximizing AI's potential in advertising.

### **3.2. Sample Selection and Data Collection**

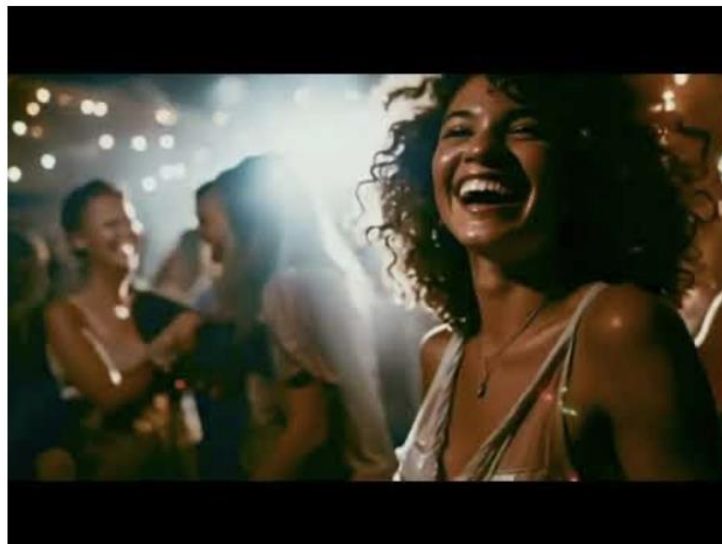
The convenience sample method is preferred, and the demographic variables are collected for analyzing the specific demographic correlation. At the start of the survey, it was mentioned that participants' information would remain confidential and be used solely for academic analysis, with no private details such as names, surnames, or identification numbers being collected or stored. An online survey, developed using Google Forms, was distributed over a period extending from February 12, 2024, to May 1, 2023. During this approximately three-month interval, the survey engaged a total of 800 participants. Out of these, 253 participants submitted fully completed forms that were deemed valid for analysis. Consequently, the statistical evaluations and subsequent analyses were based exclusively on these 253 valid submissions, providing a comprehensive dataset for rigorous academic scrutiny.

### **3.3. Questionnaire Design and Advertisements Preparation**

I developed two distinct advertisements to evaluate the differences in creativity between AI-generated and Human-Made advertisements. The AI-Made advertisement was created using a combination of three AI tools: Midjourney, Runway ML, and CapCut. Initially, I

utilized Midjourney to generate the visual elements of each advertisement scene through a text-to-image process, crafting detailed prompts to guide the AI. Subsequently, I employed Runway ML to introduce dynamic elements into these images, transforming them into videos through an image-to-video process. Finally, I compiled and refined these video scenes using CapCut, where I also integrated music to enhance the overall advertisement. For creating Human-Made advertisement, I found and cut some scenes from pre-made and pretty unknown brand advertisements by using Premier Pro. I didn't make a whole production for creating the Human-Made advertisement. The reason why, it will cost too much to create, and there will be no logical comparison between two types of advertisements. With this structure, there will be no brand, budgeting, and generation conflicts in the analysis. This methodical approach facilitated a structured comparison of creativity levels between the AI-Made and Human-Made advertisements. You can see the cover scene of AI-Made video advertisement and Human-Made video advertisement in the 3.1. And Figure 3.2.

**Figure 3.1. Cover Scene from AI-Made Advertisement That Watched by Participants in The Google Forms**



(Source: <https://docs.google.com/forms/d/14gghGacRNnx5dgjAU-zWmcphLWKWAJvJ3oK4yGkJevY/edit?pli=1>)

**Figure 3.2. One Scene from Human-Made Advertisement That Watched by Participants in The Google Forms**



(Source: <https://docs.google.com/forms/d/14gghGacRNnx5dgjAU-zWmcphLWKWAJvJ3oK4yGkJevY/edit?pli=1>)

The attention, interest, comprehension, depth of processing, memorable, curiosity, ad divergence, ad relevance variables are measured with 5-point of Likert scale method. The main question is “Please consider the advertisement you have just watched and indicate your level of agreement with the following statements.” The questions utilized a “5-point Likert Scale”, ranging from 1, which represents “Strongly disagree”, to 5, indicating “Strongly agree”.

The humanness, eeriness, and attractiveness variables are measured with 5-point of Likert scale too. The main question is “Please consider the advertisement you have watched and rate how closely it aligns with the emotions you felt, then mark the corresponding box.” The questions utilized a “5-point Likert Scale”, ranging from 1, representing “Very Artificial”, to 5, indicating “Very Human-like”. The variable names, questions, and sources of the questions is detailed in Table 3.1. (for AI-Made advertisement) and in Table 3.2. (for Human-Made advertisement).

**Table 3.1. Measurement of Independent and Dependent Variables (Questioned After AI-Made Advertisement Watched)**

| Variable Names             | Variables | Question (English Version)                          | Sources                   |
|----------------------------|-----------|-----------------------------------------------------|---------------------------|
| <b>Attention</b>           | ATT_1A    | I paid close attention to the ad.                   | (Smith<br>R. E.,<br>2008) |
|                            | ATT_2A    | The ad demanded my attention.                       |                           |
|                            | ATT_3A    | The ad would stand out in a group of ads.           |                           |
| <b>Interest</b>            | INT_1A    | I was involved in the ad.                           |                           |
|                            | INT_2A    | I found involved in the ad.                         |                           |
|                            | INT_3A    | I found the ad to be interesting.                   |                           |
| <b>Comprehension</b>       | COM_1A    | The ad claims were easy to understand.              |                           |
|                            | COM_2A    | I was able to comprehend the claims made in the ad. |                           |
|                            | COM_3A    | The ad claims were hard to understand (R).          |                           |
| <b>Depth of Processing</b> | DEP_1A    | I gave the ad a lot of consideration.               |                           |
|                            | DEP_2A    | The ad stimulated my imagination.                   |                           |
|                            | DEP_3A    | I was able to imagine using the advertised product. |                           |

|                      |        |                                                              |                     |
|----------------------|--------|--------------------------------------------------------------|---------------------|
| <b>Memorable</b>     | MEM_1A | I remember a lot about the ad message.                       | (Smith R. E., 2008) |
|                      | MEM_2A | The claims made in the ad were memorable.                    |                     |
|                      | MEM_3A | The ad message was easy to learn and remember.               |                     |
| <b>Curiosity</b>     | CUR_1A | The ad made me curious about the advertised brand.           |                     |
|                      | CUR_2A | I would like more information about the product.             |                     |
|                      | CUR_3A | I would like to use the advertised product on a trial basis. |                     |
| <b>Ad Divergence</b> | AD_1A  | The ad was different.                                        |                     |
|                      | AD_2A  | The ad was uncommon.                                         |                     |
| <b>Ad Relevance</b>  | AR_1A  | The ad was very relevant to me.                              |                     |
|                      | AR_2A  | The ad was meaningful to me.                                 |                     |
| <b>Humanness</b>     | HUM_1A | Inanimate – Living                                           | (Ho C.-C., 2010)    |
|                      | HUM_2A | Synthetic – Real                                             |                     |
|                      | HUM_3A | Mechanical – Biological Movement                             |                     |
|                      | HUM_4A | Human-Made – Humanlike                                       |                     |

|                |        |                              |                        |
|----------------|--------|------------------------------|------------------------|
| Eeriness       | EER_1A | Dull – Freaky                | (Ho<br>C.-C.,<br>2010) |
|                | EER_2A | Predictable – Eerie          |                        |
|                | EER_3A | Plain – Weird                |                        |
|                | EER_4A | Ordinary – Supernatural      |                        |
|                | EER_5A | Boring – Shocking            |                        |
|                | EER_6A | Uninspiring – Spine-tingling |                        |
|                | EER_7A | Predictable – Thrilling      |                        |
|                | EER_8A | Bland – Uncanny              |                        |
|                | EER_9A | Unemotional – Hair-raising   |                        |
| Attractiveness | ATR_1A | Ugly – Beautiful             |                        |
|                | ATR_2A | Repulsive – Agreeable        |                        |
|                | ATR_3A | Crude – Stylish              |                        |
|                | ATR_4A | Messy – Sleek                |                        |

**Table 3.2. Measurement of Independent and Dependent Variables (Questioned After Human- Made Advertisement Watched)**

| Variable Names      | Variables | Question (English Version)                          | Sources             |
|---------------------|-----------|-----------------------------------------------------|---------------------|
| Attention           | ATT_1B    | I paid close attention to the ad.                   | (Smith R. E., 2008) |
|                     | ATT_2B    | The ad demanded my attention.                       |                     |
|                     | ATT_3B    | The ad would stand out in a group of ads.           |                     |
| Interest            | INT_1B    | I was involved in the ad.                           |                     |
|                     | INT_2B    | I found involved in the ad.                         |                     |
|                     | INT_3B    | I found the ad to be interesting.                   |                     |
| Comprehension       | COM_1B    | The ad claims were easy to understand.              |                     |
|                     | COM_2B    | I was able to comprehend the claims made in the ad. |                     |
|                     | COM_3B    | The ad claims were hard to understand (R).          |                     |
| Depth of Processing | DEP_1B    | I gave the ad a lot of consideration.               |                     |
|                     | DEP_2B    | The ad stimulated my imagination.                   |                     |
|                     | DEP_3B    | I was able to imagine using the advertised product. |                     |

|               |        |                                                              |                           |
|---------------|--------|--------------------------------------------------------------|---------------------------|
| Memorable     | MEM_1B | I remember a lot about the ad message.                       | (Smith<br>R. E.,<br>2008) |
|               | MEM_2B | The claims made in the ad were memorable.                    |                           |
|               | MEM_3B | The ad message was easy to learn and remember.               |                           |
| Curiosity     | CUR_1B | The ad made me curious about the advertised brand.           |                           |
|               | CUR_2B | I would like more information about the product.             |                           |
|               | CUR_3B | I would like to use the advertised product on a trial basis. |                           |
| Ad Divergence | AD_1B  | The ad was different.                                        |                           |
|               | AD_2B  | The ad was uncommon.                                         |                           |
| Ad Relevance  | AR_1B  | The ad was very relevant to me.                              |                           |
|               | AR_2B  | The ad was meaningful to me.                                 |                           |
| Humanness     | HUM_1B | Inanimate – Living                                           | (Ho C.-<br>C., 2010)      |
|               | HUM_2B | Synthetic – Real                                             |                           |
|               | HUM_3B | Mechanical – Biological Movement                             |                           |
|               | HUM_4B | Human-Made – Humanlike                                       |                           |
| Eeriness      | EER_1B | Dull – Freaky                                                |                           |

|                |        |                              |                         |
|----------------|--------|------------------------------|-------------------------|
|                | EER_2B | Predictable – Eerie          | (Ho C.-<br>C.,<br>2010) |
|                | EER_3B | Plain – Weird                |                         |
|                | EER_4B | Ordinary – Supernatural      |                         |
|                | EER_5B | Boring – Shocking            |                         |
|                | EER_6B | Uninspiring – Spine-tingling |                         |
|                | EER_7B | Predictable – Thrilling      |                         |
|                | EER_8B | Bland – Uncanny              |                         |
|                | EER_9B | Unemotional – Hair-raising   |                         |
| Attractiveness | ATR_1B | Ugly – Beautiful             |                         |
|                | ATR_2B | Repulsive – Agreeable        |                         |
|                | ATR_3B | Crude – Stylish              |                         |
|                | ATR_4B | Messy – Sleek                |                         |

## FINDINGS

### 4.1. Descriptive Statistics for Demographic Variables

The questionnaire gathered demographic data on respondents' gender, age, marital status, education level, and employment status. Over a three-month period, responses from 253 participants were collected. Convenience sample method was used. The summary of the collected demographic data is presented in the Table 4.1.

**Table 4.1. Demographic Characteristics of Survey Respondents (N=253)**

|                        |                            | N   | Percentage |
|------------------------|----------------------------|-----|------------|
| <b>Gender</b>          | Female                     | 122 | 48.2%      |
|                        | Male                       | 130 | 51.4%      |
|                        | Prefer Not to Say          | 1   | 0.4%       |
| <b>Marital Status</b>  | Married                    | 95  | 37.5%      |
|                        | Single                     | 158 | 62.5%      |
| <b>Education Level</b> | High-school Degree or Less | 23  | 9.1%       |
|                        | Associate degree           | 17  | 6.7%       |
|                        | Bachelor's Degree          | 137 | 54.2%      |
|                        | Master's Degree            | 61  | 24.1%      |
|                        | Doctorate Degree           | 15  | 5.9%       |

|                              |                   |     |       |
|------------------------------|-------------------|-----|-------|
| <b>Employment<br/>Status</b> | Retired           | 20  | 7.9%  |
|                              | Not Working       | 34  | 13.4% |
|                              | Part-time Working | 15  | 5.9%  |
|                              | Full-time Working | 184 | 72.7% |

The sample comprises 253 respondents, including 122 females (48.2%), 130 males (51.4%), and one individual (0.4%) who preferred not to disclose their gender. The average age of the participants is 36.34 years, with a standard deviation of 12.66 years. Of these respondents, 95 (37.5%) are married, while 158 (62.5%) are single. Regarding educational background, 23 respondents (9.1%) have a high school diploma or less, 17 (6.7%) hold an associate degree, 137 (54.2%) possess a bachelor's degree, 61 (24.1%) have a master's degree, and 15 (5.9%) have earned a doctoral degree. In terms of employment status, 20 respondents (7.9%) are retired, 34 (13.4%) are not currently employed, 15 (5.9%) work part-time, and 184 (72.7%) are employed full-time.

