EXPLORING THE DIGITAL LANDSCAPE: UNRAVELING THE IMPACT OF GENERATIVE ARTIFICIAL INTELLIGENCE AWARENESS AND PERSONALIZATION ON USER ENGAGEMENT IN SOCIAL MEDIA MARKETING

[A Comprehensive Analysis of Consumer Perceptions]

JARRİN GONZÁLEZ, ISAK
KAYHAN, GULCAN

School of Business, Society & Engineering

Course: Kandidatuppsats i Företagsekonomi
Course code: FOA260
15 cr

Supervisor: Emre Yildiz
Examiner: Magnus Linderström
Date: 2024/01/12
ABSTRACT

Date: 2024/01/11
Level: Bachelor/Master thesis in Business Administration, 15 cr
Institution: School of Business, Society and Engineering, Mälardalen University
Authors: Gulcan Kayhan  Isak Jarrín González
2001/03/18   2001/12/08
Title: Exploring the Digital Landscape: Unravelling the Impact of GAI Awareness and Personalization on User Engagement in Social Media Marketing
Supervisor: Emre Yildiz
Keywords: Generative AI Awareness, Content Personalization, User Engagement, Marketing Strategies, Consumer Awareness, AI-Generated Content
Research questions What is the impact of Generative AI awareness and personalization of content marketing on user engagement in social media platforms?
Purpose: The study aims to investigate user engagement in the realm of Generated Artificial Intelligence (GAI) marketing content within the context of social media marketing. The increasing prominence of GAI content has sparked diverse reactions, particularly concerning the safety of personalized content and individuals’ awareness of their data being utilized for customization. The main goal of this research is to understand the impact of GAI on user engagement in social media marketing, focusing on the utilization of customer data and preferences on social media platforms.
Method: The research unfolds as an empirical exploration, employing a quantitative approach coupled with a structured questionnaire.
Conclusion: In conclusion the implications of the research emphasize the significance of transparent communication, strategic content creation, and a nuanced understanding of the relationship between awareness, personalization, and consumer engagement in the context of AI-generated content. Marketers can leverage these insights to refine their strategies, enhance user experiences, and build trust in the era of AI-driven marketing.
ACKNOWLEDGEMENTS

We extend our sincere gratitude to our supervisor, Emre Yildiz, for his invaluable guidance and academic insights throughout the development of this thesis. We are also grateful to Mälardalen University for providing essential academic resources and a supportive research environment. Special thanks are due to Erik Jarrin Peters and Jan Pierre Jarrin Peters for their expert insight and valuable feedback. We appreciate the support and understanding of our friends and family during this academic endeavour. Additionally, we would like to thank all the individuals who participated in the survey and those who assisted in its distribution through various social media channels. Their contributions have been fundamental to the success of our research.
Table of Content

1 INTRODUCTION ................................................................................................................................ 7
   1.1 BACKGROUND .......................................................................................................................... 7
   1.2 PROBLEMATIZATION / PROBLEM STATEMENT ................................................................... 8
   1.3 PURPOSE .................................................................................................................................... 9
   1.4 RESEARCH QUESTION(S) ....................................................................................................... 9

2 LITERATURE REVIEW & FRAMEWORK ....................................................................................... 10
   2.1 PERSONALIZATION IN MARKETING ........................................................................................ 10
   2.2 CUSTOMER ENGAGEMENT IN MARKETING .......................................................................... 10
   2.3 CONSUMER AWARENESS IN MARKETING ............................................................................ 11
   2.4 THEORETICAL FRAMEWORK .................................................................................................. 12

3 METHODOLOGY ................................................................................................................................ 13
   3.1 RESEARCH DESIGN: ............................................................................................................... 13
   3.2 POPULATION AND SAMPLE: .................................................................................................. 13
   3.3 DATA COLLECTION METHODS: .............................................................................................. 14
   3.4 INSTRUMENTS ......................................................................................................................... 14
   3.5 VALIDITY AND RELIABILITY: ................................................................................................ 15
   3.6 DATA ANALYSIS: .................................................................................................................... 15
   3.7 ETHICAL CONSIDERATIONS: .................................................................................................. 16
   3.7.1 CONFIDENTIALITY: ............................................................................................................. 16
   3.8 LIMITATIONS: ......................................................................................................................... 16

4 RESULTS / EMPIRICAL FINDINGS .................................................................................................. 17
   4.1 RELIABILITY ANALYSIS ......................................................................................................... 19
       4.1.1 RELIABILITY OF SCALES ............................................................................................... 19
   4.2 FACTOR ANALYSIS ................................................................................................................... 22
   4.3 CORRELATION ANALYSIS ...................................................................................................... 23
       4.3.1 CORRELATIONS BETWEEN VARIABLES ........................................................................ 23
   4.4 MULTIPLE REGRESSION ANALYSIS ....................................................................................... 24
       4.4.1 MODEL SUMMARY .......................................................................................................... 24
       4.4.2 COEFFICIENTS ............................................................................................................... 24
       4.4.3 HYPOTHESIS TESTING .................................................................................................. 25

5 DISCUSSION ..................................................................................................................................... 26
   5.1 INTERPRETATION OF FINDINGS .............................................................................................. 26
   5.2 HYPOTHESIS DISCUSSION ...................................................................................................... 26
   5.3 PRACTICAL IMPLICATIONS ...................................................................................................... 26
   5.4 CONTRIBUTION TO KNOWLEDGE ........................................................................................ 27
       5.4.1 CONTRIBUTION TO THE FIELD ...................................................................................... 27
       5.4.2 FUTURE RESEARCH ......................................................................................................... 27
APPENDICES
Appendix 1 Correlation Table Individual Variables
Appendix 2 Control Variables Statistics
Appendix 3 Complete Table on Social Media Users

FIGURES AND TABLES
Figure 1 Theoretical Model ................................................................................................................... 12
Figure 2 Gender Graph .......................................................................................................................... 17
Figure 3 Age Group ............................................................................................................................... 17
Figure 4 Average Daily Social Media Usage ........................................................................................ 18

Table 1 Descriptive Statistics – SPSS ................................................................................................... 18
Table 2 Cases Processed – SPSS ........................................................................................................... 19
Table 3 Failed Reliability Awareness Variable ..................................................................................... 19
Table 4 Cronbach’s Alpha - Deleted Variable ...................................................................................... 20
Table 5 User Engagement Reliability Statistics .................................................................................... 20
Table 6 Personalization Reliability Statistics ...................................................................................... 21
Table 7 Awareness Reliability Statistics .............................................................................................. 21
Table 8 Factor Analysis ......................................................................................................................... 22
Table 9 Variable Correlation ................................................................................................................. 23
Table 10 Model Summary ..................................................................................................................... 24
Table 11 Coefficients ............................................................................................................................ 24

ACRONYMS
[GAI] Generative Artificial Intelligence
[AI] Artificial Intelligence
[SPSS] Statistical Package for the Social Sciences
1 Introduction

The rapid technological advancements have marked an era where all things can be challenged by new technology. Artificial intelligence (AI) has emerged as a transformative force in many different aspects, however, in terms of digital marketing it has redefined how businesses engage with their audiences and craft their brand identities. AI is reshaping the marketing landscape in unprecedented ways. One facet of this AI-driven revolution that has garnered significant attention is the Generative Artificial Intelligence (GAI) because of its ability to process prompts and requests into content creation. According to a research article published by IBM, a leading actor in the technology industry, defined GAI as “deep-learning models that can generate high-quality text, images, and other content based on the data they were trained on” (Martineau, 2023), more advanced systems can even do things such as audio, coding, graphics simulations and videos. Marketing is one of the areas where tools as such could be implemented to optimize brand perception and consumer engagement., and as our digital experiences become increasingly visual, the capacity of GAI to generate personalized visuals for marketing purposes is unlocking new opportunities and challenges for brands.