#### **4.2. Factor Analysis**

Factor analysis is a recognized method used when pre-existing functional relationships are not available. It aims to simplify a large number of variables into a smaller number of constructs, referred to as factors. The main purposes of factor analysis are to reduce dimensions and generate new, uncorrelated factors, where items within each factor are correlated with each other (Backhaus, 2021). Researchers typically use this approach to investigate the connections between constructs documented in existing literature and those identified empirically from collected data.

Statistical techniques such as t-tests for dependent or independent samples, Pearson correlation coefficients, and measurements of skewness and kurtosis for approximately normal distributions are utilized. Chi-square ( $X^2$ ) tests are used to compare the frequency distributions of item scores, with a “significance threshold of  $p < 0.05$  for two-tailed tests”

(df = 3: no Yates correction).

Factor analysis entails systematically simplifying interrelated measures. Historically, it has been utilized to uncover the possible underlying structure within a set of related variables without imposing any preconceived framework on the results. “Bartlett's Test of Sphericity” assesses the observed correlation matrix against the identity matrix to detect redundancy among variables, enabling summarization with a limited number of factors. The test's null hypothesis asserts that the variables are orthogonal, or uncorrelated (Cooper, 1990).

“The Kaiser-Meyer-Olkin (KMO)” test is a statistical tool used to determine the suitability of data for factor analysis by “evaluating the sampling adequacy for each variable and the entire model”. It quantifies the proportion of variance that might be shared among the variables. Additionally, “Bartlett's Test of Sphericity” compares the observed correlation matrix with the identity matrix to identify redundancy among variables, facilitating their summarization into a few factors. The null hypothesis for this test posits that the variables are orthogonal, meaning they are uncorrelated (To, 2024).

Furthermore, “Varimax rotation (also known as Kaiser-Varimax rotation) aims to maximize the variance sum of squared loadings, where 'loadings' refer to correlations between variables and factors. This typically results in high factor loadings for a few variables and low loadings for the rest, highlighting a small number of important variables and making interpretation easier.” The remaining components all have multiple eigenvalues (Cooper, 1990). In conclusion, Cronbach's Alpha threshold value should be greater than 0.7 for reliability and accuracy. For factor and reliability analysis, the p-value should be above or equal to 0.05.

Factor analyses were conducted using responses from the AI-generated advertisement. For the questions related to Human-Made advertisement, total scores were used to assess reliability scores. Subsequently, the factor analysis results are presented in a table, followed by a comparative table of reliability scores for AI-Made and Human-Made advertisements.

#### 4.2.1. Factor and Reliability Analysis for Awareness (AI)

The Kaiser-Meyer-Olkin (KMO) measure and Bartlett's test were utilized to evaluate the data's suitability for factor analysis. The results demonstrated that the data were appropriate for this method, with a KMO value of 0.885 and Bartlett's test indicating  $\chi^2=1,077.517$ ,  $df=15$ ,  $p=0.000$ . Details of the factor analysis for Awareness (AI) are provided in Table 4.2.

**Table 4.2. Factor Analysis for Awareness (AI)**

| Factor Name                                                                      | Factor Items | Factor Loadings | % Variance | Reliability |
|----------------------------------------------------------------------------------|--------------|-----------------|------------|-------------|
| Awareness                                                                        | INT_1A       | 0.909           | 69.183     | 0.913       |
|                                                                                  | ATT_2A       | 0.887           |            |             |
|                                                                                  | INT_3A       | 0.884           |            |             |
|                                                                                  | INT_2A       | 0.873           |            |             |
|                                                                                  | ATT_3A       | 0.829           |            |             |
|                                                                                  | ATT_1A       | 0.555           |            |             |
| Total                                                                            |              |                 | 69.183     |             |
| KMO and Bartlett's Test<br>Kaiser-Meyer-Olkin<br>Measure of Sampling<br>Adequacy |              | 0.885           |            |             |

|                                      |                    |              |
|--------------------------------------|--------------------|--------------|
| <b>Bartlett's Test of Sphericity</b> | Approx. Chi-Square | 1.077.517,00 |
|                                      | df                 | 15           |
|                                      | p value            | 0.000        |

Following these evaluations, a component analysis with varimax rotation was performed. The reliability of the data was confirmed by a Cronbach's alpha coefficient, indicating high reliability. The analysis identified a single dimension that accounted for 69.18% of the total variance.

#### 4.2.2. Factor and Reliability Analysis for Learning Ad Claims (AI)

To determine the appropriateness and utility of the data for factor analysis, the Kaiser-Mayer-Olkin (KMO) measure and Bartlett's test were performed. The results demonstrated that the data were suitable, with a KMO value of 0.732 and Bartlett's test showing  $\chi^2=589.054$ ,  $df=10$ ,  $p=0.000$ . The factor analysis for depth of processing and comprehension variables (AI) is detailed in Table 4.3.

**Table 4.3. Factor Analysis for Learning Ad Claims Stage -Depth of Processing and Comprehension- (AI)**

| Factor Name                | Factor Items | Factor Loadings | % Variance | Reliability |
|----------------------------|--------------|-----------------|------------|-------------|
| <b>Depth of Processing</b> | DEP_1A       | 0.893           | 42.792     | 0.835       |
|                            | DEP_2A       | 0.873           |            |             |
|                            | DEP_3A       | 0.718           |            |             |
| <b>Comprehension</b>       | COM_2A       | 0.913           | 38.455     | 0.836       |
|                            | COM_1A       | 0.889           |            |             |

|                                                                                         |                    |         |
|-----------------------------------------------------------------------------------------|--------------------|---------|
| <b>Total</b>                                                                            | 81.247             |         |
| <b>KMO and Bartlett's Test<br/>Kaiser-Meyer-Olkin Measure of<br/>Sampling Adequacy.</b> |                    | 0.732   |
| <b>Bartlett's Test of Sphericity</b>                                                    | Approx. Chi-Square | 589.054 |
|                                                                                         | df                 | 10      |
|                                                                                         | p value            | 0.000   |

After the initial assessments, a component analysis with varimax rotation was carried out. The reliability of the data was confirmed by a Cronbach's alpha coefficient, and the analysis identified a single dimension that explained 81.25% of the total variance.

#### **4.2.3. Factor and Reliability Analysis for Message Acceptance (AI)**

To evaluate the data's suitability and utility for factor analysis, the Kaiser-Meyer-Olkin (KMO) measure and Bartlett's test were applied. The results indicated adequacy, with a KMO value of 0.851 and Bartlett's test showing  $\chi^2=1,096.228$ ,  $df=15$ ,  $p=0.000$ . The factor analysis for memorable and curiosity variables (AI) is presented in Table 4.4.

**Table 4.4. Factor Analysis for Message Acceptance Stage -Memorable and Curiosity- (AI)**

| <b>Factor Name</b> | <b>Factor Items</b> | <b>Factor Loadings</b> | <b>% Variance</b> | <b>Reliability</b> |
|--------------------|---------------------|------------------------|-------------------|--------------------|
| <b>Memorable</b>   | MEM_1A              | 0.864                  | 41.991            | 0.892              |
|                    | MEM_2A              | 0.852                  |                   |                    |

|                                                                                                    |        |       |                    |           |
|----------------------------------------------------------------------------------------------------|--------|-------|--------------------|-----------|
|                                                                                                    | MEM_3A | 0.820 |                    |           |
| <b>Curiosity</b>                                                                                   | CUR_2A | 0.914 | 40.878             | 0.894     |
|                                                                                                    | CUR_3A | 0.817 |                    |           |
|                                                                                                    | CUR_1A | 0.789 |                    |           |
| <b>Total</b>                                                                                       |        |       | 82.869             |           |
| <b>KMO and Bartlett's Test</b><br><b>Kaiser-Meyer-Olkin Measure</b><br><b>of Sampling Adequacy</b> |        |       |                    | 0.851     |
| <b>Bartlett's Test of Sphericity</b>                                                               |        |       | Approx. Chi-Square | 1.096.228 |
|                                                                                                    |        |       | df                 | 15        |
|                                                                                                    |        |       | p value            | 0.000     |

Following this, a component analysis with varimax rotation was performed. The reliability, assessed using Cronbach's alpha coefficient, was determined to be satisfactory. The analysis revealed a single dimension that accounted for 82.87% of the total variance.

#### 4.2.4. Factor and Reliability Analysis for Ad Creativity (AI)

To evaluate the data's suitability and utility for factor analysis, the Kaiser-Meyer-Olkin (KMO) measure and Bartlett's test were used. The results confirmed that the data were appropriate, with a KMO value of 0.654 and Bartlett's test indicating  $\chi^2=621.357$ ,  $df=6$ ,  $p=0.000$ .

The factor analysis for ad divergence and ad relevance variables (AI) is detailed in Table 4.3.

**Table 4.5. Factor Analysis for Ad Creativity - Ad Divergence X Ad Relevance - (AI)**

| Factor Name                                                                            | Factor Items | Factor Loadings | % Variance         | Reliability |
|----------------------------------------------------------------------------------------|--------------|-----------------|--------------------|-------------|
| <b>Ad Divergence</b>                                                                   | AD_2A        | 0.927           | 45.505             | 0.902       |
|                                                                                        | AD_1A        | 0.913           |                    |             |
| <b>Ad Relevance</b>                                                                    | AR_2A        | 0.918           | 45.227             | 0.893       |
|                                                                                        | AR_1A        | 0.915           |                    |             |
| <b>Total</b>                                                                           |              |                 | 90.732             |             |
| <b>KMO and Bartlett's Test<br/>Kaiser-Meyer-Olkin Measure of<br/>Sampling Adequacy</b> |              |                 |                    | 0.654       |
| <b>Bartlett's Test of Sphericity</b>                                                   |              |                 | Approx. Chi-Square | 621.357     |
|                                                                                        |              |                 | df                 | 6           |
|                                                                                        |              |                 | p value            | 0.000       |

Following these evaluations, a component analysis with varimax rotation was executed. The reliability, indicated by Cronbach's alpha coefficient, was deemed satisfactory. The analysis revealed a single dimension, explaining 90.73% of the total variance.

#### **4.2.5. Factor and Reliability Analysis for Humanness (AI)**

To assess the data's appropriateness for factor analysis, the Kaiser-Meyer-Olkin (KMO) measure and Bartlett's test were applied. The results were favorable, with KMO=0.636 and Bartlett's test yielding  $\chi^2=163.505$ ,  $df=3$ ,  $p=0.000$ . Factor analysis for humanness

variable (AI) is explained in Table 4.6.

**Table 4.6. Factor Analysis for Humanness (AI)**

| Factor Name                                                                            | Factor Items | Factor Loadings | % Variance         | Reliability |
|----------------------------------------------------------------------------------------|--------------|-----------------|--------------------|-------------|
| <b>Humanness</b>                                                                       | HUM_2A       | 0.797           | 64.335             | 0.722       |
|                                                                                        | HUM_3A       | 0.740           |                    |             |
|                                                                                        | HUM_1A       | 0.864           |                    |             |
| <b>Total</b>                                                                           |              |                 | 64.335             |             |
| <b>KMO and Bartlett's Test<br/>Kaiser-Meyer-Olkin Measure<br/>of Sampling Adequacy</b> |              |                 |                    | 0.636       |
| <b>Bartlett's Test of Sphericity</b>                                                   |              |                 | Approx. Chi-Square | 163.505     |
|                                                                                        |              |                 | df                 | 3           |
|                                                                                        |              |                 | p value            | 0.000       |

After these evaluations, a component analysis with varimax rotation was conducted. The reliability, indicated by Cronbach's alpha coefficient, was deemed satisfactory. The analysis identified a single dimension that explained 64.33% of the total variance.

#### **4.2.6. Factor and Reliability Analysis for Eeriness (AI)**

To evaluate the data's suitability for factor analysis, the Kaiser-Meyer-Olkin (KMO) measure and Bartlett's test were conducted. The results were satisfactory, with KMO=0.888 and Bartlett's test showing  $\chi^2=911.807$ ,  $df=15$ ,  $p=0.000$ . Factor analysis for eeriness variable (AI) is explained in Table 4.7.