This research endeavours to explore the dynamic relationship between AI-generated personalized content, awareness of GAI, and social media marketing. While GAI's impact on target marketing algorithms has been extensively studied, there remains a distinct gap in understanding of what extent personalized AI-generated content influences consumer engagement and whether the awareness of GAI affects consumer engagement, particularly within the context of social media marketing. We aim to uncover the implications, both positive and potential pitfalls, of incorporating personalized AI-generated visual content into social media marketing strategies.

1.1 Background

AI has revolutionized how companies engage with their customers, offering a more personalized and efficient approach. GAI personalized content creation, a novel tool, streamlines content generation by utilizing customer data from their search history, preferences, and posts. This method allows for quick and effortless content creation. Despite the significant advancements in content creation, it has also altered the dynamics of user engagement in the company products and services (AIContentFy Team, 2023). GAI content primarily revolves around marketing, particularly in social media marketing. It includes various elements such as copying diverse articles, crafting product descriptions, and tailoring content to individual preferences. Leveraging personal data including preferences, search history, and posts, AI effectively crafts personalized content for each user (Hetler, 2023).

AI-generated content exhibits varying pros and cons based on the observer. It draws from diverse aspects, particularly focusing on individual data, adding complexity to its generation. The foremost drawback lies in AI's potential lack of information and the misconception that it functions as a robotic entity, without human research aspects. Unlike human counterparts who carefully research before delivering content, AI's efficiency comes with the drawback of potential misinformation. This underscores the ongoing debate around AI's capabilities and limitations, particularly in its reliance on individual data and the challenges associated with achieving a human level of discernment (Baker, 2023). AI's potential efficiency in marketing comes with faster content and it is time-consuming. Despite humans excelling in discerning trustworthy information, AI outpaces them with its accelerated skills for accessing data (Hetler, 2023).

Artificial intelligence (AI) serves as a central marketing strategy for companies, particularly in social media marketing (Dwi Santy, 2021). The article "Advertising Content and Consumer Engagement on Social Media: evidence from Facebook" (2018), underscores the critical role of social media content in shaping consumer engagement. Particularly, the study reveals that the inclusion of pricing and deals in content diminishes engagement, while personalized and relatable content amplifies it. The metrics of likes, comments, shares, and click-throughs are intricately linked to how content is presented on social media, showcasing its profound impact on enhancing consumer engagement. This research illuminates the nuanced dynamics between AI-driven
marketing, content creation, and consumer interaction in the evolving landscape of social media strategies (Lee, Hosanagar, & S. Nair, 2018).

Nonetheless, the relationship between AI and social media marketing is straightforward, given their mutual ties to innovation. The initial step in integrating AI with social media marketing involves the generation of usable data. This data is derived from various factors, as detailed in the study "Artificial Intelligence as Human Behaviour Detection for Auto Personalization Function in Social Media Marketing" (2021). The study identifies three key categories for data detection: audience analysis, image analysis, and sentiment analysis. Audience analysis involves grasping individual preferences, image analysis entails tailoring logos and brands for recognition, and sentiment analysis predicts performance and product success by analysing individual comments on content posts.

As previously mentioned, AI is reshaping customer-brand interactions, offering a faster and more efficient marketing tool. However, this advancement raises customer expectations. A heightened customer experience, facilitated by AI leveraging personal information and preferences, becomes a catalyst for increased engagement (Ameen, Reppel, Tarhini, & Anand, 2021). In social media marketing, personalized content creation is crucial for heightened customer engagement, encompassing tailored product recommendations, customized reviews, and relevant product descriptions. The essence of AI-generated content lies in customer satisfaction, emphasizing the need for legality in handling private customer data (Swapnil & Mitra, 2023).

Despite being a novel tool in marketing, AI has seamlessly integrated into customers' daily lives, playing a crucial role in various aspects. From customer services to interacting with chatbots like ChatGPT and receiving personalized purchase recommendations, AI has become an integral part of daily routines. According to a study by Pew Research Centre (2023), only 27% of individuals actively engage with AI daily, while a substantial 44% are unaware of their interactions with AI altogether. This highlights the limited awareness among customers regarding AI's prevalence and popularity in their daily experiences (Kennedy, 2023).

Moreover, the European Union (EU) aims to establish regulations for AI, requiring companies incorporating AI in their digital strategies to thoroughly assess potential risks for consumers (EU, 2023). This underscores the significance of brand awareness in marketing, highlighting that consumer engagement is likely to increase when customers are informed about the brand. While AI continues to shape companies' marketing strategies, customers must comprehend how AI operates in marketing campaigns and influences their purchasing choices. Through machine learning algorithms, AI can forecast future customer behaviour by analysing extensive customer data. Such insights are essential for customers to grasp, as their decisions contribute to the data that fuels AI (Mandal, 2023).

1.2 Problematization / Problem statement

In this context, a significant issue that arises is the understanding of the creation of AI personalized content and its underlying effects on customer engagement. AI personalized content represents a recent development, particularly within the field of social media marketing. AI personalized content creation has become much more efficient for companies to engage with their customer’s preferences and needs (AIContentFy Team, 2023). However, before the usage of AI, content creation was primarily a human task, developing a more personalized connection between content creators and consumers.

Research has extensively focused on implementing (GAI) in text-based generation for e-commerce and email marketing, as noted by Eickhoff & Zhevak (2023) and Arshad (2023). However, limited attention has been given to GAI implementation in visual-centric channels like social media. The integration of GAI and personalization in social media marketing is a recent concept. Previous personalized marketing efforts relied on algorithms such as content recommendation systems and collaborative filtering, grouping users based on similar preferences. This method falls short of true individual personalization and has undergone theoretical testing without full implementation in practical scenarios (Kshetri, Dwivedi, Davenport, & Panteli, 2023). The integration of AI-generated personalized content in social media marketing remains an area for further exploration (Kshetri, Dwivedi, Davenport, & Panteli, 2023).
Concerns arise about the potential lack of creativity in AI-driven content due to the constant need for data updates. This drawback may impact customer engagement, as AI content relies more on outlined sources than creativity and emotional storytelling. Another challenge is the insufficient data for personalized AI content creation, requiring continuous data upgrades to stay current with trends and effectively engage customers (Hetler, 2023).

AI personalized content represents a relatively new and potent tool that has gained significant prominence in recent years in social media marketing. It offers a fresh approach to engaging with consumers. However, the awareness of AI personalized content can provoke confusion and create fear among customers. The creation of AI content relies on data, including personalized information, which can understandably raise concerns for many individuals. A study conducted on U.S. consumers’ perspective towards GAI showed varied results. One of the surveys shows that 48 percent of respondents stated their rejection of the use of GAI for visual content creation in social media advertising. (Dencheva, 2023) Although the study refers specifically to the use of AI in the context of human face-generated images. It proves the possible stigmatization of GAI.

AI's integration into various marketing aspects isn't novel, yet a study by (Harris, 2023), indicates that 33% of individuals struggle to discern whether content is AI-generated. While Generative AI (GAI) is prevalent in companies’ marketing strategies, the rise of personalized content brings legal concerns, especially with evolving face-recognition data collection. The study suggests that professionals are more adept at identifying AI content compared to those in non-professional settings (Harris, 2023).