**Table 4.7. Factor Analysis for Eeriness (AI)**

| Factor Name                                                                            | Factor Items | Factor Loadings | % Variance         | Reliability |
|----------------------------------------------------------------------------------------|--------------|-----------------|--------------------|-------------|
| <b>Eeriness</b>                                                                        | EER_6A       | 0.863           | 68.299             | 0.905       |
|                                                                                        | EER_5A       | 0.862           |                    |             |
|                                                                                        | EER_7A       | 0.842           |                    |             |
|                                                                                        | EER_4A       | 0.812           |                    |             |
|                                                                                        | EER_9A       | 0.811           |                    |             |
|                                                                                        | EER_1A       | 0.765           |                    |             |
| <b>Total</b>                                                                           |              |                 | 68.299             |             |
| <b>KMO and Bartlett's Test<br/>Kaiser-Meyer-Olkin Measure<br/>of Sampling Adequacy</b> |              |                 |                    | 0.888       |
| <b>Bartlett's Test of Sphericity</b>                                                   |              |                 | Approx. Chi-Square | 911.807     |
|                                                                                        |              |                 | df                 | 15          |
|                                                                                        |              |                 | p value            | 0.000       |

Following these initial assessments, a component analysis with varimax rotation was performed. The reliability, measured by Cronbach's alpha, was found to be adequate. The analysis identified one dimension that explained 68.30% of the total variance.

#### **4.2.7. Factor and Reliability Analysis for Attractiveness (AI)**

To evaluate the data's suitability and relevance for factor analysis, the Kaiser-Mayer-Olkin (KMO) measure and Bartlett's test were utilized. The results confirmed the data's

appropriateness, with KMO=0.794 and Bartlett's test results showing  $\chi^2=409.777$ ,  $df=6$ ,  $p=0.000$ . Factor analysis for attractiveness variable (AI) is explained in Table 4.8.

**Table 4.8. Factor Analysis for Attractiveness (AI)**

| Factor Name                                                                                        | Factor Items | Factor Loadings | % Variance         | Reliability |
|----------------------------------------------------------------------------------------------------|--------------|-----------------|--------------------|-------------|
| <b>Attractiveness</b>                                                                              | ATR_1A       | 0.861           | 67.932             | 0.806       |
|                                                                                                    | ATR_3A       | 0.843           |                    |             |
|                                                                                                    | ATR_2A       | 0.829           |                    |             |
|                                                                                                    | ATR_4A       | 0.760           |                    |             |
| <b>Total</b>                                                                                       |              |                 | 67.932             |             |
| <b>KMO and Bartlett's Test</b><br><b>Kaiser-Meyer-Olkin Measure of</b><br><b>Sampling Adequacy</b> |              |                 |                    | 0.794       |
| <b>Bartlett's Test of Sphericity</b>                                                               |              |                 | Approx. Chi-Square | 409.777     |
|                                                                                                    |              |                 | df                 | 6           |
|                                                                                                    |              |                 | p value            | 0.000       |

After these initial assessments, a component analysis using varimax rotation was carried out. The reliability of the data was verified with a Cronbach's alpha coefficient, revealing one dimension that explained 67.93% of the total variance.

A comparative table of reliability scores for AI-Made and Human-Made advertisement is in the following table (Table 4.9.).

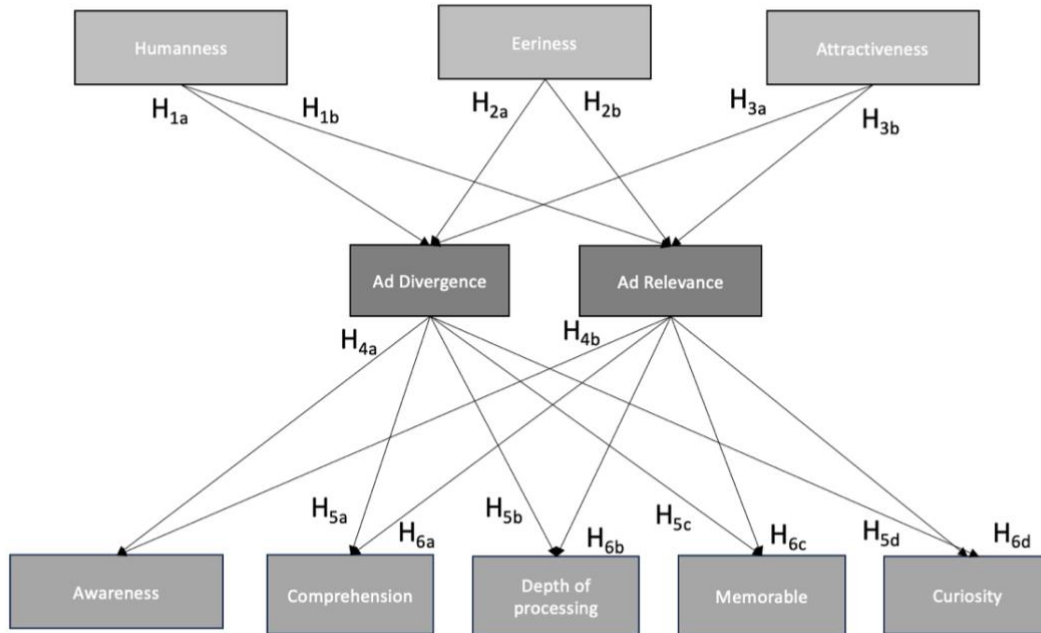
**Table 4.9. Human and AI Advertisement Reliability Analysis Results**

| Factor Name                | Factor Items | Cronbach Alpha<br>(AI-Made<br>Answers) | Cronbach Alpha<br>(Human-Made<br>Answers) |
|----------------------------|--------------|----------------------------------------|-------------------------------------------|
| <b>Awareness</b>           | INT_1A       | 0.913                                  | 0.922                                     |
|                            | ATT_2A       |                                        |                                           |
|                            | INT_3A       |                                        |                                           |
|                            | INT_2A       |                                        |                                           |
|                            | ATT_3A       |                                        |                                           |
|                            | ATT_1A       |                                        |                                           |
| <b>Depth of Processing</b> | DEP_1A       | 0.835                                  | 0.850                                     |
|                            | DEP_2A       |                                        |                                           |
|                            | DEP_3A       |                                        |                                           |
| <b>Comprehension</b>       | COM_2A       | 0.836                                  | 0.884                                     |
|                            | COM_1A       |                                        |                                           |
| <b>Memorable</b>           | MEM_1A       | 0.892                                  | 0.893                                     |
|                            | MEM_2A       |                                        |                                           |
|                            | MEM_3A       |                                        |                                           |
| <b>Curiosity</b>           | CUR_2A       | 0.894                                  | 0.931                                     |
|                            | CUR_3A       |                                        |                                           |
|                            | CUR_1A       |                                        |                                           |

|                       |        |       |       |
|-----------------------|--------|-------|-------|
| <b>Ad Divergence</b>  | AD_2A  | 0.902 | 0.949 |
|                       | AD_1A  |       |       |
| <b>Ad Relevance</b>   | AR_2A  | 0.893 | 0.884 |
|                       | AR_1A  |       |       |
| <b>Humanness</b>      | HUM_2A | 0.722 | 0.808 |
|                       | HUM_3A |       |       |
|                       | HUM_1A |       |       |
| <b>Eeriness</b>       | EER_6A | 0.905 | 0.918 |
|                       | EER_5A |       |       |
|                       | EER_7A |       |       |
|                       | EER_4A |       |       |
|                       | EER_9A |       |       |
|                       | EER_1A |       |       |
| <b>Attractiveness</b> | ATR_1A | 0.806 | 0.875 |
|                       | ATR_3A |       |       |
|                       | ATR_2A |       |       |
|                       | ATR_4A |       |       |

After conducting factor analysis, the paper's conceptual model and proposed hypotheses were revised as follows in the Figure 4.1.

**Figure 4.1. Revised Conceptual Research Model**



Revised hypothesis can be listed above:

- *H<sub>1</sub>*: Humanness has an effect on ad creativity.
  - H<sub>1a</sub>*: Humanness has an effect on ad divergence.
  - H<sub>1b</sub>*: Humanness has an effect on ad relevance.
- *H<sub>2</sub>*: Eeriness has an effect on ad creativity.
  - H<sub>2a</sub>*: Eeriness has an effect on ad divergence.
  - H<sub>2b</sub>*: Eeriness has an effect on ad relevance.
- *H<sub>3</sub>*: Attractiveness has an effect on ad creativity.
  - H<sub>3a</sub>*: Attractiveness has an effect on ad divergence.
  - H<sub>3b</sub>*: Attractiveness has an effect on ad relevance.
- *H<sub>4</sub>*: Ad creativity has an effect on awareness.
  - H<sub>4a</sub>*: Ad divergence has an effect on awareness.
  - H<sub>4b</sub>*: Ad relevance has an effect on awareness.

- *H<sub>5</sub>*: Ad divergence has an effect on learning ad claims and message acceptance stages.

*H<sub>5a</sub>*: Ad divergence has an effect on comprehension.

*H<sub>5b</sub>*: Ad divergence has an effect on depth of processing.

*H<sub>5c</sub>*: Ad divergence has an effect on memorable.

*H<sub>5d</sub>*: Ad divergence has an effect on curiosity.

- *H<sub>6</sub>*: Ad relevance on learning ad claims and message acceptance stages.

*H<sub>6a</sub>*: Ad relevance has an effect on comprehension.

*H<sub>6b</sub>*: Ad relevance has an effect depth of processing.

*H<sub>6c</sub>*: Ad relevance has an effect on memorable.

*H<sub>6d</sub>*: Ad relevance has an effect on curiosity.

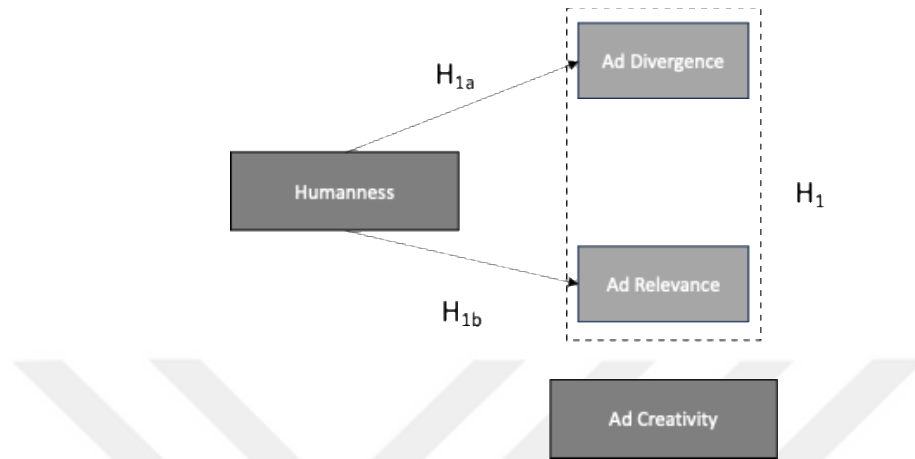
### **4.3. Regression Analysis and Results**

Regression Analysis is a robust statistical method used to clarify the relationship between dependent and independent variables. Through this technique, the effects of independent variables on dependent variables can be quantified and illustrated. The dependent variables represent the study's objectives, and the researcher seeks to demonstrate how the independent variables influence these dependent variables through proposed hypotheses. Consequently, the central focus of a research paper typically lies on the dependent variables. When examining the effect of a single independent variable on a dependent variable, simple regression is utilized. In contrast, multiple regression is employed to assess the effects of several independent variables on a dependent variable.

#### **4.3.1. Multiple Linear Regression Analysis of H<sub>1</sub> (H<sub>1a</sub> and H<sub>1b</sub>)**

Multiple linear regression analysis was employed to examine the relationship between humanness and ad creativity. The model is demonstrated in Figure 4.2.

**Figure 4.2. Multiple Linear Regression Model for H<sub>1</sub>**



Ad creativity has got two dimensions which are ad divergence and ad relevance. As analyzed in Table 4.10. and Table 4.11. Humanness influences ad creativity. This hypothesis will be analyzed in two simple linear regression calculations for both AI-Made advertisement and Human-Made advertisement.

In order to make calculations for H<sub>1a</sub>; AI-ad divergence regression, the total explanatory power of model was 10.8% ( $R=0.329$ ;  $R^2=0.108$ ;  $F=30.383$ ,  $p=0.000$ ). For Human-ad divergence regression, the total explanatory power of model was 3.1% ( $R=0.175$ ;  $R^2=0.031$ ;  $F=7.957$ ,  $p=0.005$ ).