1.3 Purpose

The study aims to investigate user engagement in the realm of Generated Artificial Intelligence (GAI) marketing content within the context of social media marketing. The increasing prominence of GAI content has sparked diverse reactions, particularly concerning the safety of personalized content and individuals' awareness of their data being utilized for customization. The main goal of this research is to understand the impact of GAI on user engagement in social media marketing, focusing on the utilization of customer data and preferences on social media platforms.

1.4 Research Question(s)

The upcoming research will delve into the innovative approach of enhancing user engagement, which has made diverse responses, showcasing its creativity in market strategies. Social media platforms are utilizing the power of personalized Generative Artificial Intelligence (GAI) content to elevate user engagement. By personalizing a variety of content across their platforms, these platforms aspire to not only captivate customers but also cultivate a more personalized user experience. This trend signifies a transformative shift in how businesses leverage AI to connect with customers on an individualized level, revolutionizing the dynamics of customer interaction on social media. The research will also explore the level of awareness among users regarding the utilization of GAI content and its impact on their engagement experience. Therefore, the research question that this study will follow is:

"What is the impact of Generative AI awareness and personalization of content marketing on user engagement in social media platforms?"
2 Literature Review & Framework

The following chapter will provide an overview of the most relevant concepts and theories that have been researched related to the presented study. The objective is to explore different areas previously researched to have a glimpse at the implementation of AI in different forms for marketing purposes. In addition, some other more traditional marketing concepts will also be explored to better understand the relationship between these tested methods and the newer technologies. Thereafter the background research will provide a comprehensive ground to analyse and interpret different studies and how those could potentially contribute to the research of integration of GAI in the creation of human-like content for use in marketing campaigns. Finally, the last part of this chapter will focus on potential research gaps in other studies like this one in hopes of better development of relevant hypotheses that should be studied.

The use of AI in marketing is extensive, as so is its research, since March 2023, 73% of U.S. marketers reported having implemented AI tools within their marketing activities (Dencheva, 2023) from data processing and algorithms to the more recent GAI. The research study will focus mostly on GAI although some AI concepts will also come of relevance. Within GAI there are important distinctions to be made between technologies and how they differ from one another in their implementation. According to a study made on GAI tools, some are foundational GAI models such as GPT-4 and Dall-E2, having capabilities on taxed-based generation and visuals generation respectively, while others have been adapted specifically for marketing capabilities such as Jasper.ai and Copy.ai. (Kshetri, Dwivedi, Davenport, & Panteli, 2023).

2.1 Personalization in Marketing:

Artificial intelligence (AI) significantly influences personalized content marketing by utilizing data that can be identified and customized for everyone (Daher Raddad Alqurashi, 2023). The effectiveness of customer engagement relies on their perspective of personalized content, as it delivers relevant advertisements matching individual preferences, offering mutual benefits for both customers and businesses (Khan, 2023). AI-generated content, tailored to users' preferences and needs, enhances customer experience and boosts engagement. However, there are concerns about privacy associated with AI-generated content, as businesses must manage user data carefully and conform to privacy regulations (Khan, 2023). Businesses employ various strategies, including face recognition and gathering data from social media platforms, to develop AI-generated content that is as personalized as possible for their customers (Daher Raddad Alqurashi, 2023).

Furthermore, marketing has undergone a significant transformation with the advent of AI, leading to increased detail. As mentioned in (Piyush Jain, 2020), AI, functioning as a flexible tool, has emerged as a central player in this complexity. Its primary utility lies in optimizing customer perspective and generating personalized content, aligning with the comprehensive goal of enhancing individualized interactions. The importance of AI is its adeptness in streamlining the process of assimilating customer data, leveraging it to craft content tailored precisely to individual needs and preferences. This emphasis on simplification underscores AI's pivotal role in catering to customer expectations, presenting itself not just as a tool but as an integral mechanism in the dynamic landscape of marketing (Piyush Jain, 2020). Examination of secondary data makes apparent that personalization in marketing plays a crucial role. As highlighted by (Khan, 2023), given that customer engagement relies heavily on personalized content. The ensuing hypotheses will be formulated following this data collection. Subsequently, the following hypotheses will be presented:

H1: Personalization has a positive effect on consumer engagement in the context of AI-generated content for marketing.

2.2 Customer Engagement in Marketing:

Customer engagement is a conform aspect of AI-generated content, as AI facilitates businesses in comprehending and utilizing the data held by customers to personalized content accordingly (Swapnil & Mitra, 2023). In the domain of digital and personalized marketing, AI emerges as a substantial advantage, particularly
when the content aligns with customer preferences and needs, therefore fostering engagement (Ebba Viberg., 2023) As highlighted by (Ebba Viberg., 2023), consumers now anticipate personalized communication and experiences, valuing content that is more personalized to their needs.

The significance of AI-generated content lies in its ability to craft personalized personas for everyone, an approach aimed at grasping customer preferences to enhance engagement with products or services (Swapnil & Mitra, 2023). The perception of AI in marketing revolves around its role in customer engagement and satisfaction, providing businesses with efficient communication and personalized content creation tools. In essence, AI not only streamlines communication but also saves time for businesses, positioning itself as a powerful tool for customer interaction and personalized content development. As businesses increasingly recognize the importance of aligning content with customer expectations, AI-generated content emerges as a crucial mechanism for achieving these goals (Larva, 2021).

Customer engagement behaviour (CEB) has undergone significant transformations with the integration of AI into marketing strategies (Dexiang Yin, 2023), Companies are quick to adapt to these AI-driven changes, employing various strategies to enhance customer engagement with AI-generated (GAI) content. These strategies include offering discounts, exclusive memberships, and personalized benefits to motivate customer engagement despite technological advancements. In the realm of social media marketing, businesses are implementing features like automatic payments and auto-saving tools, providing customers with convenient access to their needs during the purchase process (Linda D. Hollebeek, 2018). According to Dexiang Yin (2023), the evolution of CEB is closely tied to how companies choose to market their content, emphasizing the pivotal role of marketing strategies in shaping customer behaviour (Dexiang Yin, 2023).

2.3 Consumer Awareness in Marketing

Hickman's (2023) definition of AI is” An umbrella term for a group of interrelated technologies. In general, AI behaves in a way that mimics some human cognitive process, using data to inform decisions” Notably, consumer awareness of AI has surged from 56% in 2022 to 72% in 2023, with a primary application in customer service. This interplay of AI, consumer awareness, and understanding of rights forms the foundation for a dynamic market landscape (Kuwakhedawala, 2012).

Highlighting the significance of awareness in marketing, it's noteworthy that studies, as outlined by Hickman (2023), underscore the role of AI in customer experience. AI functions not only as a contact tool but also as a valuable instrument for comprehending customer demographics in businesses. This understanding empowers businesses to tailor their advertisements uniquely for each customer, emphasizing the evolving integration of AI into the personalized landscape of customer interactions (Hickman, 2023). This is why the following hypothesis will be based on:

H2: Consumer awareness of AI-generated content has a positive effect on consumer engagement.
2.4 Theoretical Framework

As previously stated, the categorical method relies on variables measurable through individual behavior (Saunders et al., 2019). This study aims to measure three variables: user engagement, personalization, and awareness. User engagement is designated as the dependent variable, as the independent variables “personalization” and “awareness” are anticipated to influence user engagement. Employing the operationalization concept, this research attempts to transform conceptual abstractions into measurable variables. This process allows for the subsequent measurement of these variables, assisting the answering of the research question and the testing of hypotheses (Mauldin, 2020).

The hypotheses for this research will be addressed by examining how GAI content impacts user engagement, as illustrated in the figures. These hypotheses seek to delve into and provide answers to specific aspects related to the interaction between GAI content, user engagement, personalization, and awareness.
3 Methodology

3.1 Research Design:

This upcoming chapter will delve into the research design, offering insights into its structure, and explaining the procedure taken to provide this study with primary data. The research unfolds as an empirical exploration, employing a quantitative approach coupled with a structured questionnaire (Saunders et al., 2019). This methodological choice is influential in measuring the influence of GAI on user engagement.

The researchers employ the quantitative method, outlined by Saunders et al. (2019), to investigate samples, graphs, and correlations between variables in GAI. Their study delves into the broader scope of GAI and its impact on customer behaviour. The chosen quantitative method measures various GAI variables and observes customer reactions to these changes in their daily lives. Saunders et al. (2019) emphasize the method's binary nature, dividing it into numerical and categorical parts based on the research's definition.

The numerical aspect involves a comprehensive exploration, offering detailed insights into the data, while the categorical approach focuses on individuals and their thoughts (Saunders et al., 2019). In the context of this study, the researchers chose the categorical method. This decision reflects their aim to assess individual reactions to GAI with a qualitative lens. By choosing this approach, the researchers aim to capture the nuanced responses of individuals' reactions to GAI in marketing and understand its role.

To comprehensively estimate the impact, our study concentrates on the empirical interplay between GAI and user engagement within the context of social media marketing. A specifically developed questionnaire serves as our primary tool, designed with precision to extract meaningful responses. The survey encapsulates three pivotal dimensions, "user engagement," "consumer perspective on personalization," and finally the "user awareness of GAI." Within the context of content generated for social media marketing, these facets are meticulously examined. By adopting a systematic and rigorous approach, it aims to unravel the intricate relationships between GAI, user engagement, and the perceptions of consumers regarding personalization and awareness.

The subsequent sections will dissect each dimension, providing a comprehensive understanding of the research design, its underpinning structure, and the methodological procedures undertaken to understand the impact of GAI in the dynamic landscape of social media marketing.

3.2 Population and Sample:

The survey got 255 answers targeting individuals aged between 18-55 who actively engage with social media. The researchers chose these ages because according to previous research by Auxier (2021), individuals between 40-69 favour platforms like Instagram or Facebook, while younger users gravitate towards newer platforms like TikTok and Snapchat (Auxier, 2021). Since the researchers are asking a question about which social media platforms are mostly used, the researchers needed to look at some previous research about which age groups are relevant for the survey. The researchers emphasize gender identification to identify preferences in GAI content, vital for personalized marketing. This approach seeks to unveil how genders perceive and interact with personalized content on their chosen social media platforms. Since starting with the research, the researcher thought that the female gender group was not as interested in GAI content as the male gender group. However, it turned out quickly, that the answers were interesting since the researchers almost got the same amount of male/female/non-binary answers. Additionally, the study explores respondents preferred social media platforms, correlating age groups to platform choices to enhance understanding of GAI's content emphasis.

Moreover, the research evaluates respondents' daily usage duration, recognizing its significance in shaping content exposure. Considering that marketing content is distributed across platforms, understanding usage patterns becomes crucial. The survey goes beyond examining respondents' awareness of GAI, contributing insights into their interactions with such content. Through this multifaceted approach, the research identifies the
intricate dynamics between social media engagement, gender variations in GAI recognition, and the consequent impact on marketing strategies.

3.3 Data Collection Methods:

This thesis primarily relies on questionnaire-based data collection, focusing on the consumer perspective of Generative Artificial Intelligence (GAI). Consumers, directly impacted by shifts in companies’ marketing strategies, form the central point of the research. Following Saunders et al. (2019), the questionnaire method is deemed suitable for large sample measurements, ensuring diverse responses to identical questions. The selection of questions is a critical process, as cautioned by Saunders et al. (2019), to avoid potential data inadequacies due to improperly framed questions. In this case, a web questionnaire is the preferred method to quickly gather responses from a broad audience. The questions in the questionnaire are intricately designed, drawing from prior research on "user engagement," "awareness," and "personalization," and focus on consumer perspectives and their reactions to GAI content.

Furthermore, a potential challenge arises from the inclusion of neutral responses, which may limit the utility of certain questions. To address this, the researchers plan to conduct a pilot test of the survey. This preliminary test, involving a small group of respondents, serves to assess question relevance and refine the survey instrument. This approach aligns with the methodology proposed by Saunders, Lewis, & Thornhill (2019), emphasizing the importance of ensuring each question meaningfully contributes to the overall thesis. However, following ethical considerations noted by Saunders et al. (2019), respondents in the pilot test will not be able to answer the same question twice. This strategy evaluates the survey on a smaller scale before distribution to a larger audience, maintaining the integrity of the data collection process and providing insights into potential improvements.

The researchers have carefully planned the survey's distribution to optimize outcomes and relevance. Timing is a crucial factor, given the constrained schedule of the researchers, which could impact the extent of data collection. The target audience for the questionnaire includes individuals across all demographics using social media platforms. However, to ensure data relevance, the lower age limit is set at 18 years. This strategic approach aligns with the overall objectives of capturing a wide array of perspectives on Generative Artificial Intelligence (GAI) in social media.

3.4 Instruments

The survey is structured around three principal topics: user engagement, consumer perspectives on personalization, and user awareness of AI content. These topics are explored through a series of 20 questions, with each topic being addressed by a subset of five questions. This structure aims to provide a comprehensive understanding of the research question and hypotheses, with a particular focus on measuring user engagement.
This focus is essential for analysing how GAI influences user interactions with companies' marketing content on social media.

The second topic of the survey delves into consumer perspectives on personalization. It examines how GAI tailors’ content on social media platforms based on user preferences, a key aspect of modern digital marketing strategies. The third topic centres on user awareness of AI content, seeking to understand how awareness influences user perceptions and interactions with GAI content.

In developing the survey, the researchers meticulously crafted questions informed by previous studies on these specific topics. This process involved reviewing earlier surveys to gather inspiration and ensure the relevance of the questions to their research objectives. The final selection of 20 questions represents a strategic balance between comprehensive coverage of the topics and maintaining respondent engagement. This approach was adopted to avoid overwhelming participants while collecting a robust dataset for meaningful analysis.

Additionally, the selection of research topics was a result of thorough exploration. The researchers identified personalization and awareness as key elements in consumer engagement with AI, based on insights from previous studies in the field. This choice acknowledges the intersection of these aspects with various facets of consumer engagement, underlining their broad applicability and relevance.

For response collection, the survey utilizes a 1-5 rating scale. This Likert scale format allows respondents to express their opinions across a spectrum, ranging from "strongly agree" to "strongly disagree." The scale's numeric values facilitate straightforward quantitative analysis, with "strongly agree" assigned the value of 5 and "strongly disagree" assigned 1. The inclusion of a neutral midpoint offers respondents the opportunity to express a neutral stance, enhancing the survey's ability to capture a wide range of opinions.