**Table 4.10. Simple Linear Regression of Humanness and Ad Divergence**

| <b>Dependent Variable: Ad Divergence</b> |       |         |         |
|------------------------------------------|-------|---------|---------|
| <b>Independent Variables:</b>            | Beta  | t-value | p-value |
| Humanness (AI-Made)                      | 0.329 | 5.512   | 0.000   |
| Humanness (Human-Made)                   | 0.175 | 2.821   | 0.005   |

Ad divergence (AI) was characterized by Humanness ( $\beta=0.329$ ,  $p=0.000$ ), and Ad divergence (Human) was characterized by Humanness ( $\beta=0.179$ ,  $p=0.005$ ), supporting hypothesis H<sub>1a</sub>. For AI-Made advertisements, it can be estimated that approximately 10.8% of the variation in Ad Divergence can be attributed to Humanness. For Human-Made advertisements, it is likely that around 3.1% of the variation in Ad Divergence can be attributed to Humanness.

In order to make calculations for H<sub>1b</sub>, AI-ad relevance regression, the total explanatory power of model was 13.3% ( $R=0.365$ ;  $R^2=0.133$ ;  $F=38.519$ ,  $p=0.000$ ). For Human-ad relevance regression, the total explanatory power of model was 17.1% ( $R=0.413$ ;  $R^2=0.171$ ;  $F=51.625$ ,  $p=0.000$ ).

**Table 4.11. Simple Linear Regression of Humanness and Ad Relevance**

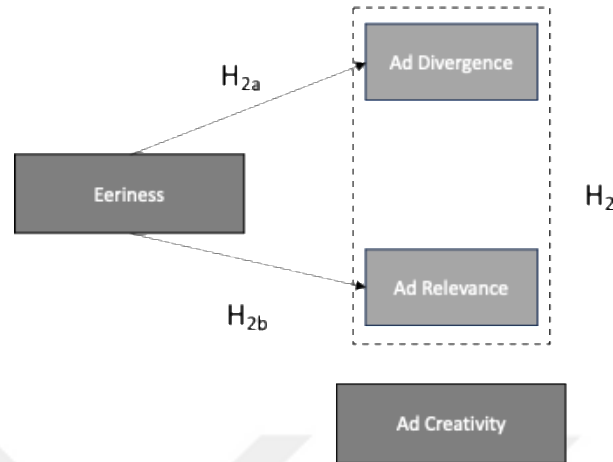
| <b>Dependent Variable: Ad Relevance</b> |       |         |         |
|-----------------------------------------|-------|---------|---------|
| <b>Independent Variables:</b>           | Beta  | t-value | p-value |
| Humanness (AI-Made)                     | 0.365 | 6.206   | 0.000   |
| Humanness (Human-Made)                  | 0.413 | 7.185   | 0.000   |

Ad relevance (AI) was influenced by Humanness ( $\beta=0.65$ ,  $p=0.000$ ), and Ad relevance (Human) was influenced by Humanness ( $\beta=0.413$ ,  $p=0.000$ ), supporting hypothesis H<sub>1b</sub>. For AI-Made advertisements, it can be estimated that approximately 13.1% of the variation in Ad Relevance is explained by Humanness. For Human-Made advertisements, it is likely that around 17.1% of the variation in Ad Relevance is explained by Humanness.

#### **4.3.2. Multiple Linear Regression Analysis of H<sub>2</sub> (H<sub>2a</sub> and H<sub>2b</sub>)**

Multiple linear regression analysis was employed to examine the relationship between eeriness and ad creativity. The model is demonstrated in Figure 4.3.

**Figure 4.3. Multiple Linear Regression Model for H<sub>2</sub>**



Ad creativity has got two dimensions which are ad divergence and ad relevance. As analyzed in Table 4.12. and Table 4.13. Eeriness influences ad creativity. This hypothesis will be analyzed in two simple linear regression calculations for both AI-Made advertisement and Human-Made advertisement.

In order to make calculations for H<sub>2a</sub>; AI-ad divergence regression, the total explanatory power of model was 28.6% ( $R=0.535$ ;  $R^2=0.286$ ;  $F=100.438$ ,  $p=0.000$ ). For Human-ad divergence regression, the total explanatory power of model was 41% ( $R=0.640$ ;  $R^2=0.410$ ;  $F=174.294$ ,  $p=0.000$ ).

**Table 4.12. Simple Linear Regression of Eeriness and Ad Divergence**

| <b>Dependent Variable: Ad Divergence</b> |       |         |         |
|------------------------------------------|-------|---------|---------|
| <b>Independent Variables:</b>            | Beta  | t-value | p-value |
| Eeriness (AI-Made)                       | 0.535 | 10.022  | 0.000   |
| Eeriness (Human-Made)                    | 0.640 | 13.202  | 0.000   |

Ad divergence (AI) was described by Eeriness ( $\beta=0.535$ ,  $p=0.000$ ) and Ad divergence (Human) was described by Eeriness ( $\beta=0.640$ ,  $p=0.000$ ) supporting H<sub>2a</sub>. For AI-Made

advertisements, it can be inferred that approximately 28.6% of the variation in Ad Divergence can be described by Eeriness. For Human-Made advertisements, it can be inferred that approximately 41% of the variation in Ad Divergence can be described by Eeriness.

In order to make calculations for H<sub>2b</sub>, AI-ad relevance regression, the total explanatory power of model was 17.9% (R=0.423; R<sup>2</sup>=0.179; F=54.600, p=0.000). For Human-ad relevance regression, the total explanatory power of model was 20.7% (R=0.455; R<sup>2</sup>=0.207; F=65.406, p=0.000).

**Table 4.13. Linear Regression of Eeriness and Ad Relevance**

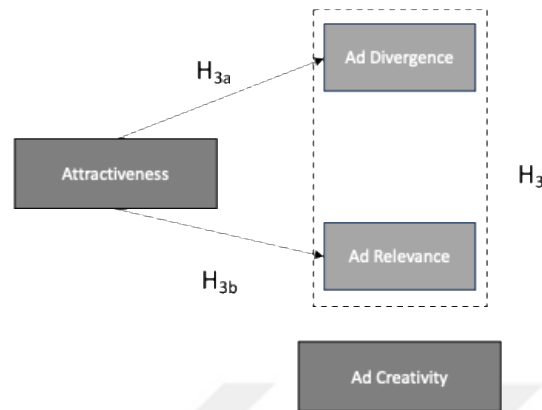
| <b>Dependent Variable:</b> Ad Relevance |       |         |         |
|-----------------------------------------|-------|---------|---------|
| <b>Independent Variables:</b>           | Beta  | t-value | p-value |
| Eeriness (AI-Made)                      | 0.423 | 7.389   | 0.000   |
| Eeriness (Human-Made)                   | 0.455 | 8.087   | 0.000   |

Ad relevance (AI) was influenced by Eeriness ( $\beta=0.423$ ,  $p=0.000$ ), and Ad relevance (Human) was influenced by Eeriness ( $\beta=0.455$ ,  $p=0.000$ ), supporting hypothesis H<sub>2b</sub>. For AI-Made advertisements, it is estimated that approximately 17.9% of the variation in Ad Relevance is explained by Eeriness. For Human-Made advertisements, it is likely that around 20.7% of the variation in Ad Relevance is explained by Eeriness.

#### **4.3.3. Multiple Linear Regression Analysis of H<sub>3</sub> (H<sub>3a</sub> and H<sub>3b</sub>)**

A multiple linear regression analysis was conducted to explore the relationship between attractiveness and ad creativity. The model is illustrated in Figure 4.4.

**Figure 4.4. Multiple Linear Regression Model for H<sub>3</sub>**



Ad creativity has got two dimensions which are ad divergence and ad relevance. As illustrated in Table 4.14. and Table 4.15. Attractiveness influences ad creativity. This hypothesis will be analyzed in two simple linear regression calculations for both AI-Made advertisement and Human-Made advertisement.

In order to make calculations for H<sub>3a</sub>; AI-ad divergence regression, the total explanatory power of model was 10.5% ( $R=0.323$ ;  $R^2=0.105$ ;  $F=29.310$ ,  $p=0.000$ ). For Human-ad divergence regression, the total explanatory power of model was 14.3% ( $R=0.378$ ;  $R^2=0.143$ ;  $F=41.805$ ,  $p=0.000$ ).

**Table 4.14. Simple Linear Regression of Attractiveness and Ad Divergence**

| <b>Dependent Variable:</b> Ad Divergence |       |         |         |
|------------------------------------------|-------|---------|---------|
| <b>Independent Variables:</b>            | Beta  | t-value | p-value |
| Attractiveness (AI-Made)                 | 0.323 | 5.414   | 0.000   |
| Attractiveness (Human-Made)              | 0.378 | 6.466   | 0.000   |

Ad divergence (AI) was influenced by Attractiveness ( $\beta=0.323$ ,  $p=0.000$ ), and Ad divergence (Human) was influenced by Attractiveness ( $\beta=0.378$ ,  $p=0.000$ ), supporting

hypothesis H<sub>3a</sub>. For AI-generated advertisements, it can be estimated that approximately 10.5% of the variation in Ad Divergence is explained by Attractiveness. For human-created advertisements, it is likely that around 14.3% of the variation in Ad Divergence is explained by Attractiveness.

To calculate the values for H<sub>3b</sub>, the regression analysis for AI-ad relevance showed that the model's total explanatory power was 19.7% ( $R=0.444$ ;  $R^2=0.197$ ;  $F=61.755$ ,  $p=0.000$ ). For human-ad relevance, the regression analysis indicated that the model's total explanatory power was 23.5% ( $R=0.485$ ;  $R^2=0.235$ ;  $F=77.137$ ,  $p=0.000$ ).

**Table 4.15. Simple Linear Regression of Attractiveness and Ad Relevance**

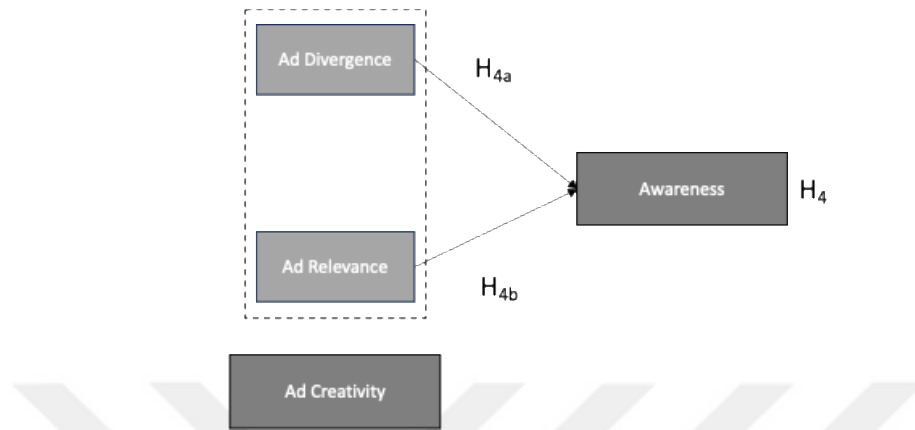
|                                         |       |         |         |
|-----------------------------------------|-------|---------|---------|
| <b>Dependent Variable:</b> Ad Relevance |       |         |         |
| <b>Independent Variables:</b>           | Beta  | t-value | p-value |
| Attractiveness (AI-Made)                | 0.444 | 7.858   | 0.000   |
| Attractiveness (Human-Made)             | 0.485 | 8.783   | 0.000   |

Ad relevance (AI) was described by Attractiveness ( $\beta=0.444$ ,  $p=0.000$ ) and Ad relevance (Human) was described by Attractiveness ( $\beta=0.485$ ,  $p=0.000$ ) supporting H<sub>2b</sub>. For AI-Made advertisements, it can be inferred that approximately 19.7% of the variation in Ad Relevance can be described by Attractiveness. For Human-Made advertisements, it can be inferred that approximately 23.5% of the variation in Ad Relevance can be described by Attractiveness.

#### **4.3.4. Multiple Linear Regression Analysis of H<sub>4</sub> (H<sub>4a</sub> and H<sub>4b</sub>)**

Multiple linear regression analysis was employed to examine the relationship between ad creativity and ad awareness. The model is demonstrated in Figure 4.5.

**Figure 4.5. Multiple Linear Regression Model for H<sub>4</sub>**



Ad creativity has got two dimensions which are ad divergence and ad relevance. As illustrated in Table 4.16. and Table 4.17. ad creativity influences awareness. This hypothesis will be analyzed in two simple linear regression calculations for both AI-Made advertisement and Human-Made advertisement.

In order to make calculations for H<sub>4a</sub>; Awareness regression for ad divergence (AI), the total explanatory power of model was 39.2% ( $R=0.626$ ;  $R^2=0.392$ ;  $F=161.700$ ,  $p=0.000$ ). For Awareness regression for ad divergence (Human), the total explanatory power of model was 58.6% ( $R=0.765$ ;  $R^2=0.586$ ;  $F=355.030$ ,  $p=0.000$ ).

**Table 4.16. Simple Linear Regression of Ad Divergence and Awareness**

| <b>Dependent Variable: Awareness</b> |       |         |         |
|--------------------------------------|-------|---------|---------|
| <b>Independent Variables:</b>        | Beta  | t-value | p-value |
| Ad Divergence (AI-Made)              | 0.626 | 12.716  | 0.000   |
| Ad Divergence (Human-Made)           | 0.765 | 18.842  | 0.000   |

Awareness was influenced by Ad Divergence (AI) ( $\beta=0.626$ ,  $p=0.000$ ), and Awareness was influenced by Ad Divergence (Human) ( $\beta=0.765$ ,  $p=0.000$ ), supporting hypothesis

H<sub>4a</sub>. For AI-Made advertisements, it is estimated that approximately 39.2% of the variation in Awareness is explained by Ad Divergence (AI). For Human-Made advertisements, it is likely that around 58.6% of the variation in Awareness is explained by Ad Divergence (Human).

In order to make calculations for H<sub>4b</sub>; Awareness regression for ad relevance (AI), the total explanatory power of model was 44.6% ( $R=0.668$ ;  $R^2=0.446$ ;  $F=201.889$ ,  $p=0.000$ ). For Awareness regression for ad relevance (Human), the total explanatory power of model was 39.8% ( $R=0.631$ ;  $R^2=0.398$ ;  $F=166.267$ ,  $p=0.000$ ).

**Table 4.17. Simple Linear Regression of Ad Relevance and Awareness**

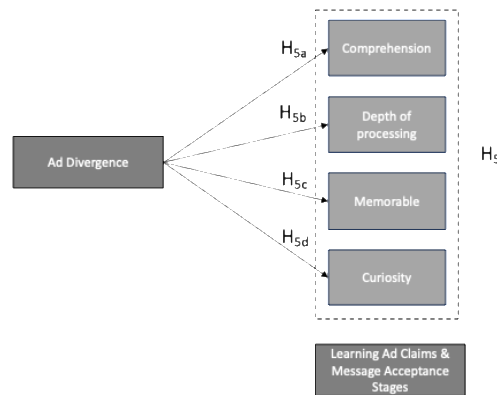
|                                         |       |         |         |
|-----------------------------------------|-------|---------|---------|
| <b>Dependent Variable:</b> Ad Relevance |       |         |         |
| <b>Independent Variables:</b>           | Beta  | t-value | p-value |
| Ad Relevance (AI-Made)                  | 0.668 | 14.209  | 0.000   |
| Ad Relevance (Human-Made)               | 0.631 | 12.894  | 0.000   |

Awareness was described by Ad Relevance (AI) ( $\beta=0.668$ ,  $p=0.000$ ) and Awareness was described by Ad Relevance (Human) ( $\beta=0.631$ ,  $p=0.000$ ) supporting H<sub>4b</sub>. For AI-Made advertisements, it can be inferred that approximately 44.6% of the variation in Awareness can be described by Ad Relevance (AI). For Human-Made advertisements, it can be inferred that approximately 39.8% of the variation in Awareness can be described by Ad Relevance (Human).

#### **4.3.5. Multiple Linear Regression Analysis of H<sub>5</sub> (H<sub>5a</sub>, H<sub>5b</sub>, H<sub>5c</sub> and H<sub>5d</sub>)**

Multiple linear regression analysis was employed to examine the relationship between ad divergence and learning ad claims and message acceptance stages. The model is demonstrated in Figure 4.6.

**Figure 4.6. Multiple Linear Regression Model for H<sub>5</sub>**



Learning ad claims and message acceptance stages have got 4 variables as comprehension, depth of processing, memorable, and curiosity. H<sub>5</sub> claims that ad divergence has got effect on learning ad claims and message acceptance stages. As illustrated in Table 4.18. Table 4.19., Table 4.20. and Table 4.21., ad divergence influences comprehension, depth of processing, memorable, and curiosity. These hypotheses will be analyzed in two simple linear regression calculations for both AI-Made advertisement and Human-Made advertisement.

In order to make calculations for H<sub>5a</sub>; Ad Divergence for Comprehension (AI), the total explanatory power of model was 5.8% ( $R=0.240$ ;  $R^2=0.058$ ;  $F=15.330$ ,  $p=0.000$ ). For Ad Divergence for Comprehension (Human), the total explanatory power of model was 16.5% ( $R=0.406$ ;  $R^2=0.165$ ;  $F=49.534$ ,  $p=0.000$ ).

**Table 4.18. Simple Linear Regression of Ad Divergence and Comprehension**

|                                          |       |         |         |
|------------------------------------------|-------|---------|---------|
| <b>Dependent Variable:</b> Ad Divergence |       |         |         |
| <b>Independent Variables:</b>            | Beta  | t-value | p-value |
| Comprehension (AI-Made)                  | 0.240 | 3.915   | 0.000   |
| Comprehension (Human-Made)               | 0.406 | 7.038   | 0.000   |

Ad Divergence was described by Comprehension (AI) ( $\beta=0.240$ ,  $p= 0.000$ ) and Ad Divergence was described by Comprehension (Human) ( $\beta=0.406$ ,  $p= 0.000$ ) supporting H<sub>5a</sub>. For AI-Made advertisements, it can be inferred that approximately 5.8% of the variation in Ad Divergence was described by Comprehension (AI). For Human-Made advertisements, it can be inferred that approximately 16.5% of the variation in Ad Divergence was described by Comprehension (Human).

In order to make calculations for H<sub>5b</sub>; Ad Divergence for Depth of Processing (AI), the total explanatory power of model was 41.4% ( $R=0.644$ ;  $R^2=0.414$ ;  $F=177.565$ ,  $p=0.000$ ). For Ad Divergence for Depth of Processing (Human), the total explanatory power of model was 63.3% ( $R=0.796$ ;  $R^2=0.633$ ;  $F=433.181$ ,  $p=0.000$ ).

**Table 4.19. Simple Linear Regression of Ad Divergence and Depth of Processing**

| <b>Dependent Variable:</b> Ad Divergence |       |         |         |
|------------------------------------------|-------|---------|---------|
| <b>Independent Variables:</b>            | Beta  | t-value | p-value |
| Depth of Processing (AI-Made)            | 0.644 | 13.325  | 0.000   |
| Depth of Processing (Human-Made)         | 0.796 | 20.813  | 0.000   |

Ad Divergence was described by Depth of Processing (AI) ( $\beta=0.644$ ,  $p= 0.000$ ) and Ad Divergence was described by Depth of Processing (Human) ( $\beta=0.796$ ,  $p= 0.000$ ) supporting H<sub>5b</sub>. For AI-Made advertisements, it can be inferred that approximately 41.4% of the variation in Ad Divergence was described by Depth of Processing (AI). For Human-Made advertisements, it can be inferred that approximately 63.3% of the variation in Ad Divergence was described by Depth of Processing (Human).

In order to make calculations for H<sub>5c</sub>; Ad Divergence for Memorable (AI), the total explanatory power of model was 18.4% ( $R=0.429$ ;  $R^2=0.184$ ;  $F=56.659$ ,  $p=0.000$ ). For Ad Divergence for Memorable (Human), the total explanatory power of model was 40.8% ( $R=0.639$ ;  $R^2=0.408$ ;  $F=173.311$ ,  $p=0.000$ ).

**Table 4.20. Simple Linear Regression of Ad Divergence and Memorable**

|                                          |       |         |         |
|------------------------------------------|-------|---------|---------|
| <b>Dependent Variable:</b> Ad Divergence |       |         |         |
| <b>Independent Variables:</b>            | Beta  | t-value | p-value |
| Memorable (AI-Made)                      | 0.429 | 7.527   | 0.000   |
| Memorable (Human-Made)                   | 0.639 | 13.165  | 0.000   |

Ad Divergence was described by Memorable (AI) ( $\beta=0.429$ ,  $p= 0.000$ ) and Ad Divergence was described by Memorable (Human) ( $\beta=0.639$ ,  $p= 0.000$ ) supporting  $H_{5c}$ . For AI-Made advertisements, it can be inferred that approximately 18.4% of the variation in Ad Divergence was described by Memorable (AI). For Human-Made advertisements, it can be inferred that approximately 40.8% of the variation in Ad Divergence was described by Memorable (Human).

In order to make calculations for  $H_{5d}$ , Ad Divergence for Curiosity (AI), the total explanatory power of model was 34.7% ( $R=0.589$ ;  $R^2=0.347$ ;  $F=133.144$ ,  $p=0.000$ ). For Ad Divergence for Curiosity (Human), the total explanatory power of model was 63.1% ( $R=0.794$ ;  $R^2=0.631$ ;  $F=428.537$ ,  $p=0.000$ ).

**Table 4.21. Simple Linear Regression of Ad Divergence and Curiosity**

|                                          |       |         |         |
|------------------------------------------|-------|---------|---------|
| <b>Dependent Variable:</b> Ad Divergence |       |         |         |
| <b>Independent Variables:</b>            | Beta  | t-value | p-value |
| Curiosity (AI-Made)                      | 0.589 | 11.539  | 0.000   |
| Curiosity (Human-Made)                   | 0.794 | 20.701  | 0.000   |

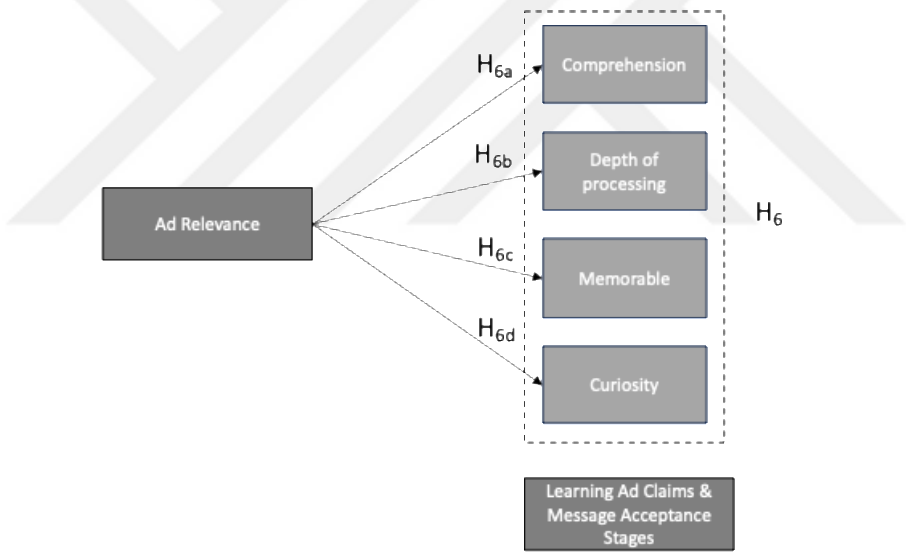
Ad Divergence was described by Curiosity (AI) ( $\beta=0.589$ ,  $p= 0.000$ ) and Ad Divergence was described by Curiosity (Human) ( $\beta=0.794$ ,  $p= 0.000$ ) supporting  $H_{5d}$ . For AI-Made

advertisements, it can be inferred that approximately 34.7% of the variation in Ad Divergence was described by Curiosity (AI). For Human-Made advertisements, it can be inferred that approximately 63.1% of the variation in Ad Divergence was described by Curiosity (Human).

**4.3.6. Multiple Linear Regression Analysis of H<sub>6</sub> (H<sub>6a</sub>, H<sub>6b</sub>, H<sub>6c</sub> and H<sub>6d</sub>)**

Multiple linear regression analysis was employed to examine the relationship between ad relevance and learning ad claims and message acceptance stages. The model is demonstrated in Figure 4.7.

**Figure 4.7. Multiple Linear Regression Model for H<sub>6</sub>**



Learning ad claims and message acceptance stages have got 4 variables as comprehension, depth of processing, memorable, and curiosity. H<sub>6</sub> claims that ad relevance has got effect on learning ad claims and message acceptance stages. As illustrated in Table 4.22., Table 4.23., Table 4.24. and Table 4.25., ad relevance influences comprehension, depth of processing, memorable, and curiosity. These hypotheses will be analyzed in two simple linear regression calculations for both AI-Made advertisement and Human-Made advertisement.

In order to make calculations for H<sub>6a</sub>; Ad Relevance for Comprehension (AI), the total explanatory power of model was 37.3% ( $R=0.611$ ;  $R^2=0.373$ ;  $F=149.318$ ,  $p=0.000$ ). For Ad Relevance for Comprehension (Human), the total explanatory power of model was 42.9% ( $R=0.655$ ;  $R^2=0.429$ ;  $F=188.676$ ,  $p=0.000$ ).