3.5 Validity and Reliability:

To uphold the validity and reliability of the study, a focused approach will be taken toward internal validity. The implementation of the snowball method for data collection via the survey is instrumental in this regard. This method ensures accuracy, allowing any respondent interested in participating to do so without requiring direct involvement from the researchers. The accessibility through social media platforms enhances the reach of the survey. However, concerning reliability, some questions might not be utilized if deemed irrelevant to the thesis. The inclusion of a "neutral" opinion in the survey introduces an additional aspect that could potentially impact reliability, as it may introduce uncertainty and affect the dependability of certain questions.

3.6 Data Analysis:

In the data analysis phase of this quantitative study, the researchers detail the methods employed to analyse the relevant data. The primary tool utilized for this purpose is the "Statistical Package for the Social Sciences" (SPSS), renowned for its efficiency in managing and analysing larger datasets. With over 200 respondents in the survey, a comprehensive analysis was conducted, including the calculation of dataset reliability, performing multiple linear regression analysis, assessing statistical aspects, and summarizing all the data.

Initial Analysis:

The initial factor analysis, conducted using Principal Component Analysis with Varimax rotation, provided preliminary insights into the data structure. However, the presence of significant cross-loadings and the theoretical expectation of correlated factors necessitated a re-evaluation of the factor structure.

Refined Methodology:

Responding to these initial findings, a subsequent Principal Component Analysis with Promax rotation was employed. This approach was more suitable given the anticipated correlations between constructs, aiming to
achieve a clearer and more interpretable factor structure. To ensure the relevance of the data for the research's objectives, a reliability index was calculated, especially important given the survey's 20 questions. Multiple linear regression analysis proved relevance due to the study's structure, featuring one dependent variable and two independent variables. Finally, to comprehend the data and clarify the relationship between GAI and user engagement, a statistical model was crafted, providing insights into the measurements and their implications.

3.7 Ethical Considerations:

Informed consent: Respondents will receive a direct survey link, that will be 100% anonymous. Each survey topic includes a brief explanation clarifying the use of their data and the study's purpose. Additionally, there are concise descriptions outlining what researchers aim to measure in each topic so that the respondents are aware of what they are answering, and for which purpose it will used.

3.7.1 Confidentiality:
The respondents’ data will only be used in this research, and it will be 100% anonymous, enabling the respondent to answer the questions freely. This information will be included in the survey, to ensure respondents are aware of the intended use of their data.

3.8 Limitations:

This thesis acknowledges certain limitations inherent in the survey methodology, which could influence the data and the conclusiveness of the outcomes. One such limitation is the inclusion of neutral responses. While offering respondents a balanced range of options, neutrality can complicate the interpretation of findings by introducing ambiguity into the analysis.

Another critical consideration is the sample size. The study achieved a response from 255 participants, surpassing the initial threshold of 200. While this number is adequate, it is important to note that a smaller sample size could have posed significant challenges. A limited number of respondents might restrict the robustness of statistical analyses and potentially affect the reliability and generalizability of the findings. These aspects underscore the necessity of addressing potential biases and limitations related to the survey design to maintain the integrity of the research outcomes.

Additionally, the demographic scope of this study presents a notable limitation. With the survey disseminated across a wide range of social media platforms – extending beyond the researchers' immediate network to include platforms used by family, friends, and colleagues – the study achieved an international reach. This broad distribution raises considerations about the diversity of the response pool, particularly since not all responses originated from Sweden. Understanding the distribution of responses is essential in evaluating the survey's international scope and its impact on the study's applicability and relevance across different geographical contexts.
4 Results / Empirical Findings

Based on the demographic data from the survey a comprehensive analysis reveals a diverse profile of respondents. The gender distribution among the 225 participants is notably balanced, with an equal number of 111 individuals identifying as Female and Male, complemented by 2 respondents preferring not to disclose their gender identity and 1 identifying as non-binary. This balanced representation provides a gender-inclusive perspective on the research topic.

![Figure 2 Gender Graph]

Age-wise, the survey captures a wide spectrum, with the most significant representation from the 18-24 age group, consisting of 71 respondents. This is closely followed by the 45-54 age group with 67 respondents, suggesting an inclusive range of perspectives across different life stages. The 25-34 and 35-44 age groups are represented by 44 and 20 respondents, respectively, while the 55-64 age group includes 17 individuals, and those aged 65 or over are represented by 5 respondents. Interestingly, the survey also includes a response from the under-18 category, indicating a broad appeal of the topic across generations.

![Figure 3 Age Group]

In terms of social media usage, the survey indicates varied interaction levels with these platforms. A significant portion of the respondents, 82 in total, report spending 1-2 hours daily on social media. This is closely followed by 72 respondents who spend 3-4 hours. The survey also captures lighter users, with 29 respondents...
spending less than 1 hour, and heavier users, with 24 spending 5-6 hours and 18 spending 7 hours or more on social media platforms each day.

![Pie chart showing social media usage](image)

Figure 4: Average Daily Social Media Usage

The diversity in social media platform usage is evident from the responses, with Instagram emerging as the most popular platform among participants, used actively by 177 respondents. Facebook and TikTok also show substantial usage with 110 and 92 respondents respectively, followed by LinkedIn and 'X' (formerly known as Twitter). Other platforms such as Snapchat, WhatsApp, Reddit, YouTube, and Discord are mentioned, though they represent a smaller portion of the respondent pool.

Overall, the survey presents a comprehensive demographic landscape, with a balanced gender representation, a wide age range, and varied social media usage patterns. This diversity ensures that the insights and conclusions drawn from the survey are reflective of a broad and inclusive range of perspectives on the use of AI-generated content in social media marketing.

### Descriptive Statistics for Variables

<table>
<thead>
<tr>
<th>Descriptive Statistics</th>
<th>N</th>
<th>Sum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>User Engagement</td>
<td>225</td>
<td>664.20</td>
<td>2.5984</td>
<td>.91378</td>
</tr>
<tr>
<td>Personalization</td>
<td>225</td>
<td>729.80</td>
<td>3.2436</td>
<td>.85162</td>
</tr>
<tr>
<td>Awareness</td>
<td>225</td>
<td>609.60</td>
<td>2.7093</td>
<td>.85207</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>225</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 1: Descriptive Statistics – SPSS
4.1  Reliability Analysis

4.1.1  Reliability of Scales

In the following section, the report Cronbach’s alpha values for scales measuring GAI awareness, personalization, and user engagement:

<table>
<thead>
<tr>
<th>Case Processing Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
</tr>
<tr>
<td>---</td>
</tr>
<tr>
<td>Cases Valid</td>
</tr>
<tr>
<td>Excluded a</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

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

Table 2 Cases Processed – SPSS

Concerning respondents, no cases were excluded due to missing data on any of the variables utilized in the questionnaire. This signifies that all data input into SPSS underwent meticulous filtering and control processes, ensuring its accuracy and completeness. The validity of the 225 responses attests to a remarkable 100 percent accuracy, indicating that the dataset is comprehensive and ready for in-depth analysis. This robust dataset sets a solid foundation for further exploration and enhances the reliability of the findings in subsequent stages of the research.