**Table 4.22. Simple Linear Regression of Ad Relevance and Comprehension**

|                                         |       |         |         |
|-----------------------------------------|-------|---------|---------|
| <b>Dependent Variable:</b> Ad Relevance |       |         |         |
| <b>Independent Variables:</b>           | Beta  | t-value | p-value |
| Comprehension (AI-Made)                 | 0.611 | 12.220  | 0.000   |
| Comprehension (Human-Made)              | 0.655 | 13.736  | 0.000   |

Ad Relevance was described by Comprehension (AI) ( $\beta=0.611$ ,  $p=0.000$ ) and Ad Relevance was described by Comprehension (Human) ( $\beta=0.655$ ,  $p=0.000$ ) supporting H<sub>6a</sub>. For AI-Made advertisements, it can be inferred that approximately 37.3% of the variation in Ad Relevance was described by Comprehension (AI). For Human-Made advertisements, it can be inferred that approximately 42.9% of the variation in Ad Relevance was described by Comprehension (Human).

In order to make calculations for H<sub>6b</sub>; Ad Relevance for Depth of Processing (AI), the total explanatory power of model was 35.6% ( $R=0.597$ ;  $R^2=0.356$ ;  $F=138.783$ ,  $p=0.000$ ). For Ad Relevance for Depth of Processing (Human), the total explanatory power of model was 31.9% ( $R=0.565$ ;  $R^2=0.319$ ;  $F=117.725$ ,  $p=0.000$ ).

**Table 4.23. Simple Linear Regression of Ad Relevance and Depth of Processing**

|                                         |       |         |         |
|-----------------------------------------|-------|---------|---------|
| <b>Dependent Variable:</b> Ad Relevance |       |         |         |
| <b>Independent Variables:</b>           | Beta  | t-value | p-value |
| Depth of Processing (AI-Made)           | 0.597 | 11.781  | 0.000   |

|                                  |       |        |       |
|----------------------------------|-------|--------|-------|
| Depth of Processing (Human-Made) | 0.565 | 10.850 | 0.000 |
|----------------------------------|-------|--------|-------|

Ad Relevance was described by Depth of Processing (AI) ( $\beta=0.597$ ,  $p= 0.000$ ) and Ad Relevance was described by Depth of Processing (Human) ( $\beta=0.565$ ,  $p= 0.000$ ) supporting H<sub>6b</sub>. For AI-Made advertisements, it can be inferred that approximately 35.6% of the variation in Ad Relevance was described by Depth of Processing (AI). For Human-Made advertisements, it can be inferred that approximately 31.9% of the variation in Ad Relevance was described by Depth of Processing (Human).

In order to make calculations for H<sub>6c</sub>; Ad Relevance for Memorable (AI), the total explanatory power of model was 43.5% ( $R=0.659$ ;  $R^2=0.435$ ;  $F=193.112$ ,  $p=0.000$ ). For Ad Relevance for Memorable (Human), the total explanatory power of model was 50.3% ( $R=0.709$ ;  $R^2=0.503$ ;  $F=254.086$ ,  $p=0.000$ ).

**Table 4.24. Simple Linear Regression of Ad Relevance and Memorable**

|                                         |       |         |         |
|-----------------------------------------|-------|---------|---------|
| <b>Dependent Variable:</b> Ad Relevance |       |         |         |
| <b>Independent Variables:</b>           | Beta  | t-value | p-value |
| Memorable (AI-Made)                     | 0.659 | 13.896  | 0.000   |
| Memorable (Human-Made)                  | 0.709 | 15.940  | 0.000   |

Ad Relevance was described by Memorable (AI) ( $\beta=0.659$ ,  $p= 0.000$ ) and Ad Relevance was described by Memorable (Human) ( $\beta=0.709$ ,  $p= 0.000$ ) supporting H<sub>6c</sub>. For AI-Made advertisements, it can be inferred that approximately 43.5% of the variation in Ad Relevance was described by Memorable (AI). For Human-Made advertisements, it can be inferred that approximately 50.3% of the variation in Ad Relevance was described by Memorable (Human).

In order to make calculations for H<sub>6d</sub>; Ad Relevance for Curiosity (AI), the total explanatory power of model was 39.3% ( $R=0.627$ ;  $R^2=0.393$ ;  $F=162.821$ ,  $p=0.000$ ). For

Ad Relevance for Curiosity (Human), the total explanatory power of model was 43.5% ( $R=0.660$ ;  $R^2=0.435$ ;  $F=193.450$ ,  $p=0.000$ ).

**Table 4.25. Simple Linear Regression of Ad Relevance and Curiosity**

| <b>Dependent Variable:</b> Ad Relevance |       |         |         |
|-----------------------------------------|-------|---------|---------|
| <b>Independent Variables:</b>           | Beta  | t-value | p-value |
| Curiosity (AI-Made)                     | 0.627 | 12.760  | 0.000   |
| Curiosity (Human-Made)                  | 0.660 | 13.909  | 0.000   |

Ad Relevance was described by Curiosity (AI) ( $\beta=0.627$ ,  $p=0.000$ ) and Ad Relevance was described by Curiosity (Human) ( $\beta=0.660$ ,  $p=0.000$ ) supporting  $H_{6d}$ . For AI-Made advertisements, it can be inferred that approximately 39.3% of the variation in Ad Relevance was described by Curiosity (AI). For Human-Made advertisements, it can be inferred that approximately 43.5% of the variation in Ad Relevance was described by Curiosity (Human).

#### **4.4. Paired Sample T-Test Analysis**

To identify the differences between factors in the model based on the AI-Made advertisement responses and Human-Made advertisement responses, an independent sample t-test was conducted. The differences in these variables between the two groups were then examined above.

**Table 4.26. Independent Sample t-test Results for Constructs of Model**

| <b>Pairs</b>  | <b>Constructs</b>          |              | <b>Mean</b>   | <b>N</b> | <b>Std. Deviation</b> | <b>t-value</b> | <b>df</b> | <b>p-value</b> |
|---------------|----------------------------|--------------|---------------|----------|-----------------------|----------------|-----------|----------------|
| <b>Pair 1</b> | <b>Awareness</b>           | AI           | 37.299        | 253      | .84903                | 1.296          | 252       | 0.196          |
|               |                            | Human        | 36.528        | 253      | .86228                |                |           |                |
| <b>Pair 2</b> | <b>Depth of Processing</b> | AI           | 31.370        | 253      | 100.774               | 0.304          | 252       | 0.761          |
|               |                            | Human        | 31.186        | 253      | 101.618               |                |           |                |
| <b>Pair 3</b> | <b>Comprehension</b>       | AI           | 37.846        | 253      | .96467                | - 2.646        | 252       | <b>0.009</b>   |
|               |                            | <b>Human</b> | <b>39.664</b> | 253      | .86365                |                |           |                |
| <b>Pair 4</b> | <b>Memorable</b>           | AI           | 34.941        | 253      | 100.510               | - 2.608        | 252       | <b>0.010</b>   |
|               |                            | <b>Human</b> | <b>36.653</b> | 253      | .95096                |                |           |                |
| <b>Pair 5</b> | <b>Curiosity</b>           | <b>AI</b>    | <b>35.323</b> | 253      | .98822                | 2.763          | 252       | <b>0.006</b>   |
|               |                            | Human        | 33.452        | 253      | 106.795               |                |           |                |
| <b>Pair 6</b> | <b>Ad Divergence</b>       | <b>AI</b>    | <b>34.545</b> | 253      | 111.488               | 7.192          | 252       | <b>0.000</b>   |
|               |                            | Human        | 28.933        | 253      | 118.375               |                |           |                |
| <b>Pair 7</b> | <b>Ad Relevance</b>        | AI           | 37.431        | 253      | 100.357               | - 0.973        | 252       | 0.331          |
|               |                            | Human        | 38.083        | 253      | .96353                |                |           |                |
| <b>Pair 8</b> | <b>Humanness</b>           | AI           | 32.292        | 253      | .92399                | - 3.891        | 252       | <b>0.000</b>   |
|               |                            | <b>Human</b> | <b>35.613</b> | 253      | 102.927               |                |           |                |
|               | Eeriness                   | <b>AI</b>    | <b>30.343</b> | 253      | .88537                | 5.441          | 252       | <b>0.000</b>   |

|                    |                |           |               |     |        |       |     |              |
|--------------------|----------------|-----------|---------------|-----|--------|-------|-----|--------------|
| <b>Pair<br/>9</b>  |                | Human     | 26.996        | 253 | .91276 |       |     |              |
| <b>Pair<br/>10</b> | Attractiveness | <b>AI</b> | <b>37.856</b> | 253 | .80254 | 4.551 | 252 | <b>0.000</b> |
|                    |                | Human     | 35.128        | 253 | .85367 |       |     |              |

When analyzing the differences between AI-Made and Human-Made advertisements, significant distinctions were observed in several areas as depicted in Table 4.26.

There are no significant differences were found between AI-Made and Human-Made advertisements in terms of awareness and ad relevance. The mean awareness score for AI-Made advertisements was 37.299, compared to 36.528 for Human-Made advertisements, with a p-value of 0.196. Similarly, the ad relevance scores were 37.431 for AI-Made advertisements and 38.083 for Human-Made advertisements, with a p-value of 0.331.

On the other hand, the comprehension scores were higher for Human-Made advertisements (mean = 39.664) compared to AI-Made advertisements (mean = 37.846), with a p-value of 0.009. Similarly, Human-Made advertisements were found to be more memorable (mean = 36.653) than AI-Made ones (mean = 34.941), with a p-value of 0.010. Conversely, AI-Made advertisements elicited more curiosity (mean = 35.323) than Human-Made advertisements (mean = 33.452), with a p-value of 0.006, and were perceived as more divergent (mean = 34.545 vs. 28.933) with a p-value of 0.000. Additionally, AI-Made advertisements were viewed as eerier (mean = 30.343 vs. 26.996) and more attractive (mean = 37.856 vs. 35.128) with p-values of 0.000 for both. In contrast, Human-Made advertisements scored higher in humanness (mean = 35.613 vs. 32.292) with a p-value of 0.000.

#### 4.5. Summary of Hypothesis Results

The outcomes of the various analyses conducted are summarized in Table 4.27., which indicates the hypotheses that were all of them are accepted.

**Table 4.27. Summary of Hypotheses Results**

| <b>Hypotheses</b>                                                        | <b>Results</b> |
|--------------------------------------------------------------------------|----------------|
| <b>H<sub>1</sub>:</b> Humanness has an effect on ad creativity.          | Accepted       |
| <b>H<sub>1a</sub>:</b> Humanness has an effect on ad divergence.         | Accepted       |
| <b>H<sub>1b</sub>:</b> Humanness has an effect on ad relevance.          | Accepted       |
| <b>H<sub>2</sub>:</b> Eeriness has an effect on ad creativity.           | Accepted       |
| <b>H<sub>2a</sub>:</b> Eeriness has an effect on ad divergence.          | Accepted       |
| <b>H<sub>2b</sub>:</b> Eeriness has an effect on ad relevance.           | Accepted       |
| <b>H<sub>3</sub>:</b> Attractiveness has an effect on ad creativity.     | Accepted       |
| <b>H<sub>3a</sub>:</b> Attractiveness has an effect on ad divergence.    | Accepted       |
| <b>H<sub>3b</sub>:</b> Attractiveness has an effect on ad relevance.     | Accepted       |
| <b>H<sub>4</sub>:</b> Ad creativity has an effect on awareness.          | Accepted       |
| <b>H<sub>4a</sub>:</b> Ad divergence has an effect on awareness.         | Accepted       |
| <b>H<sub>4b</sub>:</b> Ad relevance has an effect on awareness.          | Accepted       |
| <b>H<sub>5</sub>:</b> Ad divergence has an effect on learning ad claims. | Accepted       |
| <b>H<sub>5a</sub>:</b> Ad divergence has an effect on comprehension.     | Accepted       |

|                                                                            |          |
|----------------------------------------------------------------------------|----------|
| <b>H<sub>5b</sub>:</b> Ad divergence has an effect on depth of processing. | Accepted |
| <b>H<sub>5c</sub>:</b> Ad divergence has an effect on memorable.           | Accepted |
| <b>H<sub>5d</sub>:</b> Ad divergence has an effect on curiosity.           | Accepted |
| <b>H<sub>6</sub>:</b> Ad relevance has an effect on message acceptance.    | Accepted |
| <b>H<sub>6a</sub>:</b> Ad relevance has an effect on comprehension.        | Accepted |
| <b>H<sub>6b</sub>:</b> Ad relevance has an effect depth of processing.     | Accepted |
| <b>H<sub>6c</sub>:</b> Ad relevance has an effect on memorable.            | Accepted |
| <b>H<sub>6d</sub>:</b> Ad relevance has an effect on curiosity.            | Accepted |

## CONCLUSION

### 5.1. Integrating Uncanny Valley and Advertising Creativity

This thesis has thoroughly investigated the intersection of advertising creativity and the Uncanny Valley effect within AI-generated and Human-Made advertisements. The study aimed to offer practical insights for businesses looking to enhance their advertising strategies in an era dominated by AI. By focusing on advertisement creativity, relevance, and divergence, the research has shed light on their collective impact on consumer behavior.