<table>
<thead>
<tr>
<th>Reliability Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cronbach’s Alpha</td>
</tr>
<tr>
<td>Alpha</td>
</tr>
<tr>
<td>0.625</td>
</tr>
</tbody>
</table>

Table 3 Failed Reliability Awareness Variable

Although all 225 cases where valid as complete responses, as seen in Table 2, the same was not for the 20 variables testing for Cronbach’s Alpha. For the Awareness variable, 6 items were evaluated for validity resulting in a score of 0.625 while generally its considered desirable to have a Cronbach’s Alpha above 0.7 for reliable scales. (Saunders, Lewis, & Thornhill, 2019). The reliability of 0.625 could still be considered reasonable to represent a certain degree of consistency among the scale of the variable. Thus, further testing was performed to enhance internal consistency.
Table 4 Cronbach's Alpha - Deleted Variable

According to the statistical analysis conducted using SPSS, the item displaying the lowest correlation and the highest Cronbach's Alpha, in the event of its removal, was associated with question number 5 in the awareness section of the questionnaire. Upon removal of this item, the suggested statistical validity would experience an elevation to 0.699 for the overall variable. Consequently, a decision was made to exclude this item from further consideration in the empirical exploration. This strategic omission aimed at refining the research instrument and enhancing the strength of the study's findings.

The identical procedure was applied to the remaining two scale variables, and notably, no questions needed to be eliminated during this process. In contrast to the GAI awareness scale, both the user engagement scale and the personalization scale exhibited a significant outcome, boasting notably high Cronbach's Alpha values. 0.849 and 0.815 correspondingly, see Table 5 and 6 below.

Scale: User Engagement

Table 5 User Engagement Reliability Statistics
**Scale: Personalization**

<table>
<thead>
<tr>
<th>Cronbach's Alpha Based on Standardized Items</th>
<th>Cronbach's Alpha</th>
<th>N of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>.815</td>
<td>.818</td>
<td>5</td>
</tr>
</tbody>
</table>

*Table 6 Personalization Reliability Statistics*

**Scale: Awareness**

<table>
<thead>
<tr>
<th>Cronbach's Alpha Based on Standardized Items</th>
<th>Cronbach's Alpha</th>
<th>N of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>.699</td>
<td>.701</td>
<td>5</td>
</tr>
</tbody>
</table>

*Table 7 Awareness Reliability Statistics*

Although the scale of awareness does not reach the ideal >0.700, the reliability analysis was conducted on the specified scale, revealing a Cronbach's Alpha of 0.699. Additionally, when considering standardized items, the Cronbach's Alpha remained high at 0.701. This scale comprises a total of 5 items. The obtained Cronbach's Alpha suggests satisfactory internal consistency, affirming the reliability of the scale in measuring a consistent underlying construct across its items.
### 4.2 Factor Analysis

Upon the execution of the factor analysis with a Promax rotation and Kaiser Normalization, the resulting Structure Matrix revealed distinct components that align with the research objectives of measuring user engagement, awareness of GAI, and perception of personalized GAI content.

<table>
<thead>
<tr>
<th>Structure Matrix</th>
<th>Component 1</th>
<th>Component 2</th>
<th>Component 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>How much have you heard or read about generative AI? (Chat GPT, Dall-E, etc..)</td>
<td>.244</td>
<td>.660</td>
<td>.277</td>
</tr>
<tr>
<td>Just your impression, how often do you interact with generative artificial intelligence (AI) in social media?</td>
<td>.367</td>
<td>.443</td>
<td>.588</td>
</tr>
<tr>
<td>I am aware of social media marketing using generative AI.</td>
<td>.247</td>
<td>.740</td>
<td>.227</td>
</tr>
<tr>
<td>How likely are you to distinguish between generative AI content from human made content? (Text, Images, Videos, etc..)</td>
<td>.147</td>
<td>.265</td>
<td>.659</td>
</tr>
<tr>
<td>To what extent are you aware that your personal data may be utilized to generate personalized marketing content on social media?</td>
<td>.080</td>
<td>.686</td>
<td>.006</td>
</tr>
<tr>
<td>I prefer when AI predicts my personality traits</td>
<td>.692</td>
<td>.282</td>
<td>.039</td>
</tr>
<tr>
<td>You find content generated by Generative AI influential in your purchasing decisions.</td>
<td>.627</td>
<td>.468</td>
<td>-.290</td>
</tr>
<tr>
<td>Rate your satisfaction with the relevance of Generative AI-generated content to your interests and preferences.</td>
<td>.776</td>
<td>.383</td>
<td>-.019</td>
</tr>
<tr>
<td>In your opinion Generative AI contribute positively to the diversity of content on social media platforms.</td>
<td>.667</td>
<td>.155</td>
<td>.099</td>
</tr>
<tr>
<td>How likely are you to recommend products or services featured in content created by Generative AI to your friends or followers?</td>
<td>.713</td>
<td>.238</td>
<td>.145</td>
</tr>
<tr>
<td>You find social media content generated by Generative Artificial Intelligence overall appealing and engaging.</td>
<td>.689</td>
<td>.249</td>
<td>-.084</td>
</tr>
<tr>
<td>You find yourself interacting (liking, sharing, commenting) with content created by Generative AI on social media platforms.</td>
<td>.676</td>
<td>.007</td>
<td>.395</td>
</tr>
<tr>
<td>How likely are you to spend more time on a social media platform that utilizes Generative AI for content creation?</td>
<td>.733</td>
<td>.010</td>
<td>.343</td>
</tr>
<tr>
<td>Do you feel like you have a personal connection with social media content generated by Generative AI.</td>
<td>.757</td>
<td>-.016</td>
<td>.304</td>
</tr>
<tr>
<td>In your opinion, the use of Generative AI in content creation enhance your overall experience on social media.</td>
<td>.799</td>
<td>.130</td>
<td>.280</td>
</tr>
</tbody>
</table>


**Table 8 Factor Analysis**

**User Engagement:** Component 1 demonstrated significant values on items that are indicative of a user's personal inclination and satisfaction with GAI. Items such as users' preferences for AI's predictive capabilities
regarding personality traits, their satisfaction with the relevance of AI-generated content, and the sense of personal connection with AI content, signal a strong engagement with GAI.

**Awareness**: Component 2 captured high values for items related to the users' awareness of the application of GAI in social media marketing. This includes recognition of the use of personal data in creating personalized marketing content. The prominence of this factor underscores the recognition and understanding of GAI among social media users.

**Perception of Personalization**: Component 3 is characterized by substantial values on items measuring the ability to discern between AI-generated and human-made content and the active interaction with AI content. This component reflects the users' perception of the personalized nature of AI-generated content and its subsequent influence on their social media behaviour and preferences.

These identified components serve as quantitative representations of the constructs defined by the research objectives. To further the analysis, composite scores for each factor will be constructed by averaging the loadings of the associated items. These composite scores will provide a foundation for deeper exploration into the dynamics between user engagement, awareness, and perception of personalized AI content in social media marketing. The integration of these composite scores in regression analyses will illuminate the predictive relationships and correlations, offering nuanced insights into user interactions with GAI.

### 4.3 Correlation Analysis

#### 4.3.1 Correlations Between Variables

<table>
<thead>
<tr>
<th>Component</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1.000</td>
<td>.241</td>
<td>.150</td>
</tr>
<tr>
<td>2</td>
<td>.241</td>
<td>1.000</td>
<td>-.068</td>
</tr>
<tr>
<td>3</td>
<td>.156</td>
<td>-.068</td>
<td>1.000</td>
</tr>
</tbody>
</table>

*Table 9 Variable Correlation*
4.4 Multiple Regression Analysis

4.4.1 Model Summary

The model summary provides an overview of the regression model's performance in explaining the variance in the dependent variable. Provided the Model Summary, including R, R Square, Adjusted R Square, and the Std. Error of the Estimate.