The Uncanny Valley theory, which suggests that as artificial entities become more human-like, they initially increase empathy but eventually provoke discomfort due to slight imperfections, was found to be particularly relevant in advertising. AI-generated advertisements, despite their innovative potential, must navigate this effect to avoid negative consumer reactions. In addition, the analysis of this research proved that Human-Made advertisements are perceived as significantly more human-like (mean = 35.613) compared to AI-Made advertisements (mean = 32.292), with a p-value of 0.000. This aligns with the hypothesis that humanness affects ad creativity ( $H_1$ ) and extends to ad divergence ( $H_{1a}$ ) and ad relevance ( $H_{1b}$ ). Human-like elements in advertisements contribute to their authenticity and relatability, fostering stronger connections with the audience. This human touch, often challenging to replicate with AI, underscores the importance of maintaining a human element in ad creation. Eeriness, which had a higher mean score for AI-Made advertisements (30.343) compared to Human-Made ones (26.996) with a p-value of 0.000, plays a critical role in ad divergence ( $H_{2a}$ ). This supports the hypothesis that eeriness influences ad creativity ( $H_2$ ). The challenge here is that while eeriness can enhance memorability and curiosity (mean curiosity for AI-Made ads = 35.323 vs. Human-Made = 33.452, p-value = 0.006), it may also lead to negative consumer reactions if it deviates too far from the norm. Advertisers must balance the innovative aspects of AI-generated content with consumer comfort levels to optimize ad effectiveness. Attractiveness was another key variable where AI-Made advertisements

scored higher (mean = 37.856) than Human-Made ones (mean = 35.128), with a p-value of 0.000. This supports hypotheses H<sub>3</sub>, H<sub>3a</sub>, and H<sub>3b</sub>, indicating that attractiveness significantly impacts ad creativity, divergence, and relevance. Attractive ads are more likely to catch consumer attention and enhance message retention. However, the aesthetic appeal must be complemented by substance to ensure that the advertisements are not only eye-catching but also meaningful and engaging.

As I explained in the Literature Review part, academic research and rapidly changing AI advances shows us that this result can evolve to the different side in the near future.

## **5.2. The Role of Variables in Shaping Consumer Responses**

Key variables identified in this study—humanness, eeriness, attractiveness, ad divergence, and ad relevance—play significant roles in influencing advertisement creativity and consumer responses. Regression analyses demonstrated that humanness, eeriness, and attractiveness significantly affect ad creativity, which in turn influences awareness, learning ad claims, and message acceptance. For instance, humanness was positively correlated with ad relevance for both AI-Made ( $\beta=0.365$ ,  $p=0.000$ ) and Human-Made advertisements ( $\beta=0.413$ ,  $p=0.000$ ). Similarly, attractiveness was strongly related to ad relevance in both AI-Made ( $\beta=0.444$ ,  $p=0.000$ ) and Human-Made ads ( $\beta=0.485$ ,  $p=0.000$ ). However, the challenge posed by eeriness was evident, as it had a substantial impact on ad divergence for both AI-Made ( $\beta=0.535$ ,  $p=0.000$ ) and Human-Made ads ( $\beta=0.640$ ,  $p=0.000$ ). From the comparing the AI-Made and Human-Made ad creativity, which is perceived as ad divergence x ad relevance, Ad divergence showed a significant difference between AI-Made (mean = 34.545) and Human-Made advertisements (mean = 28.933), with a p-value of 0.000. Divergence, while fostering curiosity (H<sub>5d</sub>), must be carefully managed to prevent alienating the audience. The unique and novel aspects of AI-Made advertisements can drive curiosity and engagement, yet the content must remain relevant and comprehensible to the target audience. In addition, no significant difference was found in ad relevance between AI-Made and Human-Made advertisements (p-value = 0.331), indicating that both types can achieve comparable levels of relevance. This supports hypotheses H<sub>6</sub> and H<sub>6a</sub>, which suggest that ad relevance

impacts message acceptance and comprehension. Relevant ads are crucial for effective communication, ensuring that the audience not only notices the ad but also internalizes and remembers its message.

### **5.3. Addressing Eeriness: A Challenge and an Opportunity**

The eeriness associated with AI-generated advertisements presents both a challenge and an opportunity for advertisers. While the discomfort linked to the Uncanny Valley can undermine the effectiveness of AI-Driven campaigns, it also offers a unique area for innovation. By humanizing AI elements and employing techniques to mitigate eeriness, advertisers can leverage AI's strengths while minimizing its drawbacks.

Incorporating emotional expressions, storytelling, and empathetic communication can help overcome the Uncanny Valley effect. This aligns with findings from who Hancock suggested that humanizing AI in communication can significantly enhance user engagement and satisfaction (Hancock, 2020). Additionally, advancements in AI technology, particularly in Emotion AI, hold promise for creating more natural and engaging advertisements that resonate deeply with consumers.

Moreover, AI and AI tools are improving and developing rapidly. The negative perceptions about the findings will likely change with the ongoing technological advancements. In addition, results revealed that AI-Made advertisements elicited more curiosity (AI-mean = 35.323 vs. Human-mean = 33.452), more divergent (mean = 34.545 vs. 28.933), and more attractive (mean = 37.856 vs. 35.128) than Human-Made advertisements. These findings can show us, the eeriness effect on consumers' mind (mean = 30.343 vs. 26.996) will be changed and the mean difference will be gotten closer and closer in the near future with rapid developing technological and AI advancements. In addition, videos exhibiting greater accuracy in human-like motion can be produced with more powerful CPUs. In the near future, with the release of the Sora AI tool, we as marketers will be able to generate videos seamlessly for durations of up to 3-4 minutes using video generation AI. This advancement will enable us to create more accurate and realistic motions in our advertisements.

#### 5.4. Practical Implications

The findings of this study provide several practical implications for the advertising industry. Companies can use these insights to refine their ad creation strategies, balancing human and AI elements to optimize consumer engagement. The research underscores the importance of ad creativity in capturing attention (mean = 37.299 for AI-Made ads vs. 36.528 for Human-Made ads), fostering interest, and driving desired actions. Moreover, as explained in the literature review part, ad relevance x ad divergence interaction represents the ad creativity level. The study suggests that AI tools can be valuable in the creative process, enabling more efficient production of visually compelling content. For instance, AI-generated ads were found to be more divergent (mean = 34.545) and attractive (mean = 37.856) than Human-Made ads. However, human oversight remains essential to ensure that AI-generated ads align with consumer expectations and avoid negative reactions associated with the Uncanny Valley. On the other hand, big firms are adopting AI in their digital marketing activities. For example, on May 7, 2024, Meta introduced new AI capabilities in its Ads Manager through the Advantage+ creative feature, allowing advertisers to generate automated image variations of their original content. These advancements include AI-generated text overlays, image resizing for different aspect ratios, and upcoming text prompt features for more specific creative variations. Additionally, Meta is expanding its Meta Verified test for businesses to several countries, offering four distinct plans and extending the feature to WhatsApp (Meta, 2024). As we can see and ensure about AI technology is rapidly adopting and being the new normal is making advertisements with AI-generation for enhancing the creative and operational efficiency of digital advertising.

Considering the demographic spread, a significant portion of respondents are well-educated, with 54.2% holding a bachelor's degree and 24.1% possessing a master's degree. For this group, it is recommended to use Human-Made content for emotional advertisements, as they are likely to appreciate nuanced and sophisticated narratives that resonate on a personal level. Additionally, emotional ads can be particularly effective for the 37.5% of respondents who are married, as they may respond well to family-oriented and relationship-based themes. On the other hand, for advertisements aimed at driving

immediate sales and capturing attention, AI-generated content can be strategically utilized. The efficiency and precision of AI can appeal to the 62.5% majority single demographic, who may prefer concise and direct messaging. Furthermore, given the average age of respondents is 36.34 years and 72.7% are employed full-time, AI-Driven advertisements that are fast-paced and highlight product benefits succinctly will likely be more effective. This group values efficiency and directness due to their busy schedules. By leveraging these insights from demographic variables, advertisers can tailor their strategies to maximize engagement and conversion rates. This approach ensures that both emotional resonance and sales effectiveness are achieved through the appropriate use of Human-Made and AI-generated content.

In addition, the competitiveness is very high in advertisement like being in the first thinker, being-attractive, being-emotional, being-different, and being-not-seductive. You need to be the first and be different. Thinking outside of the box and thinking inside in the box. So, as advertiser, every advertiser should follow the newest AI move and try to be the best for being in the first position in the related sector. Additionally, as AI tools become more advanced and user-friendly, they offer significant advantages in terms of cost, speed, and ease of use rather than Human-Made advertisement production process. This makes them particularly valuable for creating quick, high-quality video and image advertisements, enabling businesses to enhance their digital marketing efforts effectively and affordably. So, in today's digital marketing era, advertisers can use the AI and Human touch in their making advertisement stages. In the following years, AI-Made advertisements will be the new normal.

### **5.5. Limitations and Suggestions for Future Research**

While this study provides valuable insights and enlighten with being the primary research of comparing the consumers' responses between AI-generated and Human-generated video advertisements, it also has limitations that future research should address. The sample size (N=253), though adequate for statistical analysis, could be expanded to enhance the generalizability of the findings. Additionally, this study primarily focused on the initial stages of consumer engagement; future research could explore the long-term

effects of AI-generated advertisements on brand loyalty and customer retention.

Another avenue for future investigation is the exploration of different AI tools and their specific contributions to advertisement creativity. As AI technology continues to evolve, examining the impact of newer models and techniques will be crucial in understanding their potential and limitations. Furthermore, examining the ethical considerations and consumer privacy concerns associated with AI-generated advertising could provide a more holistic understanding of its impact. After a policy or/and regulation published for AI-generated advertisements, the responses will be converted more reliable from the AI-generation side.

In conclusion, this thesis has highlighted the critical role of advertisement creativity and the Uncanny Valley effect in shaping consumer responses to AI-generated and Human-Made ads. By integrating these insights, advertisers can navigate the complexities of AI in advertising, creating campaigns that engage and resonate with their audiences. Future research should continue to explore the evolving landscape of AI in advertising, providing deeper insights and innovative strategies for leveraging technology to enhance advertising effectiveness.

## REFERENCES

- Abrardi, L. C. (2022). Artificial intelligence, firms and consumer behavior: A survey. *Journal of Economic Surveys*, 969-991.
- Balasundaram, R. (2019, September 10). 5 Powerful Ways to Use Artificial Intelligence in E-commerce. Retrieved from Emarsys: <https://emarsys.com/learn/blog/5-powerful-ways-to-use-artificial-intelligence/>
- Bartneck, C. (2009). Measurement Instruments for the Anthropomorphism, Animacy, Likeability, Perceived Intelligence, and Perceived Safety of Robots. *International Journal of Social Robotics*, 71-81.
- Braun-Latour, K. A. (2006). Memory change: An intimate measure of persuasion. *Journal of Advertising Research*, 57-72.
- Brinberg, D. and. (1986). Multiple Orientations for the Conduct of Marketing Research: An Analysis of the Academic/Practitioner Distinction. *Journal of Marketing*, 161-173.
- Bruyn, A. V.-U. (2020). Artificial Intelligence and Marketing: Pitfalls and Opportunities. *Journal of Interactive Marketing*, 91-105.
- Campbell, C. P. (2022). Preparing for an era of deepfakes and AI-generated ads: A framework for understanding responses to manipulated advertising. *Journal of Advertising*, 22-38.
- Campbell, C. S.-Y. (2019). From data to action: How marketers can leverage AI. *Business Horizons*.
- Carvalho, P. F. (2014). Effects of interleaved and blocked study on delayed test of category learning generalization. *Frontiers in Psychology*, 936.
- Christopher, W. b. (2020, November 4). What is a Virtual Influencer? Virtual Influencers, Defined and Explained. Retrieved from Virtual Humans: <https://www.virtualhumans.org/article/what-is-a-virtual-influencer-virtual-influencers-defined-and-explained>

- Cian, C. L. (2020). Artificial Intelligence in Utilitarian vs. Hedonic Contexts: The “Word-of-Machine” Effect. *Journal of Marketing*, 1-18.
- Connell, L. (2014). Principles of Representation: Why You Can’t Represent the Same Concept Twice. *Topics in Cognitive Science*, 390-406.
- Contributor, D. D. (2017, 12 5). Is there an ‘Uncanny Valley’ of advertising AI? Retrieved from Digital Doughnut: <https://www.digitaldoughnut.com/articles/2017/november/is-there-an-%E2%80%98uncanny-valley-of-advertising-ai>
- Cooper, C. (1990). The Essentials of Factor Analysis. In D. Child, *British Journal of Psychiatry* (pp. 159(2):304-305.). London: Cassell Educational.
- De Bruyn, A. V.-U. (2020). Artificial Intelligence and Marketing: Pitfalls and Opportunities. *Journal of Interactive Marketing*, 91-105.
- Deveau, R. (2023). AI-powered marketing and sales reach new heights with generative AI. McKinsey and Company.
- Dong, Y. (2018). Boosting Adversarial Attacks with Momentum. *EEE/CVF Conference on Computer Vision and Pattern Recognition*, 9185-9193.
- Eastin, M. S. (2000). Internet self-efficacy and the psychology of the digital divide. *Journal of Computer-Mediated Communication*, 1-18.
- Eric Zhou, D. L. (2024). Generative artificial intelligence, human creativity, and art. *PNAS Nexus*, 5;3(3).
- Frank R. Kardes, M. L. (2011). *Consumer Behavior*. South-Western: Cengage Learning.
- George, S. C. (2007). Development of the Adelaide driving self-efficacy scale. *Clinical Rehabilitation*, 56-61.
- Genie, A. (2024). The future of AI content in virtual and augmented reality. Retrieved from Contentgeni: <https://contentgeni.com/ai-content-in-virtual-and-augmented-reality/>
- Henriksen, R. K. (2024). *Explaining Creativity: The Science of Human Innovation*. London: Oxford University Press.

- Ho, C.-C., and MacDorman, K. F. (2017). Measuring the Uncanny Valley Effect: Refinements to Indices for Perceived Humanness, Attractiveness, and Eeriness. *International Journal of Social Robotics*, 129-139.
- Ho, C.-C., and MacDorman, K. F. (2010). Revisiting the Uncanny Valley Theory: Developing and validating an alternative Godspeed indices. *Computers in Human Behavior*, 1508-1518.
- Huang, M.-H. and. (2020). A strategic framework for artificial intelligence in marketing. *Journal of the Academy of Marketing Science*, 30-50.
- Huh, J. N. (2023). ChatGPT, AI advertising, and advertising research and education. *Journal of Advertising*, 477-482.
- IBM. (2022). IBM Global AI Adoption Index 2022. IBM Corporation.
- Inc., P. (2023). Prezi. Retrieved from Prezi: <https://prezi.com/features/ai/>
- Jovanovic, B. (2024, February 6). dataprot.net. Retrieved from DataProt: <https://dataprot.net/statistics/ai-statistics/>
- Kaplan, A. and. (2019). Siri, Siri, in my hand: Who's the fairest in the land? On the interpretations, illustrations, and implications of artificial intelligence. *Business Horizons*, 15-25.
- Kerr, G. and. (2020). Redefining advertising in research and practice. *International Journal of Advertising*, 657-679.
- Khurana, D. K. (2022). Natural language processing: State of the art, current trends and challenges. *Multimedia Tools and Applications*, 3713-3744.
- Kneer, J. E. (2016). Fight fire with rainbows. *Computers in Human Behavior*, 142-148.
- Kniberg, H. (2024, January 20). Generative AI in a Nutshell - how to survive and thrive in the age of AI. Retrieved from YouTube: <https://www.youtube.com/watch?v=2IK3DFHRFfw>

- Kong, Y. M. (2023). Exploring How Advertisement Creativity Supports Comprehension and Depth of Processing in the Learning of Ad Claims. *Journal of Advertising Research*, 12-42.
- Kontopoulou, V. P. (2023). A Review of ARIMA vs. Machine Learning Approaches for Time Series Forecasting in Data Driven Networks. *Future Internet*, 15, 255.
- Laver, K. G. (2012). Measuring technology self-efficacy: reliability and construct validity of a modified computer self-efficacy scale in a clinical rehabilitation setting. *Disability and Rehabilitation*, 220-227.
- Li, H. (2019). Special Section Introduction: Artificial Intelligence and Advertising. *Journal of Advertising*, 1-5.
- Lou, C. K. (2023). Authentically Fake? How Consumers Respond to the Influence of Virtual Influencers. *Journal of Advertising*, 540-557.
- Louise Connell, D. L. (2014). Principles of Representation: Why You Can't Represent the Same Concept Twice. *Topics in Cognitive Science*, 390-406.
- Luo, X. T. (2019). Frontiers: Machines vs. humans: The impact of artificial intelligence chatbot disclosure on customer purchases. *Marketing Science*, 937-947.
- MacDorman, K. F. (2015). Individual differences predict sensitivity to the uncanny valley. *Interaction Studies*, 141-172.
- MacKenzie, S. B. (1986). The Role of Attitude toward the Ad as a Mediator of Advertising Effectiveness: A Test of Competing Explanations. *Journal of Marketing Research*, 130-143.
- Master, A. (2023, December 19). This AI Will Edit Your Videos In Seconds! Awesome Results.... Retrieved from AI Image Generator: <https://aiimagegenerator.is/blog-This-AI-Will-Edit-Your-Videos-In-Seconds-Awesome-Results-16508>
- McGill, J. (2023, July 31). How Many Businesses Use AI? Retrieved from Content At Scale: <https://contentatscale.ai/blog/how-many-businesses-use-ai/#howmanybusinessesuseai>

- Meta. (2024, May 7). How Companies Are Using Meta Llama. Retrieved from Meta: <https://about.fb.com/news/2024/05/how-companies-are-using-meta-llama/>
- Midjourney. (2024). Retrieved from Midjourney: <https://www.midjourney.com/home>
- Mitchell, A. A. (1981). Are product attribute beliefs the only mediator of advertising effects on brand attitude? *Journal of Marketing Research*, 318-332.
- Nair, K. and. (2021). Application of AI technology in modern digital marketing environment. *World Journal of Entrepreneurship, Management and Sustainable Development*, 651-663.
- Norris, P. (2024, April 3). 26 IMPRESSIVE EXAMPLES OF AI IN MARKETING. Retrieved from Blog Social Media Strategies Summit: <https://blog.socialmediastrategiessummit.com/10-examples-of-ai-in-marketing/>
- Novak, T. P.-F. (2020). Measuring the customer experience in online environments: a structural modeling approach. *Marketing Science*, 22-42.
- Owens, P. I. (2016). Visually Indicated Sounds. *IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2405-2413.
- Palmer, D. (2023, February 2). CAN AI CREATE AN ADVERTISING CAMPAIGN? Retrieved from Rock Kitchen Harris: <https://www.rkh.co.uk/news-views/can-ai-create-an-advertising-campaign/>
- Parasuraman, A. (2000). Technology Readiness Index (TRI): A Multiple-Item Scale to Measure Readiness to Embrace New Technologies. *Journal of Service Research*, 307-320.
- P. Isola, J. -Y. (2017). Image-to-Image Translation with Conditional Adversarial Networks. *IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 5967-5976.
- Richelle Deveau, S. J. (2023). AI-powered marketing and sales reach new heights with generative AI. McKinsey and Company.
- Rose, S. C. (2012). Online customer experience in e-retailing: an empirical model of antecedents and outcomes. *Journal of Retailing*, 308-322.

- Rosengren, S. D. (2013). Think outside the ad: Can advertising creativity benefit more than the advertiser? *Journal of Advertising*, 320-330.
- Ronanki, T. H. (2018, February). Artificial Intelligence for the Real World. Retrieved from Harvard Business Review: <https://hbr.org/2018/01/artificial-intelligence-for-the-real-world>
- Schrage, M. K. (2024). The Future of Strategic Measurement: Enhancing KPIs With AI. MIT Sloan Management Review and Boston Consulting Group.
- Semrush. (2024). Thinking with AI: Transforming small business content marketing - The 2024 report. Semrush ContentShake AI.
- Singh, P. K. (2021). Innovations in Information and Communication Technologies. *Advances in Science*.
- Smith, J. and. (2023). The synergy of AI and human creativity in advertising. *Journal of Marketing Science*, 112-130.
- Smith, R. E. (2008). The impact of advertising creativity on the hierarchy of effects. *Journal of Advertising*, 47-61.
- Stefano Puntoni, R. W. (2021). Consumers and Artificial Intelligence: An Experiential Perspective. *Journal of Marketing*, 1-226.
- Stone, M. A. (2020). Artificial intelligence (AI) in strategic marketing decision-making: A research agenda. *The Bottom Line*, 183-200.
- Tea, M. (2023, August 16). Programmatic AI: 9 Effective Ways to Use It. Retrieved from Grapeseed Media: <https://grapeseedmedia.com/blog/programmatic-ai/>
- TED. (2023, December 12). What Will Happen to Marketing in the Age of AI? | Jessica Apotheker. Retrieved from AI Image Generator: <https://aiimagegenerator.is/blog-What-Will-Happen-to-Marketing-in-the-Age-of-AI-Jessica-Apotheker-TED-17022>
- To, S. H. (2024). Kaiser-Meyer-Olkin (KMO) Test for Sampling Adequacy. Retrieved from Statistics How To: <https://www.statisticshowto.com/kaiser-meyer-olkin/>

- Tran, G. A. (2013). What Factors Affect Consumer Acceptance of In-Game Advertisements? *Journal of Advertising Research*, 455-469.
- Vale, C. (2021, January 25). An alternate dimension: Virtual influencers. Retrieved from Rouse: <https://rouse.com/insights/news/2021/an-alternate-dimension-virtual-influencers>
- Vakratsas, D. and. (2021). Artificial intelligence in advertising creativity. *Journal of Advertising*, 39-51.
- Vaswani, A. S. (2017). Attention is all you need. *Advances in Neural Information Processing Systems*, 5998-6008.
- Wahid, R. M. (2023). Editorial: Written by ChatGPT, illustrated by Midjourney: Generative AI for content marketing. *Asia Pacific Journal of Marketing and Logistics*, 1813-1822.
- White, A. and. (2001). Creative strategies in social advertising: An attributional perspective. *International Journal of Advertising*, 273-293.
- Wilt, J. v. (2024). 11 Best AI Advertising Examples of 2024. Retrieved from Data Feed Watch Blog: <https://www.datafeedwatch.com/blog/best-ai-advertising-examples>
- Ziakis, C., and Vlachopoulou, M. (2023). Artificial Intelligence in Digital Marketing: Insights from a Comprehensive Review. *Information*, 14, 664.
- Złotowski, J. A. (2015). Persistence of the uncanny valley: The influence of repeated interactions and a robot's attitude on its perception. *Frontiers in Psychology*, 6, 883.

## **APPENDICES**

### **Appendix A. Result of the Evaluation by the Ethics Committee**

Result of the Evaluation by the Ethics Committee is available in the printed version of this dissertation.



## Appendix B. Survey Questionnaires

|                                                              |
|--------------------------------------------------------------|
| I paid close attention to the ad.                            |
| The ad demanded my attention.                                |
| The ad would stand out in a group of ads.                    |
| I was involved in the ad.                                    |
| I found involved in the ad.                                  |
| I found the ad to be interesting.                            |
| The ad claims were easy to understand.                       |
| I was able to comprehend the claims made in the ad.          |
| The ad claims were hard to understand (R).                   |
| I gave the ad a lot of consideration.                        |
| The ad stimulated my imagination.                            |
| I was able to imagine using the advertised product.          |
| I remember a lot about the ad message.                       |
| The claims made in the ad were memorable.                    |
| The ad message was easy to learn and remember.               |
| The ad made me curious about the advertised brand.           |
| I would like more information about the product.             |
| I would like to use the advertised product on a trial basis. |

|                                           |
|-------------------------------------------|
| The ad was different.                     |
| The ad was uncommon.                      |
| The ad was very relevant to me.           |
| The ad was meaningful to me.              |
| Inanimate – Living                        |
| Synthetic – Real                          |
| Mechanical Movement – Biological Movement |
| Human-Made – Humanlike                    |
| Dull – Freaky                             |
| Predictable – Eerie                       |
| Plain – Weird                             |
| Ordinary – Supernatural                   |
| Boring – Shocking                         |
| Uninspiring – Spine-tingling              |
| Predictable – Thrilling                   |
| Bland – Uncanny                           |
| Unemotional – Hair-raising                |
| Ugly – Beautiful                          |
| Repulsive – Agreeable                     |

|                 |
|-----------------|
| Crude – Stylish |
| Messy – Sleek   |

|                                                                 |                                                                                                       |
|-----------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| <b>Gender</b>                                                   | Woman/ Man/ Prefer Not to Say                                                                         |
| <b>Marital Status</b>                                           | Married/Single                                                                                        |
| <b>Age</b>                                                      | (open-ended question)                                                                                 |
| <b>Education Level<br/>(please select your<br/>last degree)</b> | Bachelor's degree/ master's degree/ Doctorate degree/<br>Associate degree/ High-school degree or less |
| <b>Employment status</b>                                        | Not working/ Part-time working/ Full-time working/<br>Retired                                         |