<table>
<thead>
<tr>
<th>Model Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>a Predictors: (Constant), Awareness, Personalization</td>
</tr>
</tbody>
</table>

The regression model, including predictors such as Awareness and Personalization, demonstrates a commendable fit to the data, as indicated by an R-squared value of 0.490. This R-squared value signifies that approximately 49.0% of the variance in the dependent variable (presumably User Engagement) can be accounted for by the predictors included in the model. The adjusted R-squared, at 0.485, adjusts for the number of predictors and provides a slightly more conservative estimate of the model's explanatory power.

The model's overall statistical significance is supported by an F-statistic with a corresponding p-value below the conventional significance level. The standard error of the estimate (0.65629) reflects the average difference between the observed and predicted values of the dependent variable. These results collectively suggest that the model, incorporating Awareness and Personalization as predictors, offers a meaningful explanation for the variability in User Engagement on social media platforms for the context of AI generated marketing content.

4.4.2 Coefficients

The regression analysis reveals valuable insights into the factors influencing User Engagement on social media platforms. The model, which incorporates Personalization and Awareness as predictors, demonstrates an estimated intercept (constant) of 0.456 with a standard error of 0.196, indicating a statistically significant intercept at p = 0.021. However, the effect of Personalization on User Engagement is not statistically significant, as evidenced by a coefficient of 0.045 with a non-significant p-value of 0.407. In contrast, Awareness emerges as a powerful predictor with a coefficient of 0.736, a highly significant t-value of 13.586 (p < 0.001), and a standardized coefficient (Beta) of 0.686. See Table 11.

<table>
<thead>
<tr>
<th>Coefficientsa</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>(Constant)</td>
</tr>
<tr>
<td>Personalization</td>
</tr>
<tr>
<td>Awareness</td>
</tr>
<tr>
<td>a Dependent Variable: User Engagement</td>
</tr>
</tbody>
</table>

This highlights the substantial impact of Awareness on User Engagement, emphasizing its significance in influencing user interactions on social media platforms. These findings contribute to a nuanced understanding
of the relative contributions of GAI awareness and personalization to user engagement, shedding light on the pivotal role of awareness in shaping user interactions.

4.4.3 Hypothesis Testing

The regression analysis results provide valuable insights into the hypotheses assessed.

H1: Personalization has a positive effect on consumer engagement in the context of AI-generated content for marketing.

The analysis indicates that the coefficient for Personalization (B = 0.045, p = 0.407) is not statistically significant. Therefore, based on the results of this study, there is insufficient evidence to support H1. In this specific model, Personalization may not have a significant positive effect on consumer engagement.

H2: Consumer awareness of AI-generated content has a positive effect on consumer engagement.

The analysis strongly supports H2, as the coefficient for Awareness (B = 0.736, p < 0.001) is highly significant. The results suggest that increased awareness of AI-generated content has a substantial positive effect on consumer engagement in the context of this study.
5 Discussion

5.1 Interpretation of Findings

The research findings, derived from a comprehensive analysis incorporating survey responses from 225 participants, have yielded valuable insights into the impact of GAI awareness and personalization on user engagement in social media platforms. Notably, consumer awareness of AI-generated content emerged as a powerful predictor, with a highly significant positive effect on user engagement. This implies that as users become more aware of AI-generated content, their engagement on social media platforms tends to increase significantly.

In contrast, the hypothesis asserting a positive effect of personalization on consumer engagement was not supported by the analysis. The findings suggest that, within the current model, personalization may not have a statistically significant impact on user engagement in the context of AI-generated content for marketing.

5.2 Hypothesis Discussion

❖ Revised H1: Not Supported

In the context of AI-generated content for marketing, the findings do not provide sufficient evidence to conclude that Personalization has a positive effect on consumer engagement.

❖ Revised H2: Supported

The results robustly support the hypothesis that consumer awareness of AI-generated content has a positive and significant effect on consumer engagement.

While the findings partially support the second hypothesis (H2), indicating a substantial and statistically significant positive effect of consumer awareness of AI-generated content on consumer engagement, the results do not support the first hypothesis (H1) related to personalization. The analysis suggests that, within the scope of the model, personalization does not have a statistically significant positive effect on consumer engagement in the context of AI-generated content for marketing. These findings indicate that the impact of personalization on consumer engagement may be nuanced and not conclusively supported by the current model. In conclusion, while consumer awareness significantly influences consumer engagement, the role of personalization in this context appears to be less pronounced. Consider further exploration or refinement of the personalization construct in future research to gain a more comprehensive understanding of its impact.

5.3 Practical Implications

The research suggests that individuals have high concerns for awareness of the content they receive, the highly significant positive effect of consumer awareness of AI-generated content on consumer engagement underscores the importance of transparent communication and education about AI technologies in marketing. Marketers should invest in awareness campaigns and communication strategies to inform consumers about the use of AI, fostering trust and engagement.

Understanding that consumer awareness significantly influences engagement suggests that marketers should also prioritize creating content that not only leverages AI capabilities but also explicitly communicates this to the audience. Content that highlights the use of AI in a transparent and user-friendly manner may enhance consumer trust and engagement.

The non-significant effect of personalization on consumer engagement suggests that the impact of personalization in the context of AI-generated content may be more complex than initially hypothesized. Maybe related to the need for a balanced approach that respects user privacy concerns while delivering personalized
experiences. Marketers should adopt transparent data practices and provide users with control over their personalization settings to mitigate privacy-related concerns.

5.4 Contribution to Knowledge

5.4.1 Contribution to the Field

Expanding the novel field of GAI, which has gained substantial prominence in recent years. This study contributes valuable insights to the specific domains of GAI, personalization, awareness, and their impact on user engagement. Notably, the findings revealed a notable trend: contrary to expectations, individuals appeared less concerned about personalization focusing on individual preferences within GAI. Surprisingly, the research highlighted the paramount importance of user awareness regarding GAI content, significantly influencing decision-making and purchase choices.

This experience has led to the creation of knowledge, underscoring that user engagement is most likely to increase when companies are transparent about their marketing strategies. Establishing openness fosters trust and loyalty between users and companies, shaping a crucial aspect of the evolving landscape of GAI in marketing.

5.4.2 Future Research

The presented thesis holds potential for future research, given the evolving landscape of its focus in marketing. As the utilization of General Artificial Intelligence (GAI) in marketing continues to expand, there is an opportunity to build upon this research, fostering a broader base of knowledge that can be further examined and assessed. A significant limitation faced by the researcher is the scarcity of existing data on the subject, primarily due to the novelty of the field. Nevertheless, this limitation highlights a potential avenue for future investigation. The following studies could revisit and expand upon the same research, as customer behaviours transforms with the ongoing development of AI and GAI. This opens the door for continued exploration into the intricate dynamics between emerging technologies and consumer engagement.
6 Conclusion

In conclusion, the overarching research question posed in this thesis—“What is the impact of GAI awareness and personalization of content marketing on user engagement in social media platforms”—has been thoroughly addressed through our dataset. This question was intended to draw insights from both primary and secondary data. While the hypothesis (H1) related to personalization did not receive strong support, the survey results and reliability of personalization algorithms underscored a substantial impact on user engagement, particularly when content was tailored to individual preferences.

Examining awareness, although the reliability wasn't as robust, insights from secondary data and survey results highlighted its positive influence on individuals' decision-making processes before making a purchase. Overall, the research outcomes align predominantly with the researchers' expectations. Despite rough disparities, the findings clarify on the significant impact of GAI on user engagement, affirming the importance of both personalization and awareness in shaping user behaviours, and providing valuable insights into the dynamics of this evolving landscape.
7 References

AIContentFy Team. (2023). AI-generated content for customer engagement.


Arshad, S. (2023). PERFORMANCE OF AI GENERATED CONTENT IN CONTENT MARKETING. *Talling University of Technology School of Business and Governance.*


Larva, D. (2021). CONSUMER PERCEPTIONS ON THE USE OF ARTIFICIAL INTELLIGENCE IN MARKETING.


Martineau, K. (2023, April 20). *What is generative AI?* Retrieved from IBM Research: https://research.ibm.com/blog/what-is-generative-AI?utm_content=SRCWW&pi=Search&p4=43700077616218226&pi5=e&gclid=Cj0KCQjw-pyqBhDmARlsAKd9XIPItZHw_WwNxeMCX444ShAZ9TUHrse92VvHjKEvOxPn20bsaAiFrEALw_wcB&gclsrc=aw.ds


# Appendices

## Appendix 1 Correlation Table Individual Variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>1</th>
<th>.48*</th>
<th>.48*</th>
<th>.29*</th>
<th>.29*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Correlation coefficient</td>
<td>.29*</td>
<td>.29*</td>
<td>.29*</td>
<td>.29*</td>
<td>.29*</td>
</tr>
<tr>
<td>Correlation coefficient</td>
<td>.29*</td>
<td>.29*</td>
<td>.29*</td>
<td>.29*</td>
<td>.29*</td>
</tr>
<tr>
<td>Correlation coefficient</td>
<td>.29*</td>
<td>.29*</td>
<td>.29*</td>
<td>.29*</td>
<td>.29*</td>
</tr>
<tr>
<td>Correlation coefficient</td>
<td>.29*</td>
<td>.29*</td>
<td>.29*</td>
<td>.29*</td>
<td>.29*</td>
</tr>
<tr>
<td>Correlation coefficient</td>
<td>.29*</td>
<td>.29*</td>
<td>.29*</td>
<td>.29*</td>
<td>.29*</td>
</tr>
</tbody>
</table>

### Table Notes

- *Correlation is significant at the 0.05 level (2-tailed).
- *Correlation is significant at the 0.01 level (2-tailed).

## Appendix 2 Control Variables Statistics

<table>
<thead>
<tr>
<th>Statistics</th>
<th>Instagram</th>
<th>TikTok</th>
<th>Facebook</th>
<th>LinkedIn</th>
<th>Snapchat</th>
<th>YouTube</th>
<th>WhatsApp</th>
<th>Discord</th>
<th>Reddit</th>
<th>Twitter</th>
</tr>
</thead>
<tbody>
<tr>
<td>N Valid</td>
<td>225</td>
<td>225</td>
<td>225</td>
<td>225</td>
<td>225</td>
<td>225</td>
<td>225</td>
<td>225</td>
<td>225</td>
<td>225</td>
</tr>
<tr>
<td>Mean</td>
<td>7.01</td>
<td>4.13</td>
<td>4.89</td>
<td>3.00</td>
<td>3.00</td>
<td>3.00</td>
<td>3.00</td>
<td>3.00</td>
<td>3.00</td>
<td>3.00</td>
</tr>
<tr>
<td>Median</td>
<td>1.0000</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
</tbody>
</table>

### Table Notes

- *Statistical significance not provided.*

---

*Correlation coefficient* is significant at the 0.05 level (2-tailed).
### Appendix 3 Complete Table on Social Media Users

<table>
<thead>
<tr>
<th>Platform</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instagram</td>
<td>19</td>
<td>8.4%</td>
</tr>
<tr>
<td>Instagram, LinkedIn</td>
<td>9</td>
<td>4.0%</td>
</tr>
<tr>
<td>Instagram, LinkedIn, Reddit</td>
<td>1</td>
<td>0.4%</td>
</tr>
<tr>
<td>Instagram, LinkedIn, Snapchat</td>
<td>2</td>
<td>0.9%</td>
</tr>
<tr>
<td>Instagram, LinkedIn, TikTok</td>
<td>5</td>
<td>2.2%</td>
</tr>
<tr>
<td>Instagram, LinkedIn, TikTok, Snapchat</td>
<td>1</td>
<td>0.4%</td>
</tr>
<tr>
<td>Instagram, LinkedIn, TikTok, YouTube, Snapchat</td>
<td>1</td>
<td>0.4%</td>
</tr>
<tr>
<td>Instagram, Reddit</td>
<td>1</td>
<td>0.4%</td>
</tr>
<tr>
<td>Instagram, Snapchat</td>
<td>1</td>
<td>0.4%</td>
</tr>
<tr>
<td>Instagram, Snapchat, WhatsApp</td>
<td>2</td>
<td>0.9%</td>
</tr>
<tr>
<td>Instagram, TikTok</td>
<td>27</td>
<td>12.0%</td>
</tr>
<tr>
<td>Instagram, TikTok, Snapchat</td>
<td>1</td>
<td>0.4%</td>
</tr>
<tr>
<td>Instagram, Snapchat, WhatsApp</td>
<td>1</td>
<td>0.4%</td>
</tr>
<tr>
<td>Instagram, X (Formerly known as Twitter)</td>
<td>8</td>
<td>3.6%</td>
</tr>
<tr>
<td>Instagram, X (Formerly known as Twitter), Discord</td>
<td>1</td>
<td>0.4%</td>
</tr>
<tr>
<td>Instagram, X (Formerly known as Twitter), TikTok</td>
<td>4</td>
<td>1.8%</td>
</tr>
<tr>
<td>Instagram, X (Formerly known as Twitter), LinkedIn</td>
<td>1</td>
<td>0.4%</td>
</tr>
<tr>
<td>Instagram, X (Formerly known as Twitter), TikTok, Snapchat</td>
<td>7</td>
<td>3.1%</td>
</tr>
<tr>
<td>Instagram, X (Formerly known as Twitter), TikTok, Snapchat, WhatsApp</td>
<td>1</td>
<td>0.4%</td>
</tr>
<tr>
<td>Instagram, YouTube</td>
<td>3</td>
<td>1.3%</td>
</tr>
<tr>
<td>LinkedIn</td>
<td>1</td>
<td>0.4%</td>
</tr>
<tr>
<td>TikTok</td>
<td>10</td>
<td>4.4%</td>
</tr>
<tr>
<td>TikTok</td>
<td>10</td>
<td>4.4%</td>
</tr>
<tr>
<td>WhatsApp</td>
<td>1</td>
<td>0.4%</td>
</tr>
<tr>
<td>X (Formerly known as Twitter)</td>
<td>2</td>
<td>0.9%</td>
</tr>
<tr>
<td>X (Formerly known as Twitter), LinkedIn</td>
<td>1</td>
<td>0.4%</td>
</tr>
<tr>
<td>X (Formerly known as Twitter), TikTok</td>
<td>2</td>
<td>0.9%</td>
</tr>
<tr>
<td>X (Formerly known as Twitter), TikTok, YouTube</td>
<td>1</td>
<td>0.4%</td>
</tr>
<tr>
<td>X (Formerly known as Twitter), TikTok, YouTube, X (Formerly known as Twitter)</td>
<td>1</td>
<td>0.4%</td>
</tr>
<tr>
<td>X (Formerly known as Twitter), TikTok, YouTube, X (Formerly known as Twitter), TikTok</td>
<td>1</td>
<td>0.4%</td>
</tr>
</tbody>
</table>